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SECTION I

Inventory of national qualifications frameworks

AFGHANISTAN

Introduction and context

Initiated in 2008 by the Government of Afghanistan, the Committee on Education and Skills Policy (CESP) was formed to lead the development of the Afghanistan National Qualifications Authority (ANQA), the Afghanistan national qualifications framework (ANQF) and the establishment of six regulatory boards, including the TVET Board, in the country. The secretariat of CESP has developed the legal and operational frameworks to establish the ANQA and ANQF, which will put in place policies, structures, facilities and mechanisms to deliver relevant, equitable and cost-effective education and training in Afghanistan.

The economic challenges faced by Afghanistan include addressing industry and commerce requirements for a pool of skilled labour, and ensuring that ordinary men and women get gainful employment and decent work. Afghanistan's economy consists mostly of microenterprises in the informal sector and subsistence agriculture. Seventy per cent of adult women have never attended school and the literacy rate is very low at 18% (Islamic Republic of Afghanistan, 2008, p. 63).

Technical and vocational education and training (TVET) suffers from lack of proper governance and the absence of an overarching body to coordinate and manage it. Other challenges include addressing the rigidity of the existing system, putting in place functioning mechanisms of quality assurance, and regulating, registering and accrediting training providers. Removing the hurdle of an outdated curriculum, which is currently not responsive to the needs of learners and employers, is another challenge. This situation is further complicated by the lack of trained and qualified teachers/instructors. Presently, there are no mechanisms for recognition of prior learning. Generally, the quality of provision is poor.

Afghanistan still lacks a long-term vision for the continuing vocational education and training (CVET) of adults. As a result, there is low incentive for adults to continue to learn and to build on the knowledge, skills and competences they acquired through non-formal and informal learning. Most Afghans, especially those historically excluded from national education, training and skills development, currently obtain their learning and competences through non-formal grassroots programmes in non-formal settings and informal apprenticeships.

Education institutions generally have little capacity to train current participants or to ensure new entrants enter the labour force with the skills required.

Policy objectives

The ANQF is seen by the government as an important policy instrument for:

(a) coordinating and improving education and training quality;
(b) making qualifications more responsive to the needs of the country;
(c) assisting citizens who are historically excluded from the national education, training and skills development system;
(d) adopting an integrated approach to education, training and skills development by registering all qualifications and competency standards in the ANQF;
(e) recognising the different forms of learning and their specific contributions to the education and training spectrum;
(f) expanding access, progression and mobility within and across all learning sectors;
(g) developing a comprehensive policy on recognition of prior learning (RPL);
(h) ensuring that all qualifications in the ANQF are subject to quality-checking;
(i) helping individuals to plan their education and training career progression;
(j) offering programmes (courses) that lead to recognised qualifications;
(k) helping employers to recruit workers with qualifications relevant to the labour market.

Levels and use of learning outcomes

The ANQF has eight levels, which allow for a full range of qualification types in the education, training and skills development system.

The level descriptors cover three areas (CESP, 2011, pp. 65-81):

(a) knowledge and understanding;
(b) practice and skills, i.e. applied knowledge and understanding;
(c) attitudes and competences, further divided into generic cognitive skills; communication, ICT and numeracy skills; and autonomy, accountability and working with others.

Level descriptors are prepared in terms of learning outcomes: the knowledge, skills and responsibilities expected of the graduate of a learning programme at a specific level should align with the knowledge, skills and responsibilities expressed in the level descriptors for that specific qualifications framework level.

Each ANQF-registered qualification, whether incorporating unit standards or not, is designed as a whole to serve a specified purpose.

In establishing the ANQF, an integrated framework based on the Irish model has been envisaged in order to embed formal, non-formal and informal training and education, without privileging one sector over the other.

Stakeholder involvement and institutional arrangements

The Committee on Education and Skills Policy (CESP) is responsible for operationalising the ANQA/ANQF and TVET Board, which is the cornerstone of ANQA, coordinating with relevant departments, ministries and agencies involved in TVET.

During the initial stages of CESP's development, a working group was established that included CESP, the World Bank, UNESCO and the National Skills Development Programme (NSDP) of the Ministry of Labour, Social Affairs and Martyrs and Disabled (MoLSAMD). Its task was to align ANQF with the skills development framework to develop national occupational skills standards (NOSS) and curricula.

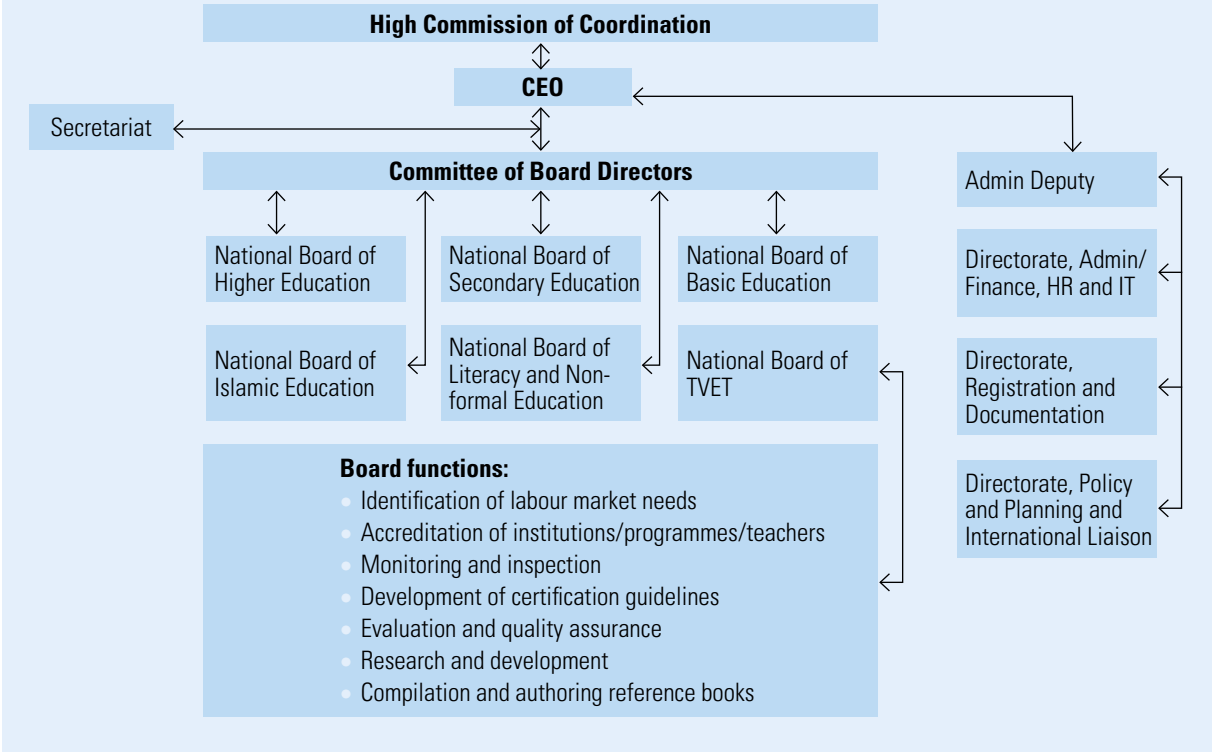
CESP is led by the first vice-president and comprises ministers from the departments of education, labour and social affairs, higher education, finance and economy. The ANQF is now operational and applicable to all stakeholders. CESP established the TVET Board as the first to be developed under the ANQA. Regulations and standard operating procedures were developed

Table 1 Afghanistan national qualifications framework (ANQF)

ANQF levels	Literacy and basic education	Secondary and higher education	TVET	Islamic education
8		HE/Ph.D.		
7		HE/Master degree		
6		HE/Bachelor degree		
5		Tertiary education/ grade 14 diploma	Tertiary TVET/ grade 14 diploma	Tertiary Islamic education/ grade 14 diploma
4		Advanced certificate, high school/ grade 12	Advanced certificate, TVET high school	Advanced certificate, Islamic high school
3	Intermediate education/ grade 9 certificate		Intermediate vocational education and training certificate	Intermediate Islamic education/ grade 9 certificate
2	School preparation literacy LC Progression literacy LB Foundation literacy LA		Vocational training certificate	
1	Basic level		Apprenticeship	

Source: CESP, 2011, p. 61.

Figure 1 Proposed operational chart for the Afghanistan national qualifications framework (ANQA)



Source: CESP, 2011.

and nationwide awareness and communication campaigns were launched.

CESP is to be gradually replaced by new, statutory regulatory bodies approved by acts of parliament and independent of all ministerial linkages. This includes the Afghan National Qualifications Authority (ANQA) and the awarding boards, such as the National Board for Primary/Basic Education, Secondary Education, the National Vocational Education and Training Board, the Islamic Education National Board, the Literacy and Non-formal Education National Board, and the Higher Education National Board. The awarding boards' functions are to identify labour market needs, accredit institutions, instructors and programmes, undertake monitoring and inspection, and develop guidelines for certification, research and development. The awarding boards are legal authorities, with each board reporting to a chief executive officer.

CESP will put in place the administrative, legal and regulatory foundations necessary to establish the ANQA.

Monitoring, evaluation, quality control and assurance units within the Ministry of Education, the Ministry of Higher Education and the Ministry of Labour will be under the direct supervision of the deputy minister in charge of TVET.

Recognising and validating non-formal and informal learning and learning pathways

The ANQA and TVET Board (as the first board created under the ANQF) aid recognition and appreciation of distinctions between different forms of learning and their specific contributions to the education and training spectrum. The ANQF and TVET Board are expected to promote lifelong learning – specifically recognition of non-formal and informal learning – as a right. The aim is to motivate adults to continue learning and to remedy a situation where, under the existing qualifications system, only non-formal and informal learning equivalent to grade 6 of formal school is recognised; this will be only on condition that the learner is of a suitable age for the level at which he/she is assessed and that the learner continues his/her education in a formal school (Nasry, 2013).

Most Afghan people gain training and education in non-formal or NGO-run training centres. Workers

in the informal economy generally acquire skills by serving as apprentices with masters, fathers or brothers; this learning will be officially recognised or certified through the qualifications framework. In the meantime, the National skills development project (NSDP) has established a methodology for skills assessment using a competency-based training approach. The assessment includes identification of competences and collection of evidence on performance and knowledge that can be compared to the required occupational standards. Only if competences are demonstrated will a certificate be issued; otherwise, the learner is recommended to do further training. Non-formal education and training is offered mainly by the Ministry of Education, the Ministry of Labour and Social Affairs, and by NGOs. Updating of standards, with a focus on occupational skills standards, is undertaken by these ministries.

The learning pathways in the national qualifications framework currently reflect the situation as it exists on the ground in Afghanistan. For example, TVET and Islamic education currently go up to grade 14 only. However, if the TVET and Islamic education tracks are going to provide specialised degrees of higher education in future, the qualifications levels in those two areas could be revised upward in accordance with the approval of respective boards under the ANQA (CESP, 2011, p. 63).

NQF implementation

The Afghanistan National Qualifications Authority is responsible for the governance and management of the NQF. It also coordinates policy across government ministries, ensuring adequate involvement of stakeholders, and establishes and promotes the maintenance of standards, skills, and competences leading to the award of qualifications in TVET, general education, Islamic education, and basic and higher education. It promotes and aids access, progression and mobility through the framework. Figure 1 provides the revised proposed ANQA operational chart.

Referencing to regional frameworks

The eight member states of the South Asian Association for Regional Cooperation (SAARC) – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka – finalised the SAARC framework for action (SFFA) for education, leading to its consideration and adoption at the third SAARC Education Ministers Meeting in the Maldives in late 2016. Under regional collaboration and partnerships, it was agreed that this action plan will establish an expert group to review the frameworks/procedures followed in different SAARC countries for the recognition, validation and accreditation of the outcomes of formal, non-formal and informal learning.

Important lessons and future plans

An important lesson is the setting in motion of a consultative process between the government and all national stakeholders to discuss the ANQA/ANQF.

The eight levels and six education programmes of the proposed ANQF (basic education, secondary education, technical and vocational education, Islamic education, literacy and non-formal education, and higher education) are ready to move to the next stage of development.

A crucial element in the further development of the framework is how well it caters for all segments of society, particularly the underprivileged.

The next steps involve the drafting of acts for legal status and implementation, and their approval by the authorities, including government and parliament.

Abbreviations

ANQA	Afghanistan National Qualifications Authority
ANQF	Afghanistan national qualifications framework
CBT	competency-based training
CEO	chief executive officer
CESP	Committee on Education and Skills Policy
CVET	continuing vocational education and training
ICT	information communications technology
MoLSAMD	Ministry of Labour, Social Affairs, Martyrs and Disabled
NOSS	national occupational skills standards
NSDP	National skills development programme
RPL	recognition of prior learning
SAARC	South Asian Association for Regional Cooperation
SFFA	SAARC framework for action
TVET	technical and vocational education and training

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ALBANIA

Introduction and context

NQF snapshot

Law No 10 247 on the Albanian qualifications framework (AQF) was adopted by parliament on 4 March 2010. This law is currently under revision as part of the mandate of the AQF taskforce ([1]).

The NQF has eight levels and includes all types and levels of qualifications and certification.

Tools and approaches are available to support the reform of qualifications systems, the implementation of the NQF and redesign of vocational qualifications. The focus is now on implementation.

Educational, social, economic and political context

In June 2014, Albania became a candidate country for entry to the European Union.

The new government has presented an ambitious programme with employment and quality development of the labour force as main priorities. Recently, the Ministry of Social Welfare and Youth presented its National employment and skills strategy (NESS) and action plan 2014-20 which integrates economic, educational, training and entrepreneurial policies. The Employment and skills strategy complies with the European employment strategy 2020 and will bring Albania closer to EU integration.

The action plan concrete measures aim to address the number one concern in Albania: the unemployment trap. The country has an unemployment rate of 17.5% (15 to 64, LFS 2015) ([2]), of whom 75% are long-term unemployed. Most of the unemployed have low levels of education and, for those living in rural areas, the main source of employment or self-employment is agriculture. Youth unemployment is 32.3% (15 to 29; LFS 2015). Many of the employed have informal or unpaid family jobs. The participation of women on the labour market is much lower than that of men and declined in the recent years of crisis. The Albanian economy is dominated by micro and small companies (98%). In 2011, 91% of active enterprises employed up to four workers, with an overall contribution to employment of 37%, primarily in the service sector. Enterprises employing 20 workers or more represent only 2% of the active total but account for 47% of total employment. Enterprises engaged in the production of goods (industry, agriculture and construction) represent 17% of all active enterprises, while nearly 46% operate in the trade, hotel and restaurant sectors.

During 2012, a number of economic indicators showed critical signs of decline: consumption, imports, exports, remittances, the number of active companies and employment. This followed a slowdown in economic growth over the previous two years. Since late 2013, the economy has started to grow slightly again. Huge arrears in payments of construction and utility bills of the old government had increased public debt, which the new government managed to pay off by negotiating loans from international financial institutions.

Albania has a population of 2.8 million (in 2013). Population growth rates are slowing due to a falling birth rate and continuing emigration. In 2010, the number of Albanian citizens abroad was estimated at 1.4 million individuals but, due to the economic crisis, many migrants had lost their jobs abroad and returned home. The country is homogeneous in terms of its ethnic composition; minority groups make up less than 1.5% of the population. The 2011 census showed that, for the first time in history, more people (54%) lived in urban rather than rural areas. Tirana and Durres are the cities with the highest population growth and density.

According to the new National employment and skills strategy and action plan 2014-20, the Albanian qualifications framework (AQF) is to become one

([1]) The AQF taskforce was established at the end of 2015 with a double mandate from the Ministry of Education and the Ministry of Social Welfare and Youth. The mandate includes development of an AQF handbook for users, revision of the AQF Law, EQF referencing of the AQF and development of an implementation plan. The mandate lasts until the end of 2017.

([2]) Data in this section are from the ETF Torino process report, 2016-17, Albania.

of the pillars for effective employment, education and training policies. Challenges to address include improved administration, efficient use of financial resources, and better design, monitoring and evaluation of outcomes. Implementation of the AQF is considered essential to strong labour market and qualification system governance.

Policy objectives

Education and training reforms

Developing and implementing the Albanian qualifications framework is one of the policy objectives of the National employment and skills strategy 2014-20 and is part of the strategic objective to strengthen labour market and qualification system governance.

Actions to reach the objective to develop and implement the AQF include:

(a) review of the work undertaken on AQF vocational qualifications:
    (i) under this action line the AQF Law, adopted in 2010, will be revised and implemented. Amendments to the law will be arranged by means of by-laws;
    (ii) the work done on qualifications by the National Agency for Vocational Education and Training and Qualifications (NAVETQ) under different donor projects will be reviewed along with qualifications offered by public or private vocational education and training (VET) providers or universities;
    (iii) the system for evaluation and certification of qualifications will be revised;
(b) establishment and operationalisation of sector committees:
    (i) under this action line sector committees with social partner representation and minimum representation of 30% qualified women will be established;
    (ii) each committee will review the qualifications required within its sector and will participate in revising the national list of professions, developing of occupational standards at different levels of competence for a prioritised list of occupations, and developing vocational qualifications for priority sectors and their insertion in the AQF database;
(c) revision and linking of curricula to the AQF:
    (i) under this action line curricula will be revised and interlinked on the basis of AQF qualifications and standards, and referenced to AQF levels;
(d) selecting bodies and putting in place procedures for validation of qualifications, skills assessments, certification and the validation/ recognition of prior learning.

VET reform is a main pillar of the NESS. The vocational education and training system is still a centralised system with limited involvement of social partners and low responsiveness to local needs. Albania has two separate VET provider systems: the vocational schools and the vocational training centres (VTCs). Optimising the providers network, by streamlining structures and offers better aligned to labour market needs, is a policy objective under this pillar. All providers should deliver qualifications to one common national qualifications framework (AQF). The attractiveness of vocational education is still low and perceived as a second best path to tertiary education, rather than a route to labour market entry.

International cooperation

As an EU candidate country, Albania receives financial assistance from the EU via IPA (Instrument for pre-accession). IPA II provides budget support to help deliver the Employment and skills strategy and action plan 2020. The related Sector reform contract contributes to the development and implementation of the AQF; performance indicators are formulated as follows:

(a) end 2016, assessment by Q2 2017, revised AQF Law is adopted;
(b) end 2017, assessment by Q2 2018, secondary legislation to implement the revised AQF Law is adopted, including on sector skills committees;
(c) end 2018, assessment by Q2 2018, have more than 20 VET courses based on new/revised and quality-assured qualifications, compared to the baseline year (87 qualifications in 2014).

Albania has also adopted the Riga 2015 conclusions on a new set of medium-term deliverables in VET for 2015-20 (Riga is a follow-up of the Bruges process of cooperation in VET in the EU). Medium-term deliverable No 3 is related to the NQF: 'Enhance access to VET and qualifications for all through more flexible and permeable systems, notably by offering efficient and integrated guidance services and making available validation of non-formal and informal learning'.

Levels and use of learning outcomes

NQF scope and structure

The AQF is designed as an inclusive/comprehensive framework for classification of all quality assured qualifications. The draft AQF handbook distinguishes between qualifications for initial education and those for lifelong learning.

Qualifications for initial education include:

(a) pre-university qualifications awarded under the mandate of the Ministry of Education and Science (MoES);
(b) vocational qualifications awarded under the mandate of the Ministry of Social Welfare and Youth (MoSWY);
(c) higher education qualifications awarded under the mandate of MoES.

Qualifications for lifelong learning are defined in the handbook as 'other qualifications that are not part of the formal education subsectors'. Qualifications for lifelong learning can be short courses for adults, special courses for continuous professional development, and qualifications provided by universities or other public or private institutes. The AQF will, in principle, be open for all types of qualification for lifelong learning. But while the qualifications for initial education can be included in the AQF based on existing accreditation and quality assurance procedures, inclusion of qualifications for lifelong learning requires special criteria and procedures.

Alignment to other classification systems

The AQF is the national instrument for classifying qualifications in Albania.

Linked to the AQF is the national catalogue of vocational qualifications (NCVQ) that is yet to be developed. Article 16 of the new (draft) VET Law states that 'the national catalogue of vocational qualifications (NCVQ) is a dynamic online instrument that lists and makes accessible all vocational qualifications with the allocated level, which are included in the AQF'.

Both the new (draft) VET Law and the new (adopted) law on higher education make references to the AQF.

All vocational qualifications included in the AQF will have a link with a list of occupations, developed in 2009 through a decision of the Council of Ministers. The list of occupations is currently being revised to align it with ISCO-08. This classification of occupations organises 4 225 jobs in 435 unit groups, 125 minor groups and 37 sub-major groups; its uses include supporting dialogue between the labour market and the education and training sector. The revision is assigned to the National Agency of Vocational Education and Training and Qualifications (NAVETQ), which has also embarked on developing descriptions of tasks and duties and other aspects of the jobs which belong to each of the defined groups; these aspects include goods and services produced, skill level and specialisation, occupations included and excluded, and entry restrictions. A total of 637 occupational descriptions have been compiled through in-depth interviews and consultations with private sector companies and representative organisations.

NQF levels

The AQF has eight levels. It also uses qualification types to distinguish between groups of education programmes/qualifications that are recognisable for Albanian stakeholders. Each qualification type is allocated to an AQF level, with examples including: one-year programme for technician/mid-manager/vocational certificate at AQF level 4; two-year programme for semi-qualified workers/vocational certificate at AQF level 2; and bachelor at AQF level 6.

Level descriptors

AQF level descriptors have been defined in terms of learning outcomes and use the domains knowledge, skills and competence (AQF Law 2010). These level descriptors are a copy of the EQF level descriptors. The AQF taskforce acknowledges that the current descriptors are too general and not fit for referencing qualifications to levels, so they are being revised.

More detailed level descriptors have been defined – and are used – by NAVETQ for AQF levels 2 to 5 and in higher education for AQF levels 5 to 8. These are tailored to education subsectors and are used for development of new qualifications and programmes. However, an AQF for lifelong learning needs a coherent set of descriptors that describe learning outcomes in terms of knowledge, skills and (broader) competences for each AQF level, regardless of types of qualification.

Use of learning outcomes

Learning outcomes are the backbone of the AQF. One of the main objectives underlined in the draft AQF handbook is 'encouraging development of qualifications based on learning outcomes that are comparable with international standards for knowledge, skills and broader competences'.

The new (draft) VET Law makes several statements on this: 'national vocational qualifications are

Table 2 Albanian qualifications framework (AQF)

AQF levels	Qualifications for initial education			Qualifications for lifelong learning (examples)
	Pre-university qualifications	Vocational qualifications	Higher qualifications	
8			Doctoral studies Long term specialisations Executive master	
7			Master of arts Master of science Professional master	Continuous professional development programmes
6			Bachelor	
5		Up to two-year post-secondary programmes Professional diploma (2 years) Professional certificate (1 year) (Apprenticeship programmes; vocational certificate)		Courses designed for managers, higher technicians
4	State *matura* diploma	Professional State *matura* diploma Four-year programmes for technician/mid managers; vocational certificate One-year programme for technician/ mid managers; vocational certificate Two-year programme for technician/mid manager; vocational certificate (Apprenticeship programmes; vocational certificate)		Bridging courses Vocational training courses
3		One-year programmes for qualified workers; vocational certificate (Apprenticeship programmes; vocational certificate)		
2		Two-year programme for semi-qualified workers; vocational certificate		
1	Certificate after compulsory nine-year education			

Source: AQF handbook.

defined by learning outcomes and derived from qualification descriptions and occupational standards' (Article 15.4); 'assessments and tests are done to determine whether learning outcomes have been achieved to given standards' (Article 17.1); 'vocational curriculum determines (among others) learning outcomes' (Article 32.2). VET qualifications are totally based on learning outcomes.

Higher education (HE) qualifications are not yet based on learning outcomes but according to MoES all HE learning programmes will be expressed in learning outcomes.

The definition of 'qualification' in the AQF Law is:

Qualification is 'the specification of standards into broad knowledge, skills and competences developed in order to achieve a certain goal which has been validated or officially recognised for this purpose. Awarding a qualification for an individual means that this individual's knowledge and skills are valid in the labour market and also for their further education and training. A qualification is awarded when a competent body decides, by means of a quality-assured assessment process, that the individual has reached the specified standards'.

The definition in the new (draft) VET Law is:

'Qualification' covers different aspects: (a) formal qualification: the formal outcome (certificate, diploma or title) of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards and/or possesses the necessary competence to do a job in a specific area of work. A qualification confers official recognition of the value of learning outcomes in the labour market and in education and training. A qualification can be a legal entitlement to practice a trade (OECD); (b) job requirements: knowledge, aptitudes and skills required to perform specific tasks attached to a particular work position (ILO).'

Definition of qualification

The new higher education law (adopted) does not give a definition of qualification. The law uses the term qualification in connection with the Albanian qualifications framework. The law defines AQF levels against study programmes based on cycle, European credit transfer system (ECTS) credits and length of the programme.

Qualification standards

Albania does not use the term 'qualification standard' but NAVETQ develops descriptions for all qualifications on the national list of qualifications. The qualification descriptions are the standards of vocational qualifications. Currently, 100 vocational qualification descriptions/standards have been developed, all accessible online ([3]). Each includes information on:

(a) qualification title and code;
(b) duration (in hours to get this qualification);
(c) level of qualification;
(d) scope of qualification;
(e) admission criteria;
(f) further qualification and employment possibilities;
(g) approval date;
(h) information on previous versions;
(i) learning outcomes expressed in knowledge, vocational skills and broader competences.

A qualification description/standard is the basis for developing a national frame curriculum for that qualification.

Higher education institutes (HEIs) have considerable autonomy in developing and providing study programmes but MoES grants final approval for opening of a new study programme, based on State quality standards, which also include institution-related criteria and can be considered as HE qualification standards.

Development process of qualifications

The National Agency for VET and Qualifications (NAVETQ) develops occupational descriptions and qualification descriptions for all qualifications in the national list of vocational qualifications.

The Ministry of Education and Science (MoES) develops State standards for both pre-university qualifications and higher education qualifications. Based on these standards, the Institute of Educational Development (IED) develops pre-university education programmes and higher education institutes (HEIs) develop higher education programmes.

Access, progression and credit

Access to qualifications and progress and transfer within the AQF is defined by the combination of different arrangements in the education subsectors, regulated by respective laws on higher education, VET and pre-university education:

([3]) http://www.akafp.gov.al/lista-kombetare-profesionale/

(a) Law No 80/2015 On higher education and scientific research in the Republic of Albania;
(b) Law No 8872 On vocational education and training in Republic of Albania (29.3.2002), amended by laws No 10 011 (30.10.2008); No 10 434 (23.6.2011); No 63 (6.6.2014);
(c) Law No 69/2012 On pre-university education system in the Republic of Albania.

The AQF Law defines increasing access to qualifications and progress between qualifications as aims of the AQF. Progression between the education and training subsectors is not (yet) defined. The higher education law does not mention progression.

Credit

The AQF Law states that the AQF aids accumulation and transfer of credits. The ECTS credit system in higher education is operational but VET does not yet have a credit system. General/pre-university education programmes and subjects in upper secondary education are expressed in credits (one teaching hour in classroom equals one credit), which are being used for assessment as well. With the changes to be introduced in pre-university curricula and assessment, only grades, not credits, will be used for student assessment, but the programmes will continue to be expressed in credits.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

Law No 10 247 on the Albanian qualifications framework (AQF) ([4]) was adopted by parliament on 04.3.2010. The law was not complemented with secondary legislation and many articles in it were not implemented. The law is currently under revision. Revision of the AQF Law and preparing secondary legislation are part of the mandate of the AQF taskforce. The revised AQF Law was expected to be adopted at the end of 2016, and the secondary legislation at the end of 2017 (including legislation on sector skills councils). Adopted AQF primary and secondary legislation are indicators for the EU IPA II budget support programme.

([4]) http://www.akafp.gov.al/wp-content/uploads/2014/09/LIGJ-10247.pdf

Governance and institutional arrangements for the NQF

According to the AQF law, the NQF is managed by an AQF council, chaired by the Minister for Education and Science. The AQF council is supported by a secretariat. The law defines composition of the AQF council and the secretariat but these are not yet established.

The implementing institutions mentioned in the law are:

(a) the National Agency of Vocational Education and Training (NAVETQ);
(b) the Institute of Curricula and Training (currently Institute for Education Development) and the National Agency for Assessment of Students' Achievements, for general education (elementary, lower and upper secondary education);
(c) the Agency for Accreditation of Higher Education, the Council of Accreditation and higher education institutions, for higher education;
(d) the national employment service.

The AQF taskforce is currently redefining relevant institutional arrangements.

The AQF Law defines the functions of the AQF council and tasks of the secretariat (AQF Law, Articles 8.3 and 11) as follows:

'The functions of the AQF council include:

(a) responsibility for strategic planning of the AQF development and implementation;
(b) advising on policies related to the AQF and institutions responsible for implementation of its functions and coordination of activities for their implementation;
(c) advising the Council of Ministers on issues related to the AQF.'

The secretariat is a supporting unit to manage the council's administrative and organisational tasks. Its full functions and competences are determined by a decision of the Council of Ministers.

The law defines the tasks of the implementing institutions only in general terms (Article 10.2):

'The tasks of implementing agencies are:

(a) to periodically conduct qualification assessment surveys and compare them to international qualifications;

(b) to advise institutions responsible for recognition of foreign qualifications for academic or employment purposes, for comparability or/and equivalency matters;
(c) to periodically conduct labour market assessments.'

The law does not stipulate which institutions are responsible for which tasks.

Roles and functions of actors and stakeholders

The Government of Albania and social partners signed the Initial agreement on vocational education and training in Albania in April 2010. The agreement covers the following issues:

(a) social partners agree that the Albanian qualifications framework serves as the basis for the VET system;
(b) the AQF will organise Albanian qualifications in an eight-level structure aligned to the European qualifications framework (EQF). This will make it easier for Albanian citizens with education and training qualifications to gain employment in other countries. It will also assist Albanian companies with qualified employees to win international contracts;
(c) all qualifications will be subject to a quality checking process before being registered in the AQF. This will ensure that qualifications are up-to-date, relevant to the needs of the labour market and in line with international standards. It will also ensure that social partners and other stakeholders are involved in the development of standards and qualifications;
(d) all assessment leading to the award of AQF qualifications will be subject to external quality assurance. This will ensure the consistent application of national standards and promote public confidence in the quality and reliability of qualifications;
(e) all education and training institutions offering AQF qualifications will be subject to some form of accreditation or academic assessment, to ensure that they meet certain minimum standards for physical and human resources, systems and procedures. This will eliminate unacceptable differences in quality across the country;
(f) the AQF will develop learning pathways and systems of credit accumulation and transfer which will make it easier for people to progress in education and training to the highest level of which they are capable. It will make the education and training system more flexible and encourage adult learning (Government of Albania and social partners, 2010).

The AQF taskforce has a two-year mandate from two ministries: the Ministry of Social Welfare and Youth (responsible for VET) and the Ministry of Education and Science (responsible for general and higher education). The mandate includes compiling an AQF handbook describing all related arrangements, preparing revision of the AQF Law and secondary AQF legislation, and referencing the AQF to the EQF. The taskforce is jointly chaired by the Director of the department for higher education of the Ministry of Education and Science and the Director of the National Agency of VET and Qualifications (NAVETQ). Members of the taskforce are representatives of Business Albania (Director), trade unions, qualification department of NAVETQ (Head), higher education, and Ministry of Social Welfare and Youth. Working groups of technical experts support the taskforce, which started its work in November 2015, and meets monthly.

The NESS action plan foresees establishing sector councils and making them operational. This is supported by the Swiss-funded Risi Albania project, which has developed a model for sector councils in Albania. Sector councils are considered a key element for revising/designing new qualifications. They will review which qualifications are required within a sector, participate in revising the national list of professions and in developing occupational standards. However, the ministry has not recognised the importance of sector skills councils and the planned pilot in one or two sectors has not yet moved ahead. The sector councils will be regulated as part of the AQF Law and its complementary secondary legislation.

Resources and funding

Financial resources for AQF functions and bodies have not been defined, but will be regulated in AQF legislation. The NAVETQ will be assigned many AQF implementation tasks and needs to be staffed and resourced accordingly. As development of the AQF is one of the areas covered by the IPA II budget support programmes, respective work should also get appropriate resources.

Quality assurance of qualifications

In quality assurance, the AQF has three regulating bodies:

(a) Ministry of Education, responsible for qualifications quality assurance in general/pre-university education;
(b) NAVETQ, responsible for vocational qualifications quality assurance (AQF levels 2 to 5);
(c) AQAHE, responsible for quality assurance in higher education programmes and HEIs.

The main issue and challenges for AQF and qualifications quality assurance are:

(a) NAVETQ is responsible for development of qualifications but lacks resources;
(b) currently, there is no structured social partner engagement in the governance of quality assurance related to VET qualifications and quality assuring qualifications standards in terms of relevance and attainment in general;
(c) VET provision (public and private) is not directly linked to delivering qualifications developed by NAVETQ;
(d) in VET, frame curricula are traditionally subject-based and prescribe the number of lessons per subject. Schools are free to adjust parts of the curriculum to local needs (mainly conditions in schools);
(e) methodologies for developing qualifications are not shared by VET and higher education actors;
(f) testing of VET students is carried out under arbitrary conditions in vocational schools and vocational training centres. Industry representatives are meant to be involved but this rarely happens. Appropriate assessment of practical skills is not universal practice and certificates verify attendance rather than skills acquired.

Recognising and validating non-formal and informal learning and learning pathways

According to the AQF Law, Article 6, within the scope of the AQF implementation is: 'certification of non-formal and informal learning outcomes, in cases when the latter is certified, including here recognition of prior learning'. The VET Law also states that 'recognition of informal and non-formal prior learning is the process through which competences a person obtained earlier in the informal and formal system can be considered through an assessment leading to the award of a certificate of a formal qualification.'

Validation of non-formal and informal learning (VNFIL) is a priority measure in the national strategy for employment and skills 2014-20. Recognition of knowledge and skills acquired through work experience and/or voluntary activities is a valuable tool to encourage people to pursue lifelong learning and for optimising training costs.

NQF implementation

Inclusion of qualifications in a register

The Albanian VET and qualifications agency NAVETQ compiles a national list of vocational qualifications that includes all vocational qualifications at AQF levels 2, 3, 4 and 5. Design of a public interactive, searchable web portal/database on qualifications, curricula and training offers by VET providers is one of the deliverables in the action plan (B3.2) of the National employment and skills strategy (NESS) 2020. No action has been taken yet.

The Ministry of Education and Science (MoES) is creating a national register of higher education programmes, each of which will be coded according to the field of study.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of AQF implementation have not yet been defined.

Impact for end-users

The AQF has not yet had an impact on end-users. The 2010 AQF Law has not been implemented and is currently under revision. An action plan for the implementation of the AQF is still to be developed and the AQF council is not yet operational. Principles and procedures for inclusion of qualifications in the AQF have yet to be developed and a qualifications database established.

Referencing to regional frameworks

Albania is an EU candidate country and participates in the EQF advisory group. Referencing the AQF to the EQF is part of the mandate of the AQF taskforce and is foreseen for 2018.

Important lessons and future plans

Establishment of the AQF taskforce with a broad but clear mandate is speeding up development and implementation of the AQF and related legislation.

The composition of the AQF taskforce ensures good coordination between its work and related developments in VET, pre-university/general education and higher education.

The taskforce will present proposals on structure, institutional management and quality assurance of the AQF (among others). The final decision, however, will be made at a political level not

represented in the task force. To help reach political consensus, two ministries are involved: the Ministry of Education for the higher education and general education sectors and the Ministry of Social Welfare and Youth for the VET sector.

Abbreviations

AQF	Albanian qualifications framework
AQAHE	Albanian agency for quality assurance in higher education
ECTS	European credit transfer system
EQF	European qualifications framework
IPA	Instrument for pre-accession, the EU's support programme for candidate and potential candidate countrie
MoES	Ministry of Education and Science
MoSWY	Ministry of Social Welfare and Youth
NAVETQ	National VET and qualifications Agency
NCVQ	national catalogue of vocational qualifications
NESS	National employment and skills strategy
VNFIL	validation of non-formal and informal learning
VTCs	vocational training centres

Prepared by:
the European Training Foundation (ETF).

ANGOLA

Introduction and context

The Angolan education system has been undergoing reform since 2004. New education levels have been introduced, the student evaluation system has been changed, and curricula reformulated (UK Trade and Investment, 2013). Angola now has a unified system consisting of six subsystems: pre-school education, general education, technical and vocational education, teacher training, adult education and higher education (International Consultants for Education and Fairs – ICEF, 2014). The system is structured in three levels:

(a) primary education lasts for six years and is free and compulsory;
(b) secondary education is divided into two cycles of three years each. There is a parallel technical education system divided into three years of vocational education and four years of middle technical education;
(c) university education is offered only in major urban centres, with tuition fees high compared with nearby Namibia and South Africa.

Following the development of national qualifications frameworks (NQFs) in Southern African countries in recent years, and particularly that in South Africa, Angola is also exploring the possibilities of developing an NQF system. The Basic Law on Education in Angola (Republic of Angola, 2016) enshrines the desire to provide education for all children of school age, to reduce illiteracy among young people and adults, and to increase the efficiency of the education system. This law could potentially provide the basis for the development of an NQF in Angola.

According to Law 13/01, teacher training is a key objective, instilling in teachers a full understanding of the general objectives of education, and providing them with solid scientific and technical knowledge and a deep patriotic awareness to assume the responsibility for educating Angola's future generations. Other objectives are to develop a permanent actions update and to improve education agencies. These objectives are reflected in the current context, with the preparation of the *Master plan for teacher training in Angola* (Government of Angola and United Nations, 2015), which is a step towards the development of initial, continuing and distance teacher training.

The current national occupational classifier (CNP) approved by Joint Executive Decree No 31/03 of the Ministry of Employment and Social Security Administration and the Ministry of Planning [5] should be seen as the starting point of the executive decree's commitment to develop an Angolan national qualifications framework (Quadro Nacional de Qualificacões, QNQP). However, we acknowledge that it does not match the concept of NQFs adopted by the Southern African Development Community (SADC). A set of regulations will be developed to support the QNQP.

Policy objectives

(a) develop a set of principles and guidelines for recording successes achieved by professional educators;
(b) provide recognition of the knowledge and skills acquired within and outside the country;
(c) use an integrated qualifications system that encourages lifelong learning;
(d) contribute to the improvement of early career choices;
(e) allow progression and develop the quality of qualifications to ensure that labour market needs are addressed;
(f) establish standards that allow comparability within the system;
(g) establish the qualifications as communication tools;
(h) establish the qualifications as regulatory instruments, providing harmonisation and mobility.

[5] For more information see the report of a workshop on the national qualifications framework that took place on 21 and 22 February 2013 under the responsibility of the National Directorate for Employment and Vocational Training in cooperation with GIZ, the German organisation for international cooperation: http://formpro-angola.org/download/QNQ-SGO.pdf

Levels and use of learning outcomes

Level descriptors in Angola refer to skill levels. For the requirements established in the Education Act (Republic of Angola, 2016), specifically the statute on career teachers' pedagogical and technical expertise and education, and the statute on the teacher education subsystem, the aim was to organise the qualifications into 10 levels.

The continuation of levels 1, 2 and 3 in the QNQP is temporary. These levels are likely to become redundant in due course as a result of the natural dynamics of the process and improved teacher professionalisation.

Stakeholder involvement and institutional arrangements

The key stakeholder ministries are: Ministry of Education (MED), Ministry of Higher Education (MES), Ministry of Administration and Land (MAT), Ministry of Assistance and Social Reintegration (MINARS), Ministry of Public Administration and Social Security (MAPTSS), Ministry of Planning (MOP).

Recognising and validating non-formal and informal learning and learning pathways

Currently there is no measure for recognising and validating learning. What is in place is the recognition of arts and crafts.

Abbreviations

NQF	national qualifications framework
QNQP	Angolan national qualifications framework
SADC	Southern African Development Community

Table 3 Angolan national qualifications framework (QNQP)

Levels	Qualification
10	PhD *(Doutoramento)*
9	Master *(Mestrado)*
8	Level 8 expertise *(Especialização)*
7	Degree *(Licenciatura)*
6	Level 6 expertise *(Especialização)*
5	Bachelor *(Bacharelato)*
4	Pedagogical education teaching cycle (minimum level required by the Basic Law of the education system) *(Ciclo do ensino pedagógico)*
3	Cycle of general education and secondary technical *(Ciclo do ensino geral e médio técnico)*
2	Cycle of general education *(Ciclo do ensino geral)*
1	Elementary school *(Ensino primário)*

Source: Ministry of Education, Angola.

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Prepared by:
UNESCO in collaboration with national experts.

ARMENIA

Introduction and context

NQF snapshot

The Armenian national qualifications framework (ANQF) was adopted by Government Decree (No 332-N), in March 2011.

The ANQF has eight levels, covering general education, vocational education and training (VET) and higher education; currently, levels 6 to 8 are reserved for higher education.

Armenia has decided on its lead organisation, has made funding arrangements and has developed tools and approaches, but the framework has not yet had an impact on end-users. No qualifications have been placed in the ANQF to date, nor have quality criteria for levelling been agreed and adopted. Governments have usually prioritised higher education over vocational education and training. Armenia participates in the Bologna process in higher education.

Educational, social, economic and political context

In economic terms, Armenia is a lower middle-income country with a population of circa 3 million and an estimated per-capita GDP of USD 3 898. Double-digit economic growth rates in 2002-08 were replaced by an average 4.0% rate after the crisis ([6]).

After expanding 7.2% in 2012, growth decelerated; 3.2% in 2013 was followed by 3.5% in 2014. The economy grew by 3.0% in 2015, driven by agriculture and industry as expansion in services moderated. The slowdown was driven mainly by a contraction in investment activity, in part due to delays in implementing infrastructure projects. Weak household consumption was another constraint on growth, partly because of a slowdown in remittances, which represent approximately 18% of Armenian gross domestic product (GDP).

In 2015, agriculture grew by 11.4%, while industry excluding construction grew by 6.3%; construction contracted by 4.2% following a 4.6% decline in 2014. The expansion in services, which generates about half of GDP, slowed sharply to 1.1% from 5.8% in 2014. Growth in services came mainly from higher growth in information technology, finance, insurance, and recreation.

The World Economic Forum global competitiveness report 2015-16 ranks Armenia 58th and 72th in the world for labour market efficiency and education and training, respectively ([7]).

Between 2010 and 2014, the total population fell from 3 249 500 to 3 017 100. The population aged 15 to 24 declined from 608 100 to 472 200 and that aged 25 to 64 from 1 718 500 to 1 648 400 ([8]).

Armenia experienced strong economic growth prior to the 2008-09 crisis, with an annual average GDP growth of 13.4% between 2002 and 2007, driven by capital inflows and remittances. Growth has occurred particularly within the infrastructure sector: USD 3.2 billion of foreign direct investment (FDI) in the telecommunications, energy and transportation sectors between 2002 and 2012 represented 58% of Armenia's FDI over this period (UNCTAD, 2013) ([9]). However, following a deep recession in 2009, post-crisis growth has been moderate due to falling investment activity, particularly in the construction sector, whose share in GDP reduced from 27% in 2008 to 9.3% in 2014.

The Armenian economy has strong links to the Russian market, which represents a quarter of Armenian exports – the second largest destination after the EU – and is the source of about 90% of remittances. Armenia was strongly affected by the

([6]) World Bank: Armenia, country snapshot, April 2016: http://www.worldbank.org/en/country/armenia/overview

([7]) World Economic Forum Global Competitiveness Report 2015-16: http://reports.weforum.org/global-competitiveness-report-2015-2016/economies/#indexId=GCI&economy=ARM

([8]) National Statistical Office of Armenia, Statistical yearbook 2014.

([9]) Data in this section are from the ETF Torino process report, 2016-17, Armenia.

recession in Russia, causing economic growth to slow to 3.5% in 2014 (EBRD, 2015).

The value of remittances, which represent 18% to 20% of Armenian GDP, halved with the depreciation of the rouble, causing a contraction in household spending and growth. While pre-crisis growth was driven by the construction industry, the agriculture, services and mining sectors have been gaining prominence in recent years.

Agriculture remains the largest sector of the economy (19% of GDP), though processed manufacturing is increasing its share of GDP (10% in 2014, compared to 8.3% in 2008). Diversifying exports have become a government priority. Although it has begun declining in recent years, Armenia's unemployment rate remains high and there is evidence of skills gaps in key economic sectors; negative migration flows intensified after the 2008-09 crisis. Similarly, a large informal sector constrains economic competitiveness and development.

Between 2014 and 2015, the activity rate of those aged 20 to 64 declined from 71.4% to 70%, reversing an upward trend over the previous four years. The employment rate from the same age group also fell from 58.7% to 56.7%. This was mirrored by increases in the total and male unemployment rates from 18.1% to 19.1% and from 16.3% to 18.1% respectively. The female unemployment rate for this age group was stable at 20.1%. While the overall unemployment rate increased, that of young people aged 15 to 24 fell between 2014 and 2015 from 37.2% to 32.5% in total and from 30.7% to 28.6% and from 44.9% to 37.2% for males and females respectively.

These improvements in the youth unemployment figures were paralleled by slight falls in the numbers of those aged 15 to 24 not in employment, education and training, which fell from 38% in 2014 to 35.6% in 2015. The respective disaggregated figures were falls from 37.5% to 36.4% for males and from 38.5% to 34.8% for females.

As a proportion of total upper secondary education, the latest figures suggest an increase in the percentage of VET students between 2013 and 2014 from 22.8% to 25.7% with commensurate increases among males and females, from 26.6% to 29.2% and from 18.9% to 22.2% respectively.

The overall level of educational attainment was stable between 2014 and 2015, with a slight increase in the proportion of low and middle attainment and a slight decrease in the percentage of the population with high-level attainment, from 30.7% to 28.8%. The largest increases were among males, with a 1.4% increase in the proportion who were low-skilled, and among females, who showed a 1.2% increase in the proportion who were skilled at the middle level. The aggregate level, the tertiary education rate among 30 to 34 year-olds was stable between 2014 and 2015 with the percentage changing only slightly from 30.7% to 30.6%. Within this figure, however, there were divergences between males and females, with the male figure falling slightly from 29.5% to 28.3% and females rising from 31.8% to 32.6%.

Policy objectives

Education and training reforms

The ANQF, in addition to supporting overall improvement of quality, aims at providing more transparency to education and training qualifications, assisting employers in assessing the workforce skill level, and allowing the Government to take decisions for skills matching adjustments.

The objectives of the Armenian framework are similar to the frameworks of other countries:

(a) to link different levels of qualifications in a hierarchy from the lowest to the highest;
(b) to link Armenian qualifications to those of other countries, promoting international mobility;
(c) to enable learners to attain qualifications, transfer between different pathways and progress from one level to the next.

International cooperation

Armenia has in fact given, in its NQF development, priority to its higher education component, in particular to meeting Bologna requirements. It has been engaged in a twinning project, seeking to raise the capacity of actors, including in the National Centre for Professional Education Quality Assurance (NCPEQA), supporting universities in meeting Bologna requirements in curricula and qualifications, and reviewing higher education legislation.

Armenia seeks compatibility with the European qualifications framework (EQF), but it has no formal link as the country has no association agreement with the EU.

Levels and use of learning outcomes

Scope and structure of NQF

The ANQF is designed to include all types of qualifications.

The national qualifications framework was revised and updated in 2016 with new definitions for each level. The framework has eight levels and follows the European qualifications framework model. Each level is based on knowledge, skills and competences. It is a generic framework and is intended to cover all education levels. According to the new framework, VET levels are defined as:

(a) third level of NQF: preliminary VET without secondary general education (without *matura*);
(b) fourth level of NQF: preliminary VET with secondary general education (with *matura*);
(c) fifth level of NQF: middle VET ([10]).

Alignment to other classification systems

A revision of the law on education was adopted in 2014 to make provision for implementing supplementary and continuing education policies, and as an important contribution to promoting continuing vocational education and training (CVET) in the country. It includes new concepts of, and procedures for, the validation of non-formal and informal learning.

Revision of the law, based on the Supplementary and continuing education strategy 2013-17, was adopted after consultation with other public institutions, NGOs and social partner organisations. However, rules for implementation of the law, particularly to establish a system for validating non-formal and informal learning, are still pending.

NQF levels

Armenia has an eight-level framework.

Level descriptors

NQF descriptors are divided into three broad categories: knowledge, skills and competences.

Use of learning outcomes

Qualifications development is based on learning outcomes, including educational standards of occupations and corresponding modular programmes, and the revised list of occupations and qualifications of primary and secondary VET (2016).

Access, progression and credit

The current framework does not sufficiently allow for easy progression or transfer across education subsectors.

Piloting of a credit system for VET took place in some regional State colleges starting from the school year 2014/15.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The Armenian national qualifications framework (ANQF) was adopted by Government Decree (No 32-N), in March 2011.

Governance and institutional arrangements for the NQF

The Ministry of Education has the overall lead in the NQF. But more precise allocation of tasks and functions needs to be determined.

Roles and functions of actors and stakeholders

In September 2009, a memorandum of understanding on social partnership was concluded between the Ministry of Education, the Union of Employers and the Chamber of Commerce, foreseeing cooperation in developing and updating educational standards as well as in the provision and assessment of VET.

With EU budget support, 100 training standards were developed by the National Centre for Vocational Education and Training Development (NCVETD) in cooperation with sector skills councils, representing employers, to ensure that the standards met the requirements of the labour market. These standards are competence-based and are organised into learning modules, outcomes and performance criteria. They are also structured by general subjects, core skills, and general vocational skills for the sector and specialised vocational skills for particular professions, including theory and practice. The structure also defines the number of weeks and hours devoted to theory and practice.

Resources and funding

Funding is limited; there is considerable reliance on EU and other donor support.

([10]) Includes *matura a priori*.

Quality assurance of qualifications

No procedures have yet been agreed to level or place qualifications in the framework.

Recognising and validating non-formal and informal learning and learning pathways

Validation systems are still at the planning stage. In 2015, the government approved procedures for continuing vocational training and validation of non-formal and informal learning. According to the decree, the Ministry of Education and Science was assigned to develop the procedure for keeping national training records and input it in an available electronic system.

The national training fund (NTF) will introduce the system of validation (assessment and recognition) of non-formal and informal learning outcomes. The NTF is developing an implementation plan that will draw resources mainly from international organisations and the private sector, on a fee-for-service basis. The NTF requires resources and, if it is to realise its potential, must work in partnership, for example with the network of VET colleges, employers' organisations and the State employment agency. Considerable scope also exists to link the system with migration services.

NQF implementation

Inclusion of qualifications in a register

There is no register or national database of qualifications yet.

Monitoring, evaluation and review of the NQF

Notwithstanding its otherwise slow development, the authorities revised some of the NQF descriptors in 2016.

Impact for end-users

No impact yet, as the framework is not in operation.

Referencing to regional frameworks

Armenia is a member of the Bologna process in higher education, and so complies with its norms. The NQF has not yet been self-certified to the qualifications framework of the European higher education area.

Important lessons and future plans

Legislation has been adopted; the national qualifications framework and the level descriptors have been partially developed.

The priority is to operationalise the NQF. A stronger degree of agency coordination is required to confirm the NQF level descriptors, develop methodologies for allocating qualifications to NQF levels, promote pathways across education subsectors and progression, introduce a credit system, develop a quality assurance system and build stakeholder capacity, so they are equipped to contribute to a lifelong learning VET system.

Abbreviations

ANQF	Armenian national qualifications framework
FDI	foreign direct investment
NCPEQA	National Centre for Professional Education Quality Assurance
NCVETD	National Centre for Vocational Education and Training
NQF	national qualifications framework
NTF	national training fund

Prepared by:
the European Training Foundation (ETF).

AZERBAIJAN

Introduction and context

NQF snapshot

Azerbaijan's national qualifications framework (AzQF) has not yet been legally adopted. The draft NQF Decree was developed from 2011 to 2015, and submitted to the Cabinet of Ministers in 2016. Although all ministers endorsed it, adoption was delayed as the conditions for implementation are insufficiently developed. The draft NQF Decree proposes a NQF as a quality assurance tool for qualifications. It builds on the Law of Education (2009), as well as on principles derived from the qualifications framework for the European higher education area (QF-EHEA), in the Bologna process, and the European qualifications framework (EQF). In early 2016 the implementation plan for the NQF was updated and in August 2016 a NQF secretariat was established in the Ministry of Education.

The draft NQF proposes eight levels, its three domains being:

(a) knowledge and understanding;
(b) skills;
(c) autonomy and responsibility.

Educational, social, economic and political context

The population of Azerbaijan continues to grow and is now more than 9.7 million ([11]). The demographic structure is favourable to economic growth: 25% of the population is aged 0-14, while more than 70% is 15 to 64, and only 6.2% are 65 and over. Recently the economy has stopped growing due to lower income from oil exports, but overall growth has been very strong during the past decade. Much of the growth is concentrated in the urbanised Absheron peninsula around Baku where 40% of the population lives and 70% of the industrial potential of the country is concentrated.

Oil exports dominated the economy until 2012 but, over the past four years, the non-oil sector has gained in importance. According to the State Statistic Committee of Azerbaijan, GDP decreased 3.8% in 2016. While oil prices slowly recovered, the construction sector witnessed its biggest decline in years.

Azerbaijan has an employment of 73.1% in 2015, which is high for both men and women. Youth unemployment reached 13.4% in 2015. Half of the workforce is employed in services and one-third in agriculture; however, only 6.2% of GDP is generated in agriculture, suggesting that it is mainly subsistence-type. Although employment data are favourable compared to other countries, the economic crisis led to reduction in total employment.

The war with Armenia in the early 1990s caused many villagers to move to the bigger cities looking for jobs. Internally displaced persons (IDPs) had to be redeployed, although they lacked formal qualifications. Since the early 1990s, most Azerbaijani workers have only been trained informally on-the-job, entering the labour market without any specialisation. Today, only 32% of the 4.6 million workers in Azerbaijan have a formal qualification. Among the 49 countries participating in the Bologna process, only in Azerbaijan do 45 to 64 year-olds have higher tertiary attainment rates than the youngest age group. There is some progress in recent years, with the youngest generation gradually becoming more educated, including more students studying abroad. However, more than half of the graduates from secondary education still do not enter initial vocational education, secondary specialised education or higher education. Only one in five companies train their staff systematically, finding it difficult to determine what to train their staff for, so that their company can grow and develop.

The Azerbaijan 2020 Strategy, the Employment strategy, the Education development plan, and different State programmes and strategic roadmaps for priority sectors all underline the importance of a more skilled and qualified workforce for development of the country. If it wants to compete

11 Data in this section are from the ETF Torino process report, 2016-17, Azerbaijan.

with other industrialised economies, Azerbaijan needs to improve the skills and qualifications of its workforce. Currently, labour productivity is only a quarter of the European average and half of the levels in Georgia and Russia. Without investment in skills development, Azerbaijan will not be able to get out of the middle-income trap.

A new State strategy for development of education was adopted in the autumn of 2013 ([12]), focusing on the development of competence-based education, new management mechanisms, lifelong learning, modern infrastructure, and new financing mechanisms. Its action plan includes the development of a NQF as a tool to support the relevance and quality of education and for introducing competence-based education. The education system has been undergoing changes to adapt to a fast-changing labour market. Many strategic initiatives have been proposed for strengthening the VET system so that it can contribute to development of the economy and its diversification. Since 2014, VET has been seen as an important driver of socioeconomic development and has become one of the top priorities for the government in 2016.

Policy objectives

Education and training reforms

The strategy for Azerbaijan recognises the importance of developing human capital to diversify the economy. This requires investment in education, giving more importance to adult and lifelong learning, and ICT-assisted learning through the internet. The strategy also underlines the importance of efficient health care and social protection and better governance.

A national strategy for the development of education was adopted in October 2013. It has five strands of action, three of which are directly related to the NQF:

(a) education based on competences, focused on individuals, requiring the development of curricula for all levels;
(b) providers apply modern training methods for competence-based education, and ensure quality;
(c) a transparent management system to be established, ensuring that quality of education should be the key strategic priority.

12 'Azerbaijan 2020: the vision of the future', the development concept and national strategy for the development of education in the Republic of Azerbaijan.

The action plan for implementation of the education development strategy (adopted January 2015) mentions the NQF as a milestone. Although the draft NQF Decree was submitted to the Cabinet of Ministers and endorsed by individual ministers, the Minister for Education withdrew it, given the lack of preparedness and awareness of stakeholders and institutions to implement the NQF. An NQF secretariat in the Ministry of Education was established to support the implementation and a series of international, EU-funded and bilateral projects have helped to develop new outcome-based curricula.

According to the draft decree, the NQF has the following objectives:

(a) improve the quality and transparency of qualifications;
(b) provide points of reference for setting and assessing education and training standards associated with different types of qualifications;
(c) take into account the demands of society and labour market when defining qualifications, to improve national economic performance and aid communication and movement between education and training sectors and the labour market;
(d) align national qualifications and qualifications levels with the QF-EHEA and the EQF;
(e) support, widen access and promote lifelong learning of Azerbaijani citizens, and promote validation of non-formal and informal learning;
(f) facilitate the national and international mobility of learners and workers through increased recognition of the quality and comparability of Azerbaijani qualifications abroad and increase in competitiveness and mobility of people;
(g) promote coherence of reforms in different sectors of education and training.

Improving the relevance of qualifications and strengthening the quality assurance processes around their award are central elements in strengthening the trust in qualifications among learners, providers, businesses and internationally. In 2016 the government also prepared strategic roadmaps for eight priority sectors, including for VET. The implications for the NQF still need to be analysed.

International cooperation

The NQF concept was developed in compliance with the criteria of the qualifications framework of the European higher education area (QF-EHEA) and the European qualifications framework for lifelong learning (EQF) (Article 1.2. draft NQF Decree).

The NQF is an important tool for the Bologna process. A Finnish-Estonian-Azerbaijani programme – Support to the Ministry of Education of the Republic of Azerbaijan for further adherence of the higher education system to the European higher education area – focuses on quality assurance in higher education, including the use of learning outcomes. The Tempus/Erasmus+ programme has been developing a number of projects for curriculum reform in higher education. Much more is needed to bring higher education fully in line with the qualifications framework for the European higher education area, although Azerbaijan has made some progress in all key areas. A new twinning project for higher education will continue support in this area in 2018.

EU support for the education sector under the Action plan 2014 includes a series of measures to aid the Ministry of Education with implementing aspects of the NQF, including developing outcomes-based standards and curricula, based on occupational standards, assessment and quality assurance procedures, and the systematic involvement of representatives from the world of work. There are also several bilateral VET reform projects that support the development of new competence-based programmes for VET and for teacher training.

Between 2011 and 2014, the World Bank supported the Ministry of Labour and Social Protection of the Population in developing occupational standards. After the project ended, the ministry's capacities to develop occupational standards were limited but a section for occupational standards development was recently established in the Employment Department. Support for anticipating skill needs and developing occupational standard is foreseen under the Action programme 2016.

EU programme documentation makes specific reference to bringing developments in line with the EQF for lifelong learning but Azerbaijan cannot formally reference its NQF to the EQF as it is not part of the EQF advisory group. The Azerbaijan EU mobility partnership, signed in October 2013, includes measures to aid recognition of academic and professional qualifications and exchange of information on the European qualification framework and national qualification legislation.

Azerbaijan is a signatory of the Lisbon Convention.

Levels and use of learning outcomes

Scope and structure of NQF

The draft NQF Decree 2016 states: 'Only qualifications (State document on graduation of a certain stage or level of education) described in the Law on Education of the Republic of Azerbaijan are included in the AzQF'.

It also states that the AzQF is designed for the recognition of lifelong learning and includes the following qualifications:

(a) for general education;
(b) for initial vocational education and training;
(c) for secondary specialised education (sub-bachelor education);
(d) for higher education;
(e) for further education.

The Law on Education includes a variety of qualification types for further education, which go beyond the qualifications for formal initial education.

Alignment to other classification systems

Labour market monitoring should inform the development of occupational standards, coordinated by the Ministry of Labour and Social Protection of the Population. Labour market oriented qualifications should be linked to specific occupations (and occupational standards). The Ministry of Labour is also responsible for keeping the national employment classification in accordance with the requirements of the labour market but, unlike in some other post-Soviet countries, the NQF is not directly linked to the tariff qualification system, which is no longer operational.

NQF levels

The draft NQF has eight levels, comparable to the EQF and linked to the main formal qualifications or key stages.

Existing qualification types have been analysed to allocate them provisionally to NQF levels. Level 1 covers outcomes of basic education, level 2 outcomes of lower secondary, and so on. Level 8 covers outcomes of PhD and doctor of sciences degrees in line with international practice. Initial VET qualifications could be divided in level 3 and level 4 qualifications. Occupational standards, developed in line with the four ISCO levels, are proposed to be adapted to the NQF levels.

Key competences have been integrated in the descriptors, including foreign language abilities, but are contested by some stakeholders as being overambitious.

There have been several discussions on whether the NQF should have eight or nine levels to accommodate the doctor of science degree. In

November 2014 the Higher Attestation Committee proposed to add a ninth level to accommodate the doctor of science degree, in line with developments in Russia and Ukraine. Belarus and the Republic of Moldova are allocating both the PhD and doctor of sciences to level 8, to ensure better international comparability. Kazakhstan and Georgia are phasing out the degree altogether. In the end the draft NQF opts for eight levels to ensure international comparability.

Level descriptors

The work on levels started originally from analysis of the descriptors of qualifications (educational standards) in the country, but has been inspired as well by the Dublin descriptors for the qualifications framework for the European higher education area (QF- EHEA) and the EQF and the eight European key competences. The result is a list of eight levels with level descriptors which are more detailed than those of the EQF, addressing knowledge and understanding, skills, and autonomy and responsibility. They are calibrated and fine-tuned with the main qualifications types in the country.

Types of qualification in AzQF

Allocation of qualifications by type to the NQF levels is purely indicative; no levels have yet been attributed. The NQF has been used to formulate occupational qualifications standards in IT and management but no certificates have been issued.

Use of learning outcomes

The learning outcomes in existing qualifications and curricula were reviewed. All existing qualification types can still be improved, but many have already started to evolve as a result of recent developments. Much of this work has been done by experts. There was a general feeling that wider consultation was necessary to ensure that these qualifications are really based on clearly identified needs and people know about them, so stronger links with the business community and civil society could be developed and institutionalised.

A new national curriculum based on learning outcomes was introduced in 2009 and improved in 2010. General education does not offer any specialisation. Development processes for

Table 4 Types of qualifications in the Azerbaijan qualifications framework (AzQF)

AzQF levels	General education	Vocational and technical education	Secondary special education	Higher education	Adult learning
1	No formal qualification, but learning outcomes				
2	Certificate of general education				Diploma / Certificate
3		Diploma of specialisation			Diploma / Certificate
4	Attestation of maturity	Diploma of specialisation			Diploma / Certificate
5			Sub-bachelor degree		Diploma / Certificate
6				Bachelor degree	Diploma / Certificate
7				Master degree	Diploma / Certificate
8				PhD degree Doctor of sciences degree	

Source: draft NQF Decree.

qualification standards for primary education (AzQF level 1), general secondary education (AzQF level 2) and full secondary education (AzQF level 4) do not yet exist, although learning outcomes have been identified for key stages.

Occupational standards developed by international projects since 2008, especially by the World Bank project on development of improved occupational standards (DIOS) between 2011 and 2014, have been used in pilot curricula for initial vocational education and training (IVET) prepared by the Ministry of Education. Learning outcomes in the new curricula for IVET are based on competences identified in occupational standards.

The Institute for Educational Problems has developed 40 pilot VET curricula for different groups of specialties in accordance with existing standards. A further 16 curricula have been developed with the support of international organisations. Seven curricula in agriculture were developed within the EU twinning project *Strengthening initial vocational education in the field of agriculture in the Republic of Azerbaijan* (German-Azerbaijani twinning cooperation on initial vocational education in the field of agriculture). Five curricula in tourism and hospitality were developed by a consortium led by British Council with the support of the EU within the *Vocational education and training reform strategy and pilot implementation in a selected region in Azerbaijan* project; two curricula (hotel administrator and computer operator) were developed with the support of UNESCO, and two (repairer-metalworker and electrical welding) with assistance of the World Vision in line with the methodology of the Ministry of Education. In 2016 the Ministry of Education also developed a new curriculum for event organiser. A total of 11 new profiles were developed with the Ministry of Economy and Industry for the Sumgait Industrial Zone.

All occupational standards include key and specialised competences required of workers. Key competences can be used for development of learning outcomes for general subjects and specialised competences for vocational training subjects by specialty. All the occupational standards developed by the DIOS project *Identify future-oriented competences* create a floor for further training. They can be used in further education and training, also because they incorporate training pathways covering non-formal and informal training, as well as recognition of prior learning. All the occupational standards are available online ([13]).

There are 275 approved occupational standards covering occupations/specialties from all levels of education, while 75 are under preparation. Of the total, almost half cover occupations requiring education at initial VET level and only about 15% at sub-bachelor level. The number of occupational standards is too limited to use them systematically for all labour market related qualifications. Stronger support for the development of occupational standards, including creating a clear legal basis for occupational standards and related assessment standards, is being planned.

With the introduction of the credit system, 115 new standards for post-secondary VET have been developed since April 2014. These have involved stakeholders from the world of work in one way or another, but are not based on occupational standards.

According to an ETF analysis, the structure of the existing education standards is not appropriate for using them effectively for certificating that individuals are competent. Apart from general education based on a national curriculum, specific qualification standards are proposed to be developed separating the qualification requirements (for summative assessment, validation and certification) from State education standards. For now there is a need to review existing standards to make sure that they are relevant and transparent.

For adult learning (additional education according to the Law on Education), the Ministry of Education is developing standards for education professionals. There are the 69 qualification standards developed under the DIOS project by the Ministry of Labour but this is still a highly contested area.

There is a need to develop a database of units in addition to the register of qualifications, to support the development of qualifications and modular curricula. It is recommended that the AzQF should integrate a national credit system that is based on the units and linked to the European credit transfer system (ECTS) and the European credit system for vocational education and training (ECVET).

Definition of qualification

State education standards set the requirements for each individual qualification. The DIOS project planned the development of occupational qualification standards, but they have not been used yet to assess and certificate individuals. Traditionally, State education standards also set the requirements for certification. Most State education standards for vocational and higher education are still based on qualification characteristics developed for occupations in the classifier of occupations. Occupational standards are generally seen as the new starting point for developing State educational standards, but there is no new concept in place for

([13]) http://dios.az/standards

State educational standards. Different approaches are tested to involve representatives from the world of work more in renewing vocational and higher education standards, but so far there is no consolidated new approach. This issue will be addressed in the EU technical assistance project for VET that started in 2017, while higher education standards and curricula are being addressed with the support of two twinning projects.

Access, progression and credit

The university entrance exam and entrance to colleges (post-secondary vocational education/ sub-bachelor degree) is centrally administered and compulsory for everybody who wants to enter a bachelor programme. This includes graduates from colleges, although credit transfer from sub-bachelor to bachelor degrees is foreseen in the future.

There is discussion on phasing out the university entrance exam, while strengthening the quality assurance of secondary school exams.

Graduates from vocational lyceums receive two qualifications: the attestation of maturity (general secondary education diploma), and a diploma of specialisation. One in seven graduates currently enters higher education. Graduates from vocational schools only receive a diploma of specialisation.

Currently, access to qualifications is granted only to those that have achieved a qualification at the preceding level.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The Law on Education (2009) was the starting point for the development of the NQF. The table below was developed by the ETF and has been adapted to fit current timetables. It identifies what further legislation would be needed after the adoption of the NQF Decree.

The basis for the AzQF was the law on education (2009). It provided a start to move beyond formal education and address both formal initial education and adult learning in a coherent system. However, the law was not always very specific on the use of learning outcomes, assessment, and quality assurance. Nor does it describe the interinstitutional cooperation beyond the Ministry of Education, the Cabinet of Ministers, and the Higher Attestation Committee.

Occupational standards lack legal status but are being introduced in strategic documents, such as the Employment strategy 2017-30 and the general

Table 5 Further legislation needed

Further legislation needed	2017	2018	2019
Legislation on sectoral councils and occupational standards	X		
Amendments to the Law on Education	X	X	
State education standards for types of qualifications	X	X	
Legislation on quality assurance		X	X
Independent Quality Assurance Agency on the basis of the Office for Accreditation and Nostrification (*)			X
Regulations on recognition of prior learning		X	
Regulations for compatibility of existing qualifications with the AzQF	X		

(*) *Nostrification:* recognition of foreign qualifications in higher (general) education and higher VET.
Source: ETF analysis.

collective labour agreement. New secondary legislation is also in preparation to legislate the occupational standards, in terms of their development, approval and use.

State education standards are approved by the Cabinet of Ministers, expire every five years, and are being reconsidered to ensure that they are more in line with the NQF and international practice and can support competence-based education.

Governance and institutional arrangements for the NQF

A NQF secretariat was established in the Ministry of Education by ministerial decree (5 August 2016) ([14]) to coordinate the preparation and application of the final draft of the Azerbaijan national qualifications framework for lifelong learning. The secretariat will:

(a) review, amend, adapt and submit the action plan for the implementation of the NQF (2016-22) prepared with ETF support;
(b) take measures to prepare the final draft of the Azerbaijan national qualifications framework for lifelong learning for approval;
(c) prepare the establishment of a working group under the secretariat composed of staff from relevant organisations, to conduct joint analysis, business discussions, preparing opinions and developing proposals;
(d) regularly report to the management about progress.

The Chief of Staff of the Ministry of Education is in charge of the secretariat. The EU provides support to the secretariat and in 2017 a technical assistance project is expected to start to support NQF implementation.

The Ministry of Labour and Social Protection is in charge of coordinating the development of occupational standards. It has established a section for this in the Department of Employment and Demography. The new employment strategy underlines the importance of occupational standards, and the ministry will develop 900 standards covering all important economic sectors. New legislation on occupational standards and a procedure for their development is being prepared and expected to be adopted in 2017. According to the draft decree, the Ministry of Labour and Social Protection would also be responsible for labour market analysis, and the development of the employment classification.

([14]) Torino process report 2016-17, Azerbaijan.

Roles and functions of actors and stakeholders

According to the draft decree, the Higher Attestation Committee should remain responsible for external assessment of PhD and DSc dissertations. Individual awards are produced by the committee using external validation of the assessment results. Public organisations, line ministries and for-profit organisations could be accredited by the Ministry of Education to award national qualifications.

There is no reference in the decree to sector skills councils, piloted in the DIOS (development of improved occupational standards) project. Social partnership structures in Azerbaijan are weak. There is lack of social partner institutional capacities at all levels and lack of involvement and clear commitment of public authorities towards formation and consolidation of these structures in official documents. Sector skill councils are, however, suggested to be part of the legislation on occupational standards.

Quality assurance of qualifications

Quality assurance is a key principle for the implementation of the NQF: the draft NQF Decree has a whole chapter dedicated to it. Quality assurance encompasses development of relevant qualifications, based on learning outcomes that will be vetted before they are included in the NQF register. This will make the register a repository of quality-assured qualifications. Where appropriate occupational standards are available, they should be the basis for qualifications (education standards).

Assessment and certification processes will also be part of quality assurance arrangements, as is programme accreditation of providers. The quality assurance principles are in line with the European standards and guidelines, the European quality assurance in vocational education and training (EQAVET) ([15]) and the European guidelines for the validation of non-formal and informal learning. External quality assurance will be carried out by the Office for Nostrification and Quality Assurance, while external assessment will be carried out with the support of the State Examination Centre. These principles for quality assurance are seen as important and needed, but difficult to implement under current conditions.

([15]) EQAVET is a community of practice bringing together Member States, social partners and the European Commission to promote European collaboration in developing and improving quality assurance in VET by using the European quality assurance reference framework.

Recognising and validating non-formal and informal learning and learning pathways

Only 32% of the workforce is formally qualified. A total of 69 qualification standards have been developed from occupational standards under the responsibility of the Ministry of Labour and Social Protection of the Population; these may be used for validation of non-formal and informal learning. Private and State companies use existing occupational standards to assess their personnel. The Vocational Education and Training Agency established in 2016 has within its mandate the development of a system for validation of non-formal and informal learning. EU support for implementing the NQF foresees piloting the validation of non-formal and informal learning. The mobility partnership, signed in October 2016, includes recognition and validation of skills and qualifications.

There have always been alternative pathways to some qualifications. With special permission it is possible to obtain a diploma through self-study *(externat)*, and there are also programmes for additional degrees and for distance learning. Given the huge number of those lacking formal qualifications, many private and public providers offer short courses of non-formal training. Whether these courses could become part of the NQF through quality assurance and appropriate certification is an open issue, as they do seem to be in line with aspects of what the Law on Education describes as further education. Use of occupational standards could be a way to recognise certification of such courses, starting from those provided by the State employment services.

There are no systems yet for validating non-formal and informal learning, but the Ministry of Labour and Social Protection is interested in testing and developing validation based on the occupational, qualification standards that it produced. The ministry is strengthening its capacities to develop the assessment elements of the occupational standards. However, according to its statute, the VET Agency in Azerbaijan should develop and ensure application of methods for recognition of competences acquired through non-formal and informal ways.

The draft NQF states that the NQF should support and promote the lifelong learning of Azerbaijani citizens, as well as non-formal and informal learning. Testing validation of non-formal and informal learning is considered for 2017 or 2018.

NQF implementation

The NQF is not yet operational but aspects of it, including the use of learning outcomes, development of occupational standards, new curricula, competence-based education, and externalised assessment procedures have been tested and are included, in part, in the current system. Different projects have contributed to pilots and studies, and projects are currently under way and expected to be launched that will be able to move developments forward in a more systematic way. The NQF Secretariat provides a focal point for these activities.

Inclusion of qualifications in a register

The register is a key instrument for the NQF. It is not yet established but there are lists of specialisations for initial vocational education, for post-secondary vocational education and for higher education. An online database of occupational standards is maintained by the Ministry of Labour and Social Protection of the Population ([16]).

Monitoring, evaluation and review of the NQF

No evaluation has yet been conducted, given the early stage of development of the NQF.

Impact for end-users

The NQF has not yet been used as a reference system or tool by end-users.

Referencing to regional frameworks

Azerbaijan is a member of the Bologna process and the NQF will be self-certified to the qualifications framework of the European higher education area. The framework was developed on the basis of the principles of the QF-EHEA and the EQF for lifelong learning. Links to the EQF are mentioned in the EU-Azerbaijan mobility partnership, in EU programming documents for support to the education sector and in the draft NQF Decree.

Important lessons and future plans

Although legal approval of the NQF has been postponed, important developments are underway that create a better basis for NQF implementation. These include establishment of the NQF Secretariat in the Ministry of Education as a coordination body

([16]) http://dios.az/standards

for its further development, the VET Agency that will develop new VET standards and the validation of non-formal and informal learning, the Accreditation and Nostrification Office that is potentially a stronger body for external quality assurance, and the Section for Occupational Standards in the Employment Department of the Ministry of Labour and Social Protection of the Population.

More substantial and targeted EU support is planned to support development of the NQF, while the timetable agreed in 2015 for the Bologna process to complete self-certification by all countries by 2020 adds to the pressure to move ahead. The Azerbaijan 2020 strategy, the Education development strategy, strategic roadmaps for priority sectors and the current economic crisis help to boost developments.

However, the fragmentation of projects and responsibilities between institutions, the lack of a clear commitment and shared vision for the NQF (postponement of the decree) and weak organisation among representatives from the world of work are serious obstacles that can further delay implementation.

Abbreviations

AzQF	Azerbaijan qualifications framework
DIOS	Development of improved occupational standards
ECTS	European credit transfer system
ECVET	European credit system for vocational education and training
ESG	European standards and guidelines
EQAVET	European quality assurance in vocational education and training
EQF	European qualifications framework
IDPs	internally displaced persons
ISCO	international standard classification of occupationss
MoE	Ministry of Education
MLSPP	Ministry of Labour and Social Protection of the Population
NQF	national qualifications framework
NSDE	National strategy for the development of education
QF- EHEA	qualifications framework for the European higher education area
VET	vocational education and training

Prepared by:
the European Training Foundation (ETF).

AUSTRALIA

Introduction and context

The Australian qualifications framework (AQF) is the national policy for regulated qualifications in the Australian education and training system. It incorporates quality-assured qualifications from each education and training sector into a single comprehensive national qualifications framework. It provides education institutions, students, recognition authorities and employers with confidence in the quality and consistency of qualifications and the ability of graduates to apply the skills and knowledge they have acquired. The rigour of the AQF helps to build trust with international governments and supports the mobility of graduates with Australian qualifications around the globe.

The AQF was developed in the early 1990s at the request of State, territory and federal ministers for the Department of Education and Training through the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA). Building on existing qualifications systems, the Australian Government noted the need to deliver national consistency and standardisation of programmes, pathways and qualifications. A national, cross-sectoral qualifications framework was subsequently identified as a means of providing consistent recognition of outcomes achieved in all Australian post-compulsory education, in both vocational education and training (VET) and higher education.

A key issue was that VET qualifications no longer provided a widely acceptable framework to recognise achievement. The AQF was particularly influenced by changes in the way VET was delivered, funded and recognised, especially with regard to the introduction of nationally recognised training based on competences identified by industry and enterprises. A key feature was the integration of trade qualifications, centred on workplace competence, with other VET qualifications and higher education qualifications.

The development of flexible pathways was also a key objective. This would support mobility between higher education and VET sectors and the labour market by providing the basis for recognition of prior learning, including credit transfer and work experience. The framework would encourage individuals to progress through education and training levels by improving access to qualifications, clearly defining pathways and contributing to lifelong learning.

The AQF was introduced across Australia on 1 January 1995, and was fully implemented by the end of 1999. MCEETYA established the AQF Advisory Board (AQFAB) to oversee the AQF and to promote and monitor its national implementation.

A major review was undertaken from 2009-11 to ensure the AQF remained fit for purpose, particularly in the context of increasing internationalisation of Australia's education and training system and the establishment of two national regulators, the Tertiary Education Quality and Standards Agency (TEQSA) and the Australian Skills Quality Authority (ASQA). The result of this exercise was the AQF second edition in January 2013, which was fully implemented by 31 December 2014.

The AQF has made a significant contribution both to Australia's vibrant international education sector and to international confidence in the country's qualifications. With the rapid growth of qualifications frameworks around the world, there are more opportunities to engage with other national and regional qualifications frameworks.

Policy objectives

The objectives of the AQF are to provide a contemporary and flexible framework that:

(a) accommodates the diversity of purposes of Australian education and training now and into the future;
(b) contributes to national economic performance by supporting contemporary, relevant and nationally consistent qualification outcomes that build confidence in qualifications;

(c) supports the development and maintenance of pathways which provide access to qualifications and assist people to move easily and readily between different education and training sectors and between those sectors and the labour market;
(d) supports individuals' lifelong learning goals by providing the basis for them to progress through education and training and gain recognition for their prior learning and experiences;
(e) underpins national regulatory and quality assurance arrangements for education and training;
(f) enables the alignment of the AQF with international qualifications frameworks;
(g) supports and enhances the national and international mobility of graduates and workers through:
    (i) increased recognition of the value and comparability of Australian qualifications;
    (ii) consistency in qualification types and learning outcomes;
    (iii) high-quality qualifications in line with national standards;
    (iv) the portability of qualifications that are easily understood.

Australia's diverse and complex education system is supported by internationally accepted principles of quality assurance. For higher education (universities and other higher education institutions), vocational education and training, and schools, this takes the form of a multi-layered, interrelated framework across bodies under both commonwealth and State government responsibility.

The objectives of Australia's quality assurance system include:

(a) national consistency in regulating education;
(b) regulation of education using a standards-based quality framework and principles relating to regulatory necessity, risk and proportionality;
(c) protecting and enhancing Australia's reputation for excellence and international competiveness in the provision of education;
(d) encouraging and promoting an education system that is proportionate to the social and economic needs for an educated and skilled population;
(e) protecting students undertaking, or intending to undertake, education by requiring the provision of quality higher education;
(f) ensuring students have access to information relating to education in Australia.

Levels and use of learning outcomes

AQF qualifications ensure national recognition and consistency as well as common understanding across Australia as to what defines each qualification. AQF levels and the criteria for them are discipline-free and cross-sectoral. They provide an indication of the relative complexity and/or depth of achievement and the autonomy required to demonstrate that achievement.

Each qualification type is defined by a descriptor expressed in terms of learning outcomes. There are 14 AQF qualification types from across all education and training sectors and each, with the exception of the senior secondary certificate of education (SSCE), is located at one of the 10 levels.

Learning outcomes describe what graduates are expected to know, understand and be able to do as a result of learning. They are expressed in terms of knowledge, skills and the application of knowledge and skills.

Stakeholder involvement and institutional arrangements

Stakeholder involvement is critical to ensuring the success of the AQF and its continued acceptance. The Australian Government, in its governance of the AQF, engages with individuals and organisations from all education sectors, as well as assessing authorities and institutions, employers and other government agencies.

TEQSA and ASQA are Australia's national regulators of higher education and VET. The former regulates all higher education providers and ensures that they and their courses meet the higher education standards framework 2015; the latter regulates VET institutions and registered training organisations in most Australian states.

Recognising and validating non-formal and informal learning and learning pathways

The AQF supports the progression of students through qualifications by giving credit for learning outcomes they have already achieved. Recognition of prior learning (RPL) is an assessment of an individual's relevant prior learning, including formal, informal and non-formal learning, to determine the credit outcomes of an application for credit. Credit outcomes may allow entry into a qualification or provide credit towards the qualification. Credit given may reduce the time required for a student to achieve the qualification.

The organisation issuing RPL determines the extent to which previous learning is equivalent to

the learning outcomes of the components of the destination qualification, takes into account the likelihood of the student successfully achieving the qualification outcomes, and ensures that the integrity of the qualification is maintained.
The typical RPL process consists of:

(a) identifying the evidence required;
(b) providing advice to students about the process;
(c) providing students with sufficient information to enable them to prepare their evidence to meet the standard required for assessment;
(d) assessing, using appropriate evidence-gathering methods and tools;
(e) recording the outcome;
(f) reporting to key internal and external stakeholders.

The AQF qualifications pathways policy establishes the principle that pathways:

(a) are clear and transparent to students;
(b) are systemic and systematic;
(c) enable flexible qualification pathways;
(d) may be horizontal across AQF qualifications at the same level as well as vertical between qualifications at different levels;
(e) can support credit for entry into, as well as towards, AQF qualifications;
(f) eliminate unfair or unnecessary barriers for student access to AQF qualifications.

NQF implementation

Building on previous qualifications standards, the AQF was developed in the early 1990s; implementation commenced in 1995. During 2009 and 2010, the AQF Council worked with AQF users and stakeholders to update the AQF. Revisions were approved in 2011.

Predecessors of the AQF

The Australian Council on Awards in Advanced Education (ACAAE) nomenclature and guidelines for awards in advanced education were implemented in

Figure 2 Australian qualifications framework (AQF)

Source: www.aqf.edu.au

1972 to 'promote consistency in the nomenclature of qualifications in the advanced education sector and to assist in the development of meaningful relationships between levels of qualifications' (AQF, 2013). The following categories of award were defined: master degree, graduate diploma, bachelor degree, diploma and associate diploma. Named Australian qualifications were included on the national register of awards in advanced education. The number of named qualifications was expanded in 1983 and 1984, and was replaced by the Australian Council on Tertiary Awards (ACTA) guidelines for the national registration of awards, which was implemented in 1986. The ACAAE award nomenclature was retained by ACTA.

The Australian Education Council register of Australian tertiary education (RATE) was established in January 1990 as a single national register of authorities (including institutions) empowered by the jurisdictions to accredit tertiary education qualifications. The AQF was introduced in 1995 and fully implemented from 2000.

Referencing to regional frameworks

Australia aims to build strong foundations for bilateral and multilateral cooperation to improve mobility through international framework engagement as defined by a set of principles approved in 2011.

The Australian experience is that international framework engagement occurs along a spectrum based on mutual understanding of purpose and expected outcomes. Without an internationally agreed definition of terms, words such as referencing, mapping, alignment, evaluation and comparability are interpreted and applied differently by different stakeholders in different situations.

Using the AQF, the Australian Government has engaged in a range of activities that aims to improve transparency and understanding of qualifications frameworks, learning outcomes and quality assurance arrangements:

(a) in December 2015, Australia and New Zealand completed a joint project to compare the AQF and New Zealand qualifications framework based on in-depth technical analysis against mutually agreed principles. The report *Enhancing mobility: referencing of the Australian and New Zealand qualifications frameworks* complements existing mobility arrangements between Australia and New Zealand;

(b) Australia and the European Commission are progressing a technical comparison of the AQF and the European qualifications framework to identify similarities and differences;

(c) Australia is supporting the development and implementation of the Association of Southeast Asian Nations (ASEAN) qualifications reference framework (AQRF).

Australia is also collaborating with Asia-Pacific Economic Cooperation (APEC) economies on the APEC integrated referencing framework for skills recognition and mobility. This aims to build understanding of the skills and knowledge held by workers across APEC economies in technical and vocational education and training (TVET). The framework will be translated into practical outputs such as national referencing reports, information on TVET systems, and graduate statements to promote understanding, transparency and trust in training systems and enable informed skills recognition.

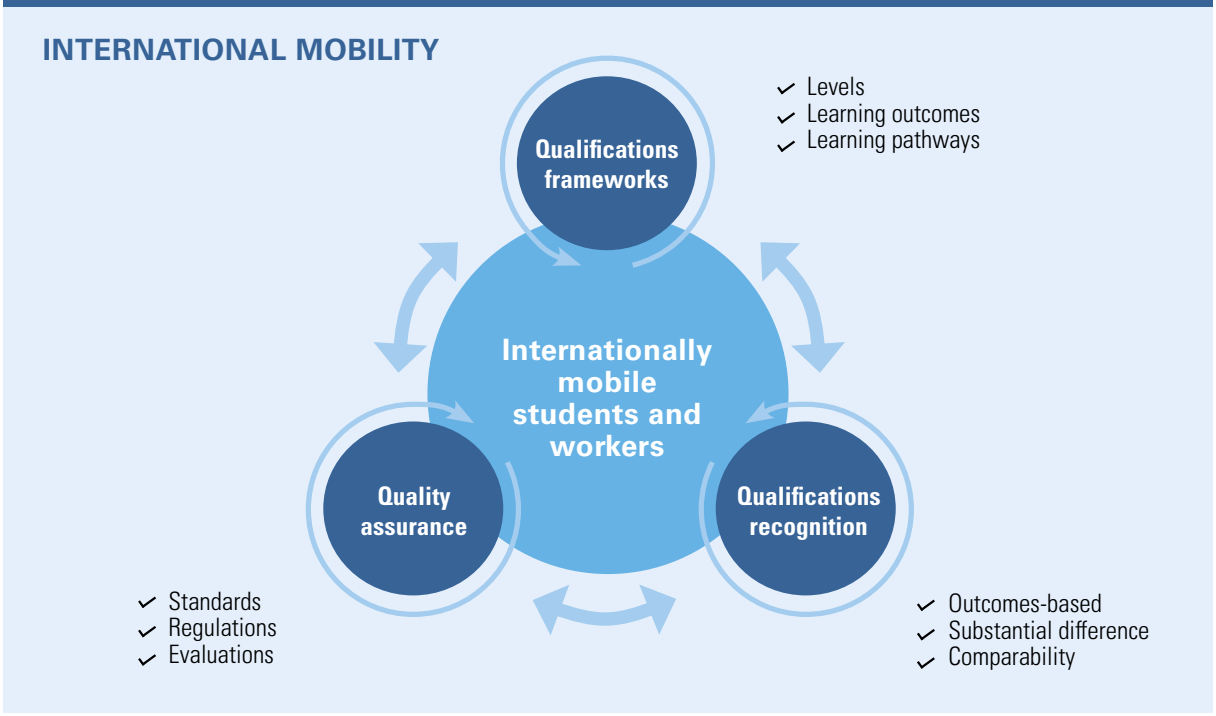
Important lessons and future plans

Australia has learned a number of important lessons from the development of the AQF in the early 1990s and the strengthening process undertaken during 2010-11. Effective leadership and stakeholder support are paramount to building a national qualifications framework that is relevant to economic and social conditions and addresses identified challenges. Engagement and consultation with stakeholders, particularly within industry, remains critical throughout each phase of development, implementation, evaluation and reform.

Australia has also learned that a national qualifications framework which delivers on domestic priorities can become a valuable tool for international engagement and international mobility. However, qualifications frameworks that are not supported by robust and transparent quality assurance processes undermine cooperation and collaboration by affecting trust in learning outcomes. Creating better connections between the key policy areas of qualifications frameworks, quality assurance and recognition of qualifications presents both challenges and opportunities.

The Australian Government continues to work bilaterally and multilaterally to explore solutions that support quality, transparency and robustness to realise fully the potential for qualifications frameworks to enhance international mobility.

Figure 3 Internationally mobile students and workers in Australia



Source: www.aqf.edu.au

Further sources of information

SQA (Australian Skills Quality Authority): https://www.asqa.gov.au/

Australian Government, Tertiary Education Quality and Standards Agency (TEQSA): www.teqsa.gov.au.

Abbreviations

ACAAE	Australian Council on Awards in Advanced Education
ACTA	Australian Council on Tertiary Awards
AQF	Australian qualifications framework
AQFAB	Australian Qualifications Framework Advisory Board
AQRF	ASEAN qualifications reference framework
ASEAN	Association of Southeast Asian Nations
ASQA	Australian Skills Quality Authority
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
RATE	register of Australian tertiary education
RPL	recognition of prior learning
RTO	registered training organisations
SSCE	senior secondary certificate of education
TEQSA	Tertiary Education Quality and Standards Agency
TVET	technical and vocational education and training
VET	vocational education and training

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Prepared by:
The Department of Education and Training in collaboration with the UNESCO Institute for Lifelong Learning (UIL).

AUSTRIA

Introduction and context

Austria has one of the lowest youth unemployment rates in the EU; early school leaving is bellow EU average. High participation in vocational education and training (VET), well adapted to the labour market, and high quality and relevance of VET courses offered are two main factors explaining this success. However, foreign-born students are much more likely to leave school and educational performance continues to be strongly dependent on parents' socioeconomic status (European Commission, 2016).

As a response to the European qualifications framework (EQF) initiative, Austria has designed a national qualifications framework (NQF) with an eight-level structure. It aims to include qualifications from all education and training subsystems and forms of learning (formal, non-formal and informal). After several years of preparation, with intensive involvement of stakeholders and experts, the Austrian Parliament approved the Federal Act on the national qualifications framework ([17]) in March 2016, meaning that the work towards full implementation can start.

Policy objectives

The main objective of the NQF is to map national qualifications, present them in relation to one another, and make implicit levels of the qualification system explicit, nationally as well as internationally. It has no regulatory functions and no effects on professional and other admissions. Its main objectives are communication and transparency.

The NQF's specific objectives are to:

(a) strengthen transparency, understanding and comparability of Austrian qualifications internationally;
(b) promote cross-border mobility;
(c) make formal and non-formal qualifications easier to understand and more visible for Austrian citizens;
(d) improve permeability between formal and non-formal sectors of the qualification system: develop new pathways, open new progression possibilities, and support lifelong learning;
(e) progress the learning outcomes orientation;
(f) promote the European dimension in higher education ([18]).

One important objective of the NQF is to strengthen the links and coordination between different subsystems by highlighting existing pathways and developing new ones to open up new progression possibilities ([19]). The NQF Act is based on the essential principle that mapping qualifications is intended for information and transparency purposes. The NQF is non-regulatory and has no legal effect on vocational and other authorisations.

Levels and use of learning outcomes

The NQF has eight levels. The decision on the number of levels followed broad consultation and a study providing information on implicit hierarchy in the national qualification system, using statistical educational research and statistical frameworks (Austrian Federal Ministry of Education, Arts and Culture and Austrian Federal Ministry of Science and Research, 2011). National qualification descriptions (curricula, training regulations, legal acts) were analysed to feed into preparation of level descriptors: these are defined as knowledge, skills and competence. Reference qualifications are used to illustrate levels of learning outcomes.

([17]) Published in the Federal Law Gazette 14/2016, Part I, issued on 21 March 2016. https://www.ris.bka.gv.at/Dokumente/BgblAuth/BGBLA_2016_I_14/BGBLA_2016_I_14.pdf

([18]) See explanations to the act (in German): https://www.parlament.gv.at/PAKT/VHG/XXV/I/I_00999/fname_498915.pdf

([19]) Further information on these objectives can be found on the Austrian Parliament's on-line service on legal innovations (in German): https://www.help.gv.at/Portal.Node/hlpd/public/module?gentics.am=Content&p.contentid=10007.180581

The learning outcomes orientation is being strengthened across education and training as learning outcomes are central to positioning qualifications in the NQF. Many qualifications are already learning outcomes oriented, but the approach has not been applied consistently across all sectors and institutions and work continues. Several initiatives are designed to strengthen this orientation. In general education and VET, educational standards have been introduced. In general education, core subject areas (German, mathematics and English) are described in terms of learning outcomes.

In school-based VET, learning outcomes are defined in VET educational standards ([20]); this has been implemented in a step-by-step approach in recent years. Educational standards for VET schools and colleges define 'content' (subject and knowledge areas and topics with specified goals), 'action' (cognitive achievements required in particular subjects), and personal and social competences related to a specific field. In March 2009, the General Directorate for VET at the Federal Ministry of Education, Arts and Culture started a project (curriculum design, learning outcomes orientation) which aims to integrate educational standards into VET curricula. Some curricula for VET colleges have been revised and learning outcomes have been developed for each subject and the process continues. There was also a competence-oriented and standardised upper secondary school leaving examination *(AHS-Reifeprüfung)* and *BHS-Reifeprüfung* and *Diplomprüfung* during 2015/16; this aimed to increase transparency and access to higher education ([21]).

In apprenticeship (dual system), a training regulation is issued for each profile by the Federal Ministry of Science, Research and Economy. The regulations are largely written in learning outcomes and are currently under reform to strengthen the outcome orientation of apprenticeship training. Each consists of an occupational competence profile *(Berufsprofil)*, with related activities and work descriptions, and job profile *(Berufsbild)*, with knowledge and skills to be acquired by apprentices ([22]).

In higher education, implementation of the learning outcomes approach is clearly linked to the Bologna process and Dublin descriptors. Higher education institutions have already described their programmes and qualification profiles in learning outcomes (knowledge, skills and competences) established under university autonomy (Cedefop, 2016) but implementation differs across higher education institutions.

Stakeholder involvement and institutional arrangements

From the beginning, the Austrian approach has been characterised by active stakeholder involvement and occasional conflicting views on the NQF's role. The General Directorate for VET at the Federal Ministry of Education and Women's Affairs initiated the process and is responsible for coordinating NQF development and implementation in cooperation with the Federal Ministry of Science, Research and Economy, which is responsible for higher education. Social partner organisations have played an active role in the process (Klenk, 2013).

The NQF Act establishes the governance structure and processes. It defines the responsibilities of institutions and bodies involved in implementation. The Austrian Agency for International Cooperation in Education and Research (*Österreichischer Austauschdiens*t (OeAD)) will function as the main implementation coordinating body. Its tasks include, according to Article 5 of the Act:

(a) the formal and content-related verification of the request for qualification mapping;
(b) keeping a public NQF register with mapped qualifications, including description of a qualification and its learning outcomes, NQF level and the name of the provider;
(c) setting up a list of those with expertise for any content-related verification of requests for qualification mapping.

The NQF Act also envisages two bodies:

(a) the NQF advisory board *(NQR-Beirat)*, consisting of seven experts; this will advise the NQF coordinating body on examination of allocation requests;
(b) the NQF steering group *(NQR-Steuerungsgruppe)*, consisting of 30 members representing all the main stakeholders (all federal ministries, social partners, stakeholders from the different fields of education and Länder). The key task of the NQF steering group is to provide advice to public authorities responsible for education and training and qualifications at all levels, particularly the two coordinating ministries: the Federal Ministry of Education and the Federal Ministry of Science,

([20]) A description of VET educational standards can be found in the project handbook, *Bildungsstandards in der Berufsbildung*. http://www.berufsbildendeschulen.at/fileadmin/content/bbs/Handbuch_BIST_15.10.2015.pdf
([21]) https://www.bmb.gv.at/schulen/unterricht/ba/reifepruefungneu.html
([22]) https://www.bmb.gv.at/schulen/bo/umsetzung/dielehre_18624.pdf?4k99xc

Research and Economy. Further tasks include approval of operational and appeal procedures and content-related issues (such as adoption of the NQF manual). The broad representation is meant to reflect stakeholder interests. One important topic of discussion is opening NQF levels 6 to 8 to non-traditional higher education qualifications, with VET stakeholders on one side and higher education on the other. When the NQF was designed, the consensus was achieved in form of a 'Y-structure' opening the highest qualification levels to those awarded outside higher education institutions. This was very important for parity of esteem of different learning contexts.

Recognising and validating non-formal and informal learning and learning pathways ([23])

A validation strategy has been in development since 2013, with establishment of a working group comprising relevant federal ministries (education, research and economy; families and youth; labour, social affairs and consumer protection; health; defence and sports), social partner organisations (chamber of labour, chamber of commerce), youth organisations (Austrian Youth Association), adult education (Austrian Conference of Adult Education), Universities Austria and Austrian Association of Universities of Applied Sciences. Their work has been strongly linked to development of lifelong learning policies, development of the NQF, and implementation of the European credit system for vocational education and training (ECVET). The 2012 recommendation (Council of the European Union, 2012) has also played a role in establishing the strategy. With the approved NQF Act in March 2016, a second implementation phase on inclusion of non-formal qualifications into the NQF will be developed.

Throughout 2013, criteria and procedures for mapping qualifications from the non-formal learning context (adult education) to the NQF have been tested and simulated. In total, 15 qualifications provided by various adult education institutions have been selected and analysed, focusing specifically on aspects related to plausibility of learning outcomes, validity of the validation procedure, and quality of requests for the mapping of a qualification. Simulation was also used as a chance to test qualifications for 'NQF compatibility' as defined by criteria, such as size and sustainability of qualifications. Results have shown that terminologies need further sharpening (including qualification, qualification provider) and that many institutions awarding non-formal qualifications need further assistance in describing their qualifications in terms of learning outcomes in order to comply with NQF criteria. Results of this simulation will be used to set out procedures, documents, and criteria for mapping qualifications awarded outside formal education. As the draft procedure for mapping qualifications from the non-formal learning context to NQF levels has not been finalised, it will have to be refined after completion of this pilot phase.

A consultation document for the national validation strategy (including key objectives and measures) was published in 2015 and a national consultation process carried out. From this, a national strategy for validating non-formal and informal learning has been drafted and will be expected to serve as the starting point for defining organisational structures and a detailed implementation plan in the first semester of 2017. According to the consultation document for developing the validation strategy, it should be closely linked to the NQF. In the long run, it should also be possible to obtain qualifications mapped to the NQF via validation of non-formal and informal learning.

The national validation strategy intends to provide a platform and framework for development and coordination of the many initiatives that have been devised 'bottom-up' and to provide potential users with an overview of relevant available measures. The national validation strategy brings clarity in terms of concepts and definitions, provides an overview of existing validation arrangements, serves as a basis for developing new initiatives, assuring their quality, and for training and developing professionals. A more coordinated and quality assured approach to validation intends to enhance stakeholder and society awareness of, and trust in, the outcomes of validation practices.

There has been no uniform framework to date for validating and recognising non-formal and informal learning in Austria. Different acts and regulations include mechanisms and arrangements that enable formal education and training institutions (general education, vocational education and training, and higher education) to recognise learning outcomes acquired in non-formal and informal settings (for example, in the context of 'external exams'). Almost all qualifications (from school and dual systems, but not university degrees) can be obtained without participating in programmes or courses, but by passing the relevant exam (as 'externals') as required in the regular system. External exams are theoretically possible in all authorised Austrian

([23]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

education and training institutions for both general education and VET. Almost all certificates and qualifications from formal education – corridor one – (except for university degrees) can be obtained by 'external examination' without obligatory participation in education programmes (such as acquisition of *Hauptschule* qualification by adults, and exceptional admission to the final apprenticeship exam) (European Commission et al., 2016). Validation is also used to obtain exemptions and shorten programmes (such as skipping grades for pupils in general education or VET who demonstrate appropriate achievements, shortening degree programmes at universities of applied science based on recognition of professional experience). There are also possibilities to gain access to higher education programmes in an alternative way. *Berufsreifeprüfung* (BRP) and higher education entrance examination *(Studienberechtigungsprüfung)* (SBP) can both be taken by graduates of specific apprenticeships, VET schools and early leavers of VET colleges that traditionally are not granted university access through their initial education. Preparatory courses for BRP are also offered outside formal education system. It is also possible to acquire certificates/ qualifications without any equivalence in the formal education system: the professional title *ingenieur*; certificates issued by the Academy of Continuing Education in adult education; access conditions to regulated professions; or several other initiatives in the private and voluntary sectors. However, these non-traditional pathways are in limited use.

NQF implementation

The NQF has been formally established and the mapping of qualifications will start in autumn 2016. An important feature of the NQF is that levels 6 to 8 remain open to VET qualifications acquired outside HE institutions. A 'Y-structure' was adopted, introducing parallel descriptors to capture differences between higher education and VET qualifications at these levels. Dublin descriptors are used for qualifications related to Bologna cycles (bachelor degree, master degree, doctorate) and awarded by higher education institutions (universities, universities of applied sciences *(Fachhochschulen)* and university colleges for teacher education *(Pädagogische Hochschulen)*). VET qualifications and qualifications from adult learning ('non-Bologna' strand) will be assigned to the appropriate levels, based on EQF descriptors.

The NQF has been designed to promote transparency and guidance; there is no intention to use it for any kind of regulation. The education system is already highly regulated in terms of what kind of qualifications give entrance to certain education pathways and access to occupations/professions in the labour market. While qualifications in general play an important role in Austria, the term as defined in an EQF context is not used consistently and is sometimes used to refer to 'curricula' or training programmes.

Mapping of formal and non-formal qualifications will follow a similar procedure.

The mapping of formal qualifications follows as:

(a) the responsible federal ministry or Länder government hands in a request for the mapping of a qualification to the national coordinating body – *Nationale Koordinierungsstelle* (NKS), *Österreichischer Austauschdienst* (OeAD) – which performs the mapping of qualifications to NQF levels, involving the advisory board;
(b) the mapping is processed by the steering group;
(c) the process is concluded with the publication in the NQF register.

The mapping process and criteria are further described in the NQF manual (NKS, 2016) adopted by the steering group in September 2016. The first qualifications mappings are expected in early 2017. The following indicators for implementation have been defined:

(a) including major qualifications (such as initial school-based vocational qualifications, apprenticeships and master craftsperson qualifications) by 2018;
(b) alignment of curricula in formal education and training, in particular VET, to learning outcomes orientation by 2020;
(c) increase in cross-border mobility in VET of 20% ([24]).

Referencing to regional frameworks

Austria referenced its national qualification levels to the EQF and self-certified to qualifications framework of the European higher education area in June 2012, preparing one comprehensive report.

Important lessons and future plans

One strength of the Austrian NQF development is involvement and engagement of a broad range of stakeholders, representing all subsystems

([24]) https://www.help.gv.at/Portal.Node/hlpd/public/module?gentics.am=Content&p.contentid=10007.180581

of education and training, as well as the social partners. Now formalised by the NQF Act, this broad group of stakeholders will be engaged in the implementation via the steering group, which includes all federal ministries, social partners, stakeholders from the different fields of education, and the Länder. The NQF aims at improved coordination of a national qualification system that has traditionally witnessed a strong separation between different segments of education, in particular between VET and higher education. Increased transparency of VET and non-formal qualifications is expected.

Austria also sees the NQF as a communication tool to make qualifications transparent and comparable internationally, as well as improving validation of non-formal learning. Integration of non-formal and informal learning, and a broad paradigm shift to learning outcomes, are seen as immediate challenges. Quality assurance and validity of standards will pose new requirements for qualifications providers.

The fact that the NQF was designed to be comprehensive is underlined by the following principles: adopted Y-structure of the NQF; working structure of three corridors; long-term inclusion of general education; and methodologies being developed for inclusion of non-formal qualifications and validation of informal learning (Austrian Federal Ministry of Education, Arts and Culture and Austrian Federal Ministry of Science and Research, 2012).

Table 6 Austrian national qualifications framework

NQF levels	Reference qualifications		EQF levels
8	Doctoral degree *Doktorgrade*		8
7	Master degree *Master- bzw. Diplomgrade*	Master builders *Baumeister* Civil engineers *Zivil Ingenieur*	7
6	Bachelor degree *Bachelorgrade*	Master craftsperson qualification *Meister*	6
5	VET college Reifeprüfung certificate and VET diploma *Reife- und Diplomprüfung der berufsbildende höhere Schule*		5
4	VET school qualification *Abschluss der Fachschule* Apprenticeship diploma *Lehrabschluss*		4
3	Secondary home economics school qualification (two-year course) *Abschluss einer Hauswirtschaftsschule*		3
2	Secondary home economics school qualification (one-year course) *Abschluss einer Haushaltungsschule* Prevocational school qualification *Abschluss der Polytechnischen Schule*		2
1			1

Source: Austrian EQF referencing report, supplementary information (Austrian Federal Ministry of Education, Arts and Culture and Austrian Federal Ministry of Science and Research, 2012).

Further source of information

The Austrian NCP was set up as an organisational entity at OeAD: http://www.oead.at/nqr

Abbreviations

BMBF	*Bundesministerium für Bildung und Frauen* [Austrian Federal Ministry of Education and Women's Affairs]
BRP	*Berufsreifeprüfung* [examination providing access to higher education for skilled workers and graduates of three- and four-year full-time VET schools]
EQF	European qualifications framework
SBP	*Studienberechtigungsprüfung* [higher education entrance examination]
NQF	national qualifications framework
OeAD	*Österreichischer Austauschdienst* [Austrian Agency for International Cooperation in Education and Research]
VET	vocational education and training

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BANGLADESH

Introduction and context

The national technical and vocational qualifications framework (NTVQF) is currently being established in Bangladesh. It was initiated in 2008 as one of the most important building blocks of the technical and vocational education and training (TVET) reform project, funded by the European Commission (EC) and implemented by the International Labour Organisation (ILO) in collaboration with the Government of Bangladesh ([25]) (Ministry of Education, 2011).

The NTVQF covers the existing workforce and those entering the workforce. The framework allows for recognition of skills workers have acquired in the informal sector, and includes post-secondary qualifications up to diploma level. The new qualifications are offered in formal education and training, as well as workplace training and all training provided by public and private organisations (Ministry of Education, 2011).

Bangladesh has a large informal economy. Three quarters of the population is rural while about a third of people live below the international poverty line. This means that every third person is struggling every day to survive.

Bangladesh is highly dependent on the remittances migrant workers send back to the country: these are the largest source of foreign capital (Ministry of Education, 2011). Numerous government reports and industry bodies have called for improvements to Bangladeshi workers skill levels so that the value of these remittances will increase (BMET, 2008).

The technical and vocational education and training sector (TVET) is beset by a number of difficulties: insufficient quality assurance; lack of autonomy for training centres to adapt courses to local needs; overly rigid traditional school-based curricula and vocational standards; excessively long course durations; lack of continuing professional teacher training; lack of access to skills for underprivileged groups; lack of regulation and certification of informal apprenticeships; and insufficient recognition of existing skills and informal learning, preventing labour mobility. The government recognises that these shortcomings lead to a serious wastage of skills in the economy (Ministry of Education, 2011).

At present, underprivileged young people and adults are most of the workforce in export-oriented industries (such as the garment-making business, light engineering, electronics, construction, services and transport), where they frequently underperform or remain underemployed because they lack the requisite skills (ILO/Mia, 2010).

Policy objectives

The NTVQF, an essential component of the government's National skills development policy (Ministry of Education, 2011), is intended to accomplish a wide range of TVET reform goals, the introduction of competency-based training and assessment, and quality assurance. The NTVQF aims specifically to:

(a) expand the number of qualifications available to reflect the changing occupational and skills profiles in both domestic and international labour markets;
(b) support stronger integration of skills training in community organisations, schools, training institutions and the workplace by providing a common national benchmark for qualifications up to, but not including, university degrees;
(c) provide formal recognition of workplace skills obtained in both the formal and informal economies;
(d) improve employability skills and increase their productivity;
(e) provide a new benchmark for international recognition of the skills and knowledge of Bangladeshi workers, who are recognised as an increasingly important export for the country;
(f) introduce consistent naming of credentials for formal skills-based education and training;

([25]) Ministry of Education in coordination with the Ministry of Labour and the Ministry of Overseas Employment and Expatriate Welfare.

(g) encourage employers to participate in the development of the national qualifications framework (NQF);
(h) improve the alignment of formal training programmes with industry requirements;
(i) support lifelong learning by providing recognised pathways for workers to raise the level of their knowledge and skills throughout their working lives and beyond (Ministry of Education, 2011).

The NTVQF is aligned with other broader national policies for the expansion of TVET opportunities at post-primary level, focusing on improving the employability and income level of adolescents, young people and adults (of both sexes), child labourers, those with low levels of literacy, and those in rural areas (ILO, 2009). These other national policies are the National education policy 2010, the Non-formal education (NFE) policy of 2006, the National youth policy (2003), the National workforce strategy of 2008 and the National skills development policy (Ministry of Education, 2011).

Levels and use of learning outcomes

The national technical and vocational qualifications framework consists of six levels plus two pre-vocational levels, making it an eight-level framework (Table 7). The six main levels focus on knowledge, skills and responsibility. The table also illustrates the relationship of the NTVQF to the existing qualifications structure.

The two pre-vocational levels cater to the underprivileged and low-educated groups in society who have not completed eight years at school (eight years' schooling is the minimum to gain entry into a vocational training institute) and who lack the basic literacy and numeracy skills necessary to enter the lowest level of the qualifications framework. The following five levels, NTVQF 1-5, lead to certificates that closely align with existing TVET programmes for school students. Under the NTVQF, registered training organisations (RTOs) will also be able to conduct training for specific units of competences.

In general education, a new system of dual certification will be introduced so that students who achieve the skills component of vocational education programmes will receive an NTVQF qualification in addition to, and separate from, the school qualification (NSDP, 2011).

Table 7 Bangladesh national technical and vocational qualifications framework (NTVQF)

NTVQF levels	Pre-vocational education	Vocational education	Technical education	Job classification
NTVQF 6			Diploma in engineering or equivalent	Middle-level manager
NTVQF 5		National skill certificate 5 (NSC 5)		Highly skilled worker/ supervisor
NTVQF 4		National skill certificate 4 (NSC 4)		Skilled worker
NTVQF 3		National skill certificate 3 (NSC 3)		Basic-skilled worker
NTVQF 2		National skill certificate 2 (NSC 2)		Basic-skilled worker
NTVQF 1		National skill certificate 1 (NSC 1)		Basic worker
Pre-Voc. 2	National pre-vocational certificate NPVC 2			Pre-vocational trainee (2)
Pre-Voc. 1	National pre-vocational certificate NPVC 1			Pre-vocational trainee (1)

Source: National skills development policy (Ministry of Education, 2011).

Stakeholder involvement and institutional arrangements

The National Skills Development Council (NSDC), which replaced the old National Council for Skills Development and Training in 1979, oversees and monitors all skills development initiatives, including the NTVQF, particularly in relation to its market-responsiveness. The Bangladesh Technical Education Board (BTEB), under the direction of the NSDC, is the major implementing authority for the NTVQF and is responsible for its periodic review. To safeguard the integrity of the NTVQF, the technical education regulations of 1975 will be revised to ensure that the BTEB is empowered to take action against private training organisations that inappropriately use either the new NTVQF qualification titles or the nationally recognised training logo.

Competency-based courses are registered with the BTEB. Major government line ministries have now accepted the NTVQF as a model for future development of qualifications and have made moves to change their old curriculum-based courses into fully recognised competency-based ones.

Recognising and validating non-formal and informal learning and learning pathways

Many Bangladeshis have not completed grade 8 of general education and, as a result, are not able to enrol in formal skills programmes. In order to overcome this barrier, the government will work with its partners to introduce reforms to remove the grade 8 prerequisite from formal courses and replace it with course-specific entry requirements and testing. Workers will need to demonstrate that they have the knowledge required to be admitted to their chosen courses; the NTVQF will allow those with limited education to undertake formal courses leading to nationally recognised qualifications.

The NTVQF is associated with the existing qualifications structure, which permits transfer between general education and TVET. Students who fail the academic component of the senior secondary school certificate (SSC; vocational) or higher secondary school certificate (HSC; vocational) may nevertheless be assessed as competent in the national skills certificate (NSC) of the NTVQF. They will receive the appropriate NSC award and can continue their studies to gain national skills certificates at higher NTVQF levels. Vocational education programmes in schools such as the SSC (vocational), the HSC (vocational) and the HSC in business management (BM) will be revised to ensure that their vocational components are based on industry competency standards, and that students only receive NTVQF qualifications if they have been assessed as competent. Pre-vocational level 1 and 2 will be available in all training institutions to encourage students with low education levels to enter skills training courses.

The NSDC, with the support of the BTEB, is improving skills levels in the informal economy. A project on the recognition of prior learning has been implemented in coordination with the ILO and has increased access to TVET for underprivileged groups.

The NTVQF provides a uniform framework for establishing course assessment requirements and entry points. Recognition of prior learning (RPL) has resulted in recognition of competences gained but not previously recognised in the informal sector of the Bangladeshi economy. This provides participants with opportunities to enter formal sector employment that had previously been unavailable, offering access to both employment and qualifications or credits towards them (especially given grade 8 requirements to access formal skills courses). The informal sector portfolio system, called the competency log book, has also been introduced. This documents evidence of competences using master craftspeople, technical training and skills centres, and NGOs as assessors, and incorporates reasonable adjustment processes for informal sector workers.

Skills acquired through informal and non-formal training have been identified since 2011 and BTEB has started assessment through RPL with the support of several projects. It is expected that ultimately at least 200 000 people will have their skills recognised per year. Trainers are equipped to identify and assess new students for skills they already possess and to support them through the RPL process. Assessment centres are available in a number of locations; some stand alone, others form part of existing TVET institutions. Seventy-five per cent of government training institutions have been restructured to offer flexible learning options through evening courses.

A number of host countries now recognise NTVQF qualifications, and skilled workers returning to Bangladesh are offered RPL assessment to recognise any new skills they have gained overseas. This removes barriers for skilled workers who want to migrate overseas and for those who wish to move back to Bangladesh. Under the 'ladderisation' system, these skilled workers receive either a formal qualification or credit towards one. The processes of workplace learning, recognition of learning, and certification can be repeated in several

cycles until the skilled worker reaches a supervisory role. This 'ladderisation' system will be based on modularised, competency-based training within the NTVQF (NSDP, 2011).

It is hoped that public sector training will change greatly. Job announcements are now required to list opportunities for training and promotion; this includes general TVET-level qualifications in management, planning, leadership, budgeting and communication. Many of the 115 TVET institutions under the Ministry of Education (MoE), and assessment centres, either have achieved RTO status or are in the process of doing so. Private providers affiliated with the BTEB will be required to offer RPL to all prospective students.

NQF implementation

The Government of Bangladesh is committed to working with the ILO and the European Union to further develop the NTVQF. The ILO is working in coordination with the Directorate of Technical Education (DTE) and the Bureau of Manpower Employment and Training (BMET) as well as several NGOs. These organisations are now familiar with the NTVQF. A new project, B-SEP, supported by the Government of Canada with the Canadian International Development Agency (CIDA), will expand implementation of the NTVQF into another four industry sectors.

The NTVQF was developed through a series of consultations and meetings in late 2008 and 2009, with a number of reference documents being produced by the TVET reform project. At present, 12 industry skills councils (ISCs) have contributed to establishing standards and technical committees, and have developed measurable quality benchmarks for domestic and international recognition. ISCs are responsible for aligning skills needs in accordance with NTVQF levels and occupations. They are also responsible for the skills data system, which has been operational for three years and enables training institutions to prioritise courses with high industry demand.

Approximately 50% of training providers are registered with the BTEB and are delivering traditional vocational courses. Recently, the BTEB established NTVQF courses in many occupations and also introduced a competency-based qualification for coaching trainers. Now, industry-based trainers are for the first time outnumbering TVET institution-based trainers. The BTEB also has responsibility for the Skills Quality Assurance System and reports to the NSDC. Private training providers which wish to issue nationally recognised qualifications under the NTVQF must be registered and accredited under the new Bangladesh skills quality assurance system (Ministry of Labour and Employment, 2013). The NSDC will work with key institutions, including the National Productivity Organisation (NPO) under the Ministry of Industries, to ensure that skills upgrading translates into high-performance work practices and improved productivity.

Referencing to regional frameworks

The experts and consultants who worked on the NTVQF project claim that it draws on similar frameworks in Sri Lanka and the Maldives; together with Bangladesh these are members of the South Asian Association for Regional Cooperation (SAARC). The NTVQF is also similar to the frameworks of Vanuatu and Malaysia (ILO/Mia, 2010, p.30).

Important lessons and future plans

The present NTVQF initiative is a significant step towards meeting national goals for poverty reduction and economic development. It supports a nationally consistent and transparent system for skills training and qualifications that is acceptable for both national and international employment.

The NTVQF has generated enthusiasm among stakeholders – which include not only government and NGOs but also industry skills councils – despite some initial scepticism about going to scale (full implementation across all occupations, curricula and institutions) (ILO/Mia, 2010). Bangladesh plans the following key steps to implement the NTVQF:

(a) create awareness-raising and social-marketing campaigns to promote the NTVQF for industries and parents of secondary school students;
(b) include relevant targets from policy review sector papers (PRSP) in the NSDC action plan, the most important component of which is the NTVQF. Among the targets are that TVET students should comprise 20% of all secondary school students, that total enrolment in TVET should increase by 50%, and that women's enrolment should increase by 60%;
(c) formulate a new approach to the management of skills development, including a skills-development investment plan that clearly links the NSDC action plan (including the NTVQF) to government budget allocations (Ministry of Labour and Employment, 2013).

Abbreviations

BTEB	Bangladesh Technical Education Board
BMET	Bureau of Manpower Employment and Training
CIDA	Canadian International Development Agency
DTE	Directorate of Technical Education
EC	European Commission
HSC	higher secondary certificate
ILO	International Labour Organisation
ISCs	industry skills councils
MoE	Ministry of Education
NSC	national skills certificate
NSDC	National Skills Development Council
NPO	National Productivity Council
NTVQF	national technical and vocational qualifications framework
PRSP	policy review sector papers
RPL	recognition of prior learning
RTO	registered training organisations
SAARC	South Asian Agency for Regional Cooperation
SSC	sector skills council
TVET	technical and vocational education and training

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BELARUS

Introduction and context

NQF snapshot

The national qualifications framework (NQF) is not yet established by law; instead, a decree provides for development of its principles and some testing.

The pilot NQF has eight levels that follow the structure of the European qualifications framework (EQF). There are three domain descriptors for learning outcomes: knowledge (theoretical and/or practical); skills (cognitive and/or practical); and the level of responsibility and degree of autonomy.

Belarus joined the Bologna process during the Yerevan Ministerial Meeting in May 2015. It is in an initial stage and has not gone beyond piloting and development of some principles.

Educational, social, economic and political context

The population of Belarus is just under nine and a half million and is predominantly (three-quarters) urban ([26]). The country is aging, and the population is in decline, putting pressure on younger generations. Due to relatively lower wages in comparison to most of its neighbours, migration has aggravated this decline. Internal migration from the countryside to cities has also contributed to lower birth rates.

The Belarusian labour market is characterised by low levels of unemployment and a decreasing labour force. Those of working-age still make up 60% of the total population but this is in decline and labour shortages are increasing. The employment rate is over 80%, while 6.7% of the workforce is over the retirement age. Unemployment is low but slowly increasing among older workers, as jobs are being automated. Assignment of the labour force to certain jobs and labour demand forecast based on vacancies continue from Soviet times. The practice of placing vocational education and training (VET) graduates in State enterprise jobs also still exists. The problem is not that people cannot find jobs in their field of specialisation, but the skills of the labour force are not sufficiently developed to support innovation in the economy and help make it competitive at a global level.

Between 2000 and 2008, national GDP grew more than 8% per year, but the crisis affected exports and only from 2012 has the economy seen modest growth. The principal contribution to GDP comes from industry and trade, particularly with Russia, that is also dealing with economic recession. Given the dominance of State-owned enterprises, the private sector, and especially small and medium-sized enterprises, remain marginalised.

Belarus seems to be caught in a middle income trap': the economic growth in the country becomes slower and eventually stops after reaching middle-income level. To overcome this situation the country is shifting to a strategy of innovation and search for new market outlets to fuel rise in exports, as well as growth in domestic demand. The biggest challenge is to make a transition from growth focused on resources and depending on a low-cost labour and capital, to growth based on high-rate productivity and innovation. This requires investment in infrastructure and education.

The current qualification system builds on the tariff system inherited from the Soviet Union, regulating both education and labour market requirements. The system is not flexible enough in empowering the mobility and career development that are crucial for reallocating and adapting labour resources to changing labour market requirements. Qualifications under the current system are a tool for labour market regulation and a guarantee to a certain category of jobs and lifelong job security. To upgrade the workforce, qualifications need to become more an instrument for career development and lifelong learning, for constant adaptation to new conditions, for more self-reliance and a passport to different types of jobs. Many elderly workers may need substantial requalification to keep them active longer. The Belarus qualification system needs to be brought more in line with international practices,

([26]) Data in this section are from the ETF Torino process report 2016-17, Belarus.

while also building on its traditional strengths. The proposed reforms are far-reaching, but should be implemented gradually.

Policy objectives

Education and training reforms

Two linked developments are driving the introduction of a national qualifications framework (NQF) to reform the existing national qualification system:

(a) the reform of the existing qualification system based on the general State classifier of the Republic of Belarus *For worker professions and the job titles of employees*; the unified tariff qualification system which was inherited and adapted from the Soviet Union;
(b) the Bologna process for the establishment of the European area for higher education.

The current unified tariff qualification system, with its classifiers of occupations and job-titles, its handbooks of qualification characteristics, its list of education programmes and specialisations that are all linked, are seen as too rigid for an innovation-based economy. In this, routine jobs will be automated and all jobs more digitalised, the labour force will need to be specialised at a higher level to add value, will be less dependent on the State and more autonomous. The changes will be gradual and are foreseen in two phases of the national strategy for a sustainable social and economic development towards 2030, with a developmental stage until 2020 and an implementation phase between 2020 and 2030.

The first steps towards a NQF in Belarus started in March 2010. Under the mandate of the Council of Ministers of the Republic of Belarus, an interagency working group was established, comprising 17 government bodies, as well as experts and representatives of employers. With the establishment of this interagency working group, new momentum has been created for conducting the necessary research and preparation work before adopting decisions at State level. This group worked in 2011-12 on a conceptual terminological framework of the national qualifications system and produced draft recommendations on the following topics:

(a) national qualifications framework development;
(b) sectoral qualifications framework development;
(c) occupational standards development;
(d) the development of the national assessment and certification system for education outcomes.

In May 2011 the Ministry of Labour and Social Protection prepared a draft action plan for implementation of the proposals of the interagency workgroup for transition to a national qualifications system, taking into account the experience of the European Union. The government declared its intention in 2012 to develop an NQF.

The action plan of the Ministry of Labour and Social Protection for 2011-15 included:

(a) a pilot project on the improvement of the national system of qualifications;
(b) development of the draft NQF and preparation of proposals for its approval.

The same action plan included measures for developing information and analytical materials on professions and qualifications structure, on anticipation of demand in regional labour markets, and the structure of vocational education supply. In 2013 the National Research Institute of Labour under the Ministry of Labour and Social Protection of the Republic of Belarus prepared a national innovation project *Development of the national qualifications framework*. The European Training Foundation (ETF) supported the Institute of Labour in 2013 in piloting the establishment of the sector skills councils, including preparation of the main statutory documents and supervising the first phase of the establishment and operation of the sector skills councils.

On 17 January 2014 the Council of Ministers issued Decree No 34 *On some key aspects to develop the national qualification systems of Belarus in pilot sectors*. According to the decree, the Ministry of Labour and Social Protection should test and develop the new elements of the national qualifications system. At the end of 2015 the *Innovation* project presented its final report, including a roadmap for implementation that has not yet been adopted. Further testing work is foreseen with the support of the EU project *Employment and vocational education*, while some elements (occupational standards) have already been gradually introduced.

After a failed attempt to join the Bologna process in 2009-12, Belarus was admitted in May 2015 at the Yerevan Minister's meeting. A roadmap was established: introduction of the NQF; phasing out of the existing *baklavr*/specialist degree of five years and replacing it with a 180 to 240 ECTS degree; establishment of an independent quality assurance agency; full implementation of the Lisbon Recognition Convention; curriculum reform, based on learning outcomes and the implementation of ECTS in accordance with the new guidelines; issuing diploma supplements; and introduction of

validation of non-formal and informal learning. The roadmap is monitored by the Bologna follow-up working group and the Council of Europe.

International cooperation

The Bologna process is one of the main drivers for the development of the NQF and should ensure an NQF that is in line with the qualifications framework for the European higher education area (QF-EHEA). A Belarus roadmap for higher education reform was adopted during the Yerevan Ministers' conference ([27]), committing the government to higher education reform in accordance with the values, principles and goals of the EHEA in full respect of the powers of the government, the national parliament, higher education institutions, and other stakeholders. A coordination group, representing stakeholders from Belarus and the Bologna follow-up working group, monitors implementation of the roadmap. A draft NQF has been developed, providing for the three-cycle system intended to bring higher education degrees fully in line with the QF-EHEA, including the use of ECTS and diploma supplement. Implementation is, however, behind schedule. Formal reporting is due at the next Bologna ministers' meeting in 2018.

The European project *Employment and vocational education*, that should start early 2017, foresees support for developing a regulatory framework for NQF implementation. This foresees reviewing existing legal provisions, including regulations on State education standards, assessment, quality assurance and certification, and testing the NQF through a set of new VET qualifications developed using 45 occupational standards from four strategic economic areas for which sector skills councils will be established. The occupational standards will be translated into new curricula, and should support validation of non-formal and informal learning trials. A lifelong learning strategy is also foreseen to be developed to contextualise the implementation of the NQF beyond the current formal education system.

The mobility partnership signed in October 2016, includes recognition and validation of skills and qualifications, and proposes cooperation to permit mutual recognition of vocational and academic qualifications; it also looks to develop curricula that support recognition of respective qualifications. The annex of the mobility partnership mentions supporting Belarus in improving the quality and transparency of its qualifications: consultation in developing a national qualifications framework; linking it with that of the European area for higher education and the European qualifications framework; and applying the subsidiary text to the Lisbon Convention recommendation on the use of qualifications frameworks in the recognition of foreign qualifications. It also mentions other support: improving qualifications based on learning outcomes, occupational standards and sectoral qualifications frameworks; improving assessment, certification and quality assurance processes within the reform of the broader national qualification system; and raising awareness of the European qualification framework and other European transparency tools, as well as of Member State recognition procedures, among stakeholders.

One of the objectives of including the Republic of Belarus in WorldSkills in 2014 was to synchronise national and international qualifications and to make a realistic assessment of the level of preparation of young professionals. Although the WorldSkills standards specifications have been defined for best performers participating in international competitions they will also have an impact on vocational qualifications in Belarus.

Levels and use of learning outcomes

Scope and structure of NQF

The NQF (for pilot sectors) is described in the annex to the Cabinet of Ministers' Decree No 34 of 17 January 2014 *On some questions on the development of the national qualifications system in the Republic of Belarus* ([28]).

Alignment to other classification systems

On 17 January 2014 the Council of Ministers issued Decree No 34 *On some key aspects to develop the national qualification systems*. It stated that the Ministry of Labour and Social Protection should test and develop new elements of the national qualifications system, including development of sector qualifications frameworks, in pilot economic sectors in accordance with the NQF. In line with the decree, the NQF has been tested to define the level of pilot occupational standards. The NQF should become an integral part of the national qualifications system, but it is not clear whether NQF levels will replace or coexist with current wage levels (*razryadi*). The National strategy for the socioeconomic development of Belarus 2030 (2015)

([27]) http://bologna-yerevan2015.ehea.info/files/Roadmap%20Belarus_21.05.2015.pdf

([28]) http://www.pravo.by/main.aspx?guid=3871&p0=C21400034&p1=1.

mentions changes in the national qualifications system in line with EQF principles, but does not refer to a NQF. The NQF is mentioned in the roadmap for the implementation of the Bologna process agreed in 2015.

NQF levels

The pilot NQF has eight levels that follow the EQF structure, with three domain descriptors for learning outcomes: for knowledge (theoretical and/or practical), skills (cognitive and/or practical) and the level of responsibility and degree of autonomy. Although the decree also foresees the development of sector qualifications framework, the two pilot sectors have been using the draft NQF descriptors for defining levels. The structure has not been tested beyond the *Innovation* project.

Types of qualification in NQF

The allocation of qualifications by type to the NQF levels is purely indicative: no levels have yet been attributed. The NQF has been used to formulate occupational qualifications standards in IT and management but no certificates for these have been issued.

Use of learning outcomes

The education system is gradually beginning to introduce competence-based approaches in selected curricula. There is growing understanding among the policy-makers and practitioners that the education system needs major refocusing on results and that quality and relevance should drive the VET modernisation agenda. Introducing the learning

Table 8 Type of qualifications in Belarus NQF

NQF levels	General education	Vocational and technical education	Secondary special education	Higher education	Post-university training	Adult learning
1						
2						
3	Certificate of general basic education					
4	Certificate of general secondary education (*)	Diploma of qualification work	Diploma work with middle special education			
5			Diploma of specialist with special secondary education			
6				Diploma of specialist with higher education/ bachelor		
7				Diploma master *Magister*		
8					Diploma PhD Diploma doctor of sciences	

(*) The location of the certificate of secondary education at level 4 NQF is in accordance with the recommendations of the Bucharest communiqué 2012. Full secondary education lasts 11 years in Belarus rather than 12 years or more in most Bologna countries.

outcomes approach remains a major challenge for the system in the coming years. Some modern VET and higher education standards have introduced learning outcomes but they do not reflect fully a competence-based approach. The concept of learning outcomes is not used consistently in the different pilots. The pilot occupational standards developed in the *Innovation* project provide different descriptions of competences and of qualification standards. In the standards for general secondary education there is no mention whatsoever of learning outcomes, nor of key competences. Learning outcomes should inform assessment criteria and assessment approaches. The ETF and the Council of Europe stated in 2016 that capacity-building on how to formulate and use learning outcomes must be a priority.

Definition of qualification

The General State classifier of the Republic of Belarus 011-2009 on specialities and qualifications (part 3) uses the following definition: 'qualification is the preparedness of a worker to perform professional activities for executing a job of a certain degree of complexity in the framework of a specialisation or direction of specialisations'.

The following examples of qualifications are given in the General State classifier (Table 8): teacher, philologist, electrical engineer, mechanical engineer.

The *Labour code of the Republic of Belarus* (p.1) describes a qualification as follows: 'qualification is the level of general and specialised preparation of a worker, confirmed by the appropriate legal type of document (credential, diploma, certificate, etc.)'.

The labour code uses the term 'academic qualification'; the classifier the term 'professional qualification'.

Although the labour code is clearly referring to credentials and awards, qualifications are still more associated with occupations than with awards.

Qualification standards

State education standards set the requirements for each individual qualification. The *Innovation* project planned the development of occupational qualification standards, but they have not yet been used to assess and certify individuals.

Development process of qualifications

Traditionally, State education standards set the requirements for certification. Standards for vocational and higher education are based on qualification characteristics developed for occupations in the classifier of occupations. Occupational standards are generally seen as the new starting point for developing State education standards, but there is not yet a new concept in place for State education standards. Different approaches are tested to involve representatives from the world of work more in renewing vocational and higher education standards, but so far there is no consolidated new approach in place.

Access, progression and credit

Seamless progression is only a principle for people in the education system. Lifelong learning as a notion is known in Belarus but its actual meaning requires further development and practical implementation measures. The education code uses terms such as 'additional adult education' and 'post-university education'. Additional adult education includes 14 types of education programmes. Non-formal education is gaining importance beyond formal education provision.

The education code guarantees access to education to all citizens, but access to higher education is regulated. It also states that progression and continuity of levels and degrees within initial education is guaranteed. Graduates of full-time vocational education can continue to post-secondary and higher education but will have to pass entrance exams. Government executive bodies define national demand for trained specialists, with particular attention to economic, educational and social policy perspectives. The existing university admission system allows applicants to be selected on a competitive basis.

Since 2008, ECTS has been in use in higher education but does not yet follow the new ECTS guidelines that make a stronger connection to learning outcomes. Scientific research is undertaken to explore the possibilities of introducing a credit system for VET.

The NQF is foreseen as an integral part of the national qualification system. The tariff qualification system regulates both educational achievements and the labour market. In future, the national qualification system should support more flexible opportunities for career development and lifelong learning. Part of the process addressed in this context is development of standard cards for professional development and career growth for workers.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The current legal status of the NQF is provisional. On 17 January 2014 the Council of Ministers issued Decree No 34 *On some key aspects to develop the national qualification systems* to test and develop new elements of the national qualifications system, including:

(a) establishment of sector councils for qualifications;
(b) development of sector qualifications frameworks in accordance with the national framework of qualifications for the pilot economic sectors;
(c) development of occupational standards;
(d) development of standard cards for professional development and career growth.

The decree stated that the Ministry of Labour and Social Protection should ensure coordination of sectoral councils for qualifications and provide methodological support for their work.

No final decision has been taken following testing. The NQF has been tested to define the level of pilot occupational standards but only for the levels 5 to 7.

The National strategy of sustainable social and economic development of Belarus 2030 (2015), mentions changes in the NQS in line with the EQF principles, but does not refer to a NQF. The NQF is mentioned in the roadmap for the implementation of the Bologna process agreed in 2015. The European project *Employment and vocational education*, which started in March 2017, foresees support for developing a regulatory framework for NQF implementation, including reviewing existing legal provisions.

Once approved, the national qualification system will need to be embedded in education and labour legislation. The EU project *Employment and vocational education* will review existing legislation to assess what will need to change. This could well lead to changes in the education and labour codes.

Governance and institutional arrangements for the NQF

The lead role for the *Innovation* project was with the Ministry of Labour, while the Institute of Labour was in charge of coordinating the implementation and preparing a proposal for the new national qualification system. Further development of the NQF in the above EU project should also be coordinated by the Ministry of Labour and Social Protection in agreement with the Ministry of Education and the Ministry of Economy. The lead for the Bologna process is the Ministry of Education and stakeholders from the higher education sector. There is a roadmap for reforming higher education, developed to prepare Belarus for the European area of higher education as agreed in the Yerevan Ministers' conference. An advisory group is assisting the Bologna follow-up working group in monitoring the implementation.

Roles and functions of actors and stakeholders

The main instrument for testing and elaborating the NQF is the EU project *Employment and vocational education*. This foresees that development of the national qualifications system is coordinated with the Ministry of Labour and Social Protection in agreement with the Ministry of Education and the Ministry of Economy, and includes:

(a) review of the proposed NQF;
(b) referencing new qualifications to NQF levels;
(c) development of an implementation plan with allocation of roles/functions of different actors;
(d) support to a methodical centre for national qualifications system development to be established by the Ministry of Labour;
(e) development of a regulatory legal framework on the implementation of the NQF;
(f) reviewing the existing template of State education standards for vocational education;
(g) setting down uniform terminology;
(h) integrating the levels of vocational technical and secondary (specialised) technical education;
(i) reformulating individual study programmes in line with a learning-outcome-based approach;
(j) piloting the new standards and training programmes in selected schools and companies;
(k) identifying key competences and developing recommendations on their inclusion in all qualifications.

Social partnership in vocational education, albeit prioritised in Belarus's policy documents, is still unsystematic. Cooperation is limited to involving employers and other stakeholders in developing occupational standards and curricula. Following the experiment in the *Innovation* project for ICT and management, sector skills councils will be introduced in four economic sectors (services, machine building, construction and energy (renewable energy sources & environmental protection)). The idea is to establish sustainable structures that can support productive dialogue between the world of work, decision-makers and the education system.

The Bologna roadmap is overseen by the Bologna follow-up group, helped by an advisory group which meets every six months. The group includes three representatives from stakeholders in Belarus, the European Commission, the Council of Europe, the Bologna Secretariat, the European Student Union, and from several countries that participate in the Bologna process. The group works on implementing the roadmap in cooperation with national authorities, regularly reviewing the plans for higher education reforms, building on stages set in the roadmap. It assists the authorities both with the roadmap and development of individual areas of education policy; it also provides expertise, promotes cooperation and keeps the Bologna follow-up working group updated on progress.

Quality assurance of qualifications

Quality assurance systems have developed considerably during recent years. Different processes are in place to accredit providers' capacities to deliver specific programmes. Compliance of provision with education standards is an important part of the system, both in VET and higher education; quality assurance builds on internal self-assessment processes in providers with considerable autonomy. For teachers, qualification requirements help career development and their performance is regularly assessed. Learning outcomes are not yet playing an important role in quality assurance processes. Quality assurance is a very important part of the EU project *Employment and vocational education* that aims to improve quality assurance measures for VET qualifications and VET provision.

The Roadmap for the Bologna process foresees an independent quality assurance agency, to be legislated in 2017.

Recognising and validating non-formal and informal learning and learning pathways

There is currently no systemic provision for recognising and validating non-formal and informal learning. Unfortunately, it is not yet clear how such learning can be recognised. Lifelong learning is a policy aim in national strategies, but current legislation only regulates formal education. Existing education standards do not support validation of non-formal and informal learning (VNFIL) and there are few occupational standards. It is not clear who could perform the recognition of non-formal and informal learning, nor is it clear if the NQF will include qualifications outside the formal system. There is an active community of adult learning providers in Belarus that is very interested in obtaining recognition for non-formal education.

There is a clear link between VNFIL and the national qualification system. In the roadmap for the Bologna process it is stated that by the end of 2015, Belarus should develop a plan for the recognition of prior learning and implement the plan by the end of 2017. It was included within the government's reform plans and the Institute of Labour has formulated a proposal for the formation of a system of independent assessment and certification of qualification that includes the validation of non-formal and informal learning. The proposal has not yet been adopted and is not available in the public domain. Further scoping work is foreseen in the EU project *Employment and vocational education*.

NQF implementation

The main instruments for developing the NQF are the EU project *Employment and vocational education* and the Bologna process. Mechanisms to monitor the effectiveness of NQF implementation, other than monitoring of the Bologna roadmap by the advisory group have not yet been defined.

Inclusion of qualifications in a register

A single register of the NQF is not yet foreseen. Existing qualifications are still regulated through different classifiers that are part of the tariff qualification system.

Monitoring, evaluation and review of the NQF

No evaluation has yet been conducted, given the early stage of NQF development.

Impact for end-users

The NQF is not yet being used as a reference system or tool by end-users.

Referencing to regional frameworks

Belarus joined the Bologna process during the Yerevan Ministerial Meeting in May 2015. An ambitious roadmap has been developed to ensure rapid progress to join the qualifications framework of the European higher education area (QF-EHEA) by 2020, but progress so far is not in line with this roadmap. The pilot NQF in the *Innovation* project was similar to the EQF in terms of descriptors and levels. The NQF and EQF are mentioned as references in the annex of the mobility partnership signed in October 2016.

Important lessons and future plans

Belarus is advancing in developing a new qualification system but progress is difficult to monitor as work is confined in smaller circles. The *Innovation* project, based on Decree 34 of 17 January 2014, and which laid the basis for testing the NQF and other elements for the national qualification system has been completed, but has not resulted yet in the adoption of a new concept for the national qualification system. Given the narrow scope of the *Innovation* project, this may not be surprising but there are results that would be worth sharing with a wider group of stakeholders.

There is a vision of a modernised qualification system in the mind of the limited group of people involved in developments so far. There is a draft concept of the qualifications system and a draft complex plan for 2015-20, but these documents are not discussed. However, Belarus has joined the Bologna process and a roadmap for the process in the country has been agreed, and is monitored and supported by an international advisory group, reinforcing the urgency for wider reforms. The European project *Employment and vocational education*, which started in March 2017, provides a new framework for further developments that will be supported with international expertise.

There are still many open issues on the scope of the qualification reforms and on finding the proper balance between national traditions and international practices. This should ensure a viable system, supporting gradual modernisation of the qualification system within a lifelong learning context, and aiding the upgrading and flexible allocation of increasingly scarcer human resources. The modernised national qualifications system should facilitate job mobility, with the qualification becoming a passport to different jobs, rather than a licence to practise.

Reform of the qualification system is not only about finding technical solutions to new challenges: it will require active participation of many stakeholders at different levels to be successful. To mobilise them, it is important that the strategy and implementation roadmap are completed, shared and discussed so that stakeholders can get an understanding of the general directions and the goals and different phases, without prescribing the precise methodologies to be used.

Capacity building on formulating and using learning outcomes is important in gradually becoming more familiar with them. These learning outcomes need to include transversal skills (key competences) as well as occupation-specific skills. With the upcoming reforms, there is a need to ensure terminology reflects new concepts and approaches, so that they are understood in a coherent way among stakeholders. The available information could be shared via websites. Many elements are covered by the European project *Employment and vocational education*, which will function as a testbed, but developments have to extend beyond the project if system-wide implementation is to start in 2020. This will include reaching out to representatives of the world of work, which had only limited involvement in defining qualifications so far, and preparing education providers, by involving them from an early stage in designing the new system. There is ample international experience, showing that the only way to ensure that capacities for reform across the system will be there, is starting to work with whomever is available, irrespective of their current capacity to contribute.

The Ministry of Labour manages policy coordination in cooperation with the ministries of education and economy. However, experience shows that the creation of a lead body can help to speed up development and implementation. The role of this body is not scientific but to coordinate and communicate the process and to ensure regular feedback and quality assurance.

There are many elements that are promising for the progress of qualification reforms:

(a) the vision for social and economic sustainable development and its clear implementation through well-planned phases of work, and the recognition of the importance of human resources and the priority given to the upgrading of skills and innovation in the long-term strategy;
(b) the roadmap for reforms under the Bologna process, and support of the advisory group;
(c) scientific and technical expertise developed through the Institute of Labour, Republican Institute of Professional and Vocational Education and Training (RIPO) and the National Institute for Higher Education;
(d) experience of the *Innovation* project;
(e) cooperation between the ministries of labour, education and economics;
(f) easier access to lessons learned from other countries;
(g) the European project *Employment and vocational education* providing international experience.

Belarus has started relatively late with its qualification reforms. The country is aging rapidly, and although it recognises the importance of education and improving the quality of its workforce, it will not be easy to overcome rigidities in the current education and qualification system. The

initial education system and adult learning provision are not well linked through a concept for lifelong learning with a practical dimension. Many concepts and solutions from the past are detailed and prescriptive and may often seem to offer more solid solutions than the alternatives for a modernised more flexible system. Overcoming the legacy of the past, with different institutions working in silos, with a historical understanding of qualifications, levels and competences that is different from those used internationally, with strong scientific orientation and resistance to widespread experimentation with the involvement of outsiders may slow down implementation. Many reforms can only be implemented and improved learning by doing, solving one problem at the time. Without strong coordination, open communication and a clear vision it will be difficult to mobilise all the stakeholders and build capacity. In this context, a clear institutional home for managing reforms, to ensure technical coordination between stakeholders and ensure communication, is lacking.

Abbreviations

EAHE	European higher education area
ECTS	European credit transfer system
EQF	European qualifications framework
NQF	national qualifications framework
NQS	national qualifications system
QF-EAHE	qualifications framework in the European higher education area
VNFIL	validation of non-formal and informal learning

Prepared by:
the European Training Foundation (ETF).

BELGIUM

Due to its federal structure, Belgium is facing the challenges of developing and implementing more than one national qualifications framework (NQF). The federal State comprises three regions (Flanders, the Walloon Region and the Brussels-Capital Region) and three Communities (the Flemish, the French and the German-speaking Community). Education is delegated to community level, giving each community wide responsibilities for financing and organising their respective education, training and qualifications systems.

While the Flemish and the French Communities have been working on national frameworks since 2005-06, the German-speaking Community started developing its own qualifications framework (*Qualifikationsrahmen Deutschsprachiger Gemeinschaft* (QDG)) in 2011/12; the decree establishing the QDG was adopted by the Parliament in 2013. The Flemish and the French Communities have been following different framework development pathways, reflecting the substantial institutional and political differences in education and training between the two.

Despite adaptation to each specific context, the three frameworks have substantial similarities. Further, the fact that an amendment to the Belgian Federal Law on the general structure of the education system was adopted in 2012, stating that the EQF levels will be used as a common reference for the three Communities in Belgium, addresses the challenge of linkages between the frameworks, potentially facilitating mobility for Belgian citizens within the country. At this stage, however, all three frameworks will be referenced separately to the EQF.

Belgium (the French Community)

Introduction and context

The French Community of Belgium has been working on a national qualifications framework for lifelong learning (*Cadre francophone des certifications pour l'apprentissage tout au long de la vie* (CFC)) linked to the EQF since 2006. Three distinct political authorities ([29]) are involved in the work:

(a) the French Community (the inhabitants of the French-speaking area of the Walloon Region and the French-speaking inhabitants of Brussels);
(b) the Walloon Region;
(c) the COCOF (*Commission communautaire française de la Région de Bruxelles-Capitale*).

The current framework dates back to 2010 when the three governments of the French Community agreed on the principle of creating a qualifications framework with double entry, one for educational qualifications and one for vocational qualifications, placed into eight levels and consistent with the descriptors of the European qualifications framework. The proposed framework structure is close to that applied by the Flemish Community of Belgium. All major stakeholders agreed in mid-2011 on these main principles of the framework. The framework was referenced to the European qualifications framework (EQF) in December 2013. The CFC was formally adopted in February 2015 ([30]). The follow up to the Law, in particular the inclusion of qualifications to the framework, has been slower than originally anticipated and the CFC has yet to reach an operational status.

([29]) The responsibility for compulsory, adult and higher education lies with the French Community, whereas the Walloon Region and the COCOF are responsible for continuous vocational training in their respective areas

([30]) https://wallex.wallonie.be/index.php?doc=29286&rev=30796-20446&from=rss.

Policy objectives

The development of the CFC has been seen as an integral part of the evolution of the existing education and training system, for the purposes of improving overall transparency and collaboration, aiding mobility and supporting individual learning pathways for citizens. The 2015 Law on the CFC refers to the following key objectives:

(a) facilitate learning continuity and progression;
(b) build bridges between different parts of the education and training system;
(c) strengthen relationship between initial and continuing education and training;
(d) support validation of non-formal and informal learning;
(e) increase transparency and facilitate comparison across regional and national borders.

While the CFC is seen as an instrument for strengthening the use of learning outcomes and for referencing to the EQF, the framework will not have any regulatory role and it is not seen as an instrument for reform of existing institutions and structures. For the moment, only qualifications delivered by public providers will be included.

Levels and use of learning outcomes

An eight-level structure has been designed, using two blocks of terms: knowledge/skills and context/autonomy/responsibility. The descriptors developed by the Flemish qualifications framework have been used as a basis but adjusted according to the conditions of the region.

A competence-based approach is well established in compulsory education and training. Learning outcomes are described in terms of *socles de compétences* and *compétences terminales*. For adult education (including higher education short cycles, bachelor and master degrees) the term used is *capacités terminales*.

In vocational education and training, work is continuing to define and describe qualifications in terms of learning outcomes, to meet the need for shared reference systems for VET. Since 2010, regional providers of continuous vocational education and training (CVET) have developed a common certification procedure (*reconnaissance des acquis de formation* (RECAF)) based on common qualifications standards and common assessment standards, with a competence-based approach. The French service for trades and qualifications (*Service francophone des métiers et qualifications* (SFMQ)) is playing an important role for learning outcomes, both for vocational compulsory education (initial vocational education and training (IVET)) and for CVET (education for adults and public providers of vocational training in Wallonia and Brussels). The descriptions of qualifications are based on the job profiles (professional standards) defined by the social partners. Common training profiles are then defined by providers. These profiles are declined in units of learning outcomes compatible with the European credit system for VET (ECVET) specifications.

In higher education, a guide has been produced to help higher education institutions define their learning outcomes to fit into common competence reference systems. The autonomy of universities means that the decision to apply learning outcomes has to be made by the institution itself, resulting in varying approaches. There is little information on the extent of use of learning outcomes, apart from in the university colleges. Here, the new competences reference systems are gradually being implemented (Cedefop, 2016).

Stakeholder involvement and institutional arrangements

The three executive bodies of French-speaking Belgium (the French Community, the Walloon Region and COCOF) initiated the CFC development and established an expert group to do the preparatory work. This group includes representatives from all levels of education and regional bodies for vocational training. In future, the national coordination point (NCP) responsibilities will lie with a steering and positioning authority which is yet to be established.

The NQF initiative can be divided into two distinct phases; before and after 2010. While the period before 2010 was characterised by high-quality technical work, lack of clarity over the role of higher education in the comprehensive framework created tensions and caused delays. The process was revitalised after 2010 and a new steering group was set up, including stakeholders from general education (at all levels and of all types, including universities) and vocational/professional education and training (including social partners).

The division of the framework into two main strands – educational and professional qualifications – has implications for stakeholder involvement. *The Service francophone des metiers et qualifications* (SFMQ) will play a key role in defining and positioning professional qualifications at levels 1 to 4. The SFMQ is well placed to play this role as its overall task is to develop occupational profiles

based on the inputs of the social partners and in collaboration with employment services. Its role is also to develop training profiles for these occupational profiles, in liaison with education and training providers. The Academy of Research and Higher Education (ARES) will be responsible for defining and positioning educational qualifications at levels 6 to 8. ARES and SFMQ will share responsibility for qualifications at level 5, reflecting the extensive 'mix' of professional and educational qualifications at this level.

Recognising and validating non-formal and informal learning and learning pathways ([31])

In French-speaking Belgium, the system for validating non-formal and informal learning has undergone important developments since the early 2000s. It is the result of initiatives supported nationally and is framed by important pieces of legislation. Validation of non-formal and informal learning (VNFIL) was first developed in adult education (*Enseignement de promotion sociale* (EPS)) in 1991, followed in 2003 by the CVET sector, with a focus on individuals with no formal qualifications.

There are now two types of VNFIL in Belgium: the validation of competences (*validation des compétences* (VDC)) in the continuous vocational education and training (CVET) sector, leading to the award of a recognised certificate; and the validation of prior experience (*validation des acquis de l'expérience* (VAE)) in adult education and higher education, leading to the validation of learning units or exemptions from certain parts of a study pathway. Recent policy strategies confirm that validating non-formal and informal learning is now a key element of employment and education policies. With a new regulatory framework in place since 2014 (Decree on the organisation of higher education), VAE in higher education now has a stronger institutional basis.

Challenges still need to be addressed, particularly improving the value of the skills certificate on the labour market and widening the profile of VAE users, but the scheme today is generally considered effective and robust.

([31]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

NQF implementation

Introducing the distinction between educational and professional qualifications was instrumental in bringing the NQF process forward. This distinction made it possible to open up for professional qualifications at higher levels without questioning the autonomy of universities and their responsibility in relation to bachelor, master and doctorate awards. Using one set of level descriptors for all levels and both types of qualifications has been accepted by the different stakeholders and will, in the longer term, make it possible to look more carefully into how these two strands can interact with each other.

While the legal adoption of the CFC in 2015 was important, delays in appointing an executive staff has slowed down overall progress, in particular as regards inclusion of qualifications in the framework. This means that the CFC has yet to reach operational status.

Referencing to regional frameworks

A referencing report (Malarme, 2013) was presented to the EQF advisory group in December 2013. The report encompasses a thorough description of the education and training system in the French Community, an account of the context and development of the CFC, and a section on how the CFC and adjoining development processes and responsibilities meet the 10 referencing criteria. There is no overview of where specific qualifications are to be placed in the CFC, but plans for the positioning and implementation process are described.

Table 9 Level correspondence between the CFC and the EQF

CFC	EQF
Level 8	Level 8
Level 7	Level 7
Level 6	Level 6
Level 5	Level 5
Level 4	Level 4
Level 3	Level 3
Level 2	Level 2
Level 1	Level 1

Important lessons and future plans

While formal adoption is important, moving towards operational status requires that practical follow up and implementation takes place as required.

The development of the CFC also demonstrates the importance of finding a workable link between higher education and the other forms of education and training. Distinguishing between educational and professional qualifications at all levels has been instrumental in making progress. Whether this structure can be used to open up for future developments of professional qualifications at higher levels and for establishing stronger links between educational and professional sectors remains to be seen.

Further sources of information

Service francophone des métiers et des qualifications (French-speaking service for jobs and qualifications); acts as the EQF national coordination point: http://www.sfmq.cfwb.be/index.php?id=1435

Wallex: le Droit en Wallonie: https://wallex.wallonie.be/index.php?doc=29286&rev=30796-20446&from=rss

Abbreviations

ARES	*Académie de Recherche et d'Enseignement supérieur* [Academy of Research and Higher Education]
CFC	*Cadre francophone des certifications pour l'apprentissage tout au long de la vie* [French-speaking qualifications framework for lifelong learning]
COCOF	*Commission communautaire française de la Région de Bruxelles-Capital* [French Community commission in the Brussels-capital Region]
CVET	continuous vocational education and training
ECVET	European credit system for vocational education and training
EEA	European economic area
EQF	European qualifications framework
NCP	national coordination point
NQF	national qualifications framework
QDG	*Qualifikationsrahmen Deutschsprachiger Gemeinschaft* [qualifications framework of the German-speaking Community]
RECAF	*Reconnaissance des acquis de formation* [recognition of prior learning]
SFMQ	*Service francophone des métiers et qualifications* [French service for trades and qualifications]
VAE	*validation des acquis de l'expérience* [validation of prior experience]
VDC	*validation des compétences* [validation of competences]
VET	vocational education and training

References

Cedefop (2016). *Application of learning outcomes approaches across Europe: a comparative study.* Luxembourg: Publications Office. http://www.cedefop.europa.eu/en/publications-and-resources/publications/3074

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Belgium (BE-fr).* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

Malarme (ed.) (2013). *Report on referencing the French-speaking qualifications framework for lifelong learning to the European qualifications framework for lifelong learning* [unpublished].

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

Belgium (German-speaking community)

Introduction and context

The German-speaking Community of Belgium adopted its qualifications framework (*Qualifikationsrahmen Deutschsprachiger Gemeinschaft*, QDG) on 18 November 2013 ([32]). Being the smallest part of Belgium (geographically and in terms of population) the framework reflects the work done in the Flemish and French Communities but is also inspired by the German qualifications framework (DQR). The 2013 decision envisages that a system of validation of non-formal and informal learning will be linked to the QDG. The QDG has, so far, not been referenced to the EQF and there is currently no indication of when this could take place.

Policy objectives

A main objective for the framework is to strengthen national and international comparability of qualifications. While subject to federal laws on education applying in Belgium, the geographic location of the region means that citizens are likely to cross regional or national borders for living and working. This makes it a priority to clarify the relationship between own qualifications and those awarded in the neighbouring countries. The framework also promotes equivalence between general and vocational education and training, and the shift to learning outcomes is an important step in increasing transparency and strengthening permeability.

Levels and use of learning outcomes

An eight-level, learning-outcomes-based framework has been introduced. The framework builds on the concept of *Handlungskompetenz* (action competence) and distinguishes between subject/occupational specific and personal competences. Level descriptors will be based on the following categories.

Table 10 Level descriptors of the German-speaking Community of Belgium, main categories

Handlungskompetenz (action competence)			
Subject/occupational oriented competence *(Fachliche Kompetenz)*		**Personal competence** *(Personale Komptenz)*	
Knowledge	**Skills**	**Social competence**	**Autonomy**

Source: Ministry of the German-speaking Community, 2013.

The framework is seen as an instrument for promoting a learning outcomes or competence-based approach across the different parts of education and training in the region. It distinguishes between general and vocational qualifications, reflecting the parallel distinction made in the Flemish and French Communities of Belgium. General upper secondary education *(Abitur)* is placed at level 4, with the three cycles of bachelor, master and doctor placed at levels 6 to 8. In vocational education and training, completed apprenticeship (dual system) is at level 4. A master craftsman with two years of training is placed at level 5, one with three years of training at level 6.

Stakeholder involvement and institutional arrangements

The framework has been developed over a relatively short time, involving all main education and training stakeholders in the region. This includes the social partners who normally play a key role in an education and training system inspired by that of Germany, both for general and vocational education and training.

([32]) *Deutschsprachige Gemeinschaft, 18 November 2013 – Dekret zur Einführung eines Qualifikationsrahmens der Deutschsprachigen Gemeinschaft [Decree establishing a qualifications framework for the German-speaking Community]:* http://reflex.raadvst-consetat.be/reflex/pdf/Mbbs/2014/02/13/126688.pdf

Recognising and validating non-formal and informal learning and learning pathways ([33])

A strategy for introducing a validations system was outlined in 2015. This refers to European developments in this area and sees validation as an integrated part of an overall, lifelong learning strategy for the region. Individuals with no (or low) qualifications are seen as a key target group. A project addressing the validation challenge was started in 2014/15 and the aim is to put concrete arrangements in place by 2018. It is envisaged that this work will be supported by funds from the European Social Fund (ESF).

([33]) This section builds on the information provided in the report on 'future strategies' for the German-speaking Community of Eastern Belgium (Ostbelgien Leben 2025 Regionales *Entwicklungskonzept der Deutschsprachigen Gemeinschaft*). The information provided here builds on the section covering the '*Bildungsregion* DG' (the German-speaking education and training region). http://www.ostbelgienlive.be/PortalData/2/Resources/downloads/rek/REK4-72dpi-KORR_23sept.pdf

NQF implementation

Available information indicates that QDG plays a limited role in supporting education and training policies and practices in the region. This reflects the size of the region and the fact that only limited (human and financial) resources are available. The QDG is not referred to in the 2025 education and training vision for the region. The emphasis given to validation and competences (see above) indicates, however, that the basic learning outcomes orientation underpinning the QDG is taken forward in a systematic manner. This is also apparent in relation to other projects outlined in the 2025 strategy, for example strengthening support to individual pupils and application of competence--oriented diagnostics.

Further source of information

Deutschsprachige Gemeinschaft, 18. November 2013- Dekret zur Einführung eines Qualifikationsrahmens der Deutschsprachigen Gemeinschaft http://reflex.raadvst-consetat.be/reflex/pdf/Mbbs/2014/02/13/126688.pdf

Table 11 Qualifications framework of the German-speaking Community of Belgium (QDG)			
NQF levels	**Qualifications from general education**	**Qualifications from vocational education and training**	**Envisaged EQF levels (*)**
8	Doctoral or postdoctoral degree/habilitation *Der erfolgreiche Abschluss einer Promotion oder Habilitation auf Doktoren- bzw. Professorenebene*		8
7	Master degree (long duration) *Der erfolgreiche Abschluss eines Hochschulstudiums langer Dauer auf Masterebene*	Master degree upon successful completion of dual track higher education (long duration) *Der erfolgreiche Abschluss eines dualen Hochschulstudiums langer Dauer auf Masterebenee*	7
6	Bachelor degree *Der erfolgreiche Abschluss eines Hochschulstudiums kurzer Dauer auf Bachelorebene*	Master craftsperson certificate upon successful completion of a three-year master craftsperson programme *Der erfolgreiche Abschluss einer dreijährigen Meisterausbildung mit dem Meisterbrief* Professional bachelor degree upon successful completion of dual track higher education *Der erfolgreiche Abschluss eines dualen Hochschulstudiums kurzer Dauer auf Bachelorebene*	6
5		Master craftsperson certificate upon successful completion of a two-year master craftsperson programme *Der erfolgreiche Abschluss einer zweijährigen Meisterausbildung mit dem Meisterbrief* Successful completion of supplementary secondary vocational education *Der erfolgreiche Abschluss einer Ausbildung im ergänzenden beruflichen Sekundarunterricht*	5
4	Successful completion of upper secondary general education *Der erfolgreiche Abschluss der Oberstufe des allgemeinbildenden Sekundarunterrichts*	Successful completion of upper secondary technical and arts programmes *Der erfolgreiche Abschluss der Oberstufe des technischen oder künstlerischen Sekundarunterrichts* Attestation of competence upon successful completion of year 6 in vocational education *Der erfolgreiche Abschluss des sechsten Jahres des berufsbildenden Sekundarunterrichts mit Befähigungsnachweis* Successful completion of year 7 (complementary year) in vocational education *Der erfolgreiche Abschluss des siebten Jahres des berufsbildenden Sekundarunterrichts* Journeyman certificate upon successful completion of an apprenticeship *Der erfolgreiche Abschluss einer mittelständischen Lehre mit dem Gesellenzeugnis*	4

* Not referenced yet to the EQF.

NQF levels	Qualifications from general education	Qualifications from vocational education and training	Envisaged EQF levels (*)
3	Successful completion of lower secondary general education *Der erfolgreiche Abschluss der Unterstufe des allgemeinbildenden Sekundarunterrichts*	Successful completion of lower secondary technical, vocational or arts programmes *Der erfolgreiche Abschluss der Unterstufe des technischen, künstlerischen oder berufsbildenden Sekundarunterrichts* Certified partial qualification acquired in year 2 of an apprenticeship *Der erfolgreiche Abschluss einer zertifizierten Teilqualifikation im zweiten Jahr der mittelständischen Lehre*	3
2	Successful completion of 'common' year 2 in secondary education *Der erfolgreiche Abschluss des zweiten gemeinsamen Jahres des Sekundarunterrichts*	Successful completion of year 3 in vocationally oriented education Der erfolgreiche Abschluss des dritten Jahres des berufsbildenden Sekundarunterrichts Attestation of competence certifying lower secondary special needs education *Befähigungsnachweis der Unterstufe des Fördersekundarunterrichts*	2
1	Successful completion of primary education *Der erfolgreiche Abschluss der Grundschule Niveau*	Certificate upon successful completion of year 2 in vocationally oriented education *Das Studienzeugnis des zweiten Jahres des berufsbildenden Sekundarunterrichts*	1

* Not referenced yet to the EQF.

Source: Ministry of the German-speaking Community (2013).

References

Ministry of the German-speaking Community (2013). *Dekret zur Einführung eines Qualifikationsrahmens der Deutschsprachigen Gemeinschaft [Decree establishing a qualifications framework for the German-speaking Community].* http://reflex.raadvst-consetat.be/reflex/pdf/Mbbs/2014/02/13/126688.pdf

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

Belgium (Flemish Community)

Introduction and context

On 30 April 2009 the Flemish Parliament and Government in Belgium adopted the Act on the qualification structure ([34]) (*kwalificatiestructuur*) introducing a comprehensive qualifications framework. The framework, based on an eight-level structure described by the two main categories of knowledge/skills and context/autonomy/responsibility, was formally referenced to the European qualifications framework (EQF) in June 2011.

The road from formal adoption to implementation proved more time-consuming than originally predicted. Delays were partly caused by the need for further legal instruments (implementation decrees on professional and educational qualifications), and partly by negotiations with the social partners on how to link and level professional qualifications to the framework. This clarification was largely completed by 2013-14, allowing implementation to speed up.

The Flemish qualifications framework (FQF) is now operational, covering a total of 240 professional (*Beroeps*) and 220 educational qualifications (by December 2016) ([35]). The vocational qualifications have been levelled individually (as opposed to a placement 'block-wise') in a process involving the main social partners.

Policy objectives

The 2009 Act on the qualifications structure defines the Flemish qualification system as '... a systematic classification of recognised qualifications based on a generally adopted qualifications framework (FQF)'. The qualification structure (including the qualifications framework) aims at making qualifications and their mutual relationships transparent, so that stakeholders in education (students, pupils and providers) and in the labour market (social partners) '/.../ can communicate unambiguously about qualifications and the associated competences' (2009 Act on the qualifications structure, Chapter I, Article 3).

The act underlines that the qualification structure (including the qualifications framework) should act as a reference:

(a) for quality assurance, for developing and renewing courses;
(b) for developing and aligning procedures for recognising acquired competences;
(c) for comparison (nationally and at European level) of qualifications.

This indicates that the FQF is seen as something more than a pure description of existing qualifications: it plays a role in the continuous review and renewal of qualifications.

Levels and use of learning outcomes

The term 'competence' plays a significant role in Flemish education, training and employment policies and is used as an overarching concept. Competence and learning outcomes are used as interchangeable terms in education and training.

The descriptors

The FQF is based on an eight-level structure described by the categories of knowledge, skills, context, autonomy and responsibility. Compared to the EQF, FQF descriptors are more detailed, particularly for lower levels. A main difference is that the FQF does not use 'competence' as a separate descriptor category; it considers it as an overarching term and uses it interchangeably with learning outcomes. A main feature of the Flemish framework is the use of 'context' as an explicit element of the descriptors. The context in which an individual is able to function is seen as an important part of any qualification. This can be seen as a criticism of EQF descriptors which contain contextual elements but fail to treat them explicitly.

The descriptors are used to describe two main categories of qualifications; professional and educational. A professional qualification is based on a set of competences allowing an individual to exercise a profession and can be achieved both inside and outside education. An educational qualification is based on a set of competences an individual needs to participate in society, to start further education and/or to exercise professional activities. An educational qualification can only be acquired through education and in institutions recognised by the Flemish authorities. The distinction

([34]) Act on the qualification structure *(Decreet betreffende de kwalificatiestructuur)*: http://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14111
([35]) The qualification database *(Kwalificatiedatabank)*: https://app.akov.be/pls/pakov/f?p=VLAAMSE_KWALIFICATIESTRUCTUUR:KWALIFICATIEDATABANK

between professional and educational qualifications is applied for all eight levels of the framework; this offers the potential for high level qualifications in parallel to traditional academic institutions.

Learning outcomes and competences

Practical implementation of the principles of learning outcomes/competences has progressed in recent years. The VET sector is probably the most experienced in this field. A competence-based approach is well integrated, referring to professional requirements in the labour market. The use of competences in initial VET in recent years has been inspired by Dutch developments, particularly the upper secondary vocational education ((*middelbaar beroepsonderwijs*, (MBO)) reform. Discussions between the Social and Economic Committee (SERV) and the government in 2010 and 2011 on implementing the framework can be seen as part of this process; how can existing occupational competence standards be translated into learning-outcomes-based professional qualifications and then attributed a level in the FQF? Learning outcomes are also present in general education, for example by the setting of learning objectives in national core curricula. Developments in higher education have been influenced by the Bologna process, but are mainly dependent on initiatives taken by single institutions or associations of higher education institutes. While reflecting a diverse situation, a clear shift to learning outcomes has taken place in recent years in Flanders.

Stakeholder involvement and institutional arrangements

The Flemish national qualifications framework process has involved a broad range of stakeholders at all stages, coordinated by the Ministry of Education and Training. Other ministries – Ministry of Labour and Social Economy and Ministry of Culture, Youth, Sports and Media – have also been involved. From the education and training side, participation by relevant sectors (general education, initial vocational education, continuing vocational education and training, higher education, including short cycle higher education) has been important. The link and overlap ([36]) between professional and higher or general educational qualifications has been a challenge and the active involvement of stakeholders representing the different levels and types of qualifications has been important. The day-to-day running of the FQF has been delegated to the Agency for Higher Education, Adult Education Qualifications and Grants (AHOVOKS, *Agentschap voor Hoger Onderwijs, Volwassenenonderwijs, Kwalificaties en Studietoelagen*) ([37]).

A qualifications framework for higher education linked to the Bologna process was developed and put in place (2008). The relationship between the two framework initiatives was discussed throughout the development process and the 2009 act takes this into account in its terminology, framework descriptors and procedures.

Recognising and validating non-formal and informal learning and learning pathways ([38])

In Flanders, the term EVC (*erkennen van competenties*: recognition of competences) is used to refer to the validation of non-formal and informal learning. Each ministry department regulates validation within its own sector: the Departments for Work and Social Economy, Education and Training and Culture, Youth, Media and Sports. In all these, the development of validation systems and procedures contributes to policy aims such as improving the qualification levels of the population, reducing unemployment levels and aiding lifelong learning. Validation policy is aimed at the general population, but specific measures and initiatives are targeted at the low-skilled, the unemployed, migrants and refugees. Validation practices in the different sectors have not changed substantially in the last few years. Validation can be used to get admission to an education and training programme, to request exemptions from (parts of) the study programme and to obtain a work experience certificate. Validation is a matter of policy in different sectors and the arrangements in these sectors differ.

However, driven by the need to address fragmentation of validation practices and terminology, current developments at policy level aim at an integrated approach to validation. The main change is increased cooperation between different validation providers (inside as well as outside

([36]) This overlap results from the fact that professional qualifications are integrated in educational qualifications, outside higher education at levels 6 to 8. It is being acknowledged that further alignment between professional and educational qualifications is needed.

([37]) AHOVOKS took over this role from the Agency for Quality Assurance in Education and Training (AKOV, *Agentschap voor Kwaliteitszorg in Onderwijs en Vorming*), which has been discontinued due to reorganisation of the Flemish administration.

([38]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

education) and the willingness to create a single framework linking the validation processes to the FQF. The 2009 act stresses that it should be possible to obtain qualifications through formal, informal and non-formal learning and that the framework should support this. The agreement to use the FQF as a reference for validation procedures is expected to raise the visibility and credibility of validation. In July 2015, the concept for an integrated framework for validation in Flanders was approved by the Flemish government and a government task force has been set up to develop the integrated policy framework and to draft a decree on validation.

All information on validation in Flanders is available to the public via a dedicated website ([39]).

NQF implementation

The road from adoption to implementation and operational status has proved complex for the Flemish NQF.

First, the transformation of the 2009 law into practice required further legal steps and the introduction of a series of 'implementation decrees', covering different parts of the education and training system. This made it possible to put in place precise and detailed procedures for placing and including qualifications into the framework ([40]).

Second, clarification of the role of the social partners in linking professional qualifications to the framework was needed and required substantial effort. Flemish professional qualifications are developed within a tripartite system, giving the social partners, in the context of the Social and Economic Committee (SERV), a decisive role. All professional qualifications build on competence standards defined and approved by the social partners: professional qualification has to reflect these competences and no single qualification can be approved without social partner input and approval. The 2009 law did not specify how the social partners would contribute to the levelling of qualifications; it was necessary to agree on how to approach this task. A general agreement – between the government and the SERV – on how to proceed was reached in 2011 and provides the basis for the current process. In December 2016 a total of 240 professional and 220 educational qualifications had been included in the framework. While time-consuming and challenging, the inclusion of professional qualifications into the FQF can be deemed a success as it demonstrates that stakeholders are fully involved and responsible for implementing the framework. The Flemish approach also demonstrates how competence standards developed for occupational purposes are being translated into professional qualifications.

It is also worth noting that vocational qualifications cover a wide span, currently covering levels 2 to 7 ([41]). This demonstrates the increasingly important role played by higher level vocational qualifications and also the ability of the framework to make this part of the qualification landscape more visible.

Referencing to regional frameworks

Referencing to the EQF was completed in June 2011. The referencing process was coordinated by the Agency for Quality Assurance in Education and Training (AKOV). The decision of the Flemish government to reference to the EQF in mid-2011, pending the placing of professional qualifications to the FQF, was discussed by the EQF advisory group. The lack of clarity in professional qualifications made it difficult for other countries to judge how Flemish qualifications compared to their own. Taking this criticism seriously, an updated referencing report was submitted in March 2014 (Government of Flanders and AKOV, 2014). This report responds to the points made by the EQF in 2011 and provides a detailed overview of subsequent developments. Following the implementation of FQF during 2012 and 2013, these levels are now filled with qualifications.

Further sources of information

The website of the Flemish qualifications framework: http://vlaamsekwalificatiestructuur.be/en/

AHOVOKS (Agentschap voor Hoger Onderwijs, Volwassenenonderwijs, Kwalificaties en Studietoelagen), the agency for higher education, adult education, qualifications and study grants: https://onderwijs.vlaanderen.be/nl/agentschap-voor-hoger-onderwijs-volwassenenonderwijs-kwalificaties-en-studietoelagen-ahovoks

([39]) EVC – *erkennen van competenties*: http://www.erkennenvancompetenties.be/

([40]) For an overview over legal initiatives between 2009 and 2017: http://data-onderwijs.vlaanderen.be/edulex/#

([41]) In December 2016, 37 qualifications had been placed at level 5, two at level 6 and two at level 7.

Table 12 Flemish qualifications framework (FQF)

FQF levels	Educational qualifications	Professional qualifications	EQF levels
8	Doctor	Recognised professional qualifications	8
7	Master Master after master	Recognised professional qualifications	7
6	Professional bachelor Academic bachelor Bachelor after bachelor	Recognised professional qualifications	6
5	Recognised professional qualifications	Recognised professional qualifications	5
4	Upper secondary general education Technical secondary education (third stage) Artistic secondary education (third stage) Supplementary general adult education	Recognised professional qualifications	4
3	Secondary vocational education, second year (third stage)	Recognised professional qualifications	3
2	Adult basic education Second stage of secondary vocational education	Recognised professional qualifications	2
1	Primary education		1

Source: Flemish qualification database: https://app.akov.be/pls/pakov/f?p=VLAAMSE_KWALIFICATIESTRUCTUUR:KWALIFICATIEDATABANK

Abbreviations

AKOV	Agentschap voor Kwaliteitszorg in Onderwijs en Vorming [Agency for quality assurance in education and training]
AHOVOKS	Agentschap voor Hoger Onderwijs, Volwassenenonderwijs, Kwalificaties en Studietoelagen [Agency for higher education, adult education, qualifications and study grants]
EQF	European qualifications framework
FQF	Flemish qualifications framework
MBO	*middelbaar beroepsonderwijs* [upper secondary vocational education]
NQF	national qualifications framework
NVAO	De Nederlands-Vlaamse Accreditatieorganisatie [Accreditation Organisation of the Netherlands and Flanders]
RAC	recognition of acquired competences
SERV	Social and Economic Committee
VET	vocational education and training

References

European Commission; Cedefop; ICF International (2016). *European inventory for validation of non-formal and informal learning 2016: country report Belgium.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory

Government of Flanders; AKOV (2014). *Referencing of the Flemish qualifications framework to the European qualifications framework: update of the referencing report from July 2011.* https://ec.europa.eu/ploteus/sites/eac-eqf/files/Referencing%20report%20Belgium%20Flanders_update%202014.pdf

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

BHUTAN

Introduction and context

The development of the Bhutan qualifications framework (BQF) was mandated in 2010 by the Tertiary Education Policy of the Kingdom of Bhutan (BAC, 2012). It is a national document on qualifications and their classification in Bhutan, and is based on a set of criteria agreed nationally and benchmarked with international practices. It integrates, harmonises and links school, monastic, vocational and tertiary education qualifications awarded by education providers both within and outside the country.

Bhutan has a total population of 738,267 and was ranked 132nd in the global Human Development Index of 2014. The GNI PPP is US $5.61 billion ([42]). The literacy rate in 2015 was 64.9%. The country is still primarily an agrarian society based on subsistence farming. Electricity and construction are the other major economic sectors, representing a vital source of hard currency and employment. A large proportion of the workers in these sectors are migrants, particularly at the highest and lowest extremes of the skills spectrum. Middle-level and management-level jobs are occupied mainly by Bhutanese citizens.

Greater enrolment in primary and secondary education has increased demand for post-secondary education and training (after years 12 and 13). However, the shortage of tertiary education institutions in Bhutan has led to an exodus of students to foreign universities, particularly in India (Thinley, 2009).

The technical and vocational education and training (TVET) and post-secondary sectors are administered by a bewildering variety of different bodies, making it difficult for students to progress either within a field or from one field to another. While most TVET courses are under the administration of the Ministry of Labour and Human Resources (MoLHR), diploma courses in TVET are administered by the Royal University of Bhutan and academic courses by the Ministry of Education. Other ministries, such as the Ministry of Health and Ministry of Agriculture, also provide vocational education and training as well as employment opportunities to school leavers. A system is needed that recognises diverse kinds of qualification and clarifies equivalences between them.

Unemployment among TVET graduates has become much more acute in recent years. Limited job growth in government has made it more difficult for graduates to obtain civil servant or corporate positions; meanwhile, the number of students leaving school without employable skills has increased, even among those completing training in vocational training institutes. Despite efforts to promote the growth of the private sector, creating attractive jobs has proved difficult. Supply and demand in certain skills sets remain mismatched.

The low status of TVET means that it is the least preferred route among young people. Private training providers (particularly in ICTs and services) often seek to fill the gap left by inadequate TVET provision. They then look to the government for guidance and regulations to make their qualifications more marketable, for example through affiliation or official endorsements of certificates.

A further challenge is the supply-driven orientation of non-formal skills training initiatives for rural people rather than a demand-driven orientation highlighting, for example, how a person's competences can be utilised in the labour market and in society.

To meet the challenges of the 21st century, Bhutan needs to build a knowledge-based society. Tertiary education, in formal settings as well as continuing education programmes, requires a system that supports recognition of diverse

([42]) http://data.worldbank.org/indicator/NY.GNP.PCAP.CD?locations=BT

kinds of qualifications and creates equivalence and professional pathways. A qualifications framework plays an important role in developing degree systems and study programmes in tertiary education institutions. It not only aids recognition of qualifications but is also important for those who make use of qualifications, particularly learners and employers. In consequence, the Bhutan Accreditation Council (BAC) developed the BQF (BAC, 2012).

Policy objectives

The BQF aims to provide an up-to-date and flexible framework that:

(a) guarantees the quality of education and training;
(b) accommodates the diverse educational and career goals of Bhutanese people, including those who aspire to work outside Bhutan;
(c) enables comparison and ensures consistency between qualifications offered by academic, vocational and monastic institutions;
(d) allows Bhutanese qualifications to be recognised and valued internationally, promoting workers' international mobility;
(e) supports lifelong learning;
(f) allows for lateral movement between different fields;
(g) enables human resources to be deployed more effectively;
(h) provides for the recognition and accreditation of prior learning;
(i) promotes higher gross national happiness (GNH).

Education policy in Bhutan is strongly influenced by the theory of GNH (Thinley, 1999). In GNH-inspired learning, the learner is seen as a whole individual. Instead of focusing on a narrow set of job-specific skills, GNH-inspired learning seeks to inculcate a common set of core skills (Thinley, 2009), which include:

(a) knowledge of a subject area;
(b) practical skills including information management;
(c) social skills and responsibilities;
(d) GNH values and principles, including mindful leadership;
(e) communication and ICT skills;
(f) accountability and autonomy;
(g) problem solving and scientific skills;
(h) innovation and entrepreneurial skills.

Levels and use of learning outcomes

The BQF has eight qualification levels, each of which assesses the following criteria:

(a) depth, complexity and comprehension of knowledge;
(b) application of knowledge and skills;
(c) degree of autonomy and creativity in decision-making;
(d) communication skills;
(e) breadth and sophistication of practices (BAC, 2012).

The BQF defines learning outcomes based on academic load: this aids programme comparison between schools, technical and vocational institutes, and monastic and tertiary education institutes, which promotes the mobility and portability of qualifications.

The BQF caters for all types of qualification: certificates, diplomas or degrees. Qualifications are awarded by a competent authority which affirms successful completion of the course of study in question and achievement of the expected standard. This guarantees the holder's ability to perform the job for which he/she is qualified.

The BQF includes three qualification levels relating to vocational education: national certificate NC1 (semi-skilled work) is equivalent to qualification level 3; national certificates NC2 (skilled work) and NC3 (highly skilled work) correspond to qualification level 4. National diplomas 1 and 2 (for supervisory personnel) make up qualification level 5.

Credit is awarded where candidates demonstrate knowledge and understanding of a field and show that they are able to apply this knowledge to practical situations. The amount of time and effort the candidate invests in carrying out required activities is also taken into consideration. Credit is awarded not on experience per se but based on what has been learned through reflecting on experience (BAC, 2012).

Stakeholder involvement and institutional arrangements

The BQF was developed by the Ministry of Education. The Bhutan Accreditation Council (BAC) is responsible for establishing the relationship between tertiary academic education, TVET, and the school system. BAC recently produced a document on the BQF for local and international stakeholders, with information on each qualification (BAC, 2012). It also provides basic guidelines for providers

Table 13	Bhutan qualifications framework (BQF)			
BQF levels	**School education**	**Vocational education**	**University education**	**Monastic education**
8			Doctorate	Khenpo
7			Master degree	Geshey
6			Bachelor degree	Tenchoe
5		ND1 and ND2	Diploma	Madhyamik
4	BHSEC	NC2 and NC3		
3	BCSE	NC1		
2	LSE			
1	PE			

PE = primary education;
LSE = lower secondary education;
BCSE = Bhutan certificate for secondary education;
BHSEC = Bhutan higher secondary education certificate;
NC = national certificate;
ND = national diploma.
Source: BAC, 2012.

to develop clearly defined and suitably named qualifications programmes.

The BVQF was initiated between October 2000 and June 2003 as one of the programmes of the National Technical Training Authority (NTTA) under the Ministry of Labour and Human Resources (MoLHR) and in collaboration with the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), now called the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIS).

In 2003, the Bhutan Vocational Qualifications Authority (BVQA) was established as a regulatory department under the MoLHR in coordination with the Department of Employment and Labour (DEL) and the NTTA. This was intended to dissolve the division between the training delivery and regulatory functions of the NTTA. In January 2006, however, the BVQA was replaced by the Department of Occupational Standards (DOS) in accordance with government directives.

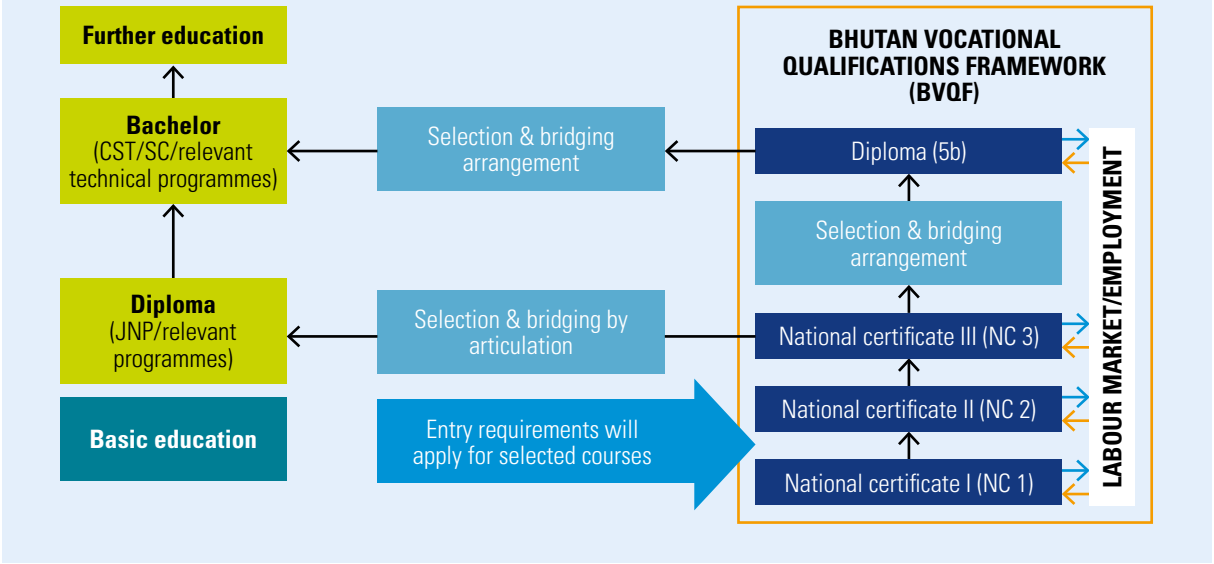
Recognising and validating non-formal and informal learning and learning pathways

The BQF was designed to support the building of pathways between different subsectors of education and training. This enables the individual to progress in further education through transfer of credits and recognition of prior learning acquired through formal, non-formal and informal learning pathways, irrespective of time and place in the context of lifelong learning. Pathways between vocational and academic qualifications will allow for the recognition of non-formal and informal learning; credit transfer and work experience programmes will promote career planning and continuous learning. The BQF provides equivalences between qualifications of different types and at different levels. It also introduces regulations on the accumulation and transfer of credits and accreditation of prior learning, as well as on entry requirements and use of certificates and diplomas. Diploma programmes may be designed in conjunction with degree programmes to enable graduates of such a programme to enter the second year of a degree programme.

The BQF builds on the work already done by the Bhutan vocational qualifications framework (BVQF), which was developed in 2003 for the technical and vocational education and training (TVET) sector. The BVQF reforms the TVET system: input from employers and training providers helps to establish qualifications, ensuring quality of skills and establishing a benchmark for comparison

with international standards (Ministry of Labour and Human Resources, 2010). The BVQF already determines entry to formal TVET courses after basic education, seven years' primary and four years' secondary education (MoLHR, 2010, p.7). TVET courses are assessed against national certificate (NC) levels. These are supported by level descriptors elaborating the range of responsibilities and learning demands at each level (see levels and descriptors above). The BVQF structure also makes provision for progression from national certificate to diploma and degree levels. This has been made possible by the Royal University of Bhutan and the Ministry of Education, along with other organisations under different jurisdictions.

Figure 4 Bhutan vocational qualifications framework (BVQF)



Source: MoLHR, 2006; Lhazom, n.d., p. 34.

Figure 4 depicts the various bridging arrangements which will enable movement both within and between education and the job market. The government expects that these pathways will enable lifelong learning and upgrade the qualifications of those who might otherwise be in danger of social and educational marginalisation.

There is great scope for the recognition of non-formal and informal learning. Bhutan distinguishes between accreditation of prior learning (APL), accreditation of prior certificated learning (APCL), and accreditation of prior experiential learning (APEL). APL concerns learning gained through formally assessed and certified programmes outside university. APCL covers learning achieved and assessed through a formal programme of study in a higher education or professional institution. APEL refers to learning gained in informal and non-formal settings such as the workplace or the community.

NQF implementation

The DOS, which is one of four departments under the MoLHR, currently has the mandate to:

(a) improve and monitor the quality of vocational skills;
(b) develop policies and procedures of quality assurance;
(c) develop qualifications;
(d) develop the national assessment and certification system; and
(e) develop and implement the national accreditation system.

These objectives are implemented through a departmental structure comprised of three divisions: the Standards and Qualifications Division, the Assessment and Certification Division, and the Review and Audit Division.

The DOS is responsible for the development of occupational profiles (OP). There is an OP for each discipline covered by a qualification; for example, a student may obtain a bachelor degree majoring

in English and environmental sciences (BAC, 2012). Occupational profiles incorporate information from industry experts about the skills they require from their workers in the light of current economic and technological conditions. A technical advisory committee advises the DOS on the identification of priority occupations, taking into account international and regional comparability of qualifications.

OPs provide employers, employees and jobseekers with common understanding of the knowledge, skills and competences required for a particular job. They help in developing curricula for qualifications programmes and support educational services such as occupational training, exchange and promotion; they also support a reliable testing and certification system that complies with international standards. The goal is to increase the proportion of the labour force holding national competence certificates.

Occupational profiles are developed at three occupational levels: NC1, NC2 and NC3 (see earlier section on levels and descriptors). They take into account the following criteria:

(a) complexity of skills;
(b) knowledge and competences;
(c) duties and tasks;
(d) working environment;
(e) complexity of task sequences and junctures;
(f) degree of routine;
(g) teamwork;
(h) leadership;
(i) degree of autonomy;
(j) degree of control of financial and physical resources;
(k) degree of analysis and diagnosis involved.

Referencing to regional frameworks

Formal education in Bhutan is already recognised by Indian bodies. The BCSE (grade 10) and BHSEC (grade 12) administered by the Bhutan Council for School Examinations and Assessment are recognised by the Association of Indian Universities (AIU) in Delhi, the Council of the Boards of School Education in India (COBSE), the Central Board of Secondary Education (CBSE) and the Council for the Indian School Certificate Examination (CISCE). It is hoped that the BQF will help extend this recognition to other countries and attract international scholars and students to Bhutan. The BQF will help establish mutually beneficial alliances with top-quality universities and institutions around the world (BAC, 2012); to achieve these goals, the BQF will be closely related to other regional and international qualifications frameworks (BAC, 2012).

Important lessons and future plans

Adoption of the BQF (levels and descriptors) in 2012 represents a major step in the development of a reference framework. Important issues of governance have also been solved. While the Bhutan Accreditation Council is responsible for the school, tertiary education and continuing education sectors, the Department of Occupational Standards in the Ministry of Labour assumes responsibility for setting standards in vocational qualifications and developing occupational profiles.

Bhutan is making great efforts to overcome BQF implementation hurdles by improving the institutional capacity of public authorities (administrative) and other stakeholders, as well as nurturing stakeholder awareness of the importance of shifting from a curriculum-based to a competency-based approach to education (Lhazom, n.d.). While still striving towards a modern knowledge-based economy, Bhutan has made its policy on BQF appropriate to the local context, focusing on training TVET teachers, improving curricula and teaching resources, building partnerships with industries and employers, and smoothing out differences among the different organisations responsible for TVET and higher education.

Abbreviations

AIU	Association of Indian Universities
APCL	accreditation of prior certificated learning
APEL	accreditation of prior experiential learning
APL	accreditation of prior learning
BAC	Bhutan Accreditation Council
BQF	Bhutan qualifications framework
BCSE	Bhutan certificate for secondary education
BHSEC	Bhutan higher secondary education certificate
BVQ	Bhutan vocational qualifications
BVQA	Bhutan Vocational Qualifications Authority
BVQF	Bhutan vocational qualifications framework
CBSE	Central Board of Secondary Education
CISCE	Council for the Indian School Certificate Examination
COBSE	Council of the Boards of School Education
DEL	Department of Employment and Labour
DOS	Department of Occupational Standards
GIS	Deutsche Gesellschaft für Internationale Zusammenarbeit
GNH	gross national happiness
GNI	gross national income
GTZ	Gesellschaft für Technische Zusammenarbeit
ICT	information communications technology
LSE	lower secondary education
MoLHR	Ministry of Labour and Human Resources
NC	national certificate
ND	national diploma
NTTA	National Technical Training Authority
OP	occupational profiles
PE	primary education
PPP	purchasing power parity
RUB	Royal University of Bhutan
TVET	technical and vocational education and training
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VTIs	vocational training institutes

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BOSNIA AND HERZEGOVINA

Introduction and context

NQF snapshot

Bosnia and Herzegovina's Council of Ministers adopted the baseline qualifications framework (BQF), in March 2011; the decision carries the force of law. The Council of Ministers adopted an action plan to implement the BQF in February 2015.

The BQF has eight levels and includes all types and levels of qualifications and certification.

The 19-member Intersectoral Committee (ISC) is the policy-making body for the BQF. It comprises six members per each of the three major population groups – Bosniak, Croat and Serb – plus one member for minorities such as Roma. The ISC is chaired by the country-wide Ministry of Civil Affairs. However, the ISC has not sat or operated since spring 2015: nomination of representatives has been delayed for political reasons.

Educational, social, economic and political context

Bosnia and Herzegovina – also referred to in this text as BiH – has a population of circa 3.2 million ([43]), which is both ageing and declining numerically, partly through migration. It is an upper-middle-income market economy. Nearly half (48%) of the population live in urban areas, while 14.6% are aged 15 to 24. The literacy rate is very high, at 99% in 2013; most of the population have primary or secondary school education (41.7% and 48.6%, respectively), while 9.7% have higher education. There is a low early school leaver rate (6.7%). People tend to postpone entering an uncertain labour market by extending their stay in education. Participation in higher education has almost doubled since 2000, but this has not led to better employment opportunities.

The labour market in the country continues to be characterised by a low activity rate, high and long-term unemployment, especially among young people, including a high level of informality. Young people (15 to 24 years) have the lowest activity, with less than one third (28.3%) participating in the labour market and with marked gender differences of 19.4% female and 36.3% male.

Like many developed and transition countries, Bosnia and Herzegovina is facing population growth stagnation, with a negative annual growth of-0.12% in 2013. Demographic projections show that the labour force will shrink considerably in the next 40 years. The country will be ageing rapidly, with the dependency ratio rising to 55.1% by 2050 (from 45.5% in 2013). The main cause is lack of confidence in the future. Highly skilled workers, in particular, are keen to look for further and better work possibilities abroad, adding to the problem of brain drain. More than 20% of graduates from tertiary education in the 25+ age group are currently estimated to live in OECD countries. The national labour market clearly needs more jobs and more attractive jobs to ensure sustainable social and economic development.

Approximately three quarters of students in upper secondary are enrolled in VET. Career and development opportunities are clearly worse than in most other European countries. The education attainment levels of the population are still lagging behind those of the EU, although they are improving. And there are high levels of structural long-term unemployment.

Policy objectives

Bosnia and Herzegovina adopted its vocational education and training (VET) development strategy for 2007-13 in 2007; a new VET strategy for 2015-20 is being drafted. The baseline qualifications framework is an element in the strategies and in the strategic directions for the development of education with the implementation plan 2008-15, and the Strategic platform for development of adult education in a lifelong learning context for 2014-20.

([43]) Data in this section are from the ETF Torino process report, 2016-17, Bosnia and Herzegovina.

International cooperation

BiH is an EU potential candidate country. It receives financial assistance from the EU via the IPA (Instrument for pre-accession). An IPA-funded project, managed by the British Council, seeks to develop the qualifications framework for primary and general secondary education in the country. It aims to raise the quality of education and reform the school-leaving *matura* exam; the project prioritises training for teachers, pre- and in-service, in primary and secondary education. It runs from October 2014 to October 2016.

The EU VET IV project developed vocational qualifications based on occupational standards. The German Technical Assistance Agency (GIZ) is a strong presence in the country and is currently running a project *Support to adult education*. One element of this is the 'passport of competences' designed to recognise informally acquired skills, a type of recognition of prior learning (RPL). In higher education, a joint EU and Council of Europe (CoE) project on higher education qualifications developed a good practice guide for development of qualifications and occupational standards in higher education.

In March 2016 a new EU project for the BQF in adult education and lifelong learning began work (after a lengthy delay in the award of the contract); its mandate runs to mid-2018. Its purpose is to develop and implement the VET and adult education elements of the BQF.

Levels and use of learning outcomes

Scope and structure of NQF

The BQF is inclusive/comprehensive. It includes all types (general education, vocational education and training, higher education and lifelong learning) and levels of qualifications (1 to 8) and certification. The BQF illustrates different types of certificate/qualification in principle attainable at the various levels.

Qualifications that are not the outcome of formal education can in principle be included in the BQF but criteria and procedures for inclusion and for referencing to levels have yet to be defined. The current EU project on qualification frameworks for VET and adult education will deal with this issue.

Alignment to other classification systems

The BQF is the national instrument for structuring and classification of qualifications in Bosnia and Herzegovina. The country already had a classification system of qualifications, the *nomenclatura*, which comprehensively reflects the world of education, but does not provide meaningful links to the world of work.

As yet there is no register or catalogue of qualifications available in the country, although the agency charged with primary, secondary and VET (APOSO), holds data on qualifications on offer. Creation of a BQF web portal (to serve as a BQF register) is a part of the remit of the current EU project on qualification frameworks for VET and adult education.

Validation of non-formal and informal learning (VNFIL) or recognition of prior learning (RPL) forms part of the action plan and of the EU project programme but, apart from isolated cases, remains a goal to be achieved, not a national, working system. The current EU project on qualification frameworks for VET and adult education will also deal with this issue.

However, given the number of adults who have been displaced and the current numbers of migrant workers from Bosnia and Herzegovina, VNFIL/RPL would be most valuable and practical. The lack of standards is a hindrance. One exception has been the 'passport of competences' led by GiZ, the German Technical Assistance Agency. This supports employability of adults by identifying informally acquired competences.

Reform in higher education has been influenced by the Bologna declaration and the Lisbon convention on the recognition of qualifications concerning higher education in the European region. Higher education reform is supported by the EU and the Council of Europe. All State universities started to implement the first and the second cycle in 2006, in accordance with the Bologna process, and the European credit transfer and accumulation system (ECTS) has been introduced in all new study programmes. Though the framework law on higher education was adopted in 2007, its full implementation is taking its time. Many amendments incorporated in the final adopted version have made it difficult to implement but all entity and cantonal legislation has been harmonised with the State-level framework law.

NQF levels

The BQF currently has eight levels and no sublevels: other countries in the region, including Montenegro and Croatia maintain sublevels. The eight levels are intentionally designed for straight level-to-level linking with the EQF (e.g. level 4 BQF to level 4 EQF).

Table 14 Bosnia and Herzegovina baseline qualifications framework (BQF)

BQF levels	Type of education and training	Qualifications titles (position in the labour market)	Award type (diploma/certificate/education level)
1	Elementary education	Unskilled worker	Certificate of completed elementary education
2	Occupational training programmes	Low-skilled worker	Certificate of completed programme or education for lower level occupational qualifications, which includes the following information: • duration of education; • knowledge, skills and competence acquired; • field of work a person is trained for.
3	Vocational education and training	Skilled worker for a certain occupation	Diploma/certificate of final examination (matriculation) with practical work, including a supplement which includes the following information: • level of qualifications; • knowledge, skills and competence acquired; • field of work a person is trained for.
4	Secondary technical education	Specialised skilled worker for technical and related occupation	Diploma/certificate of secondary graduation with a supplement which includes the following information: • level of qualifications; • field of major study, specific knowledge, skills and competence acquired; • field of work a person is trained for.
5	Secondary general education	Generally skilled worker	Secondary school graduation diploma with a supplement including the following information: • level of qualifications; • major field of study with specific knowledge, skills and competence acquired; • other knowledge, skills and competence acquired by a person.
	Post secondary education, including master craftsman exams and similar exams	Highly skilled worker specialised for a certain occupation	Diploma/certificate of completed post-secondary education or passed master craftsman exam and/or similar exam for a certain occupation, with a supplement containing the following information: • level of qualifications; • duration of education; • major field of study or a type of exam passed, indicating specific knowledge, skills and competence acquired; • other types of knowledge, skills and competence acquired; • field of work a person is trained for.
6	First cycle of higher education	Titles of qualifications and contents of diploma and diploma supplement for levels 6, 7 and 8 will at a later stage include relevant NQF/EQF levels and will be further elaborated by the adoption of the Rulebook on use of academic titles and acquisition of scientific and professional titles (*)	• BA • Diploma issued by the institution of higher education • Diploma supplement in English and local language
7	Second cycle of higher education		• MA • Master level diploma • Diploma supplement in English and local language
8	Third cycle of higher education		• PhD • Doctorate diploma Diploma supplement in English and local language

(*) Title of the bylaw is defined under Article 6 of the Framework Law on Higher Education in BiH (Official Gazette of BiH No 59/07).

Level descriptors

The current level descriptors are derived from the EQF level descriptors and use the same domains: knowledge, skills and competence. Further development may be necessary to fit national and local conditions better, as well as for EQF referencing.

Use of learning outcomes

The framework levels descriptors are described using learning outcomes; it is not explicitly stated that all qualifications in the framework have to be outcomes-based, but the text refers to levels.

Definition of qualification

The definition of 'qualification' in the action plan is: 'Qualifications: a formal title of the result of a process of assessment and validation obtained once a competent body determines that an individual has achieved the learning outcomes as per the defined standards'.

In practice, it can be difficult to distinguish between curriculum and qualifications in Bosnia and Herzegovina.

Access, progression and credit

The BQF sets out vertical and horizontal progression as one of its main aims. Credit, with the exception of higher education and levels 6 to 8, is not described in detail in the BQF document.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

Bosnia and Herzegovina's Council of Ministers adopted the baseline qualifications framework (BQF) in March 2011; the decision carries the force of law. The Council of Ministers adopted an action plan to implement the BQF in February 2015.

Governance and institutional arrangements for the NQF

The 19-member Intersectoral Committee (ISC) is the BQF's current executive, policy-making body, during framework development. It is chaired by the Ministry of Civil Affairs, a country-wide office. The action plan provides for eventual establishment of a BQF Council as a decision-making/governing body, and sectorial councils as technical/expert bodies.

Formally, ISC membership should comprise representatives of the following sectors/institutions:

(a) five representatives of the education sector (Ministry of Civil Affairs – Education Sector; Federal Coordination of Ministers of Education: two canton representatives; Ministry of Education and Culture of Republika Srspka; Education Department of the Government of the Brcko District of BiH);
(b) three representatives of the Rectors Conference of Bosnia and Herzegovina;
(c) three representatives of education agencies in Bosnia and Herzegovina (Agency for Pre-school, Primary and Secondary Education; Agency for the Development of Higher Education and Quality Assurance and the Centre for Information and Recognition of Documents in Higher Education);
(d) three representatives of the statistics sector (Agency for Statistics of Bosnia and Herzegovina, Federal Institute for Statistics, Republic Institute for Statistics of Republika Srpska);
(e) three representatives of the sector for labour and employment (Ministry of Civil Affairs – Section for Labour and Employment, Federal Ministry of Labour and Social Policy, Ministry of Labour and Protection of Veterans and Disabled Persons of Republika Srpska);
(f) one representative of employers (Association of Employers of Bosnia and Herzegovina) and one representative of the labour unions (Confederation of Labour Unions of Bosnia and Herzegovina).

In practice, institutional arrangements are complex and fragmentary. As a consequence of the Dayton Peace Agreement of 1995, the country's constitution is highly decentralised, which poses challenges in creating a national qualifications framework (NQF) with equal validity and application across the country.

There is the State level: in education, this means the Ministry of Civil Affairs (MoCA); the two entities, the Federation of Bosnia and Herzegovina and the Republika Srpska; 10 BiH Federation cantons; and cities and municipalities. There is also the Brcko District of BiH. Each of the two entities, plus Brcko, plus the 10 cantons inside the federation, has its own administration, meaning there are 14 separate education authorities.

In 2017, the ISC remained suspended for political reasons. Some of the institutions and ministries referred to above decline to participate in any initiative beyond temporary EU or other donor-funded projects, and not in a more established national body.

Roles and functions of actors and stakeholders

The ISC, after an initial phase and one-year mandate, according to the action plan should have a seven-year mandate once appointed (2014-20). Its decisions are majority-determined, qualified by the requirement to include a minimum of two thirds of votes from the representatives of each constituent people. Its principal functions are to oversee and ensure implementation of the action plan.

The Agency for Pre-primary, Primary, and Secondary Education (APOSO) includes a VET department. Its principal concern is with quality; its functions include developing standards (education and occupational) and guiding curricula. Cantons and the two entities – the Federation and Republika Srpska – develop individual qualifications and determine the awarding process.

This raises questions about the reliability and validity of qualifications: it is not clear if outcomes are comparable, as standards are different between the cantons and entities. EU-funded projects in qualification frameworks for general, VET and adult education have an important task to ensure that outcomes, standards and methodologies used by all managing authorities are harmonised and comparable.

Employers and trades unions are represented on the BQF policy-making body, the ISC, though they are generally not strong across the country's wider institutional set-up. The Ministry of Civil Affairs (with its responsibility for coordination in education and work and employment sectors at country level), EU projects, and the State agencies APOSO and HEA (Agency for Development of Higher Education and Quality Assurance) have sought to link education and training more closely to the labour market. Employer organisations such as the chambers of commerce, complain that decentralisation leads to excessive difficulty in engaging with government bodies and officials in VET. They also underline that graduates, VET or otherwise, lack soft or core skills.

In technical work, the involvement of sector representatives remains weak and the development of occupational standards is carried out mainly with the support of teachers from schools, who visit a large number of enterprises.

Funding

The new EU project on qualification frameworks in VET and adult education offers EUR 1.4 million over its two-year timespan. A second EU project on qualification frameworks in general education offers EUR 2 million over its two-year timespan. Budgets of State/public institutions are otherwise very limited.

Quality assurance of qualifications

In higher education, quality assurance is regulated by the Agency for Development of Higher Education and Quality Assurance. Higher education institutions (HEIs) develop programmes and qualifications, validated for use by the agency.

VET is more complex. APOSO develops qualification standards and assessment criteria but schools do the assessment, which is mainly internal. Ministries and cantons are the principal awarding bodies: it is their stamps which appear on certificates.

Neither in VET nor in higher education are there yet agreed criteria for validation of qualifications, which would support quality and levelling of qualifications in the NQF. However, components 2 and 3 of the new EU-IPA project concern quality assurance in VET and adult education. The project team plans to develop guidelines including standards and criteria for external evaluation and self-assessment, based on best European practice and models. Most assessment remains in-school, or internal, though for *matura*, the school-leaving exam, a pilot was developed, which included external assessment.

The main issue and challenges for quality assurance of qualifications are lack of comparable education or occupational standards, lack of agreed criteria for development and validation for use of qualifications, minimal external assessment, and fragmented functions among the many actors. There are good cases of quality assurance practice, e.g. some qualifications are written in learning outcomes, there is some validation of qualifications, but there is no consistency across the system or country.

Recognising and validating non-formal and informal learning and learning pathways

Validation of non-formal learning is part of the action plan but there is no country-wide system as yet. Individual providers offer it for access to programmes, while the German development agency GIZ developed the 'competence passport' to support recognition of adult and adult learner skills. VNFIL is at the ad hoc stage in Bosnia and Herzegovina.

NQF implementation

Inclusion of qualifications in a register

There is currently no register or database at national level, although APOSO (see above) maintains a general overview of existing and new VET qualifications, and HEA of higher education qualifications. Creation of the BQF web portal is foreseen in the near future within the EU-funded project on qualification frameworks in VET and adult education.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of BQF implementation have not yet been fully defined, but the ISC will have an important role in this process.

Impact for end-users

The BQF is not yet being used as a reference system or tool by learners, providers and workers.

Referencing to regional frameworks

Bosnia and Herzegovina is a potential candidate for EU accession and joined the EQF advisory group in October 2015 as a full member. Making the BQF ready for referencing to the European qualifications framework is, therefore, a priority. Similarly, BiH participates in the Bologna process in higher education, whose requirements include self-certification against the qualifications framework for the European higher education area.

Important lessons and future plans

EU projects will deliver useful tools such as qualifications development methodologies, and lay groundwork for elements such as quality assurance systems, but these technical advances will not have an impact on qualification or VET systems in the country without political backing. This means, in the first instance, re-establishment of the Intersectoral Committee and creation of a BQF Council at political level.

Vocational training reform has initiated changes in almost all education functions, but its quality remains a challenge, particularly in terms of learning outcomes, accreditation of training providers and programmes, and teaching and learning. The reform has continued to focus on bringing vocational training closer to labour market needs.

The complex institutional arrangements with State institutions, which have limited mandates, makes the overall pace of reform slower than might otherwise be the case. Implementation of the action plan for the BQF is behind schedule. While the EU projects will perform much of the necessary technical work necessary to implement the action plan, they last only until March 2018. There needs to be a sustained follow-up of implementation of the NQF infrastructure, with the necessary allocation of financial resources from the BiH public funds at all relevant levels of government.

Abbreviations

APOSO	Agency for Pre-primary, Primary, and Secondary Education (includes VET)
BiH	Bosnia and Herzegovina
BQF	Bosnia and Herzegovina baseline qualifications framework
CoE	Council of Europe
EQF	European qualifications framework
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit, GmbH* (German Technical Assistance Agency)
HEA	Agency for Development of Higher Education and Quality Assurance
IPA	Instrument for pre-accession, the EU's support programme for candidate and potential candidate countries
ISC	Intersectoral Committee
MoCA	Ministry of Civil Affairs
NQF	national qualifications framework
RPL	recognition of prior learning
VNFIL	validation of non-formal and informal learning

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BOTSWANA

Introduction and context

The need for an NQF for Botswana was identified as early as 2002 but the project was only formalised after the Cardno report in 2006 (Cardno Agrisystems, 2006). The report concluded that Botswana's education system lacked credibility because of the absence of clear learning pathways, and recommended the establishment of an NQF to address this problem (Tau and Modesto, 2009). As a result, the Botswana Qualifications Authority (BQA) was established and enacted in 2013; this was a merger of the Botswana Training Authority and the Tertiary Education Council. The Botswana national credit and qualifications framework (BNCQF) project has been assisted since 2010 by Europe Aid.

The BNCQF will link three subsystem frameworks: general education, technical and vocational education and training (TVET), and higher education. Botswana established the Botswana national vocational qualifications framework (BNVQF) in 2004. This covers TVET, and has no links to general or higher education (Tau and Modesto, 2009). The Botswana technical education programme (BTEP) is a college-based qualifications framework which facilitates partnerships between higher education institutions and leading employers in order to provide learners with the entrepreneurial skills that industry and commerce demand (AfDB and OECD, 2008). Both BTEP and BNVQF programmes were accredited in the BNVQF.

The Republic of Botswana has been one of the fastest-growing economies in Africa over the last three decades, emerging in 2012 as an upper middle income country with a per capita GDP of USD 16 800 (CIA, 2013). However, employment growth has been unable to match economic growth. This is largely because Botswana depends solely on diamonds as a commodity, and has so far been unable to diversify its economy (Siphambe, 2007). Although Botswana's territory is vast, covering 582 000 square kilometres, its population remains sparse at 2.031 million (World Bank, 2011). Adult literacy (age 15 and over) stands at 84.5% and youth literacy (age 15 to 24) at 95.3%. The primary school completion rate is 92%.

Policy objectives

The BNCQF's overall aims are twofold: to reform Botswana's education system and to improve communications between stakeholders. As a tool for education reform the BNCQF aims to:

(a) bring all national qualifications together under a single internationally recognised classification system, covering the general, TVET and tertiary education sectors;
(b) provide qualifications that are quality-assured, nationally and internationally comparable, and portable;
(c) improve the transparency of qualifications so that they convey clearer information about learner competences and knowledge;
(d) rectify the current mismatch between qualifications and the labour market by making qualifications programmes more responsive to labour market dynamics;
(e) align Botswana's education and training system to the global market, making Botswana's qualifications more internationally competitive;
(f) support learner mobility and progression, both within and outside Botswana, with the help of mechanisms for the recognition of prior learning (RPL) and for credit accumulation and transfer;
(g) establish a qualifications register to keep track of accredited qualifications, programmes, courses, training providers and awarding bodies;
(h) ensure the accessibility of qualifications to learners, members of the government, employers, education providers and members of the public;
(i) establish an overarching independent regulatory body responsible for policy-setting and implementation of the new system.

As a communications tool, the BNCQF aims to ensure that all stakeholders involved:

(a) receive and disseminate clear and accurate information concerning the knowledge, skills, responsibilities and degree of independence of holders of a particular qualification;

(b) understand and use the terms included in the qualifications framework in the same way;
(c) understand the roles they are expected to play in the development of qualifications;
(d) understand the relationship between formal, informal and non-formal learning;
(e) appreciate the systemic change in Botswana education and training which will be brought about through the shift in focus towards learning outcomes (Modungwa and Molwane, 2011).

Stakeholder involvement and institutional arrangements

Botswana's national human resource development strategy called for the establishment of an independent statutory body to develop and implement the BNCQF. This body is the BQA. The BQA is responsible for setting up a national regulatory system for education and skills development. It performs the core functions of:

(a) registration and accreditation;
(b) quality assurance;
(c) advising the Minister for Education and Skills Development on all policy matters relating to the BNCQF.

Most importantly, the BQA is responsible for bringing together the different strands of the currently fragmented education and training system.

Levels and use of learning outcomes

The BNCQF has 10 levels. It is outcomes-based and credit-based, and incorporates unit standards for TVET, title definitions and level descriptors.

The 10 levels are differentiated by the complexity of learning required. Each level descriptor explains what the holder of a qualification at that level is expected to know and be able to do. The three sub-frameworks are linked to ensure coherence between higher education and TVET, and to promote the perception that these sectors are equal in value (Modungwa and Molwane, 2011).

Recognising and validating non-formal and informal learning and learning pathways

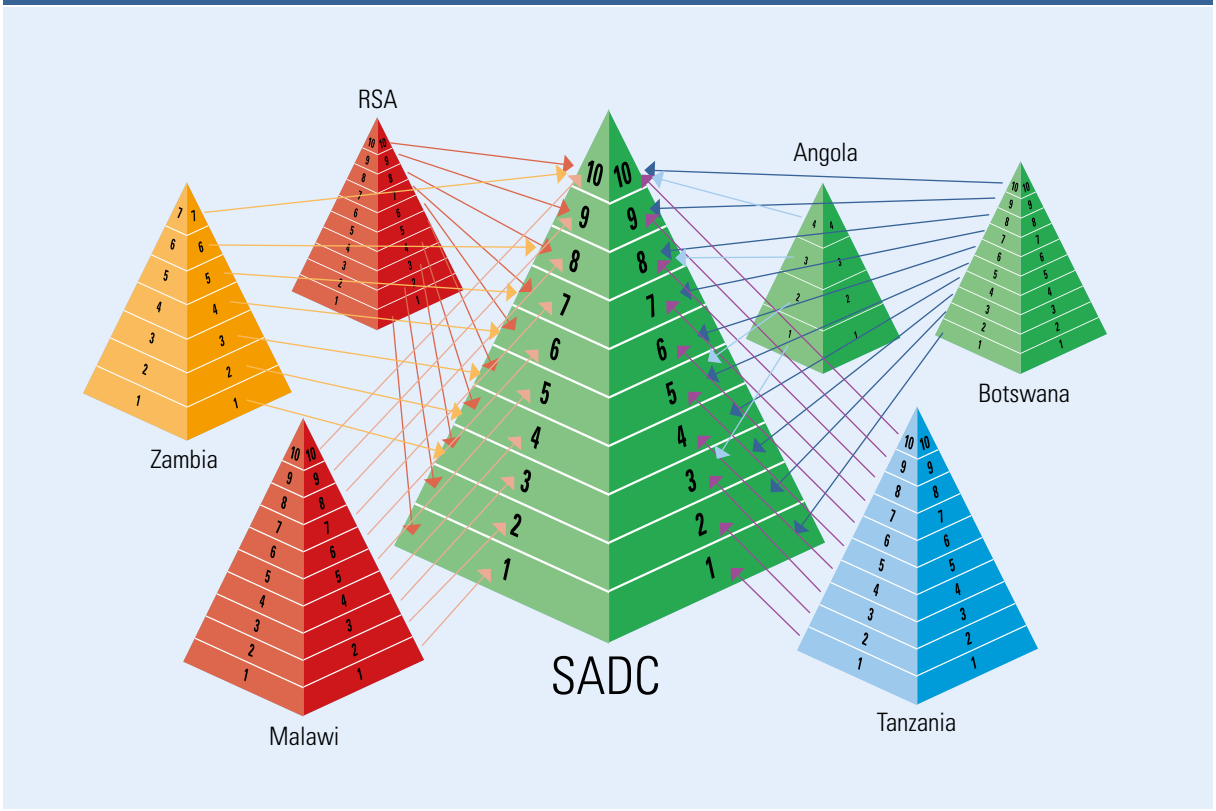
Creating links between academic and vocational qualifications is an important function of the BNCQF. Three nationally validated systems help to fulfil this function: the quality assurance system, the system of

Table 15 Botswana national credit and qualifications framework (BNCQF)

Sub-frameworks			
BNCQF levels	**General education**	**TVET**	**Higher education**
10		Doctoral degree	Doctoral degree
9		Master degree	Master degree
8		Bachelor degree honours Postgraduate diploma Postgraduate certificate	Bachelor degree honours Postgraduate diploma Postgraduate certificate
7		Bachelor degree	Bachelor degree
6		Diploma	Diploma
5	Botswana certificate V	Certificate V	
4	Botswana certificate IV	Certificate IV	
3	Botswana certificate III	Certificate III	
2	Botswana certificate II	Certificate II	
1	Botswana certificate I	Certificate I	

Source: Modungwa and Molwane, (2011).

Figure 5 Alignment of national frameworks with regional frameworks



Source: Botswana Qualifications Authority (2014). Understanding the BQA mandate. Presentation made at the BQA *staff sensitisation workshop, Gaborone, 21 March 2014*.

credits upon which qualifications will be based, and the proposed common recognition of prior learning (RPL) and recognition of current competences (RCC) system. The BNCQF is helping to implement the RPL and RCC system, which is intended to assess and recognise learners with informal and indigenous skills (Modungwa and Molwane, 2011).

Training institutions have already started to design new curricula based on learning outcomes (Modungwa and Molwane, 2011), and a number of new programmes have been launched targeting specific groups of learners. The adult basic education programme is an important bridging programme within the BNCQF (Botswana Department of Non-Formal Education, 2007), which combines core skills training with work experience. Since 2007 it has prepared adults for entry to levels 1 and 2 of the BNCQF. Similarly, the structured work-based learning programmes created in the context of the Botswana technical education programme (BTEP) are aligned to a suite of college-based technical education qualifications developed between 1997 and 2007 by the Department of Vocational Education and Training (DVET) Botswana, with the aim of making training more consistent with employers' demand for skills.
The Centre for Continuing Education at the University of Botswana has also designed and implemented non-credit programmes covering a variety of areas which aim to open access to those without formal education, thus promoting BNCQF-aligned mobility between conventional and less conventional courses.

Referencing to regional frameworks

The 10-level, outcomes-based and credit-based design of the BNCQF has been deliberately adopted to align it with the Southern African Development Community (SADC) regional framework.

Important lessons and future plans

The BQA has already had some successes, notably:

(a) developing a vision statement and branding device;
(b) embedding the BNCQF within the existing Human Resource Development Council strategy;
(c) revising and redesigning the qualifications framework, turning it into an integrated and comprehensive framework;
(d) developing a legal framework for the BQA and BNCQF;
(e) developing a draft communication strategy;

(f) conducting a study on credit systems and policies;
(g) developing BNCQF policy;
(h) benchmarking with other countries in the SADC region.

It would be more helpful and progressive if SADC had a more suitable guided referencing programme to support member countries as they develop their NQFs to ensure the correct alignment. This would promote regionalisation of the NQFs and facilitate the desired transferability and credit accumulation and transfer among member States. That would enable the SADC regional qualifications framework (RQF) to achieve the true purpose of an RQF, and also make NQFs more attractive to those member States that are still not motivated to start developing them. Botswana is not yet looking into the distant future as it is still struggling with how the general education subsystem is going to be implemented. This is a new area of development for the legacy organisations (higher education was previously regulated by the Tertiary Education Council).

The next steps to be taken are:

(a) establishing a monitoring and evaluation unit;
(b) developing a formal methodology to measure the impact of the qualifications framework on the education and training system;
(c) developing a marketing and communications strategy to help stakeholders, learners and the general public understand the changes to the learning system brought about by the introduction of the BNQCF (covering pedagogy, programme design and delivery);
(d) developing a consistent and sustained programme of information sharing between government and stakeholders.

However, significant challenges remain. These include a dearth of local expertise, inflexible financial resources, insufficient time, poor understanding of the goals of the BNCQF by stakeholders, and insufficient buy-in (Botswana, 2010). The government foresees overcoming these challenges by improving communications between stakeholders, and aligning the BNCQF with the interests and needs of different sectors and stakeholders.

Abbreviations

BNCQF	Botswana national credit and qualifications framework
BNVQF	Botswana national vocational qualifications framework
BQA	Botswana Qualifications Authority
BTEP	Botswana technical education programme
NQF	national qualifications framework
RPL	recognition of prior learning
SADC	Southern African Development Community
TVET	technical and vocational education and training

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BULGARIA

Introduction and context

Bulgaria has recently improved its performance as regards basic skills and tertiary education attainment. However, it still needs to improve the overall quality and efficiency of its school education system and the capacity of higher education to respond to labour market needs ([44]).

To ensure the quality and effectiveness of vocational education and training, and in an effort to support reform in the Bulgarian education system, the council of ministers decided to adopt the Bulgarian national qualifications framework for lifelong learning (BQF) in 2012.

The BQF is a single, comprehensive, eight-level framework with an additional preparatory level 0. It includes qualifications from all levels and subsystems of formal education and training, including pre-primary education: two years of pre-school education before first grade is mandatory. It encompasses pre-primary, primary and secondary general education, vocational education and training (VET) and higher education.

Amendments to national legislation are foreseen to support implementation of the framework. A new pre-school and school education bill was adopted in late 2015 and will lead to amendment of the BQF at secondary education levels, providing a legal definition of 'learning outcomes'; a working group is to be established, tasked to prepare the amendments.

Two bills amending and supplementing the Law on vocational training ([45]) further support the BQF, with legal arrangements for validation of non-formal and independent [informal] learning, for learning outcomes units, and for introduction of the VET credits accumulation and transfer system.

The BQF was referenced to the European qualifications framework (Bulgarian Ministry of Education, Youth and Science, 2013) and self-certified against the qualifications framework of the European higher education area (QF- EHEA) in mid-2013.

Policy objectives

The overall objective of developing and introducing a comprehensive national qualifications framework (NQF) compatible with the European qualifications framework (EQF) and the QF-EHEA is to make Bulgarian education system levels clearer and easier to understand by describing them in terms of learning outcomes. This will also improve understanding of national qualifications among target groups and stakeholders. It is hoped that this will raise trust in education and training and make mobility and recognition of qualifications easier.

([44]) General government expenditure on education as a share of GDP (3.8% in 2013) has slightly increased over recent years but remains well below the EU average of 5.0% and is the second lowest in the EU-28. The participation of upper secondary students in vocational education and training (VET) is above the EU average (52.4% in 2013, compared to the EU average of 48.9). The employment rate of recent upper secondary graduates is also well below the EU average. *Source: Education and training Monitor (2015) Bulgaria.*

([45]) (a) Bill amending and supplementing the Law on vocational education and training; registration number: 354-01-76; the bill is available in Bulgarian language at the National Assembly's website: http://parliament.bg/bills/42/354-01-76.pdf

(b) Bill amending and supplementing the Law on Vocational Education and Training; registration number: 354-01-88; the bill is available in Bulgarian language at the National Assembly's website: http://parliament.bg/bills/42/354-01-88.pdf

More specific aims addressed by BQF development are to:

(a) develop a device with translation and bridging functions;
(b) promote mobility within education and in the labour market;
(c) promote learning-outcomes orientation of qualifications;
(d) support validation of prior learning, including non-formal and informal learning;
(e) strengthen orientation towards a lifelong learning approach;
(f) increase cooperation between stakeholders ([46]).

Apart from offering transparency, the BQF is seen as an enabler – rather than a driver – of wider reform, with implications for setting up a system for validating non-formal learning, improving education quality, modernising curricula and strengthening provider accountability.

Systematic and coherent lifelong learning policies have largely been lacking in Bulgaria; adult participation in lifelong learning is the second lowest in the EU, significantly below the EU average (1.8% in 2014, compared to the EU average of 10.7%) ([47]). The BQF aims to play an important role in supporting lifelong learning, in promoting adult learning, and modernising vocational education and training.

Levels and use of learning outcomes

The BQF comprises eight levels and an additional preparatory level (BQF level 'zero', covering pre-school education). Level descriptors take into account EQF and QF-EHEA descriptors. All levels are described in terms of knowledge (theoretical and factual), skills described as cognitive (use of logical and creative thinking) and practical (manual dexterity and use of methods, materials, tools and instruments), and competences. Descriptors distinguish between personal and professional competences. They include autonomy and responsibility, and key elements such as learning competences, communicative and social competences are also emphasised. Learning-outcomes-based qualification levels are expected to give learning outcomes a more prominent role in planning education provision. This is especially the case for development of VET standards divided into units of learning outcomes.

Specified learning outcomes at the qualification levels reflect the legal acts governing different subsystems of education and training, as well as State education requirements for contents and expected learning outcomes in the national education system (general and VET) and in higher education.

The national strategy for lifelong learning for the period 2008-13 ([48]) does not only provide definition of the term 'learning outcomes'; one of its priorities (along with vocational training, key competences and recognition of qualifications) is 'assessment of learning outcomes'. Learning outcomes (in Bulgarian, резултати от учене) are defined as 'acquired knowledge and skills as a result of formal, non-formal and independent (informal) learning' ([49]). In January 2014, the Council of Ministers adopted the new national strategy for lifelong learning (for 2014-20) ([50]) which addresses the challenges in all forms of education, training and learning – formal, non-formal, independent [informal] – which an individual could undertake throughout his life. The new national strategy for lifelong learning, like the previous one, provides explanation of the phrase 'learning outcomes' and contains a definition of the term 'Learning outcome units' (in Bulgarian: единици учебни резултати) ([51]), which is understood as 'a component of qualification, consisting of coherent set of knowledge, skills and competences, which could be assessed and validated through a certain number of credit points, linked to them' ([52]). As

([46]) Bulgarian, Ministry of Education, Youth and Science (2013). *Referencing the NQF of the Republic of Bulgaria to the EQF and to the qualifications framework for the European higher education area* [unpublished].
([47]) European Commission (2015). *Education and training monitor 2015: Bulgaria.*
([48]) National strategy for lifelong learning for the period 2008-13 (in Bulgarian: Национална стратегия за учене през целия живот за периода 2008-13), adopted by the Council of Ministers on 30.10.2008; the national strategy is available in Bulgarian language at http://www.strategy.bg/FileHandler.ashx?fileId=690
([49]) National strategy for lifelong learning for 2008-13, p. 34.
([50]) National strategy for lifelong learning for 2014-20 (in Bulgarian: Национална стратегия за учене през целия живот за периода 2014-20), adopted by the Council of Ministers on 10.1.2014; the national strategy is available in Bulgarian language at http://www.strategy.bg/FileHandler.ashx?fileId=4297
([51]) Note that there is a slight difference between the terminology used for 'learning outcomes units' in the *Bill amending and supplementing the Law on vocational education and training* and that used in the National strategy for lifelong learning for 2014-20. In the former the wording is "единици резултати от ученето", whereas in the latter it is "единици учебни резултати".
([52]) National strategy for lifelong learning for 2014-20, Chapter 5. Glossary of main terms (in Bulgarian: 5. Речник на основните понятия), p. 62; in Bulgarian: Единици учебни резултати – Компонент от

a whole, the term 'learning outcomes' is widely used in the strategy.

Although the phrase 'learning outcomes' is not so widespread in policy documents on general education, it is used or referred to in national curriculum, assessment and examination documents, particularly in State educational requirements. However, an action plan for implementing the approach has not been adopted nor discussed in the country. The current position in the various subsystems shows that implementation of the approach has continued in the new State educational standards adopted after the new law on pre-school and school education entered into force. It is also in the new State educational requirements on acquisition of higher education in regulated professions, adopted after the BQF entered into force.

Two bills amending the law on VET introduce the term and propose a legal definition of it. State educational standards ([53]) and examination programmes, especially those for acquiring vocational qualification, have been updated (or new ones developed), to describe or to refer to learning outcomes. This update is a prerequisite for implementing the validation procedure and awarding of credits.

Higher education institutions are autonomous and responsible for developing curriculum, assessment and examination rules, and some have learning outcomes within study programmes, so implementation differs from one institution to another. The New Bulgarian University is an example of an institution using learning outcomes in its study programmes ([54]). The Burgas Free University also uses learning outcomes in some of its master programme courses ([55]). However, there is no systematic approach for implementing a learning outcome approach in higher education. According to a recent Cedefop study ([56]), the law on higher education in Bulgaria ([57]) which governs accreditation of universities, does not stress the importance of learning outcomes for the accreditation process.

Stakeholder involvement and institutional arrangements

The Ministry of Education and Science of the Republic of Bulgaria coordinated and led drafting of the BQF and is now coordinating its implementation. National coordination point (NCP) responsibilities lie with the International and European Cooperation Directorate in this ministry. All staff are on permanent contracts as State officials. A new working group will be set up in near future, to prepare amendments to the BQF at secondary education levels. Responsible for maintaining and updating the BQF, the group will comprise representatives of the Ministry of Education and Science along with other relevant stakeholders, including social partners and employer and employee organisations. Although there is active participation by stakeholders in elaborating the new draft projects of State educational standards and requirements, there is a need for stronger cooperation and sufficient experience (in methods of cooperation) among them.

The National Agency for Vocational Education and Training (NAVET) management board, as well as experts at NAVET, are permanently involved in developing and updating the list of qualifications for VET, which is integrated in BQF.

Recognising and validating non-formal and informal learning and learning pathways ([58])

Bulgaria does not have an overall national strategy or policy on validation of non-formal learning to encompass all educational sectors. Other grassroots initiatives have been either recently launched, are little known or still do not have results. It was only in 2014 that the VET Act was amended aiming to introduce the legislative basis for validation of prior learning in VET in 2015 that the ordinance on the

квалификация, състоящ се от съгласуван пакет от знания, умения и компетентности, които могат да бъдат оценени и валидирани с помощта на определен брой свързани с тях кредитни точки.

([53]) The term 'standard' has been adopted instead of the term 'requirement' since 1 August 2016 with the new law for school and preschool education.

([54]) New Bulgarian University, e-catalogue: http://ecatalog.nbu.bg/Default.asp?V_Year=2013

([55]) Burgas Free University, Master programmes, website: http://www.bfu.bg/index.php?q=node/1793

([56]) Cedefop (2016). *Application of learning outcomes approaches across Europe: a comparative study*. http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=TIRF16001

([57]) Law on higher education (in Bulgarian: Закон за висшето образование); Promulgated: State Gazette No112/27.12.1995; Last amendment: *State Gazette* No 101/22.11.2013; the act is available in Bulgarian at http://lex.bg/laws/ldoc/2133647361

([58]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

conditions for validation entered into force. ([59]) The time period between 2014/15 and 2016 was too narrow for many initiatives to begin.

Procedures were developed through the project *System for validation of non-formal acquired knowledge, skills and competences (2013-15): new opportunity for my future* implemented by the Ministry of Education and Science in cooperation with the National Agency for Vocational Education and Training, other relevant ministries and social partners ([60]). National employers' organisations (such as the Bulgarian Industrial Association, Bulgarian Chamber of Commerce and Industry, and the Bulgarian Industrial Capital Association) and employees' organisations (the Confederation of Independent Trade Unions in Bulgaria and Confederation of Labour, *Podkrepa*) were partners in this project. They contributed to developing internal quality assurance mechanisms related to assessing evidence of previous learning.

Adoption of the BQF, presenting detailed descriptions of learning outcomes in line with State educational requirements (SER) ([61]), will promote possibilities to implement validation of non-formal and informal learning. Through the update of the SER, Bulgaria is gradually introducing the learning outcomes approach in curricula and assessment. The use of (units of) learning outcomes supports validation of non-formal and informal learning so validation practitioners may have to take specialised training on learning-outcomes-based assessment and may have to rewrite (and update) the SER by professions.

In VET, where validation is currently possible, SER are the standards used; in higher education, institutions are autonomous and have their own standards for validation and recognition. These should be in line with the SER on acquisition of higher education at bachelor, master and professional bachelor degree levels; they should also feature on the SER of university education acquired in foreign higher education institutions, and of periods of studies completed at such establishments Some aspects of validation (such as awarding credit units and access to higher education) are covered by the Higher Education Act, although validation practices are not broadly used.

Bulgaria has no overall quality assurance framework for validating formal and non-formal learning. In 2015, Ordinance No 01-845 for quality assurance in VET was adopted ([62]): in this, established rules, requirements and quality assurance criteria for VET provider activities (including validation) are described. The *New opportunity for my future* project has made a valuable contribution to the development of internal quality assurance measures. Special training has been provided to validation practitioners to aid their ability to compare learning outcomes acquired through non-formal or informal learning with learning outcomes defined for certain vocational qualifications.

NQF implementation

The qualifications framework is firmly based on national legislation and was adopted by the Council of Ministers (Decision No 96) ([63]). It is not yet operational. The referencing report was adopted by the Minister for Education and Science in March 2014, paving the way for implementation, but action has been delayed. The BQF, as proposed for referencing, is a classification framework: its future reforming role to support development and revision of qualifications and quality assurance arrangements is acknowledged. The BQF will be embedded in wider educational reforms; legislative changes will be introduced to strengthen BQF implementation and curricula and provision will be modernised. On completion of the referencing process, all new qualification certificates, diplomas and Europass documents will be referenced to the relevant BQF level, linked to the corresponding EQF level in accordance with Article 141 of the law for preschool and school education ([64]).

Beyond this, information on actual implementation is sparse. Public awareness events will be launched again after the draft proposal for amendment of the BQF is ready for public discussions. One explicit aim is to support lifelong learning. Currently, the

([59]) Ordinance No 2 on the conditions and procedures for the validation of professional knowledge, skills and competences, State Gazette No 96 /2014: http://www.navet.government.bg/bg/media/N2_Validirane_21_11_14.pdf

([60]) Partners include the Ministry of Education, Youth and Science, Ministry of Labour and Social Policies, Ministry of Justice, Public Employment Agency, Bulgarian Industrial Association, Bulgarian Chamber of Commerce and Industry, the Confederation of Labour *Podkrepa* (see European Commission et al., 2014).

([61]) The term 'State educational requirements' is changed with the Preschool and School Education Act (2015) into the 'State educational standards'. The term will be changed in VET also, but SER is still in use.

([62]) Ordinance No 01-845 of 19 October 2015: http://www.mlsp.government.bg/index.php?section=POLICIESI&I=250&lang

([63]) Council of Ministers' Decision No 96 of 2 February 2012 on the adoption of the national qualifications framework of the Republic of Bulgaria.

([64]) Law on pre-school and school education, State Gazette No 79/2015. http://www.mon.bg/?h=downloadFile&fileId=8245 (in Bulgarian)

BQF comprises all educational stages and all levels of education (from pre-school to doctoral level); it can be regarded as a comprehensive framework. However, it is restricted to qualifications from formal education and training; levels 6 to 8 are limited to qualifications awarded by higher education institutions. The question arises of how open or closed the framework will be; what role will it play in supporting lifelong learning, access, progression and participation (especially of adults)? Will it be open to qualifications acquired outside the formal education system in the course of lifelong learning? Will it become a tool for recognition of lifelong learning achievements?

A proposal for an integrated national qualification register was developed. Currently, registers for school education certificates ([65]) issued by the centres for vocational training of adults ([66]) and higher education diplomas ([67]) are in place.

Referencing to regional frameworks

Bulgaria delivered a joint referencing report in early 2013, referencing the BQF to the EQF and the QF-EHEA. The report describes the national education and training system, quality assurance and quality systems for all education levels, and how the BQF and adjoining development processes and responsibilities meet the 10 referencing criteria. Outcome descriptors of BQF levels are generally more detailed than those in the EQF, with key competences such as learning competences, communicative and social competences taken into consideration.

The BQF includes a level 'zero', which is a preparatory level of pre-school education before first grade. It has no corresponding level in the EQF, but is included in the BQF to encompass the entire education system.

VET can start quite early (at age of 13) and is spread over four levels in the BQF (levels 2 to 5), starting with the 'first level' of a vocational qualification placed at level 2, along with the basic education certificate. Levels 3 and 4 comprise lower and upper secondary stages and include the 'second and third level' of a vocational qualification, along with general education. Level 5 comprises VET only; the 'fourth level' of a vocational qualification is placed here. This is the most advanced (post-secondary) vocational qualification. Levels 6-8 relate to qualifications obtained in higher education – bachelor, master and doctor degrees. Each level corresponds to the relevant level of the EQF.

Important lessons and future plans

The NQF aims to increase transparency in education and training and aid knowledge and skills transfer, improving labour force mobility. Level descriptors defined in learning outcomes aim to provide a reference point and common language for diverse qualifications from different education subsystems. By referring to educational levels and State educational requirements, the BQF has been given a strong input orientation. It is expected, however, that learning-outcomes-based level descriptors will play an important role in supporting dialogue and that discussion among stakeholders will strengthen the learning- outcomes dimension in qualifications design.

The framework can play an important role, but only if it is part of a wider strategic policy resulting in necessary reform and institutional regulations. The recently adopted Pre-school and School Education Bill, the Higher Education Act ([68]) and amendments to the VET Act ([69]) will feed into these developments. Although it is an explicit aim of BQF work to strengthen orientation towards a lifelong learning approach, it remains a challenge that lifelong learning aspects are inadequately focused. There is little information so far on system flexibility and the conditions and role of the framework for promoting lifelong learning and supporting access, progression and adult participation.

Future plans include necessary legislative changes, modernisation of curricula in schools and higher education, and promotional activities. Implementing the BQF at institutional level is seen as a major challenge, particularly by higher education institutions. To support this development, a string of capacity building seminars were held in late 2015.

Stakeholders (including State institutions) in some economic sectors have recently started discussions regarding all sectoral qualifications on levels 2 to 7 from BQF: labour market needs, current possibilities, horizontal and vertical permeability (IT, machinery,

([65]) https://www2.mon.bg/AdminRD/mon/
([66]) http://www.navet.government.bg/bg/registar-na-izdadenite-dokumenti/
([67]) http://89.252.196.217/AdminRHE2/
([68]) Higher education act, State Gazette No 112/27.12.1995, last amended SG No107/2014, http://www.mon.bg/?h=downloadFile&fileId=39 (in Bulgarian)
([69]) Vocational Education and Training Act, State Gazette No 68/30.7.1999, last amended SG No 61/2014, http://www.mon.bg/?h=downloadFile&fileId=38, (in Bulgarian)

transport). This might be perceived as a step towards development of a sectoral qualifications framework.

Further sources of information

The Bulgarian referencing report to the EQF (Bulgarian Ministry of Education, Youth and Science (2013)).

The International and European Cooperation Directorate in the Ministry of Education, Youth and Science is designated as the EQF national coordination point: http://www.mon.bg

Abbreviations

BQF	Bulgarian qualifications framework
EQF	European qualifications framework
NAVET	National Agency for Vocational Education and Training
NCP	national coordination point
NQF	national qualifications framework
QF-EHEA	qualifications framework in the European higher education area
SER	State educational requirements
VET	vocational education and training

Table 16 Bulgarian qualifications framework (BQF)

BQF levels	BQF	EQF levels
8	Doctor degree continuing training	8
7	Master degree continuing training	7
6	Bachelor degree Degree of 'professional bachelor in…' continuing training	6
5	Vocational qualification-level 4	5
4	Upper secondary general education school leaving certificate Vocational qualification-level 3	4
3	Lower secondary school leaving certificate Vocational qualification-level 2	3
2	Basic education certificate (class five to eight) Vocational qualification-level 1	2
1	Primary education certificate	1
0	Pre-primary education	N/A

Source: Bulgarian Ministry of Education, Youth and Science, 2013.

References

Bulgarian Ministry of Education, Youth and Science (2013). *Referencing the NQF of the Republic of Bulgaria to the EQF and to the qualifications framework for the European higher education area* [unpublished].

Cedefop (2016). *Application of learning outcomes approaches across Europe: a comparative study*. Luxembourg: Publications Office. http://www.cedefop.europa.eu/en/publications-and-resources/publications/3074

European Commission; Cedefop; ICF International (2014). *European inventory on validation of non-formal and informal learning 2014: country report Bulgaria*. http://libserver.cedefop.europa.eu/vetelib/2014/87050_BG.pdf

European Commission; Cedefop; ICF International (2016). *European inventory for validation of non-formal and informal learning 2016: country report Bulgaria*. http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

European Commission (2015). *Education and training monitor: country report: Bulgaria*.http://ec.europa.eu/dgs/education_culture/repository/education/tools/docs/2015/monitor2015-bulgaria_en.pdf

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

CAMBODIA

Introduction and context

The Cambodian qualifications framework (CQF) was established in December 2010 by a committee of ministers following the sixth meeting of the National Training Board (NTB). It was submitted to the seventh NTB meeting in 2011 and approved at the eighth meeting in February 2012. The CQF came into effect by the Sub-decree No 153 ANK. BK in 2014.

Cambodia has a population of 15 458 million (2014 estimate) with a GDP per capita of USD 1 158 in 2015. In 2015, 20.5% of the population was below the poverty line; the unemployment rate was 0.4% in 2014. The informal sector accounts for 80% of GDP and 90% of employment. 2.6% of GDP expenditure in 2010 was on education, and the adult literacy rate in 2013 was 79.7%.

Cambodia is aspiring to become an upper middle income country by 2030 (MoEYS, 2013). In line with the Association of Southeast Asian Nations (ASEAN) integration, which encourages and promotes opportunities for collaboration between institutions in different countries, it is investing in building a competitive human capital and skills development roadmap to meet this goal. High quality education programmes and internationally acceptable certification are a prerequisite for ASEAN integration. The Cambodian government envisages thorough reform of the entire education sector to provide Cambodia's citizens with quality primary, secondary, vocational and tertiary education that responds to the needs both of young people and of the labour market, taking recent social and demographic changes into account.

The Education strategic plan (ESP) 2014-18 (MoEYS, 2013) consolidates the progress made during the ESP 2009-13 (MoEYS, 2010) in addressing issues of access, quality and institutional capacity building. It focuses on improving the quality of education provision in the secondary, VET and higher education sectors, ensuring that VET provision delivers relevant knowledge and skills.

The ESP 2014-18 also proposes reform of national assessment and examination systems. It addresses non-formal as well as formal education and sets out a plan to increase the number of students studying in equivalency programmes from 5 000 in 2013 to 7 300 in 2018. Supplementary programmes will ensure the certification of non-formal programmes.

Policy objectives

The government intends the CQF to:
(a) allow nationally consistent recognition of learning outcomes;
(b) deliver high quality education and training that matches international standards;
(c) provide mechanisms for credit transfer and for the recognition of prior learning and experience;
(d) develop flexible pathways to facilitate movement between education and training sectors, as well as between those sectors and the labour market;
(e) improve access to education and training programmes and to qualifications;
(f) set out clearly defined avenues for achievement to encourage individuals to continue their education;
(g) provide qualifications that meet the needs of employers as well as learners, improving national economic performance;
(h) support the mobilisation of a skilled regional workforce (Kingdom of Cambodia, 2012).

Levels and use of learning outcomes

The CQF has eight levels, the first four of which lead to vocational or technical and vocational certificates equivalent to secondary education. The remaining four levels cover post-secondary education.

The CQF has four principle components: levels, credits, learning outcomes, and study pathways. Its structure has three main components:

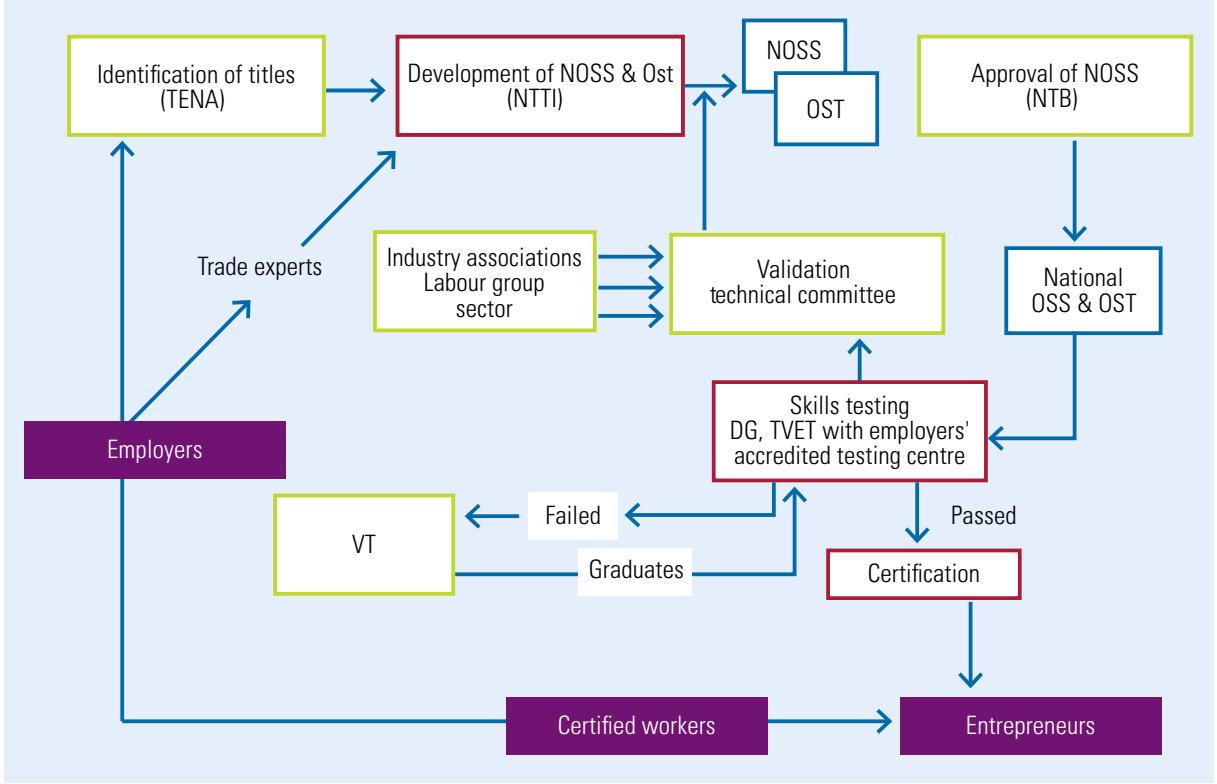
(a) levels (is a single system level);
(b) sector coverage (TVET and higher education) (academic);
(c) qualification title.

Table 17 Cambodian qualifications framework (CQF)

CQF levels	Technical vocational education and training (TVET)	Higher education (academic)	Minimum credit hours
8	Doctoral degree of technology/business education	Doctoral degree	54
7	Master degree of technology/business education	Master degree	45
6	Bachelor of technology/business education	Bachelor degree	120
5	Higher diploma/Associate degree of technology/business education	Associate degree	60
4	Technical and vocational certificate 3		30
3	Technical and vocational certificate 2		30
2	Technical and vocational certificate 1		30
1	Vocational certificate		30

Source: Kingdom of Cambodia (2012). *Cambodia qualifications framework*.

Figure 6 Framework of NOSS and testing and certification organisations in Cambodia



NOSS: National occupational skills standards.
NTTI: National Technical Training Institute.
OST: Occupational skills test.
OSS: Occupational skills standards.
TENA: Training and employment needs assessment.
Source: Directorate General TVET (2011). Current status and future TVET policy direction.

There are five qualifications levels: certificate, diploma, bachelor, master and doctor. Each level may be further subdivided according to the nature or purpose of the qualification.

Each of these five qualification levels is differentiated by learning outcomes that capture the general characteristics or competences in various domains of learning that students are expected to demonstrate on successful completion of a programme or an assessment.

The CQF incorporates level descriptors based on learning outcomes. The descriptors cover the following areas:

(a) knowledge;
(b) cognitive skills;
(c) psychomotor skills;
(d) interpersonal skills and responsibility;
(e) communication, information technology and numeracy skills.

Stakeholder involvement and institutional arrangements

Currently there is no body with the formal remit to manage and monitor the CQF (SHARE, 2015). The Directorate General of Technical Vocational Education and Training (DGTVET) of the Ministry of Labour and Vocational Training (MLVT) manages the national TVET system in Cambodia. The National Training Board (NTB) is responsible for policy direction and coordination. Membership of the NTB is under the chair of the Deputy Prime Minister. There are 31 additional members, of whom 16 are senior government officials (including five secretaries of state, three undersecretaries, and eight director generals or deputies). All ministries with direct involvement in TVET provision are represented in the board. Five positions are occupied by private sector or employer associations, two by representatives of trade unions, three by NGO representatives, and four by representatives from government training institutions.

Cambodia has developed a framework of national competence standards and assessment and qualification system involving numerous stakeholders and institutions (Figure 6). As well as utilising existing organisations such as technical institutes, it has created a range of new bodies for testing and certification, including sector councils, industry advisory groups and technical committees for accreditation and testing.

Recognising and validating non-formal and informal learning and learning pathways

The CQF supports inter- and cross-sectoral linkages between different qualifications types and levels, allowing individuals to progress in a variety of ways and tailor their education programme to their needs and interests. Mechanisms are being put in place for recognition of prior learning, whether acquired through formal, non-formal or informal means, and for the accumulation and transfer of credits. Cambodia aims to remove boundaries between education and training sectors and establish alternative entry and exit pathways that will increase access to higher qualifications (Kingdom of Cambodia, 2012).

For example, skills bridging (SB) programmes are being introduced to allow young people not currently in school to access the two-year diploma programmes in skills development. After completing the SB programme, an assessment of performance is made at certificate level 1, which is equivalent to grade 9 of general education. The programme also incorporates advice and support on employment possibilities for those seeking to work rather than remain in training after the SB programme. Equivalency tests that allow return to formal education for non-formal education learners fall under the authority of MoEYS in line with the policy of the National Supreme Council of Education. Article 26 of the Education Law stipulates that, in line with Cambodia's commitment to ensuring the quality of education provision, examinations shall be conducted in a fair and impartial manner.

With the introduction of competency assessment and certification, workers from industries and commercial establishments can also have their competences tested and recognised, provided they can show proof of relevant experience and meet the requirements prescribed by the Competency Assessment Office (CAO).

There are also progression possibilities for teachers. The Education Law encourages primary and lower secondary school teachers who have obtained bachelor degrees at any age to take an examination to become secondary school teachers. The law also encourages primary school teachers who have not completed secondary school to take an examination to obtain a certificate of secondary school equivalence. The law provides teachers with the opportunity to study at bachelor and postgraduate level, with the aim of raising teacher salaries.

Article 22 of the Education Law stipulates that education institutions must fulfil obligations relating to national education and training standards. Both public and private education institutions are asked to establish internal assessment procedures and to monitor and assess the quality of their education provision.

NQF implementation

Quality assurance of qualifications is fundamental to all aspects of CQF implementation in TVET. Setting standards, endorsing and approving qualifications, approval of training and assessment providers, upgrading TVET instructor capacity and an assessment system for critical processes are under the remit of the Directorate General of Technical Vocational Educational and Training (DGTVET). The Department of Quality Assurance (DQA) within the DGTVET will be responsible for monitoring and evaluating the quality of the programmes delivered. To achieve this, DQA will undertake to develop and manage a TVET quality assurance system so that government, enterprises and students are assured a high standard of vocational education within the framework.

Referencing to the regional frameworks

There is no formal linking of the CQF to other qualifications frameworks. The ministry can check equivalence of diplomas and above but not certify the content or salary level; the CQF has not yet been used for this purpose.

Important lessons and future plans

The government sees the CQF as part of a broader system-wide reform of Cambodian education. This overarching reform, to be implemented in a focused and time-bound manner, will involve all stakeholders and deliver an education system that is more responsive to the needs of individuals and the labour market (UNESCO, 2012).

The government recognises that not all education and training providers will be able to comply with national standards immediately. Once introduced, the CQF quality assurance mechanisms will require substantial support from all stakeholders to make it easier for providers to comply.

As well as allocating a sufficient budget for CQF development and implementation, the government intends to complement it with other policy measures, such as improving the quality and governance of teacher training institutions and involving social partners (employee and employer associations) in developing training institutions. Measures are also being introduced to upgrade provincial training centres and schools so that they meet accreditation requirements.

Other plans for reform include:

(a) developing a regulatory framework for TVET;
(b) promoting equal access to education for disadvantaged groups;
(c) updating and reforming curricula;
(d) further developing and implementing quality assurance and accreditation processes;
(e) creating and developing a TVET management information system and a labour market information system (LMIS) to provide essential data on training and skills required by industry.

Abbreviations

ASEAN	Association of Southeast Asian Nations
CAO	Competency Assessment Office
CQF	Cambodian qualifications framework
DGTVET	Directorate General of Technical Vocational Educational and Training
DQA	Department of Quality Assurance
ESP	education strategic plan
GDP	gross domestic product
MLVT	Ministry of Labour and Vocational Training
MoEYS	Ministry of Education, Youth and Sport of the Kingdom of Cambodia
NOSS	national occupational skills standards
NTB	National Training Board
SB	skills bridging

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Prepared by:

UNESCO in collaboration with national experts.

CHILE

Introduction and context

Education and training are considered very important in Chile. Participation in post-compulsory education has risen sharply from 46% in 1995 to 71% in 2007 (Kis and Field, 2009).

However, there are several challenges related to education and the labour market. Although enrolment rates have increased, there is considerable inequality in access to education. For example, students from the wealthiest quintile are almost three times more likely to attend tertiary education than students from the poorest quintile (OECD, 2015). The quality of education received varies greatly between schools, particularly comparing schools attended by the poor and those attended by the wealthy. Chile has a traditional education model in which education providers in the tertiary sector have total autonomy over the qualifications they issue. There are public and private providers, but tertiary education is mainly private (Cabrera, 2010).

According to a report by the Organisation for Economic Cooperation and Development (OECD, 2015), young people, women and minorities have disproportionately low participation rates in the economy. Figures from 2015 show that 13% of young men and 25% of young women between the ages of 15 and 29 years are neither working nor studying (Ministerio de Desarrollo Social, 2016), making inclusion a major challenge, both in education and the labour market. Another challenge is that a large proportion of the working population has low skills levels because they are working at the margins of the system. About 20% of the labour force works in the informal economy. Lack of literacy and basic skills in mathematics among adults is still a serious problem (OECD, 2014; MINEDUC, 2016), and 44% of people over the age of 15 did not complete schooling (Ministerio de Desarrollo Social, 2016). A national qualifications framework (NQF) combined with recognition, validation and accreditation of prior learning could be a powerful tool in this respect (Cabrera, 2010).

Chile has been discussing the development of an NQF for over a decade (Hernandéz and Solís, 2015). Several organisations have been involved in developing different frameworks for different sectors:

(a) INACAP qualifications framework (MIC) (*marco Inacapino de cualificaciones (MIC)*);
(b) qualifications framework for industrial training and certification (*marco de cualificaciones para la formación y certificación laboral*);
(c) qualifications framework for the mining sector;
(d) national qualifications framework for higher education (*marco nacional de cualificaciones para la educación superior*) (Ministerio de Educación, 2016a);
(e) technical and professional qualifications framework (*marco de cualificaciones técnico-profesional*) (Ministerio de Educación, 2016b).

In 2010, the Ministry of Education introduced the programme *Mecesup* to improve equality in, and the quality of, higher education. This led to the establishment of a credit transfer system (CTS) for universities (INACAP and Fundación Chile, 2012; CNED, 2014). The goal of the framework known as *Marco Inacapino de Cualificaciones* (MIC) (INACAP qualifications framework) was to make degree requirements explicit, so that both students and employers could have access to clear information on programme content. The descriptors and standards for learning outcomes were defined and agreed on by a commission consisting of stakeholders from the education and industry sectors, professional colleges, unions and other representatives from the world of work (Mecesup, 2010 in CNED, 2014).

A committee comprising twenty-five vice rectors representing the most prestigious universities in Chile (named *Universidades del Consejo de Rectores* (CRUCH), Member Universities of the Board of Rectors) received a grant from the *Mecesup* programme to explore the possibility of a qualifications framework for education in Chile. After evaluating both the existing system and examples of qualifications frameworks in other countries, the committee concluded that education reform was needed to implement a qualifications framework. This reform should address the lack

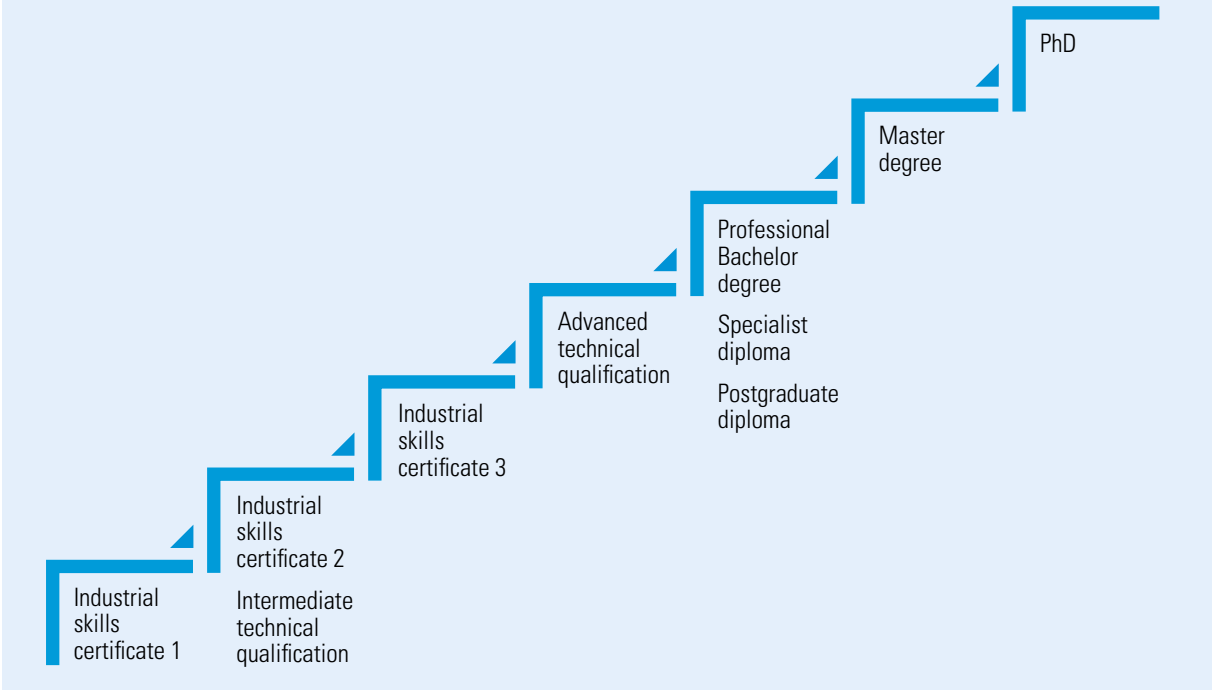
of transparency for all qualifications, articulation between subsystems, degree and programme accreditation, linkage between programmes and the labour market, and progression pathways.

Another organisation involved in the further development of MIC is the Universidad Tecnológica de Chile Instituto Professional Centro de Formación Técnica (INACAP) (Technical Training Centre of the Professional Institute at the Technical University of Chile), the largest education provider in Chile. INACAP consists of three institutions: a technology university, a professional institute and an institute for higher vocational training. The purpose of MIC as an institutional framework was to support the horizontal and vertical mobility of students. Initially, INACAP proposed a framework of eight levels in 2012, so that students could easily switch between technical and professional programmes (Vargas-Otte, n.d.). After a series of curricula and other changes, INACAP proposed a new MIC with seven levels in 2014 (Figure 7) (INACAP and Fundación Chile, 2012).

Another framework was developed in collaboration between ChileValora – the commission responsible for the development of a national system for the certification of labour competences – and SENCE, the national service for training and employment. This separate framework for work-related qualifications and competences, called *Marco de Cualificaciones para la Formación y Certificación Laboral* (qualifications framework for industrial training and certification) was developed in 2014 after a law was passed on a national system for certification of work-related competences. It is a tool for the development of human resources in the labour market. The process leading to the implementation of the framework has also led to changes in workplace-related educational programmes. The framework has five levels (Figure 8) (ChileValora and SENCE, 2014). To date, this is the only framework that has moved beyond the design phase towards actual implementation (Hernandéz and Solís, 2015).

Some industry sectors have also developed their own qualifications frameworks. This is the case with the mining sector, which has been very active in this respect (CNED, 2014). In 2010, the programme ChileCalifica developed a structure that was adopted by the mining sector and used as a basis for developing a comprehensive and universal NQF. It consists of eight levels with learning outcome descriptors, taking knowledge, technical and professional competences, communication competences, autonomy and responsibility, and skills into account. In 2013, a new qualifications framework (QF) for the mining sector was developed by Fundación Chile. This QF is based on the Australian QF, has five levels and is focused solely on technical education (Figure 9). It is linked

Figure 7 INACAP qualifications framework in Chile



Source: Based on Vargas-Otte, 2014, p. 6.

to 150 occupation profiles and 278 work-related competences (Hernández and Solís, 2015).

The qualifications framework for higher education was developed for the education ministry between November 2014 and August 2016 to establish coherent, transparent and understandable certifications for the higher education system, which also allows lifelong learning and recognition of prior learning. The further development of this framework draws on the involvement and expertise of diverse stakeholders and also includes feedback from international sources.

The qualifications framework for higher education defines five qualification levels and contains seven formal higher education certificates. For each certificate, there is a well-defined learning standard expressed in terms of a system of transferable credits (SCT-Chile).

The main objective of the qualifications framework for technical/professional education is to offer labour and training pathways to students and workers. To achieve this, the framework aims to build a system of vocational training that ensures quality and relevance to local needs and economic development, and that resonates with companies and training institutions. The framework has five levels, all of which define learning outcomes that a person can demonstrate after obtaining certification at a particular level. It is in its first stage of development and is part of the policy on professional and technical training. During development, the qualifications framework for technical/professional education took the experiences of Corporación de Fomento de la Producción de Chile (CORFO) - the development production organisation, SENCE - the national service for training and employment, and ChileValora into account.

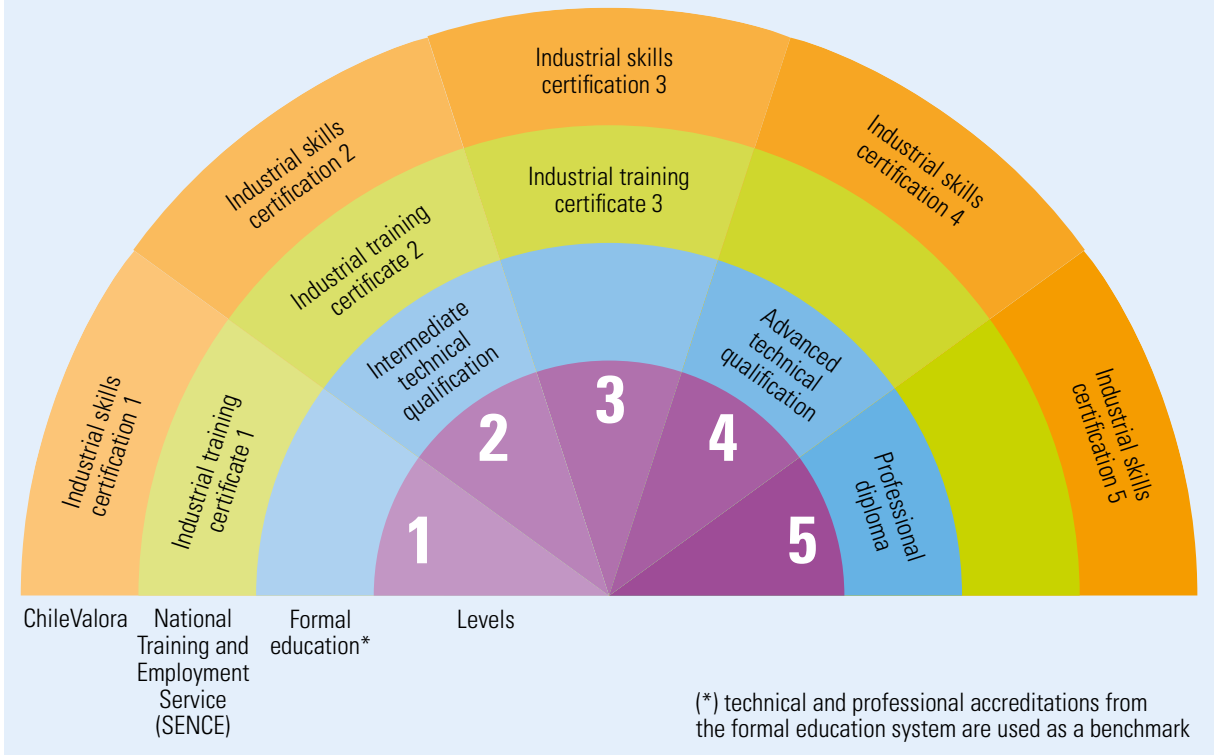
Policy objectives

The objectives of the NQF according to the National Education Council of Chile (CNED) are to:

(a) facilitate student mobility;
(b) promote lifelong learning;
(c) broaden the educational and training possibilities open to adults;
(d) develop a common language with regard to competences, which facilitates a dialogue between the production and education sectors;
(e) improve employability by certifying competences and prior learning in the workplace.

The council's main objective is to ensure the quality of education. It notes that each industry defines its occupation needs and promotes the relevance of education and training to individuals and society in general (CNED, 2014).

Figure 8 Framework for work-related qualifications and competences in Chile



Source: Based on ChileValora, 2015; ChileValora and SENCE, 2014, p.55.

In July 2016, President Bachelet of Chile announced a new law on improving higher education. This law will:

(a) determine and reinforce the mixed character of Chile's higher education system, which consists of both private and State institutions;
(b) promote autonomy and pluralism;
(c) create a new overarching body with a quality council that can ensure compliance to standards of excellence in education;
(d) make accreditation obligatory for all higher education institutions;
(e) create a new qualifications framework, so that each degree reflects the expected knowledge and skills;
(f) promote the development of universities and institutes and ensure that higher education is free (Martinez, 2016).

Levels and use of learning outcomes

Given that Chile has different frameworks, the levels and applications of learning outcomes need to be specified for each framework.

INACAP has developed a teaching model, based on competences, that focuses not just on theory but also the practical application of knowledge. They do this in cooperation with companies in the field ([70]).

SENCE standardised all course content in 2009 and aligned courses according to the existing framework for labour competences.

The concept of technical and vocational education and training (TVET) that prevails in Chile focuses on training for work; the TVET system is organised to provide the means for people to access the world of work and to develop from there. Therefore, there are clear

([70]) www.inacap.cl

Figure 9 Qualifications framework for the mining sector in Chile

5 levels of training: for positions ranging from entry-level workers to specialist technicians

Each level provides a general description of the relevant job scope, and the results a person is expected to achieve during training.

Level	Description	Job scope
5	People at this level possess sophisticated theoretical and practical knowledge, and expert skills that equip them to work in the mining industry and engage in continuous learning. They demonstrate independence, good judgement and personal responsibility when carrying out complex technical tasks, and have the ability to plan, coordinate and evaluate the work of others.	Senior – leadership roles **higher VET technicians**
4	People at this level possess the expert theoretical and practical knowledge needed to carry out specialist tasks in the mining industry. They demonstrate independence, good judgement and personal responsibility when carrying out their duties. They have limited responsibility for the work of others.	Specialists (diagnostics)
3	People at this level possess the theoretical and practical knowledge needed to work in a specific area of the mining industry. They carry out their duties under supervision, though some degree of independence and personal responsibility for their own work. They have limited responsibility for the work of others.	Advanced-level maintenance workers and operators
2	People at this level possess the basic knowledge and skills (concepts, procedures and techniques) needed to work in a specific context within the mining industry, under direct supervision. They can choose to embark on continuous learning processes.	Assistant – basic operators
1	People at this level possess the basic knowledge and skills to enter a trade in the mining industry and embark on continuous learning processes.	Preparatory **school leaving certificate**

Source: Based on Richard, n.d.

differences between TVET and university education. In the TVET system, the focus is not primarily on theoretical knowledge but on practical skills.

Stakeholder involvement and institutional arrangements

The National Education Council of Chile (CNED) argues that the NQF should be agreed by multiple actors in the field, such as education providers, employers, unions and workers (CNED, 2014). A consensus between stakeholders is considered significant for the NQF, given that its development and implementation is a dynamic process (Hernandéz and Solís, 2015).

ChileValora was established in 2009 after a law was passed on the creation of a national system for certifying work-related competences. The law stipulated that the commission should consist of representatives from the government, unions and employer organisations. The commission presented the *Marco de Cualificaciones para la Formación y Certificación Laboral* (qualifications framework for industrial training and certification) in 2014 after consulting with several stakeholders such as social actors, political institutions and technical experts (Chilevalora and SENCE, 2014).

In addition to presentation of the framework, the commission introduced regulations for the development of labour competences and the establishment of labour skills productive sector agencies in almost all industry sectors. Each sector agency consists of representatives from the government and from employer and employee associations. These representatives are in charge of identifying skill demand within the sector and designing a training programme if required.

Stakeholders from universities have also been involved in developing a QF for the Chilean education system. Inspired by the *Mecesup programme*, a group of universities (Universidades

Figure 10 Qualifications framework for higher education in Chile

Source: Ministerio de Educación, 2016a.

del Consejo de Rectores (CRUCH)) undertook evaluation of the existing education system and gathered insights from the qualifications frameworks in other countries. It was decided that Chile's qualifications framework needed to contribute to reforming education and training.

Recognising and validating non-formal and informal learning and learning pathways

Chile has a mechanism for the recognition of prior learning called *Reconocimiento de Aprendizajes Previos* (RAP) (validation of prior learning); however, this has not been formally implemented. It is mainly used by higher education institutions to support enrolment: subject to the rules and regulations of the institutions, it does not lead to a qualification recognised by other education or labour organisations (Hernandéz and Solís, 2015).

The Education Act of 2007 gives everyone who would like to return to formal education – primary, secondary, technical or adult education – the opportunity to sit examinations at the end of the school year. These exams, called validation of studies exams, offer a way to recognise learning acquired outside of the formal system as long as they cover the relevant content from the official curriculum of that year. The certificate acquired by successful completion is formally recognised (Cabreba, 2010).

The *Marco de Cualificaciones para la Formación y Certificación Laboral* was developed by ChileValora with a lifelong learning perspective in mind. The framework incorporates RAP of competences acquired in non-formal learning settings, especially in the workplace. RAP can lead to recognised progression pathways through competency-based job training (ChileValora and SENCE, 2014). The associated labour skills productive sector agencies carries out such training.

Between 2002 and September 2015, 69,419 assessments of 66,746 individuals were carried out. There were substantial differences between regions and sectors (ChileValora, 2015). The certificate acquired through the system is, however, only valid among the participants of the framework and not in formal educational institutions (Hernandéz and Solís, 2015).

NQF implementation

Chile is still in the process of designing a comprehensive and universal NQF. However, the design and implementation will require some time because CNED considers it important to consult various stakeholders. The only comprehensive national framework currently implemented is *Marco de Cualificaciones para la Formación y Certificación Laboral*, but this only focuses on the labour market (Hernandéz and Solís, 2015). The INACAP framework is also in use, but can only be applied by institutions connected to INACAP.

ChileValora's *Marco de Cualificaciones para la Formación y Certificación Laboral* and the framework for the mining industry developed by ChileCalifica have both been designed with a view for their possible integration into a unified framework.

Important lessons and future plans

President Bachelet's new law on improving higher education necessitates the creation of a new qualifications framework so that each degree qualification reflects expected knowledge and skills (Martinez, 2016).

The *Marco de Cualificaciones para la Fomación y Certificación Laboral* mentions a number of challenges and future plans relating to strategic, institutional and operational aspects. Strategically, there is need for greater alignment between authorities and different sectoral stakeholders. Promotion of the framework should encompass all sectors to create a more integrated framework with qualifications that are accepted by all stakeholders, including those in the education sector.

Institutionally, there is need to regulate:

(a) the different types of certificates awarded by each institution;
(b) the various sources of finance available for framework promotion;
(c) who awards certificates and who evaluates whether the certificate corresponds to the level of the framework that is mentioned in the education plan.

Competence assessment methods should be incorporated into the programmes that lead to certificates and the awarded certificates should be made public.

Operationally, the framework and its use within each organisation needs to be incorporated effectively. Methods currently in use must be

revised along with their alignment with the framework's requirements.

Common challenges include regulating the different types of certificates awarded by institutions and making them more transparent, as well as developing one overall national qualifications framework that incorporates all levels and sectors.

The following challenges have been identified and will be addressed by the NQF:

(a) limited vertical articulation between different education levels;
(b) lack of connection between the education system and the recognition of non-formal and informal learning;
(c) lack of recognition of the certificates awarded by the national system of certification of labour competences by the education system;
(d) limited mechanisms in place for recognition of experiential learning;
(e) lack of relevance and response by the training provider to the needs of the productive world or the knowledge society;
(f) lack of connection between school vocational curriculum and occupation profiles. Current legislation does not make it compulsory for tertiary and vocational schools to use the occupational standards;
(g) little transparency in the titles and degrees awarded by universities, professional institutes and technical training centres, so that international comparisons become very difficult. (Cabrera, 2010).

Recognition of informal learning could become a powerful tool in promoting inclusion, provided it is linked to formal educational training certificates. In a country in which almost 50% of the adult population did not complete their schooling, and in which there are many unemployed young people with very low levels of training, this approach could play a significant role.

A notable challenge is the weak description of titles and grades in the Chilean legislation: this requires clarification before a national qualifications framework can be implemented. The implementation of such a framework requires a competent body that can lead the process and make the necessary decisions. Because it is a long and costly process, careful planning is also required (CNED, 2014).

It is helpful to learn from other countries' experiences, but it is equally as important that the framework be adapted to local circumstances. Because many institutions will be involved in the creation and implementation of the NQF, all of which have different rules and regulations, it will not be enough simply to create a common language. Common strategies, mechanisms and standards must also be developed, including a credit transfer system and quality assurance mechanisms (Hernández and Solís, 2015).

Abbreviations

CASEN	*Encuesta de Caracterisación Socioeconómica Nacional* (national socioeconomic typology survey)
CNED	National Education Council of Chile
CORFO	*Corporación de Fomento de la Producción de Chile* (Development Production Organisation)
CRUCH	*Universidades del Consejo de Rectores* (member universities of the Board of Rectors)
CTS	credit transfer system
INACAP	*Universidad Tecnológica de Chile Instituto Professional Centro de Formacion Technica* (Technical Training Centre of the Professional Institute at the Technical University of Chile)
MIC	*Marco Inacapino de Cualificaciones* (INACAP qualifications framework)
MINEDUC	*Ministerio de Educación* (Ministry of Education)
NQF	national qualifications framework
OECD	Organisation for Economic Cooperation and Development
PIAAC	programme for the international assessment of adult competencies
QF	qualifications framework
RAP	*Reconocimiento de Aprendizajes Previos* (validation of prior learning)
SCT	Sistema de Créditos Transferibles (transferable credit system)
SENCE	*Servicio Nacional de Capacitación y Empleo* (National Training and Employment Service)
TVET	technical and vocational education and training

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CHINA

Introduction and context

The national vocational qualification certificate system (NVQCS) was introduced in China in 1993 and its role is becoming increasingly important. China's VQCS is devised by the Ministry of Labour (now called the Ministry of Labour and Social Security (MOLSS)), which is an essential part of the Chinese labour employment system, and includes a national examination conducted by assessment agencies approved by the government.

The NVQCS needs to be seen in the context of the Chinese education system – which took its current shape between 1977 and 1980 – and the challenges it faces. China offers a state-run system of public education managed by the Ministry of Education. All citizens must attend school for at least nine years, known as the nine-year compulsory education, which the Chinese Government funds. It includes six years of primary education, starting at age six or seven, and three years of junior secondary education (middle school) for ages 12 to 15. Some provinces may have five years of primary school but four years for middle school. After middle school, there are three years of high school, which completes the secondary education.

In 1985, the government abolished tax-funded higher education, requiring university applicants to compete for scholarships based on academic ability. In the early 1980s the government allowed the establishment of the first private school, increasing fivefold the number of undergraduates and people who hold doctoral degrees from 1995 to 2005 (Ministry of Education, 2005).

China has different types of higher education: 'for-degree' education and 'not-for-degree' education, full-time education and part-time education, as well as higher education conducted through radio, television, internet and other means of long-distance learning. According to the data source for 2015, there are 2 790 higher education institutions (HEIs) in China, of which 2 529 are regular (including 1 202 universities and 1 327 vocational colleges) and 261 are adult HEIs. The gross enrolment rate in higher education is 37.5%, and there are 2 600 college students for every 100 000 people. Every new institute is accredited as a legal entity and receives approval for its establishment (Ministry of Education, 2015).

Accreditation is granted following assessment of skill levels or vocational qualifications provided by an institute; these, in turn, are based on vocational skill standards or qualification requirements established by the government. The VQCS includes a national examination system conducted by assessment agencies approved by the government.

Although China has made great efforts to build the NVQCS, there are still many challenges for the government, the first of which is regional diversity. There is huge imbalance in education and economy across regions and several industry sectors still need to be modernised or integrated in the context of China's economic transformation. It is hard to stipulate a nationwide standard or qualifications framework that is accepted in all regions and cities and across all industries and occupations.

The second challenge is the international comparability of qualifications. With the development of the economy and the deepened globalisation, Chinese students have more engagement in international exchanges. According to the Organisation for Economic Cooperation and Development (OECD) education report 2010, there were 223 499 students who studied in China and 510,842 Chinese students who studied in foreign countries in 2008. Export of labour in China has also increased over the years. In 2000, the number was 425 667; in 2006, it rose to 675 149. China needs to build a unified qualifications framework in order to strengthen the comparability of qualifications and promote international mobility.

The third challenge is the mismatch between the labour market and technical and vocational education and training (TVET) providers. There is insufficient cooperation between TVET institutions and employers in workplace training, which is compulsory for each student during the upper-secondary programme. There is also insufficient planning to meet the needs of the labour market. Coordination of labour supply and demand sides is poor (OECD, 2010).

Policy objectives

In 2010, China issued the *National plan for medium and long-term education reform and development (2010-20)*, in which the Ministry of Education put forward the idea to establish pathways to lifelong learning in the education and training system.

From the educational perspective, the aim was to:

(a) connect every level and form of learning and seek equal value in all learning outcomes;
(b) enable the credits earned in continuing education to be accumulated and transferred so that the recognition and validation of different kinds of learning outcomes could be achieved;
(c) ensure comparability and transparency of learning outcomes;
(d) aid equality of access to quality education.

From the social perspective, the aim was to:

(a) increase the acceptance of qualifications by society and the labour market;
(b) improve the quality of the labour force and the development of society and the economy;
(c) strengthen the international competitiveness of the labour force in response to the challenges of the knowledge-economy;
(d) promote nationwide lifelong learning.

From the personal perspective, the aim was to:

(a) provide more choices to meet the various learning needs for personal and career development;
(b) respect the learning outcomes of learners from different learning settings (formal, non-formal and informal);
(c) avoid repeated and aimless learning;
(d) improve individual competence.

Levels and use of learning outcomes

The NVQCS has five levels (Table 18); occupational standards are central to the system. A certificate is proof that the holder has the knowledge and skills essential for the practice of the occupation in question, and qualifies the holder to set up a business in China. Table 19 illustrates the corresponding relationship between NVQC and the two other sub-frameworks:

(a) the NVQC is designed for specialised industries, such as medicine and law, without which workers cannot be employed by these industries. 'PC' is the entrance examination of an occupation;
(b) the qualification certificate for professional and technical personnel (QCPTP) is designed for white-collar workers and has its own levels: junior, intermediate and senior;

Table 18 Levels and competence demands of China's NVQC

Levels	Name of the certificate	Competence demand
5	Primary worker certificate	Be able to complete regular work independently with basic skills
4	Intermediate worker certificate	In addition to the requirments of level 5, level 4 Certificate holders are also able to cooperate with other workers and carry out more complicated work with specialised skills in certain situations
3	Advanced worker certificate	Be able to complete complex and irregular work with specialised skills and special competence skilfully; to master the key skills of his own occupation; to deal with and solve technical challenges independently; to make innovation in technology; to organise and supervise other workers' work; to train general staff
2	Technician certificate	Be able to carry out complicated work, including irregular work with basic skills and specialised competence; to deal with problems happening in the workplace independently; to supervise other workers' work and assist training of general staff
1	Senior technician certificate	Be able to complete complex and irregular work with specialised skills and special competence in every area of his/her own occupation; to master the key operation skills of his own occupation skilfully; to deal with and solve high-difficulty challenges independently; to make innovation in technology; to organise technical reform and innovation; to hold systematic training of specialised skills

Source: Su. Z and Zeng. X, 2009.

(c) the qualification certificate for skilled workers (QCSW) is designed for blue-collar workers. In China, in contrast to other countries, 1 is the highest level and 5 is the lowest.

Stakeholder involvement and institutional arrangements

Occupation classifications have a legal basis: China's labour laws make clear that it is the task of government to set up a system of classifications, based on the vocational skill standards for stipulated occupations, and implement the NVQCS. The institutions responsible for assessment are authorised by the government to take charge of workers' vocational skill assessment. The vocational education law stipulates that vocational education should meet current demands, and adapt the occupation classification and standards designated by government to these demands. It also stipulates that all vocational education should include vocational qualifications and a certification system (Ministry of Education, 1996).

Recognising and validating non-formal and informal learning and learning pathways

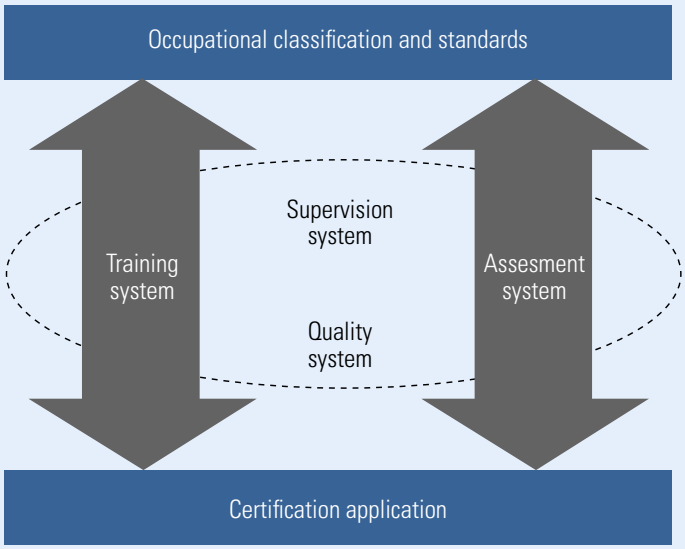
Ministry of Education plans for recognising, accumulating and transferring learning outcomes were taken forward by a national committee. This commissioned a study on the development of a credit bank system for the recognition of learning outcomes and proposed a system of credit accumulation and transfer in continuing education.

Table 19 Corresponding relationship of China's NVQC with QCPTP and QCSW

Levels	NVQC	QCPTP	QCSW
5	Primary worker certificate	/	Primary worker certificate
4	Intermediate worker certificate	/	Intermediate worker certificate
3	Advanced worker certificate	Junior	/
2	Technician certificate	Intermediate	/
1	Senior technician certificate	Senior	/

Source: Su. Z and Zeng. X, 2009, (compiled by author).

Figure 11 Chinese vocational and qualification certificates system



Source: UK Department of International Development and the World Bank Study, 2015.

Many areas of China, including Beijing, Shanghai and Jiangsu Province, consequently set up an assessment and transfer system for different types of learning outcome. In 2011, for example, the Shanghai Credit Bank of Lifelong Education was established: it is operated by Shanghai Open University and oversees the transfer of six subjects (such as accountancy and business administration), 166 courses and 139 vocational qualifications certificates within academic education.

At the national level, there are three learning pathways or ways of connecting different kinds of educational institution:

(a) Shanghai Open University integrates higher vocational colleges, adult schools, televised curriculum and self-taught examinations;
(b) multimedia courses that are offered through television and radio promote the educational resources of other non-formal and informal learning;
(c) to bridge formal education with self-taught learning, the Ministry of Education instructed the Beijing, Shanghai, Jiangsu Province, Guangdong Province, Yunnan Province and the Open University of China to develop new ways to apply the recognition, validation and accreditation (RVA) system of lifelong education credits to distance learning.

There are formal, informal and non-formal learning pathways for vocational education. Separate from the formal vocational education system, many non-formal vocational education providers offer short-term certificate courses. They also have a degree of autonomy in decision-making and are therefore more adaptable to the needs of the changing market. Non-formal TVET providers can be divided into two groups:

(a) not-for-profit providers, which include enterprises and sectoral, social and professional associations, trade unions and different NGOs;
(b) commercial providers, which are primarily involved at secondary level and provide short-term certificate courses. Commercial organisations need to be registered with the taxation office and the civil affairs department and must obtain a licence to operate from the education department.

NQF implementation

China's Ministry of Labour and Ministry of Personnel published the *Vocational qualifications and certification regulation* in 1994. The Ministry of Labour then constituted the corresponding Vocational skill assessment regulation and national occupational standards, and the Ministry of Personnel constituted the Provisional means of vocational qualification and certification system based on this regulation.

Since then, a vocational qualification assessment system has been established and, in the last 10 years, the Ministry of Labour and Ministry of Personnel have published a series of policies and regulations that stipulate in detail the operations of vocational qualification assessment. Local labour and personnel administrations have also laid down corresponding methods of implementation.

Important lessons and future plans

China's attempt to establish a unified qualifications framework teaches us some important lessons:

(a) industry and companies must be involved in the education of students of vocational and technical subjects;
(b) institutes must provide lessons in accordance with general and industrial standards;
(c) the specialised and innovative ability of students must be strengthened.

China plans to develop a comprehensive national qualification system that covers all types of education at all levels and promotes the international comparability of qualifications. Work on this has already begun in the higher education system and for professional credentials.

Abbreviations

HEI	higher education institution
MOLSS	Ministry of Labour and Social Security
NVQCS	national vocational qualification certificate system
QCPTP	qualification certificate for professional and technical personnel
QCSW	qualification certificate for skilled workers
RVA	recognition, validation and accreditation
TVET	technical and vocational education and training

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CROATIA

Introduction and context

Education and training reform in Croatia is driven by a comprehensive *Strategy for education, science and technology,* adopted by parliament in 2014 (Croatian Parliament, 2014), aiming to develop all education and training subsystems. Clearly defined outcomes of every education segment, where the Croatian qualifications framework (CROQF) is an important tool, are seen a precondition for reform. While relatively few people leave school early (2.7% in 2014, compared with the EU average of 11.1%), and a high proportion of secondary vocational education graduates progress onto higher education, the country still faces important challenges, including the relevance of vocational education and training (VET) and higher education for employability, and low participation in lifelong learning (2.5% in 2014, compared to the EU average of 10.7%) (European Commission, 2015).

The development of the CROQF started in 2006 and aims to modernise secondary VET, higher education and adult education in line with the demands of the labour market. The CROQF Act (Croatian Ministry of Science, Education and Sports, 2013), adopted in 2013, established the CROQF and set out the legislative and institutional framework for its further development and implementation. It is a single, comprehensive framework, which has eight levels and two sublevels, described in terms of learning outcomes: knowledge, skills and level of autonomy and responsibility. It also incorporates credit systems. It includes qualifications from all levels and subsystems of formal education and training (general education, vocational education and training and higher education) and will be the basis for developing a system for validation of non-formal and informal learning.

The CROQF was linked to the European qualifications framework (EQF) and self-certified against the qualifications framework of the European higher education area (QF-EHEA) in 2012.

Policy objectives

The main aims for the development of the CROQF are to enable better communication and coordination between stakeholders in the qualifications system; to provide a basis for transparency of qualifications and aid access, progression and recognition; and to act as a tool for reforming national education and training, promoting the use of learning outcomes, the application of quality assurance systems and the development of validation and recognition of non-formal and informal learning.

The CROQF builds on reforms under way since 2005, such as developing new education standards and national curricula for general education and VET reform, as well as introducing the State *matura*.

Besides enabling the link with the EQF (and with the QF-EHEA), allowing for international comparability of Croatian qualifications, the framework is seen as reflecting national needs and priorities and as an instrument for developing new education and training solutions specific to the Croatian context:

(a) better linking education and training with labour market needs;
(b) improving social inclusion and equity;
(c) improving pathways between subsystems and between sectors;
(d) making qualifications transparent and more consistent with the use of learning outcomes;
(e) supporting lifelong learning and employability.

Specific CROQF objectives also include setting up a system for validation and recognition of non-formal and informal learning, and creating a comprehensive quality assurance system (Croatian Ministry of Science, Education and Sports, Agency for Science and Higher Education, 2014).

Levels and use of learning outcomes

Strengthening learning outcomes is seen as an essential part of CROQF development and is supported by major stakeholder groups. The CROQF is a qualifications and a credit framework. It has

eight reference levels, in line with the EQF, but with two additional sublevels at levels 4 and 8 to cater for existing qualifications.

Each qualification in the CROQF is defined in terms of profile (field of work or study), reference level (complexity of acquired competences) and volume/workload (credit points) ([71]).

Level descriptors are defined in terms of knowledge (theoretical and factual) and skills (cognitive, practical and social skills). A third descriptor is defined as responsibility and autonomy. Although some key competences are explicitly indicated in the CROQF, it is emphasised that key competences should be included in each qualification (Croatian Ministry of Science, Education and Sports, Agency for Science and Higher Education, 2014).

The CROQF introduces two classes of qualification: full and partial. For example, a qualification with a minimum of 180 ECVET and/or HROO points (from which a minimum of 120 ECVET and/or HROO points are required at the fourth reference level or higher) is referenced to level 4.1. For a qualification at level 4.2, a minimum of 240 ECVET and/or HROO points are required (a minimum of 150 ECVET and/or HROO points at the fourth reference level or higher) (Croatian Ministry of Science, Education and Sports, Agency for Science and Higher Education, 2014).

The CROQF plays a central role in developing and implementing the learning outcomes approach in all subsystems of education and training, building on the reforms so far. *The Strategy for education, science and technology* (Croatian Parliament, 2014) aims to establish conditions for high quality education and training and emphasises the role of the CROQF in developing learning outcomes, as well as the need to develop learning outcomes and skills in line with the demands of the labour market.

Since 2006 VET has been gradually changed and oriented towards the learning outcomes approach. Thirteen VET sectoral councils were established and have been in operation from 2006 to 2014. Methodologies for developing occupational and qualification standards were established in 2011. Twenty-six pilot VET programmes – based on occupational standards and modularised – are in the 3rd year of implementation (since 2013/14).

([71]) Three credit systems are used to measure the volume of qualifications and of learning outcomes: the Croatian credit system for general education (HROO), the European credit system for vocational education and training (ECVET), and the European credit transfer and accumulation system for higher education (ECTS).

The State *matura* was introduced in 2010 as an obligatory final exam (including Croatian language, mathematics, the first foreign language and the mother tongue for ethnic minority pupils) for gymnasium graduates and as an optional choice for VET graduates on completion of four-year programmes.

Higher education has undergone extensive change in the last decade, including strengthening the learning outcomes dimension. The decision (2001) to take part in the Bologna process made it necessary for Croatia to adjust its higher education system significantly. Introduction of undergraduate (first cycle) and graduate (second cycle) programmes started in 2005. The change of curricula is intended to develop competences needed on the labour market, but the functional link between higher education institutions and the labour market, and the social community in particular, has not yet been well established.

Stakeholder involvement and institutional arrangements

Major stakeholders from public authorities, learning providers, employers, and other social partners were involved in all phases of CROQF development.

The CROQF Act (Croatian Ministry of Science, Education and Sports, 2013) sets up the institutional and legislative framework for CROQF implementation and defines the involvement, roles and responsibilities of key bodies and stakeholders. The National Council for Development of Human Potential was appointed by the Croatian Parliament in June 2014, as the strategic body for developing and implementing the CROQF. It comprises 24 representatives of national ministries, regional structures, social partners, education providers and national agencies involved in developing and awarding qualifications in different subsystems of education and training ([72]). This body oversees policies in education, training, employment and human resource development and monitors and evaluates the CROQF's impact. The variety of stakeholders

([72]) The National Council for Development of Human Potential consists of representatives of the following institutions: Ministry of Science and Education, Ministry of Labour, Ministry of Entrepreneurship and Crafts, Ministry of Economy, Ministry of Regional Development, regional structures, associations of unions, associations of employers, civil society organisations, the Chamber of Commerce, the Chamber of Trades and Crafts, the sectoral councils, higher education institutions, adult education institutions, the Agency for Education and Teacher Training, the Agency for Vocational Education, the Agency for Science and Higher Education, and the Croatian employment service.

actively involved in the National Council is both the strength of the current governance arrangement, as it ensures wide consensus on matters regarding the NQF, and also its weakness, as the decision-making process may take a long time and may slow down implementation.

On a technical and policy level, the Ministry of Science, Education and Sports coordinates the development and implementation of the CROQF, in close cooperation with the Ministry of Labour and Pension System. The main tasks of the Ministry of Science, Education and Sports include: setting up and maintaining the national CROQF register, establishing and coordinating the work of sectoral councils, providing support to the National Council for Development of Human Potential, developing procedures related to standards of qualifications, developing a system of validation of non-formal learning, and informing the public about the CROQF. The main tasks on the Ministry of Labour and Pension System include managing the subregister of occupational standards and developing procedures related to occupational standards.

The Ministry of Education is also the EQF national coordination point (NCP). The budget for NQF-related activities comes from various sources, such as the State budget, the EQF NCP grant, and the European Social Fund for projects implemented by higher education institutions and the Ministry of Science, Education and Sports. Most funds are directed towards NQF development and research ([73]).

In addition, 25 sectoral councils (advisory and professional bodies ensuring the development of human potential in line with labour market needs in their respective sectors) are in the process of being established. By the end of 2015, eight out of the 25 sectoral councils had been established and started their activities.

Recognising and validating non-formal and informal learning and learning pathways ([74])

One explicit aim of the CROQF is to set up a system for validating non-formal and informal learning ([75]). Article 15 of the CROQF Act foresees the creation of an ordinance on recognition and validation that will specify the procedure in detail and establish a closer link to CROQF. The National Council for Development of Human Potential plans to produce a strategic plan for developing a system for validating non-formal and informal learning, as a basis for developing the ordinance.

Further, the *Strategy for education, science and technology* (Croatian Parliament, 2014) recognises validation as an essential part of lifelong learning.

In recent years, most education and training sector effort has been focused on CROQF-related developments, building on development of occupational and qualifications standards, as well as on national curriculum reform. These are seen as a foundation for validation of non-formal and informal learning. Building on previous work, two key methodologies have been developed recently, in the format of national level guidelines: the methodology for the developing occupational standards ([76]) and the methodology for qualifications standards ([77]).

In practice, validation of learning outcomes acquired outside formal education and training is still rare. No access to formal qualifications can be granted without formal learning. Validation arrangements are in place for adult education and crafts. For instance, a master craftsperson exam can validate and recognise non-formally acquired knowledge and competences. Some providers in higher education have developed internal guidelines for recognising prior learning for specific purposes, such as admission to certain higher education programmes or allocation of ECTS credits in the framework of accredited study programmes.

NQF implementation

Following adoption of the ordinance on the CROQF register (May, 2014) ([78]), the CROQF entered an early operational stage. The ordinance stipulates the content and management of the register, procedures for requests, assessment, and entry of qualifications into the register. The name of sectoral councils and criteria for the selection of new council members and their operational activities, as well as the internal and external quality assurance systems, are also included. The new CROQF register brings together three subregisters: a register of occupational

([73]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs*.
([74]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).
([75]) Article 3 of the CROQF Act (Croatian Ministry of Science, Education and Sports, 2013).
([76]) www.kvalifikacije.hr/fgs.axd?id=1127
([77]) www.kvalifikacije.hr/fgs.axd?id=994
([78]) Ordinance on the CROOQF register *(Pravilnik o Registru Hrvatskog kvalifikacijskog okvira)*: http://www.kvalifikacije.hr/Default.aspx

standards, a register of qualifications standards, and units/modules of learning outcomes. Proposals for occupation and qualification standards are currently being developed as part of the implementation of 55 projects jointly financed from the European Social Fund. The development of the CROQF register (and the inclusion of standards within the register) is still to be finalised before the CROQF becomes operational.

As stated in the ordinance on the CROQF register, programmes which are included in the register need to be in line with CROQF standards and developed according to CROQF procedures, but they must be approved in accordance with existing legislation. It is expected that the register will enable exchanges with existing databases.

The main challenge in implementing the system is how to secure quality assurance procedures and principles to improve all current procedures across education sectors. New procedures have been introduced to ensure the quality of different processes related to the development and use of CROQF.

Other challenges are linked to the timely establishment of the new sectoral councils and capacity-building of their members, as well as the capacities of ministries and agencies responsible for their coordination and administration. Eight of the 25 sectoral councils proposed in the CROQF Act (Croatian Ministry of Science, Education and Sports, 2013) were established by the end of 2015; the remaining 17 sectoral councils should be in place in 2016. In establishing the new sectoral councils, the Ministry of Science, Education and Sports has taken into account the experience of the previous VET sectoral councils. Training for members of the (new) sectoral councils includes a presentation on the achievements of the (previous) VET sectoral councils.

The ordinance on recognition and validation of non-formal and informal learning is under development.

As far as the current legal framework is concerned, creating education programmes in line with the CROQF is not mandatory, although it represents a mark of quality ([79]). For CROQF to become mandatory, all existing laws governing different education subsectors would need to be changed. The National Council for Development of Human Potential has issued recommendations for using the CROQF in adult education: for preparing and approving formal programmes, for accrediting and reaccrediting institutions, and for the external evaluation of learning outcomes of formal programmes. The new draft law on adult education was published for public debate in August 2016. Having considered the national council's recommendations, it envisages that all formal adult education programmes will be approved according to CROQF methodology.

As recommended by the national council in December 2015, the CROQF will be used by the Agency for Science and Higher Education for the initial accreditation and reaccreditation of study programmes in higher education. It is also recommended that CROQF should be used by public universities for their internal quality assurance systems and that higher education institutions should use CROQF for preparing and revising study programmes.

The CROQF has currently been made visible to higher and adult education institutions, schools and other institutions which receive (or have applied for) funding to implement CROQF-related projects ([80]), and to employers who were surveyed in connection with these projects. Further, the National Council for the Development of Human Potential organised a conference (CROQF – *knowledge and creativity*) in October 2015, which brought together more than 200 participants. A similar conference is planned for October 2016. Additional methods of raising awareness of the framework among potential users include the CROQF website, which is continuously updated with news, a newsletter issued several times a year and distributed to potential users, publications, and public events organised by groups involved in implementing the framework.

Referencing to regional frameworks

Croatia referenced its national qualifications levels to the EQF and self-certified to QF-EHEA in March 2012, and published a joint report in 2014 (Croatian Ministry of Science, Education and Sports, Agency for Science and Higher Education, 2014).

Given that there are currently no occupation and qualification standards in the CROQF register, nor any education programmes aligned with CROQF standards, CROQF/EQF levels do not yet appear on certificates and diplomas or on the Europass certificate and diploma supplements. As soon as standards are developed and included in the register, and should it become compulsory to align education programmes with CROQF standards, it is anticipated that levels will be included on all certificates and diplomas.

([79]) In addition, standards and programmes developed within projects co-funded from EU funds must be in line with CROQF, which has a 'positive discrimination' effect by encouraging providers to use CROQF.

([80]) Projects aimed to create occupation and qualification standards.

Table 20 Croatian national qualifications framework (CROQF)		
NQF levels	**Qualifications**	**EQF levels**
8.2	Doctor diploma	8
8.1	Postgraduate research master of science diploma *poslijediplomski znanstveni magistarski studiji*	
7	Master diploma (graduate university studies) *sveučilišni diplomski studiji* Professional master diploma (specialist graduate professional studies) *specijalistički diplomski stručni studiji* Post-master specialist university studies *poslijediplomski specijalistički studiji*	7
6	Bachelor diploma (undergraduate university studies) *sveučilišni preddiplomski studiji* Professional bachelor diploma (undergraduate professional studies) *stručni preddiplomski studiji*	6
5	Professional higher education diploma (short cycle) *kratki stručni studiji* VET post-secondary development and training certificate *strukovno specijalističko usavršavanje i osposabljavanje* Master craftsman diploma	5
4.2	Upper secondary general education school leaving certificate Upper secondary VET certificate (four years) Upper secondary VET certificate (five years) for nursing technicians	4
4.1	Upper secondary VET (three years)	
3	Upper secondary VET certificate (two years) Upper secondary VET certificate (one year)	3
2	Vocational training certificate	2
1	Primary education certificate (eight years*)	1

(*) First eight years of schooling are called primary education. It refers to both ISCED 1 and 2 (primary and secondary education).
Source: Croatian Ministry of Science, Education and Sports (Article 8), 2013.

Important lessons and the way forward

The relatively rapid development of the CROQF illustrates the importance of stimulating active and broad participation throughout the entire process. Complemented by targeted support for, and training of, stakeholders, it can support genuine partnerships. Progressive, step-by-step development is emphasised. It has, so far, been an inclusive process, with meetings, workshops, conferences and consultations with different groups of stakeholders, including more than 10 000 individuals. However, it is still not easy to evaluate the ownership of the CROQF among different stakeholders: it will become more visible once the register is fully operational. So far, levels of ownership have been highest among ministries involved in preparing the ordinance on the CROQF register, but it is gradually being accepted by others through participation in events and projects.

However, much needs to be done to develop or redefine qualifications so they can be aligned with CROQF levels. The secondary legislation that is currently under development, such as the ordinance on the recognition and validation of non-formal and informal learning, will need to be adopted. For the CROQF to become operational, its principles and application, and the legislation that regulates the different education subsystems, will have to be further aligned with each other. Occupation and qualification standards will have to be developed and included in the CROQF register.

The current thinking behind the new Act on Quality Assurance in Science and Higher Education, to make qualification standards in the CROQF register mandatory for all new study programmes, has led to concerns about the autonomy of higher education institutions. It will be important to clarify the role of the framework for the various education and training subsystems and the nature of its regulatory function. Another related and open question that remains is the extent to which Croatian qualifications will be defined and regulated though the CROQF or through existing legislation at subsystem level.

Further source of information

The CROQF Website is available at http://www.kvalifikacije.hr/hko-en

Abbreviations

CROQF	Croatian qualifications framework
EQF	European qualifications framework
HROO	Croatian credit system for general education
NCP	national coordination point
NQF	national qualifications framework
QF-EHEA	qualifications framework in the European higher education area
ECVET	European credit system for vocational education and training
VET	vocational education and training

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CZECH REPUBLIC

Introduction and context

The Czech Republic is well positioned at European level in relation to several education and training indicators. Educational achievements and employment of graduates are above average, while the rate of early school leavers is low (5.5% in 2014, compared to the EU average of 11.1%). Tertiary education achievement has progressed, but remains below EU average, and participation in early childhood education and care is not yet as widespread as in other EU countries (European Commission, 2015). The country's education policy strategy for 2015-20 – *Strategy 2020* – includes the priorities to reduce inequalities, to increase the quality of teaching, and to improve governance of the education system (Czech Ministry of Education, Youth and Sports, 2014).

Over the last decade there have been major developments in almost all the education system: decentralisation of governance and curriculum reform in the schools system, introduction of the three-cycle system in tertiary education, and development of the national qualifications system in further education. However, 'awareness of interconnectedness between various parts of the education system has gradually decreased' (Czech Ministry of Education, Youth and Sports, 2014, p. 5). The development of the education system in the direction of lifelong learning has become a priority and it is acknowledged that, for this to become a reality, there is a need to establish links between different educational pathways. The question is whether an overarching national qualifications framework (NQF) could help coordinate and bridge some of these separate developments.

The national register of vocational qualifications (NSK) and a draft of the higher education framework have been developed. There are also descriptors for primary and secondary education but the country has yet to decide whether to develop a comprehensive NQF. Preliminary surveys among various stakeholders have been supportive of developing a comprehensive NQF as a tool for communication, cooperation and improving education and training quality. Promotion and development of a comprehensive NQF is in line with the national education *Strategy 2020*; however, the possibility of developing a comprehensive NQF is not mentioned explicitly.

The country referenced its national qualifications system to the EQF in 2011 (National Institute of Technical and Vocational Education, 2011). All qualifications awarded in initial education and training and those included in the national register of vocational qualifications (NSK) are linked to the EQF levels.

Policy objectives

Interlinked development of a framework and a register of vocational qualifications was a cornerstone of the national Strategy of lifelong learning (Czech Ministry of Education, Youth and Sports, 2007). The strategy's main elements reflect identified and agreed needs, and aim at improving access to lifelong learning ([81]) and a more permeable education and training system, through:

(a) creating a system to recognise and validate learning outcomes, irrespective of the way they were achieved;
(b) making the whole system more transparent and understandable for all stakeholders, including learners and employers, employees, training providers;
(c) linking initial and continuing education;
(d) systematically involving all stakeholders in vocational education and training (VET) and in developing national qualifications;
(e) responding to European initiatives such as making qualifications more transparent and supporting learner and worker mobility;
(f) supporting disadvantaged groups and people with low qualification levels.

([81]) Important progress was achieved in adult participation in lifelong learning, from 6.8% in 2009 to 11.4% in 2011; however the trend has decreased to 9.3% in 2014, below the EU average (10.7%) (European Commission, 2015).

In 2015, the *Strategy of lifelong learning* expired. The main strategic documents currently in force in the country are the *Strategy for education policy until 2020, the Long-term policy objectives of education and development of the education system* (2015-20), and the *Long-term objectives in higher education* (2016-20). This last document refers to the introduction of the NQF for higher education and its self-certification to the qualifications framework of the European higher education area.

Developments in VET and higher education – to some extent pursued through projects – have not been coordinated or connected. This leaves several questions and challenges for developing shared concepts and designing a structure which could provide the basis for a future comprehensive NQF. This challenge is accentuated because the idea of a comprehensive framework is not yet well understood by the broader public.

Levels and use of learning outcomes

The national register of vocational qualifications (NSK) ([82]) comprises eight levels and is currently populated with qualifications ranging between EQF levels 2 to 7. Qualification levels in the NSK are described in terms of competences. The level descriptors of the NSK were developed in close connection with the eight levels of the EQF (National Institute of Technical and Vocational Education, 2011) and they reflect the complexity of work activities ([83]). Each vocational qualification included in the NSK is described by a qualification standard (a list of expected learning outcomes) and an assessment standard (set of evaluation criteria). They are drafted by employers and are based on the descriptions of occupations in the national system of occupations.

The descriptors of the draft NQF for higher education cover three levels, corresponding to levels 6 to 8 of the EQF. They include academic qualifications (bachelor, master and doctoral degrees), but exclude tertiary vocational education (DiS) degrees. The architecture of the framework consists of two layers: the general (national) descriptors and the education (subject area) descriptors. Descriptors are divided into professional knowledge, professional skills and general competences. This division is compatible with the overarching framework for the European higher education area (EHEA) and also with EQF descriptors.

A set of level descriptors for primary and secondary education (EQF levels 1 to 4) was also drafted in 2012, based on core curricula. In this proposal, descriptors were grouped into three categories; knowledge, specific study and work skills, and transferable skills.

In 2013, a group of experts from education and working life drafted a proposal of national comprehensive descriptors, reflecting and respecting both the EQF descriptors and national sectoral descriptors developed so far. Discussion continues on the need, scope and goals of a comprehensive qualifications framework for all education sectors. Potential strengths, opportunities, weaknesses and threats, which were identified in previous surveys, are being discussed and shared among experts.

The learning outcomes ([84]) approach is widely used, although applied and interpreted slightly differently across education levels and subsystems. Core curricula for primary and secondary education emphasise key competences and their practical use. Expected learning outcomes are defined in terms of activities, practically aimed, usable in everyday life and verifiable (tasks that students should be able to perform). The Education Act ([85]), which came into force in 2005, regulates curriculum reform at primary and secondary levels, emphasising learning outcomes and strengthening social partner influence in VET. Key competences (such as information and communications technology skills, learning to learn, problem-solving) have become important. Modularisation of courses was introduced to improve transferability between various pathways in initial and continuous education, but schools have the autonomy to choose between standard or modular organisation

([82]) The qualifications in the NSK are not part of the formal education system. For more information on the NSK: http://www.narodnikvalifikace.cz/en-us/

([83]) In the proposal on qualifications levels in the national qualification system, adopted by the Ministry of Education, Youth and Sport in 2010, levels were linked to levels of education and types of programmes. During the referencing process it was decided that all qualifications awarded in formal education would be referenced to EQF levels by comparison of learning outcomes in national curricula and the EQF.

([84]) Due to linguistic reasons and to the fact that terminology in the area of education and training is not unified in the Czech Republic, several terms are used with reference to learning outcomes. Ranging from 'learning/teaching outcomes' to 'outputs' to 'results of education', they are broadly compatible with the European definition and notion of learning outcomes. However, in some cases, several terms can be used to depict the same concept, or the same term can be understood differently by different stakeholders (Cedefop, 2016).

([85]) Act No 561/2004: www.msmt.cz/uploads/VKav_200/Act_561_2011/edu_act_2011.doc

of curricula. A competence-based and learning outcomes-oriented approach is shared by VET and higher education and has broad political support. This is documented and confirmed by curriculum reform in vocational education (including relevant methodologies) and by the Act on the verification and recognition of results of further education. Initial VET (IVET) core curricula are increasingly being aligned with competences defined in the NSK; the holistic character of the term 'competence' is emphasised. Knowledge, skills and attitudes are not seen as 'atomised' entities which can be judged in isolation from each other (Cedefop, 2016).

The learning outcomes approach was used, explored and defined in developing the national qualifications framework for higher education. Each study programme has a 'graduate profile' (goals of study) which is described in terms of learning outcomes. Learning outcomes are defined as knowledge, skills and competences that graduates should be able to demonstrate on completion of a specific learning phase (especially at the end of study). The Accreditation Commission recommends that higher education institutions structure learning outcomes in this way, and it is intended that, after testing and implementation, the framework will be used in the accreditation process (Cedefop, 2016).

Stakeholder involvement and institutional arrangements

The EQF national coordination point (EQF-NCP) has been functional since 2009 and is located within the National Institute for Education (NÚV). It comprises an NCP working group, an advisory group, and the National Council for Qualifications-EQF implementation working group. The NCP played an important role in referencing the Czech qualifications system to the EQF. It leads discussions on establishing a comprehensive NQF and provides and disseminates information on European tools.

The 2006 Act on the verification and recognition of further education results, which came into force in 2007 ([86]), sets out the basic responsibilities, powers and rights of all stakeholders in developing and awarding national vocational qualifications. The Czech Ministry of Education, Youth and Sports (MEYS) coordinates activities of central administrative authorities (ministries) and approves, modifies and issues a list of vocational and complete vocational qualifications. The National Council for Qualifications acts as an advisory body to the MEYS on qualifications. The national register of vocational qualifications (NSK) is maintained and published by NÚV. Sector councils are in charge of developing qualification and assessment standards for qualifications up to level 7 included in the NSK; most qualifications are, however, placed at levels 2 to 5 ([87]). There are currently 29 sector councils consisting of representatives of employers, employees, qualification authorities and academic sectors.

One important change in the past 15 years has been a transfer of powers and responsibilities to the local level. Cooperation among central government, regional government, social partners (especially employers) and parents is important. Schools are responsible for setting and achieving their own goals, based on the national curriculum. However, key quality assurance mechanisms remain under the control of the Ministry of Education and the Czech School Inspectorate. In tertiary education, approval of programmes is given by the Ministry of Education, based on the reports of the Accreditation Commission for Higher Education and the Accreditation Commission for Tertiary Vocational Education (National Institute of Technical and Vocational Education, 2011).

Recognising and validating non-formal and informal learning and learning pathways ([88])

The Czech system of validation of non-formal and informal learning (VNFIL) is legally regulated by the Act on the verification and recognition of further education results (2006) ([89]), amended in 2012 ([90]).

([86]) Act No 179 of 30 March 2006 on verification and recognition of further education results and on amendments of some other acts: http://www.msmt.cz/areas-of-work/further-education/the-act-on-the-recognition-of-further-education-results

([87]) At higher levels, sector councils define only specialised supplementary qualifications, not those awarded by higher education institutions (bachelor, master and PhD degrees). Opening up higher levels (up to level 7) for qualifications awarded outside higher education institutions is seen as an important means of supporting lifelong learning.

([88]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([89]) The Act on the verification and recognition of further education results (2006): http://www.msmt.cz/areas-of-work/further-education/the-act-on-the-recognition-of-further-education-results

([90]) Among the amendments: the term 'partial qualification' was replaced with 'vocational qualification'; the minimum age limit for taking part in the competence assessment was removed; parts of a vocational qualification can be recognised when passing competence assessment for another vocational qualification.

Validation and recognition procedures are in place for vocational qualifications included in the national register of vocational qualifications (NSK). The register addresses further learning results, with adults as a main target group, and it currently contains 1052 vocational qualifications in 29 different sectors, ranging between EQF/NQF levels 2 to 7.

The concept of 'vocational qualification' is the central principle of the Czech VNFIL system. Validation and recognition procedures are carried out according to the qualifications and assessment standards included in NSK. Each qualification standard – based on occupational standards – is defined in competences. Following validation and recognition permits acquiring a vocational qualification listed in the register. Certain vocational qualifications can be combined and, after a comprehensive final exam, can lead to a full VET qualification. At NSK/EQF level 3, for example, exams can be taken for all vocational qualifications of a given complete qualification, but to achieve a complete vocational qualification, attain a level of education and receive the apprenticeship certificate, it is necessary to pass a final exam. This makes final exams a bridge between the formal and the VNFIL systems.

Education and training providers in general education, vocational and higher education can decide to shorten a learner's pathway in line with legal provisions. This is normally at the school principal's discretion. There is no methodological framework for how this should be done and there is no record of how much it is used.

Access to formal education programmes requires a formal qualification; for instance, to access higher education, students have to have achieved an upper-secondary leaving certificate *(maturita)*. However, higher education institutions can (but do not have to) select applicants based on their own entrance exams or results from national comparative exams.

NQF implementation

The Czech Republic does not have a comprehensive NQF in place and the main issue remains the integration of different subsystems into a single overarching framework. In 2011, the country referenced its formal qualifications directly to EQF levels, using the classification of educational qualifications types (KKOV) and nationally approved curricula. The process of evaluation of the referencing and the debate on the development of a comprehensive NQF continues. Currently the national register of vocational qualifications (NSK) functions as a framework for the system of VNFIL; there is also a draft of the qualifications framework for higher education.

The NSK is fully operational and currently contains 1052 vocational qualifications in 29 different sectors, all of them achievable through validation. It contains descriptors for eight levels, and qualification and assessment standards for each qualification. It is populated mostly with vocational qualifications at levels 2, 3 and 4, but a small number at levels 5, 6 and 7 have also been published. Since the implementation of the NSK 151 215 vocational qualifications have been awarded. The success rate is not measured but related data suggest that around 90% of candidates are successful. ([91])

The qualifications framework for higher education, in line with the Bologna framework, was designed and developed in the Q-RAM project (2009-12). It provides general descriptors for three categories of learning outcomes for all higher education programmes, and specific descriptors for 39 areas of education. The Q-RAM framework covered EQF levels 5 to 8, where level 5 was foreseen to be assigned to short-cycle programmes once this category was introduced during higher education reform. Currently there is no concept of short cycle. In 2012, the qualifications framework went through pilot implementation at 12 universities and four tertiary VET institutions (VOŠ). In 2015, the framework was revised and discussed with the representation of higher education institutions. Its scope has been reduced to EQF levels 6 to 8 and it includes only qualifications provided by universities (not VOŠ, tertiary VET schools). There were plans to introduce the qualifications framework for higher education into national legislation, in the decree on standards for accreditation in higher education, prepared in response to the amendment to the Higher Education Act ([92]) effective since September 2016. However, those plans were not successful, hindering implementation and the self-certification process.

There is currently no link between the NSK and the qualifications framework for higher education: apart from the possibility to achieve vocational qualifications through validation, existing arrangements do not open up possibilities to

([91]) Data from September 2016, provided by the NSK (European Commission et. al., 2016).

([92]) The Higher Education Act is available at: http://www.msmt.cz/areas-of-work/tertiary-education/the-higher-education-act?lang=2 The amendment to the Higher Education Act can be found at: http://www.sbirka.cz/POSL4TYD/NOVE/16-137.htm

access programmes through different pathways. Completion of compulsory education is generally a requirement to enter upper-secondary programmes. The *maturita* (upper-secondary leaving examination) is the requirement to enter higher education, although higher education institutions can additionally decide to use specific entry examinations.

EQF levels are indicated on the vocational qualifications included in the NSK, as well as on the Europass certificate supplement and diploma supplement. Starting from October 2017, it will be compulsory to indicate the EQF level on certain graduation certificates issued in formal education (lower secondary, upper secondary, tertiary vocational non-university schools, and conservatories).

Referencing to regional frameworks

The Czech Republic referenced its formal qualifications to EQF levels in December 2011. In the absence of a comprehensive NQF, formal initial qualifications were referenced based on the classification of educational qualifications types (KKOV) and nationally approved curricula. Of qualifications awarded in continuing education, only those included in the NSK were referenced to the EQF. Higher education qualifications are linked to the EQF, but not yet self-certified against the QF-EHEA.

Important lessons and future plans

The main topic of discussion remains development towards a comprehensive overarching NQF, with a coherent set of level descriptors. This could bring together subframeworks for vocational qualifications, higher education and lower and upper secondary education. Explicit levels and a single set of descriptors would make links to EQF levels more transparent. Discussions on the purpose and potential advantages of the NQF have started along with work by experts, but reaching political agreement among stakeholders is a challenge and no decision has yet been taken.

In 2015 a working group was established by the Ministry of Education to implement the EQF. The group brings together representatives from all sections of the ministry, from the Czech School Inspectorate and from organisations directly controlled by the ministry: the National Institute for Education and National Institute for Further Education. One of the tasks is to develop one comprehensive NQF as a tool to improve the orientation and coordination of the education system and enable clarity of Czech qualifications for domestic and foreign citizens ([93]).

Successful implementation of learning outcomes requires coordination of subsystems, initiatives, measures and bodies, which is sometimes difficult. Better understanding of the approach, better cooperation, communication and coordination are prerequisites for future implementation of the learning outcomes approach. One line of progress since 2009 is the development of informal networks of experts, teachers, researchers, policy makers and officials willing to discuss and share their experiences. All interviewees contacted for a recent Cedefop study on learning outcomes (Cedefop, 2016) expressed the need for better understanding of the learning outcomes concept among different sectors and a desire for better coordination of education policies. The 2012 PISA results were slightly better than those from 2009 and one reason for this could be a stronger curricular focus on learning outcomes in the key competence area.

Further sources of information

National Institute for Education (EQF NCP): http://www.nuv.cz/

National register of vocational qualifications (NSK): http://www.narodnikvalifikace.cz/en-us/

Abbreviations

EHEA	European higher education area
EQF	European qualifications framework
IVET	initial vocational education and training
KKOV	classification of educational qualification types
NCP	national coordination point
NSK	national register of vocational qualifications
NQF	national qualifications framework
NVQ	national vocational qualifications
VET	vocational education and training

([93]) The main source for further thinking and discussion is the study: Nantl, J. (2014). *Czech qualifications framework: the possibilities, conditions and context of formation of a national framework of qualifications for the Czech Republic*. http://www.nuv.cz/uploads/EQF/2_1_CZQF_study_fin.pdf

Table 21 Czech education qualification types, NSK levels, and links to EQF levels

EQF levels	Czech qualification types (*)	NSK levels
8	Doctoral programme PhD, ThD degrees three to four years beyond master (*doktor*)	8
7	Master programme Mgr., MgA., Ing., Ing. arch., MUDr, MDDr, MVDr, JUDr, PhDr, RNDr, PharmDr, ThLic., and ThDr degrees two to three years of tertiary education beyond bachelor or four to six years of tertiary education *(magistr, inženýr, doktor)*	7 e.g. Senior detective (*vedoucí detektiv)* Chemical engineer product manager *(inženýr chemie produktmanažer)*
6	Bachelor programme Bc and BcA degrees three to four years of tertiary education *(bakalář)* Tertiary vocational education DiS. degree three to three-and-a-half years of tertiary education *(diplomovaný specialista)*	6 e.g. Career counsellor for educational and professional path (k*ariérový poradce pro vzdělávací a profesní dráhu*) Independent research and development electrician (*samostatný elektrotechnik výzkumný a vývojový pracovník)*
5		5 e.g. Tour guide (*průvodce cestovního ruchu)* Agricultural advisor for plant production (*zemědělský poradce pro ochranu rostlin)*
4	Upper secondary education with *maturita* exam General education (Gymnazium) – four years of upper secondary study Upper secondary education with *maturita* exam Vocational education – four years of upper secondary study Supplementary study leading to a *maturita* exam Two years of study after the apprenticeship certificate	4 e.g. Quality management specialist in engineering *(technik řízení jakosti ve strojírenství)* Detective trainee *(detektiv koncipient)*
3	Upper secondary education with apprenticeship certificate Vocational education – three years of upper secondary study	3 e.g. Glassmaker for pressed glass (*sklář lisovaného skla)* Locksmith *(zámkař)*
2	Lower secondary education Completion of a lower secondary general education programme – nine years	2 e.g. Production of side dishes (výroba příloh) Guard *(strážný)*
1	Special education Completion of an educational programme in a special school – 10 years	1

(*) In absence of a comprehensive NQF, the Czech Republic has referenced its formal initial qualifications directly to the EQF

Source: Adapted from the National Institute of Technical and Vocational Education, 2011.

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CYPRUS

Introduction and context

The recent economic crisis, and its adverse effects on the labour market, was a critical challenge for the Cypriot education and training system, negatively affecting its potential for growth. However, the crisis also revealed inherent weaknesses in the economy. As a result, greater flexibility is being demanded of education and training to target support for the unemployed ([94]), the economically inactive and the employed. Cyprus has developed a comprehensive national qualifications framework called the Cyprus qualifications framework (CYQF) to improve permeability, both horizontal and vertical, within its education and training systems. CYQF incorporates all levels and types of qualifications from all subsystems of education and training and from primary to higher education. The system of vocational qualifications (SVQ) being developed by the Human Resource Development Authority of Cyprus (HRDA) is an integral, but distinct, part of CYQF. Discussions are being held to develop common structures and elements for combining and transferring education credits.

A decision to create a NQF was taken by the Council of Ministers in 2008. A first NQF draft, with a detailed timetable for implementation, was presented in April 2010 and consultation with stakeholders took place in spring 2011. The NQF is currently being revised and is expected to be finalised in 2016.

([94]) The employment rate in 2015 is increasing, but remains largely below the values reached in the pre-crisis period when Cyprus was already fulfilling its national target. Cyprus has already reached the Europe 2020 national target for early school leaving, while still continuing to make significant progress in tackling this issue. Cyprus has one of the highest tertiary education attainment rates in the EU with 52.5%, compared to the European average of 37.9% in 2014 and largely outperforms its Europe 2020 national target of 46% (European Commission, 2015).

Policy objectives

CYQF's main role is to classify qualifications according to agreed learning outcomes. The reform potential (Cypriot Ministry of Education and Culture, 2015) of the NQF is recognised by its link to wider and more ambitious reforms and procedures for quality assurance, assessment and award of qualifications. More specific objectives and targets are:

(a) supporting recognition and validation of qualifications;
(b) enabling progression and mobility;
(c) promoting lifelong learning through better understanding of learning opportunities, improved access to education and training, creation of incentives for participation, more flexibility in transferring credits between qualifications and recognition of prior learning;
(d) improving quality assurance of education and training programmes;
(e) strengthening links with the labour market.

The aim is to develop an inclusive framework of qualifications awarded outside formal education. This will primarily be achieved by including the vocational qualifications system – established by HRDA – within the framework (at levels 3 to 7) to bring about comparability and better correlation of qualifications acquired in formal or non-formal learning. These qualifications refer to occupational standards and certificated learning outcomes acquired at work. This is important for increasing adult participation in lifelong learning (LLL) (currently at 6.9%), which remains below the EU average of 10.7% in 2014 and which is stagnating (European Commission, 2015). This is clearly linked to the aim of the NQF to promote lifelong learning, giving all Cypriots a second chance for educational advancement and job progression.

A further policy objective is to reinforce vocational education and training (VET) at secondary, post-secondary and tertiary levels through a new framework initiative: the Cyprus Productivity Centre (CPC). Through the new modern apprenticeship scheme (Cypriot Ministry of Education and Culture,

2015), CPC aims to provide alternative learning pathways and increased employability, based on the needs of the labour market, for those who leave formal education without basic or vocational skills. The setting-up and upgrading of post-secondary VET institutes (MIEEK) is a major step towards attracting more students to this pathway.

Levels and use of learning outcomes

An eight-level reference structure has been adopted to reflect the national qualification system's main characteristics. Level descriptors are defined in terms of knowledge, skills and competence. Knowledge is defined by the type and complexity of knowledge demanded and the ability to place one's knowledge in context. Skills are defined according to the complexity of problem-solving and communication skills involved. Competence relates to the following aspects: space of action, cooperation and responsibility, and learning skills. These descriptors were developed concurrently for all levels so there would be clear progression from one level to the next.

The current qualifications system is based on data (quality of teachers, infrastructure, and length of education and training programmes). Assessment of learning outcomes is not presently covered by national legislation, policy documents or development programmes. However, attention is increasingly being directed to the need to focus on skills and key competences (that are required in the 21st century), and to revise curricula, learning programmes and assessment methodologies in line with learning outcomes. Several reforms are under way, such as modernising pre-primary and upper secondary curricula, and improving VET by introducing post-secondary VET institutes. Strong emphasis is being given to improving teacher competences and establishing and monitoring the quality of learning outcomes. NQF implementation will benefit from the experience gained in developing competence-based vocational qualifications. These will be based on occupational standards and will make it possible to award a qualification to a candidate irrespective of how and where they acquired the relevant knowledge, skills and competences.

Learning outcomes are mainly expressed in formal education as part of subject and stage-based general education. In the curriculum, learning outcomes are described as the knowledge, skills and attitudes, and awareness learners are expected to achieve at the end of each stage. Level descriptors indicate the standards a learner should achieve at each certificated level of education. The development of a single unified curriculum from pre-primary to primary and lower secondary education, based on learning outcomes, is an important goal.

Stakeholder involvement and institutional arrangements

The general directorate for VET at the Ministry of Education and Culture initiated and is coordinating NQF developments. Since 2012, the Ministry of Education has operated as the competent authority and designated EQF national coordination point (NCP). It includes representatives from all departments of the Ministry of Education and Culture, Ministry of Labour and Social Insurance and the Human Resource Development Authority (HRDA). Stakeholders play a central role in existing validation practices but there is limited involvement from social partners (such as the Chamber of Commerce and Industry).

Recognising and validating non-formal and informal learning and learning pathways ([95])

There is no comprehensive national strategy or policy in Cyprus for validation of non-formal and informal learning. The validation practices currently in place are fragmented and limited. Existing validation does not cover all stages identified in the Council recommendation (Council of the European Union, 2012), nor is the same terminology used consistently. Current practices mostly relate to assessment and certification of prior work experience; they do not explicitly reflect the identification, assessment, certification and validation of learning acquired in settings other than formal pathways. The economic crisis led to significant investment in training unemployed Cypriots and EU nationals to help them secure jobs at home or in another EU country, but an overarching framework of validation of non-formal and informal learning is not yet in place.

The board of ministers established an interdepartmental committee in 2013 to map existing validation practices throughout 2016 and 2017, with the aim of developing a national validation plan by 2018 and for implementation to begin by 2020 in line with the 2012 Council recommendation. The committee also considers work already done by HRDA, which has developed a system of vocational

([95]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

qualifications (SVQ) through which it is possible to validate non-formal and informal learning by the award of full or partial qualifications. It is planned to develop a further 80 vocational qualifications during the 2014-20 ESF programming period. The 72 vocational qualifications already developed will also be revised in response to labour market needs. The standards used in the vocational qualifications system relate not only to occupational skills but also soft skills developed through work experience (such as teamwork and collaboration); they are different from those used in apprenticeship or school-based VET qualifications and are not recognised in formal education. However, ways of linking the two VET systems are being considered as CYQF is developed.

The autonomous nature of higher education institutions enables them to accept credits from prior learning. The Cyprus Council for Recognition of Higher Education Qualifications also recognises work experience credits as part of an individual's qualification. Success in information and communication technology examinations is certificated regardless of where and when the knowledge was developed.

NQF implementation

The framework is not yet operational. The Cyprus NQF will be established by the Ministry of Education and Culture as an in-service department and will be implemented gradually. Stakeholders responsible for accreditation of qualifications will continue to work according to the existing legislative framework but new legislation is required for CYQF to clarify how stakeholders will work together. A decision of the council of ministers is expected and a new legislative framework will be introduced if required (Cypriot Ministry of Education and Culture, 2015). A new permanent body – council of the NQF of Cyprus – has been established, which includes all stakeholders; it is the consultative body for the CYQF referencing report. Its main tasks will be advisory and will focus on:

(a) consulting with stakeholders on CYQF development and implementation;
(b) developing, implementing and reviewing CYQF procedures;
(c) disseminating public information on CYQF;
(d) advising the Ministry of Education and Culture on policy and resource implications.

Quality assurance should underpin all levels of the NQF. A new Quality Assurance and Accreditation Agency (QAAA) in higher education was established by law in March 2016. HRDA has a robust process of quality assurance in place for monitoring the SVQ. All aspects of the system, and those participating in it, are quality assured by HRDA, which holds the relevant registers of assessing centres and assessors for each vocational field and region. The HRDA has also introduced a system for evaluating and certifying training providers ([96]).

Referencing to regional frameworks

The Ministry of Education and Culture is the national body responsible for referencing national qualifications to the EQF. It is a work in progress. The draft referencing report was presented in June 2014 and presentation of the final referencing report was presented in spring 2017.

Important lessons and future plans

Development of the NQF and of a competence-based system of vocational qualifications, which will constitute an integral part of the NQF, is expected to strengthen the ties between VET for young people and vocational training for adults, and to improve their knowledge and skills. However, the comprehensive and inclusive nature of the new framework will require stakeholders to work together. The proposal to set up a council for the NQF is important for establishing a permanent forum for collaboration between stakeholders: the Ministry of Education and Culture, the Ministry of Labour and Social Insurance, the Human Resource Development Authority and representatives of employer and employee organisations and the academic community.

The early stages of CYQF implementation will adopt a flexible, bottom-up approach, based on key principles to be applied across education and training subsystems, but accepting different approaches and practices where necessary. The focus is on a qualitative improvement of the system, enabling it to become flexible and adaptable while also ensuring unity, continuity and consistency between all levels and services. It should also link the education system, especially at tertiary level, with productivity and improvement of material infrastructure (Cypriot Ministry of Education and Culture, 2015).

([96]) This system is entitled *Evaluation and certification of training providers (AxioPistoSyn):* http://www.hrdauth.org.cy/easyconsole.cfm/page/project/p_id/23/pc_id/17154

Further source of information

National contact point established at the Ministry of Education and Culture: http://www.moec.gov.cy

Abbreviations

CPC Cyprus Productivity Centre
CYQF Cyprus qualifications framework
EQF European qualifications framework
HRDA Human Resources and Development Agency
NQF national qualifications framework
MIEEK Metalykeiaka Instituta Epaggelmatikis Ekpaideysis kai Katartisis (post-secondary VET institutes)
QAAA Quality Assurance and Accreditation Agency
SVQ system of vocational qualifications
VET vocational education and training

Table 22 Cypriot national qualifications framework (CYQF)

NQF levels	Educational/Academic qualifications			Professional/ vocational qualifications	EQF levels
8	Doctoral degree				8
7c	Master degree			SVQ Level 5	7
7b	Postgraduate diploma/Postgraduate certificate				
7a	Postgraduate certificate				
6	University degree (*Ptychion*/Bachelor degree)			SVQ Level 4	6
5c	Higher certificates and diplomas (three years or more)			SVQ Level 3	5
5b	Post-secondary certificates and diplomas (two years)				
5a	Post-secondary certificates and diplomas (one year)				
4	Upper secondary general education and evening schools certificates (12th class or 12th and 13th class for some private schools)-*Apolyterion*	Upper secondary technical and vocational education and evening technical schools certificates (12th class)-*Apolyterion*		SVQ Level 2	4
3	Lower secondary education certificate (10th class)		New modern apprenticeship	SVQ Level 1	3
2	Compulsory lower secondary education certificate (9th class)		Preparatory programme (new modern apprenticeship		2
1	Compulsory education certificate (Elementary School leaving certificate, and/or graduates of 7th and/or 8th class)				1

Source: Cypriot Ministry of Education and Culture, 2016.

References

Council of the European Union (2012). Council decision of 20 December 2012 on the validation of non-formal and informal learning. *Official Journal of the European Union,* C 398, 22.12.2012, pp.1-5. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:398:0001:0005:EN:PDF

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Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

DEMOCRATIC REPUBLIC OF THE CONGO

Introduction and context

The education system in the Democratic Republic of the Congo (DRC) is based on the Belgian education system. Higher education was expanded in the 1990s, mostly in the private sector. Many private higher education institutions are not recognised but maintain that they are affiliated with universities or colleges located in Western Europe and North America.

There are five ministries responsible for education in the DRC: the Ministry for Primary, Secondary and Professional Education; the Ministry for Higher and University Education; the Ministry for Social Affairs, for informal education; the Youth Ministry, for skills training; and the Ministry of Health, for nursing education (Du Plessis et al., 2015).

Consequently, this current arrangement in the DRC, particularly the separation of roles within the ministries responsible for the education system, causes a lack of coordination. Also, education system archives are in a very poor state; their management is handled by various government ministries and institutions responsible for education, rather than being centralised in one national record. The state of the archives, therefore, varies greatly even in central government offices, and some are completely disorganised and in need of rehabilitation (Du Plessis et al., 2015).

The DRC is in the early stages of developing an NQF system. In March 2016 the education ministries hosted a large meeting with experts from stakeholder ministries to discuss the development of an NQF system for the DRC. The meeting concluded that a process of consensus-building and planning for the development of an NQF should be established.

UNESCO's assessment and review of technical vocational education and training (TVET) in the region reported that: 'Technical education and vocational training in the DRC is managed by six ministries, hence the establishment of the Inter-Ministerial Commission for Technical Education and Vocational Training in 2006 to bring about synergy and regulation of TVET. The specific objectives of the Inter-Ministerial Commission are: to develop an institutional framework for TVET; to introduce curricula and programmes to enhance employability; to sustain advocacy for TVET; and to prepare resources for TVET. Vocational training is seen as an integral part of general education, which provides access to work and to further training' (UNESCO, 2013, p. 38).

Policy objectives

The following are the DRC's key objectives for an NQF for the TVET sector:

(a) develop procedures for evaluation and certification of TVET in line both with the founding principles of the current system of qualifying examinations and with the future requirements of the pedagogy of integration or skills approach, APC;
(b) ensure consistency of assessment and certification in TVET, from current pedagogical implications to those of the pedagogy of integration;
(c) introduce changes gradually, to avoid possible performance side-effects.

Levels and use of learning outcomes

Certification in the DRC has struggled to achieve harmonisation, because of the lack of adequate structures to guide the process. The classification of degrees and diplomas is currently as follows:

(a) at the early childhood or kindergarten stage, most providers issue a 'maternal cycle' certificate;
(b) at the basic or primary education level, both public and private schools provide a certificate of completion of primary education. This currently grades pupils by allocating 50% to their school assessment and 50% to their performance in the national examination at the end of primary studies;
(c) at completion of secondary level, a State certificate is awarded;

(d) a State diploma is issued to those who reach a specified level of attainment in all the essential disciplines of their option. Again, this is assessed by allocating 50% of the marks to their performance in the State examination and 50% to the school internal assessment.

Stakeholder involvement and institutional arrangements

Technical and financial partners supporting the development of TVET have focused primarily on the rehabilitation and/or construction of infrastructure, and provision or distribution of textbooks at primary level. They have also revisited the programme and perspective of grant development plans for TVET target schools in priority areas (agriculture, mining and building public works). Other actors in TVET in the informal sector tend to be isolated from these national initiatives. Some offer their own systems of qualification and certification.

Referencing to regional frameworks

The DRC NQF will be in line with the regional qualifications framework of the Southern African Development Community (SADC).

Important lessons and future plans

The DRC has no reference text for regulating or harmonising its national qualification and certifications framework (NQCF). Several departments have responsibility for aspects of the education system; each has developed its own qualification system, leading to an incoherent national picture. As a result, exchange of information about the experiences and practices of other countries in the region could contribute to the effectiveness of implementation of a national qualifications framework (NQF) in the DRC.

The establishment of an NQF (or CNQC, *cadre national des qualifications et certifications*) requires a way of thinking that can help successfully harmonise existing certification systems. Other objectives should be:

(a) to give coherence to these systems by creating a unifying framework in many countries;
(b) to reinforce training throughout life;
(c) to support the involvement of politicians and other stakeholders in TVET, including communities and social partners in many countries and those in the sub-region.

Since the development, maintenance and the actual introduction of a NQCF are operations that take a long time, there now needs to be coordination of public action and commitment for all stakeholders, as well as deep structural changes in training. These initiatives should:

(a) contribute to the cohesion, transparency and integration of all existing certification systems;
(b) establish an objective link between training, evaluation and qualification;
(c) improve targeting and access to qualifications for various social groups, including the disadvantaged and vulnerable;
(d) introduce flexibility for learners, providers and users (employers);
(e) aid the recognition and validation of all the skills taught as well as those acquired through experience;
(f) promote TVET and adult education;
(g) improve the convergence of qualifications with the needs of society and the labour market;
(h) promote investment in participation in development actions in the workplace.

Abbreviations

DRC	Democratic Republic of the Congo
NQCF	national qualifications and certifications framework
NQF	national qualifications framework
SADC	Southern African Development Community
TVET	technical and vocational education and training

References

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Prepared by:
UNESCO in collaboration with national experts.

DENMARK

Introduction and context

Denmark has developed a comprehensive national qualifications framework (NQF) covering all types and levels of qualification awarded and quality assured by public authorities. The work on the framework started in 2006 and builds directly on the qualifications framework for higher education established in 2006/07. Implementation of the eight-level framework has been a gradual process, starting in June 2009 when the proposal for the framework was adopted by the Minister for Education, the Minister for Science, Technology and Innovation, the Minister for Culture and the Minister for Economic and Business Affairs. The NQF was referenced to the European qualifications framework (EQF) in May 2011. An evaluation of the NQF was finalised in October 2013, providing generally positive feed-back on the results achieved so far. NQF and EQF levels are indicated in most qualifications and qualification supplements being issued (starting 2013). The NQF and the levelling of qualifications is a visible part of national education databases, indicating that the framework has now reached operational stage and forms an integrated part of the Danish education and training landscape.

Policy objectives

The Danish NQF provides a comprehensive, systematic overview of public qualifications ([97]) that can be acquired within the Danish system. The framework supports development of a transparent education, training and learning system without dead ends; it supports learner progression irrespective of prior learning, age or employment situation.

The NQF adopted in 2009 is considered to be a first step in a long-term development process. The first development stage was concluded by publishing the 2013 evaluation report. The results of this report are now being studied and will result in a set of priorities for the next few years. In the same way as in the Netherlands and Sweden, an opening up towards private and non-formal qualifications is being considered. A mapping was carried out in 2013 showing that a high number of certificates and qualifications operate outside and in parallel to the existing NQF.

Levels and use of learning outcomes

The Danish qualifications framework draws a clear distinction between levels 1 to 5 and levels 6 to 8. The latter are identical with the levels descriptors in the Danish qualifications framework for higher education at bachelor, master and doctoral-level, and contain explicit references to research related outcomes. Qualifications have been referred to the NQF using two different principles. A qualification at levels 1 to 5 is referenced according to a 'best fit' principle where the final decision is based on overall judgement of the knowledge, skills and competences of a particular qualification (type). A principle of 'full fit' is used for levels 6 to 8, as is the case for the Danish qualifications framework for higher education, implying that qualifications at this level have to be fully accredited ([98]) as meeting the legal requirements set by national authorities and according to the qualifications framework for higher education for qualifications at these levels.

This distinction implies that all qualifications at levels 6 to 8 need to be defined and accredited according to the qualifications framework for higher education. For the moment there are no publicly recognised qualifications in the Danish education system at level 6 to 8 that are not included in the higher education area (qualifications framework for higher education); some non-university qualifications have

([97]) The Danish Evaluation Institute specifies this as '….all qualifications that have been awarded pursuant to an act or executive order and that have been quality assured by a public authority in the Danish education system' (Danish Evaluation Institute, 2011, pp. 13-14).

([98]) The process of accreditation in Danish HE, and how this links to the learning outcomes principle, is well documented in the 2013 report: http://www.nokut.no/Documents/NOQA/Reports/Learning_outcomes_in_external_quality_assurance_approaches_NOQA_report_%20220413_250613.pdf

been, or are expected to be, accredited as bachelors and masters (for example related to arts, the armed services and police) and included in the qualifications framework for higher education.

The eight-level structure adopted for the Danish NQF is defined by knowledge (*Viden*), skills (*Færdigheder*) and competences ([99]) (*Kompetenser*). Danish level descriptors have been based on a number of different sources, including existing descriptions of learning outcomes in curricula and programmes, the EQF descriptors, and the Bologna descriptors. They have been designed to be relevant to different types of qualification, theoretically as well as practically oriented. Knowledge (*Viden*) descriptors emphasise the following:

(a) the type of knowledge involved; knowledge about theory or knowledge about practice; knowledge of a subject or a field within a profession;
(b) the complexity of knowledge; the degree of complexity and how predictable or unpredictable the situation in which the knowledge is mastered;
(c) understanding; the ability to place one's knowledge in a context. For example, understanding is expressed when explaining something to others.

Skills descriptors refer to what a person can do or accomplish and reflect the following aspects:

(a) the type of skill involved; practical, cognitive, creative or communicative;
(b) the complexity of the problem-solving; the problem-solving these skills can be applied to and the complexity of the task;
(c) communication; the communication that is required; the complexity of the message; to which target groups and with which instruments.

Competence descriptors refer to responsibility and autonomy and cover the following aspects:

(a) space for action; the type of work/study related context in which knowledge and skills are brought to play, and the degree of unpredictability and changeability in these contexts;
(b) cooperation and responsibility; the ability to take responsibility for one's own work and the work of others, and the complexity of the cooperative situations in which one engages;
(c) learning; the ability to take responsibility for one's own learning and that of others.

These descriptors are used to address both full and supplementary qualifications. The role of supplementary qualifications is particularly important for adult education and for continuing vocational education and training. A supplementary qualification can be a supplement (addition) to a qualification, a part (module) or an independent entity not related to any other qualification.

The learning outcomes approach is widely accepted in all segments of education and training and is increasingly being used to define and describe curricula and programmes. VET has a strong tradition of defining qualifications in terms of competence, but higher education and the different parts of general education are also making progress. It is being admitted, however, that it will be necessary to deepen the understanding of the learning outcomes approach at all levels, for example by developing guidelines.

Stakeholder involvement and institutional arrangements

A broad range of stakeholders has been involved throughout the development and implementation period. The social partners have been systematically consulted and involved and their role is being described as constructive and as a precondition for

([99]) Note that the Danish NQF, in contrast to the EQF, uses the plural 'competences'.

Table 23 Level descriptors in the Danish NQF for lifelong learning

Knowledge/*Viden*	Skills/*Faerdigheter*	Competences/*Kompetenser*
Type and complexity	Type	Space for action
	Problem solving	Cooperation and responsibility
Understanding	Communication	Learning

the implementation of the framework. Some social partner representatives, notably employers, have questioned the direct added value for companies, pointing to the need to move into a second and more inclusive development stage.

The Danish EQF national coordination point has taken on an active role in the day-to-day coordination of the framework and its implementation. The NCP is located in the Danish Agency for Science and Higher Education, which also hosts the DK national academic recognition information centre (NARIC). A main task for the NCP has been to coordinate stakeholders involved in the framework as well as disseminating information to a wider public. It is acknowledged that the NQF is insufficiently visible to the general public at this stage, but that the inclusion of NQF/EQF levels into certificates, diplomas and Europass documents is gradually changing this.

Recognising and validating non-formal and informal learning and learning pathways ([100])

Validation of non-formal and informal learning has been on the policy agenda in Denmark for about 20 years and is seen as a key element in promoting lifelong learning. Competence assessment, and the possible outcomes in terms of access, exemption or acquisition of certificates, varies among the education and training sectors (VET, higher education and adult education sectors). A legal framework for validation of prior learning based on common principles in adult education and training has been in place since 2007. Validation of prior learning (VPL) is regulated by laws which state that assessment of the validation application must be conducted by the education institution offering the corresponding study programmes. Other bodies can be in charge of information, identification, guidance and counselling, in a broader perspective, in the phase leading up to the assessment process ('the pre-phase'). These bodies include trade unions, employers' associations, job centres, unemployment insurance funds, civic education institutions, study committees and '*eVejledning*' (online guidance service) that can be involved in the pre-phase and often collaborate with the education institution in the validation process. Implementation of the legislation is decentralised.

It is acknowledged that there is a need to link VPL activity for individuals more to the development of job profiles. This means involving employers at workplace level in a more responsible way to show job perspectives to employees potentially having a VPL. In many ways Denmark has a well-functioning education system which provides good conditions for VPL. However, more commitment is called for, from stakeholders including employers at company level, social partners and key actors in education. This is especially the case at VET and CVET schools where the social partners are occupying all seats on the boards and where they are able to be more strategic, giving greater priority to VPL activity. Official statistics should be more comprehensive and systematic, covering all VPL activity, and should be presented in an updated version.

In recent years, the situation in relation to the validation of prior learning has not significantly changed. Legislation has remained the same in most education sectors though it was changed in the VET system as of August 2015 to include new VET for adults (EUV) programmes for 25-year-olds or older, building on initial validation of prior formal, non-formal and informal learning and work experience. In spring 2016 the government launched a number of new initiatives targeting refugees. These promoted the use of validation and recognition of refugees' skills and competences and included a new web portal on existing measures and tools, based on a tripartite agreement with the social partners and a bipartite agreement with the municipalities in Denmark.

Concerns about the use of validation of prior learning as a coherent and integrated process (including information, identification, documentation, assessment and certification stages) has been a focus of public debate in recent years. Awareness of different tasks and stages of the validation process has increased among different stakeholders, such as job centres, trade unions, guidance institutions, education institutions, actors from working life and the third sector. Funded projects, such as the Interreg programme – which aims to develop tools to be used in an integrated process – include the above activities which then take place in a collaborative process between stakeholders. Nevertheless, the use of validation arrangements by stakeholders remains low and needs improvement.

([100]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

Table 24 Danish national qualifications framework (DK NQF)

NQF levels	Certificates and degrees	Certificates for supplementary qualifications (*)	EQF levels
8	PhD degree		8
7	Master degree (*Candidatus*) Master degree in arts/fine arts Master degree		7
6	Bachelor degree Bachelor degree in arts Professional bachelor degree Diploma degree		6
5	VET (journeyman's) certificate Academy profession degrees		5
4	Upper secondary school leaving certificate Certificate for two-year upper secondary programme (higher preparatory examination) VET (journeyman's) certificate	Certificate for supplementary single subject courses at upper secondary level Adult VET certificate Certificate for single subject VET	4
3	VET (journeyman's) certificate	Basic programme VET Certificates for supplementary, single subject VET courses Higher preparatory courses, single course subjects General adult education level D Adult VET certificate Certificates for single subject courses in VET	3
2	Leaving certificate for primary and lower secondary school (10th grade)	Basic VET certificates General adult education (levels E and F, approximates 10th grade) Adult VET certificate	2
1	Leaving certificate for primary and lower secondary school (ninth grade)	Certificate for preparatory adult education Certificate for general adult education (level G, approximates ninth grade)	1

Source: Adapted from Danish Evaluation Institute (2011).

NQF implementation

The NQF is now visible to the general public through two (interconnected) websites. The NQF.DK website ([101]) provides information for an international target group, presenting the NQF and the qualifications it covers. The UG.DK website ([102]) addresses a national target group and provides comprehensive information on qualifications, programmes, and access. This website also provides comprehensive information on the NQF and the qualifications levels and explains clearly the concept of learning-outcomes-based levels and how these can be used by learners. The fact that NQF and EQF levels are now being gradually added to qualifications and certificates is also important for increasing the visibility of the NQF to citizens.

The 2013 evaluation of the Danish NQF was carried out to assess the speed and quality of the formal implementation process, to check how the framework is judged by potential users, and to provide a basis for future improvements. The evaluation report shows that most stakeholders

([101]) www.nqf.dk
([102]) https://www.ug.dk/

involved with the NQF ([103]) are positive about the role it now plays, while 78% of respondents 'know well' the principles underpinning the framework and 64% are positive about the initiative. 27% of those answering are neutral as regards the role played by the framework. It should be noted that the general public was not targeted in the evaluation, only representatives of stakeholders directly or indirectly associated with framework design and implementation.

Referencing to regional frameworks

Referencing to the EQF is treated as an integral part of NQF implementation and was completed in May 2011 (Danish Evaluation Institute, 2011). The result shows a strong convergence between the Danish framework and the EQF with a linking of Danish level 1 to EQF level 2.

Important lessons and future plans

The Danish national qualifications framework can now be considered operational.

Potential inclusion of certificates and diplomas awarded outside the public domain is currently being addressed. Accomplishment of this will strengthen the relevance of the framework for the labour market and the social partners.

([103]) A total of 848 persons were contacted; 425 persons (51%) responded.

Further sources of information

The Danish NQF website: http://ufm.dk/en/education-and-institutions/recognition-and-transparency/transparency-tools/qualifications-frameworks

The Danish Agency for Science and Higher Education; acts as EQF national coordination point: http://ufm.dk/en/the-minister-and-the-ministry/organisation/danish-agency-for-science-and-higher-education

The Danish Evaluation Institute: http://english.eva.dk/

Abbreviations

DK NQF	Danish national qualifications framework
EQF	European qualifications framework
EUV	VET for adults
NCP	national coordination point
NQF	national qualifications framework
VET	vocational education and training

References

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Denmark.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

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Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

EGYPT

Introduction and context

NQF snapshot

Egypt has not yet legally adopted a national qualifications framework (NQF) but has a technical blueprint; its planned qualifications framework (QF) will comprise eight levels. The lead body is the National Authority for Quality Assurance and Accreditation of Education (NAQAAE).

Educational, social, economic and political context

Egypt is a lower middle-income country with a population, in 2015, of 91 million ([104]). The annual population growth rate is declining (at 1.6%), but there is still high demographic pressure, with young people aged 15 to 24 accounting for 20% of the total population, requiring significant public investment in education, health, employment, housing and infrastructure.

Although GDP is steadily growing (from 1.8% in 2011 to 4.2% in 2015) ([105]), Egypt's economy is on shaky ground. A drop in tourism has been dragging on economic activity since late-2015. Fewer tourists and lower revenues from the Suez Canal have caused the country's international reserves to plunge. The loss of an Egypt Air flight in the Mediterranean in May and the Sinai plane crash in November 2015 have been a setback for tourism. Acute dollar shortages are restraining business activity and have negative repercussions on the wider economy. The fiscal position also worsened as financial support from oil-rich regional peers weakened with the oil price slump. Standard and Poor Global Ratings' move to downgrade Egypt's credit outlook from stable to negative in May reflects these increasing imbalances. That said, the government's fiscal consolidation targets recently laid out in the 2017 draft budget come as positive news. Measures to curb the deficit include a reduction in the State subsidy bill by 14% and belated implementation of value-added tax. In November 2016, the Egyptian pound was floated freely on the market, instead of being sustained by the State, which has reversed the exchange rate with the US dollar and euros. This measure is supposed to reduce the real value of the pound and attract business, but it will take some time before the positive effects can be seen. The measure was required by the International Monetary Fund (IMF) as one of the conditions for the loan (they have just delivered the first instalment).

Unemployment is high and slowly increasing (from 12% in 2011 to 13% in 2014) following the country's economic difficulties. Similar to other countries in the region, Egypt is characterised by a low activity rate for females, which in the past five years has remained around 15%. Potentially active women have difficulty in finding a job and their unemployment is almost the double of that of men (24% versus 13% in 2014).

In the past two years, the technical and vocational education and training (TVET) sector has been under the spotlight, as most policy-makers consider it a powerful instrument for addressing unemployment and supporting economic growth. This pressure has pushed policy-makers to provide rapid answers to the main challenge of the sector, which is fragmentation and lack of a common vision.

In 2016 this reform wave peaked with the creation of a Ministry of Technical Education and Training. This was not a cosmetic institutional change; the creation of the ministry brought strong centralisation. The Industrial and Training Council (ITC) has been moved from the Ministry of Industry to the new ministry, along with responsibility for all enterprise training partnerships (ETPs). The new Ministry of Technical Education and Training was assigned responsibility for the strategic policy orientations of vocational training centres. However, a few months later, the new ministry was abolished and functions which had been centralised went back to their original institutions. After this attempt at reform, TVET governance has remained stagnant, as have many of the challenges linked to fragmented TVET system governance and lack of coordination among existing stakeholders.

([104]) UNDP_WPP15.
([105]) World Bank, World development indicators.

However, new initiatives to give the country a strategic vision for TVET reform have been put in place in 2016 as well. The Ministry of Planning has launched the Egypt vision 2030: sustainable development strategy, which includes a specific section for the TVET sector. UNESCO has worked with the Ministry of Education (MoE) to define the pillars of a new strategy for TVET. The new EU-funded programme in VET (TVET 2) (EUR 115 million) launched by the EU delegation and the national government, will try to build on this document and achieve a fully fledged national strategy for TVET.

The Ministry of Education has also set up its own mid-term action plan 2015-20. This is a systemic initiative, which covers all key elements of secondary technical education and also includes key elements that refer to the TVET sector. It foresees the approval of a TVET Act, which should aim at standardising the whole sector. This is the most ambitious element of the plan and, at the same time, the most challenging considering the fragmentation of the TVET system and the historical resistance of the different actors to align to an initiative of one specific actor (in this case the MoE).

This unwillingness of stakeholders to recognise the leadership of one specific actor in one specific component of the TVET reform has to be addressed for the strategic plans to bring benefits. As yet there is no full alignment between the MoE, mostly active in the TVET 2 programme, the Ministry of Industry, which has just released its own strategy with a chapter on TVET, and the Ministry of Labour, which finds itself bound by the new labour law (under discussion in the Parliament), allocating to the Ministry of Manpower the responsibility for licensing, development of occupational standards and overall vocational training.

Policy objectives

Education and training reforms

Between the end of 2014 and 2015 signs of acceleration of TVET reform became evident as a number of important policy decisions were taken or announced. The most notable developments concerned the area of governance: reshaping the governance structure of TVET through adoption of a system of cascading councils, including structures at regional level; introducing the position of Deputy Minister for Technical Education as a precursor to the possible establishment of a separate TVET ministry; upgrading TVET to the level of the Constitution (Article 20); and restructuring the Ministry of Education, including establishment of a school-to-work-transition unit and a planning and coordination unit in the TVET sector.

The creation of the Ministry of Technical Education and Training had the most impact, as it was linked to the decision to centralise several processes and institutions which were under the responsibility of different stakeholders.

The priorities identified for TVET reform are:

(a) defining a vision and strategy agreed by all key stakeholders;
(b) setting up standard processes for qualifications development (NQF, occupational standards, curriculum development), which would reduce the gap between the requirements of the labour market and the outputs of technical and vocational education. Up to now different stakeholders have developed competence-based programmes in the framework of international projects. However, these initiatives have been based on different methodologies and no national standard process has been developed and approved;
(c) reinforcing current work-based learning initiatives and the establishment of new innovative ones.

International cooperation

The main international project supporting TVET reform is the EU-funded TVET 2 programme. This is a EUR 117 million programme (EUR 50 million from the EU and EUR 67 million from the Egyptian government) aiming at systemic reform of the TVET sector. The programme has been waiting many years for its launch due to the unstable political conditions. In 2015 the programme became operational with the establishment of the Project Implementation Unit (PIU) and the launch of terms of reference for main activities. In 2016 the PIU started putting activities in place.

Egypt participates in the regional project Qualifications for the Mediterranean (Q4M), which aims to increase trust and transparency between countries on sectoral qualifications in tourism and construction and to create conditions to aid recognition of each other's qualifications. Common profiles for occupations in these two sectors have been developed and some countries plan to develop pilot profiles in related occupations ([106]). Q4M involves eight countries, five from the South-Mediterranean region (Algeria, Egypt, Jordan,

([106]) Data in this section are from the ETF Torino process report, 2016-17, Egypt.

Morocco, and Tunisia) and three EU Member States (France, Italy and Spain). Egypt has coordinated the project since 2015.

Various EU donors and agencies (*Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ), British Council, World Bank, ILO and others) are working in TVET in Egypt, with some direct links with the NQF:

(a) learning outcomes-based qualifications have been produced in the framework of several international and national initiatives. Currently different programmes (GIZ, WISE) are cooperating at developing this core process;
(b) the Industrial Training Council (ITC) also launched a continuation of the skills development project jointly funded by the World Bank and MoITS between 2004 and 2010. This initiative uses the skills-based methodology of the Scottish National Qualification Authority;
(c) the EVCQ1 development and international endorsement programme, another ITC initiative in partnership with employer organisations, aims to develop demand-driven and internationally endorsed vocational qualifications, according to the skills standards required in industry, tourism and construction sectors. Up to now, 350 qualifications have been developed and endorsed. The extent to which these are used and updated is not clear; future plans target 50 qualifications covering 20 trades in the industrial sector.

Levels and use of learning outcomes

Scope and structure of NQF

The Egyptian NQF is intended to support lifelong learning, covering general, VET and HE qualifications.

The work on the national qualification framework (NQF) has proved prolonged and complicated. At a conference organised in 2015, NAQAAE announced a model of the revisited NQF. The application and expectations of the Egyptian NQF were explained: a NQF for permeability and mobility, to assure the quality of programmes, to bridge the gap between offer and demand, to develop a sectoral qualifications framework (SQF), to provide scale of comparability and to assure that new qualifications fit in the framework. Initiatives to consult the public, to include and engage all stakeholders, to address the TVET sector, and to recognise non-formal education are in place and part of the NQF strategy.

Stages of development:

(a) awareness and mobilising stakeholders;
(b) early stages of design (agreement on conceptual framework and objectives);
(c) consultation and testing online survey (situation 2016);
(d) next step (from 2017): official establishment and implementation.

Alignment to other classification systems

Among the objectives of the revisited NQF model presented in 2015 by NAQAAE is development of a sectoral qualifications framework to recognise non-formal education.

NQF levels

The Egyptian NQF currently has eight levels.

Level descriptors

These eight levels are described according to three broad descriptors. These are:
(a) knowledge: described by knowledge extent and depth;
(b) skills: described as cognitive skills (including logical, intuitive and creative thinking) and professional skills (including manual dexterity and the use of methods, materials, tools and instruments);
(c) competences: described in terms of the extent of responsibility, autonomy and interaction.

Use of learning outcomes

A national process for developing learning-outcomes-based curricula exists for higher education and technical education (whether high or pre-university). VET is not included and has not yet been fully approved.

Existing national qualifications are not yet defined in terms of learning outcomes but there are many examples developed in the framework of international or national initiatives. However, there is no national process for developing learning-outcomes-based qualifications.

Definition of qualification

No legal definition is used.

Qualification standards

Occupational standards are the basis of VET qualifications.

Development process of qualifications

Prior to the model derived from the European qualifications framework (EQF) and developed by NAQAAE, the *National skills standard* project was introduced and is still used to provide standards in training programmes for tourism, construction and agriculture with the involvement of the sectoral and regional enterprise training partnerships (ETPs). How far these standards have been updated is not clear, nor whether they are used in TVET.

The national core process, which is currently under development by the Ministry of Education and the Ministry of Industry, with the support of the TVET 2 programme, will include an important role for employers in defining occupational standards, qualifications and curricula. However this process is not yet active and, outside of qualifications developed in the framework of international projects, no mechanisms are in place to ensure that national qualifications are relevant to employers.

The Ministry of Manpower and Migration (MoMM) cooperated with the ITC and the Scottish Qualifications Authority to accredit 25 out of 52 qualifications in the field of building and construction.

Access, progression and credit

The establishment of progression pathways to avoid dead-ends and educational bottlenecks, as well as rules to accredit prior learning, are among key objectives of the Egyptian NQF. Up to now, no detailed rules have been defined. The fragmented VET landscape and the absence of a formal NQF do not allow horizontal progression pathways and progression between systems.

Nevertheless, NQF objectives and other initiatives are linking TVET and general education systems, promoting level progression and permitting horizontal mobility.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

There is no legislation applying directly to the NQF. Instead, Law No 82 of 2006 regulating the establishment of the National Authority for Quality Assurance and Accreditation of Education (NAQAAE) and Presidential Decree No 25 of 2007, deal with the objectives of quality assurance and accreditation.

Related laws are:

(a) Article 20 of the Constitution of 2013, stating that TVET is a priority;
(b) a National strategic plan for pre-university education 2014-20 drafted by the Ministry of Education to overcome the serious shortcomings of the education system where TVET at all levels is considered a major strategic objective;
(c) the creation of two executive councils by the Prime Minister, each one under the responsibility of either the Ministry of Education (MoE) or the Ministry of Manpower and Migration (MoMM);
(d) a Professional Academy for Teachers (PAT) created in 2008 under the authority of the Prime Minister. Its current focus on general education has to be extended to TVET as well.

Governance and institutional arrangements for the NQF

The National Authority for Quality Assurance and Accreditation of Education (NAQAAE) is the lead body, while the Ministry of Education, the Ministry of Industry and the Ministry of Manpower are the main stakeholders.

Sectoral enterprise TVET partnerships, or enterprise training partnerships (ETPs) were created to liaise between the TVET system and the private sector. They should be incorporated within the TVET governance structure. Since 2005, 12 sectoral ETPs and 19 local ETPs have been set up, each with a management board of whom two-thirds come from private businesses and one-third from the education and training providers.

Roles and functions of actors and stakeholders

The National Authority for Quality Assurance and Accreditation of Education (NAQAAE) is in overall charge of the NQF.

The social partners should play a significant role: sectoral enterprise TVET partnerships (ETPs) were created for that purpose. TVET 2 will work at positioning all the enterprise TVET partnerships (ETPs) established by TVET 1 within the new governance structure in order to institutionalise the engagement of employers and sectors at policy level.

The TVET sector in Egypt has multiple stakeholders, all strongly engaged in sector reform. All of them also have a vision but they have not yet agreed on a common vision for TVET. Failure in recent years to approve a TVET strategy for the whole sector and agreed by all key stakeholders is a proof of the fragmentation and instability of the sector.

In January 2013, the government approved the establishment of the National TVET Authority, which replaces the Supreme Council for Human Resources Development. The authority was never operational and the new government, appointed in 2014, established a new TVET authority under the prime minister with two executive committees, one for technical vocational education and a second for vocational training. Twenty-seven regional committees have been established to assure the link with the local VET needs.

The two executive committees are coordinated by Ministry of Education for TVET, representing the initial VET sector, and the Ministry of Manpower and Migration for training, which represents CVET. The regional committees are supervised by the regional governors.

Resources and funding

The development of the NQF is one of the objectives of the programme TVET 2. One of the quoted expected results is that 'an overall national qualification framework (NQF) for Egypt for all qualifications is designed and formally adopted by the government of Egypt, and piloted in the tourism sector in collaboration with the NAQAAE and/or other relevant institutions.'

Quality assurance of qualifications

The quality assurance framework comprises nine areas: vision and mission of the institution; leadership and governance; human and financial resources; civil society participation; quality improvement and accountability; learners; teachers; curriculum; and education environment. Each area is further defined by specific criteria and described through a set of indicators.

A major milestone towards quality assurance was the establishment of the National Authority for Quality Assurance and Accreditation (NAQAAE) in 2008 as an independent body reporting to the Prime Minister; this has undergone several challenges, including inter-institutional coordination. While universities manage the process internally, the pre-university education institutions, including TVET, are supported by the quality assurance division, established within the MoE in response to the establishment of NAQAAE and reporting directly to the Minister for Education. The authority has the responsibility to support quality units at regional and local levels (*Idarras* and *Muddiriyas*) to foster a quality culture and support schools in the process of complying and seeking accreditation by NAQAAE.

Quality assurance legislation includes Law No 82 of 2006 regulating the establishment of the National Authority for Quality Assurance and Accreditation of Education (NAQAAE), and Presidential Decree No 25 of 2007, dealing with the objectives of quality assurance and accreditation.

The establishment of NAQAAE has given a clear institutional hub to all initiatives and responsibilities related to quality assurance and accreditation. NAQAAE is mandated by law to guarantee the quality of all qualifications (including VET) and is currently working on the VET quality assurance system.

NAQAAE has managed to build collaborative relationships with other international quality assurance organisations through exchange visits. As a result, NAQAAE signed a number of memoranda of understanding with the following quality assurance organisations: The Liaison Committee for Medical Education (LCME), the European Network for Accreditation of Engineering Education (ENAEE), the Scottish Qualification Authority (SQA), Technical and Vocational Education and Training United Kingdom (TVET-UK), Japan Accreditation Board for Engineering Education (JABEE), Japan University Accreditation Association (JUAA), and *Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik* (ASIIN e.V.).

NAQAAE has obtained membership with EFQUEL (European Foundation for Quality Assurance of E-learning), EDEN (European Network for Quality Assurance of Distance and e-learning) and INQAAHE (International Network for Quality Assurance and Accreditation of Higher Education). It has established an alliance with the Accreditation Board of Engineering and Technology (ABET).

Recognising and validating non-formal and informal learning and learning pathways

One of the expected results and benefits of NQF implementation is support to validation of non-formal and informal learning, but no system or mechanism is yet formally in place for use by learners.

NQF implementation

Inclusion of qualifications in a register

Currently, there is no register or database at national level.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of Egypt NQF implementation have not yet been fully defined.

Impact for end-users

The NQF does not yet have an impact on end-users.

Referencing to regional frameworks

The NQF has no relationship with regional frameworks, though an Arab qualification framework is emerging for higher education. This aims at providing a common reference point for Arab countries engaged in developing qualifications frameworks for higher education.

Important lessons and future plans

After some years following political upheaval in the country, NAQAAE relaunched the NQF initiative in February 2015. The vision of how the NQF can support the strategic development of education (ensuring transparency, matching qualifications with companies' needs, development of validation of non-formal and informal learning (VNFIL)) seems clear.

The NQF is also an integral part of the EU-funded TVET 2 programme. The TVET 2 support constitutes a real lever of development and implementation for an Egyptian NQF (even if ambitious). Expected results include 'development of a mechanism to integrate the skills standards and occupational profiles within the NQF, design of an overall national qualification framework of all qualifications and formally adopted by the government (legal framework and acts), development of a register of qualifications, preparation of a document comparing the Egyptian NQF against the EQF', looking at the current EQF referencing criteria. Despite the limited involvement of companies in qualifications issues, the existing ETPs are a starting point for company commitment.

The first challenge is to complete the legal framework (laws and by-laws). The second is to ensure the engagement of all stakeholders, particularly companies, in developing qualifications (buy-in).

Clarification of roles seems important since many ministries are involved in overlapping duties. Some tools and strategies (VNFIL, credit system, register of qualifications) should be developed in designing an overall NQF. Major work is needed on this front.

Abbreviations

ETPs	enterprise training partnerships
ITC	Industrial Training Council
NAQAAE	National Authority for Quality Assurance and Accreditation of Education
NQF	national qualifications framework
MoE	Ministry of Education
MoMM	Ministry of Manpower and Migration
PAT	Professional Academy for Teachers
TVET	technical and vocational education and training
TVET 1 and 2	EU-funded projects in VET
VNFIL	validation of non-formal and informal learning

Prepared by:
the European Training Foundation (ETF).

ESTONIA

Introduction and context

Estonia is positioned well on several education and training indicators, with high performance in basic skills, and a high rate of tertiary education attainment (46.6% in 2014, compared to the EU average of 37.9%). The employment rate for recent graduates and public investment in education are also above average. Some of the challenges in the country include a significant gender gap in education (15.3% of young males left education and training early in 2014, compared to only 7.5% of young females), increasing the attractiveness of vocational education and training (VET) and improving the provision of apprenticeships (European Commission, 2015). The national lifelong learning strategy ([107]) has set five goals for 2020, aiming to tackle existing challenges in a holistic approach: a change in the approach to learning; competent and motivated teachers and school leadership; concordance of lifelong learning opportunities with the needs of labour market; a digital focus in lifelong learning; equal opportunities and increased participation in lifelong learning.

There is a comprehensive national qualifications framework (NQF) for lifelong learning, the Estonian qualifications framework (EstQF), established in 2008 through the Professions Act ([108]). It has eight levels and includes all State-recognised qualifications. The overarching framework brings together four sub-frameworks; for higher education qualifications ([109]), for vocational education and training (VET) qualifications ([110]), for general education qualifications ([111]) and for occupational qualifications ([112]). The sub-frameworks include specific descriptors as defined in the corresponding national educational standards, underpinning quality assurance activities.

Referencing of the EstQF to the EQF and self-certification to the qualifications framework of the European higher education area (QF-EHEA) was completed in 2011; the joint report was endorsed in the EQF advisory group in October 2011. The referencing report was revised and updated in 2016 to include recent developments in the education system (Estonian Qualifications Authority et al., 2016).

Policy objectives

The NQF ambition in Estonia is twofold: to be a tool for transparency and communication and to support lifelong learning. More specifically, policy objectives addressed by the NQF are to:

(a) improve the link between education/training and the labour market;
(b) increase consistency of the educational offer and of the qualification system;
(c) provide transparency for employers and individuals;
(d) increase understanding of Estonian qualifications within the country and abroad;
(e) introduce common quality assurance criteria;
(f) support validation of non-formal and informal learning;
(g) monitor supply and demand for learning.

It is expected that implementation of an overarching NQF will increase coherence of education and training, and help introduce coherent methods for standard-setting. The referencing process has already provided a stimulus in this direction, and 'convergence of the formal educational system and occupational

([107]) The Estonian lifelong learning strategy 2020: https://www.hm.ee/en/estonian-lifelong-learning-strategy-2020
([108]) The Professions Act, entered into force on 1 September 2008: https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/501072015005/consolide
([109]) Referred to as standard of higher education.
([110]) Referred to as vocational education standard.
([111]) Referred to as national curriculum for basic schools and national curriculum for upper secondary schools.
([112]) Occupational qualifications are those associated with a trade, occupation or profession, usually resulting from work-based learning, in-service training, and adult education.

qualifications system has taken place', while the barriers between the two systems have been lowered (Estonian Qualifications Authority et al., 2016). Occupational qualifications have been placed into the EstQF and referenced to the EQF from the start.

Another important policy objective is to increase adult participation in lifelong learning from 12.9% in 2012 to 20% in 2020, set as a national target in the Estonian lifelong learning strategy 2020. Performance in this slightly decreased to 11.5% in 2014 (European Commission, 2015), but in 2015 it started to increase again: it was 12.4%, rising to 17.6% in the second quarter of 2016 ([113]). A particular concern is reducing the number of adults without a vocational or occupational qualification. The labour market in Estonia cannot be considered (highly) regulated by qualifications, as only a small proportion of professions and occupations is regulated, and about one third of the workforce does not have professional qualifications. The Government sees this as a problem and plans measures to open access to qualifications (Cedefop, 2014).

Levels and use of learning outcomes

The comprehensive EstQF has eight qualification levels; its descriptors are identical to EQF level descriptors. They are defined in terms of learning outcomes, as knowledge (theoretical and factual), skills (cognitive skills- use of logical, intuitive and creative thinking; and practical skills- manual dexterity and use of methods, materials, tools and instruments) and degree of responsibility and autonomy (Estonian Qualifications Authority et al., 2016). More detailed descriptors have been developed in the four sub-frameworks for general education, initial vocational education, higher education and occupational qualifications. An EstQF level is assigned to each of the qualifications in these sub-frameworks.

Two types of State-recognised qualifications are included in the EstQF:

(a) formal education qualifications, awarded after completion of educational programmes at all levels (general, vocational and higher education);
(b) occupational qualifications ([114]), where individuals are issued a professional certificate, giving the evidence of knowledge, skills and competences required for working in a specific occupation or profession.

Qualifications in sub-frameworks are described in the corresponding national educational standards, which are learning outcomes based:

(a) national curriculum for basic schools;
(b) simplified national curriculum for basic schools;
(c) national curriculum for upper secondary schools;
(d) standard of VET;
(e) standard of higher education ([115]);
(f) occupational qualifications standards.

Introducing a learning outcomes approach is an important part of the national reform programme for general education, VET and higher education; the topic is covered in various regulatory acts. Linked to this is increased focus on recognition of prior learning (RPL). Higher and vocational education are more advanced in implementing the learning-outcomes approach; in general education this approach is not yet widely applied but implementation is part of the lifelong learning strategy (strategic goal: 'Change in the approach to learning'). The main challenge appears to be take-up among teachers and school administrators. While learning outcomes have been embedded in curricula for a long time, the focus in education delivery has been on process rather than learning outcomes. The role of employers could also be more extensive and constructive to derive full benefits from applying this approach (Cedefop, 2016).

Learning outcomes of different types of VET are described in the vocational education standard and correspond to levels 2 to 5 of the EstQF. The vocational education standard describes the requirements for national and school curricula, including objectives, expected learning outcomes, volumes of study and graduation requirements for different types of initial and continuous VET programmes and requirements for pedagogical professionals. Learning outcomes are defined as occupation-specific knowledge and skills as well as

([113]) Statistics Estonia (2016): lifelong learning: http://www.stat.ee/71726

([114]) There are 570 valid occupational qualifications based on occupational standards, which can be placed at levels 2 to 8 of the NQF. They can be gained through formal education, adult education and in-service training. (Estonian Qualifications Authority and Estonian Ministry of Education and Research, 2016).

([115]) In the sub-framework for higher education, general descriptors follow the logic of the Dublin descriptors, but are adjusted to national needs.

transversal skills (communication; learning, social and entrepreneurial skills; self-awareness; independence and responsibility). Reform of VET curricula was launched in September 2013 and by September 2016, 20 new national VET curricula were approved (Estonian Qualifications Authority and Ministry of Education and Research, 2016). Together with national curricula of the previous generation they cover the whole spectrum of specialities. VET institutions have implemented more than 600 learning outcome-based new curricula. Since 2013, study volume in VET is expressed using Estonian VET credit points.

The current national curricula in general education were gradually introduced between 2010 and 2013. They set out goals and objectives, expected learning outcomes, assessment criteria and requirements for the learning and teaching environment, graduation and school curriculum.

New study programmes based on learning outcomes were implemented in higher education as of September 2009. The Estonian standard of higher education refers to learning outcomes at basic level (outcomes that any graduate must achieve) and achievement of learning outcomes above the minimum level is differentiated by grading. The Universities Act ([116]) and the Institutions of Professional Higher Education Act ([117]) now allow for accreditation of prior and experiential learning in higher education curricula.

Stakeholder involvement and institutional arrangements

The Ministry of Education and Research with the Estonian Qualifications Authority (*Kutsekoda*) ([118]) are the main bodies in charge of developing and implementing the EstQF. The Qualification Authority was established in 2001 to develop a competence-based professional qualifications system ([119]), put in place in parallel to the formal education system under the Ministry of Education and Research. In 2010, by decision of the Ministry of Education and Research, the Qualifications Authority was nominated as the national coordination point for EQF implementation (EQF NCP) ([120]).

A broad-based steering committee was also established ([121]), to ensure the involvement of all key stakeholders in NQF-related processes. It includes representatives of the Ministry of Education and Research, Ministry of Social Affairs, Ministry of Economic Affairs and Communications, State Chancellery, Estonian Unemployment Insurance Fund, Estonian Qualifications Authority, Estonian Chamber of Commerce and Industry, Confederation of Estonian Trade Unions, Estonian Employers' Confederation, Estonian Association of Pupils' Unions, Estonian Association of Student Unions, Estonian Quality Agency for Higher and Vocational Education, and the Estonian ENIC/NARIC Centre. The mandate of the steering committee has so far been limited to the referencing process. By March 2017, it is expected that the steering committee and its mandate will be renewed, and its responsibilities revised, to include monitoring of implementation and of the impact of the EstQF.

The Qualifications Authority coordinates the 14 sector skills councils and provides technical support to the Board of Chairmen of these councils. Typically, institutions represented in sector skills councils are: employers' organisations in the sector; trade unions in the sector; professional associations in the sector; education and training institutions; and responsible ministries. They are responsible for preparing, amending, renewing or approving professional standards, and for deciding on the linking of occupational qualifications to the EstQF. The Board of Chairmen of the Sector Skills Councils coordinates cross-sectoral cooperation.

The Qualifications Authority also cooperates with other institutions, disseminates information and provides guidance and advice to various stakeholders on application of the framework. The dissemination of information and guidance on implementation of the framework are carried out mostly through partners and participants to the occupational qualifications system: the sector skills councils, professional examination committees, and experts. Different kinds of dissemination and information event are organised annually to share information with education providers, policy makers, and employer and employee organisations.

([116]) The Universities Act: https://www.riigiteataja.ee/en/eli/521032014002/consolide

([117]) The Institutions of Professional Higher Education: https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/504112013013/consolide

([118]) *Kutsekoda* (Estonian Qualifications Authority): http://www.kutsekoda.ee/en/index

([119]) Based on the Occupational Qualifications Act in 2001, professional qualifications were referenced to a five-level professional framework where level 1 was the lowest and level 5 the highest. Today, professional qualifications are assigned to levels 2 to 8 in the EstQF.

([120]) Currently, the day-to-day running of the EstQF is supported by two part-time employees and one full-time employee of the Qualifications Authority; the annual budget for EstQF-related activities is EUR 104 400. (Cedefop, 2015. *Survey on the sustainability and visibility of NQFs*).

([121]) Directive No 925/2010 of the Minister for Education and Research.

Recognising and validating non-formal and informal learning and learning pathways ([122])

Validation practices in Estonia are well developed in the formal education sector. Higher education has led validation developments, though other sectors – especially VET – have followed the same path. The current challenge is to create a unified system: the current model is decentralised and it could be difficult for potential applicants to find their way around the system.

Development of the EstQF has supporting validation among its objectives, and the updated referencing report (September 2016) clearly signals this. For all qualifications included in the framework, the curricula and the relevant regulations of each subsystem ([123]) enable education providers to recognise non-formal and informal learning. The awarding institutions establish their procedures for RPL. A credit point system that conforms to the ECTS is used in higher education, and a credit point system that conforms to the ECVET is used in VET. EstQF development has also been accompanied by development of learning outcome-based programmes that have helped the introduction of validation principles.

Validation allows for access to higher education and VET institutions, as well as exemption from parts of a programme, but in higher education a final examination/thesis is needed. In VET, validation possibilities are wider- passing professional exam (professional certificate issued) can replace the school leaving exam. For admission to higher education, a specified level of education needs to be achieved. Some learning outcomes in primary school may be recognised with agreement of a student's parents and school's representatives. Full occupational qualifications can be awarded through RPL.

Validation (especially in higher education) has developed rapidly due to European Social Fund (ESF) funding of the *Primus* programme ([124]) that ended in 2013. The project started in 2008 and produced a network of validation professionals with various specialties who created and gathered statistics on validation, and developed guideline materials ([125]) for applicants, assessors and consultants. Since 2015, validation-related initiatives have been planned by the Ministry of Education and Research: these widen access to education via validation of previous experience, implementation of the RPL data to the education database, and more precise regulation of validation of non-formal and informal learning in general education. Validation of non-formal and informal learning is also supported from the ESF programme for adult education.

One of the objectives of the Estonian lifelong learning strategy 2020 is to create equal opportunities for lifelong learning for everyone; allowing use of prior learning experiences at secondary education level a key activity. The Adult education programme 2016-19 ([126]) states that validation principles for general education will be developed and training is provided for validation counsellors and assessors. Also, overall validation data collection is one of the targeted activities. the Higher education programme 2016-19 ([127]) features validation as a means for flexible study by supporting access to higher education for various groups of learners. The Vocational education programme 2016-19 ([128]) states that an increase in the number of validation applications is expected and assessment quality has improved. It is expected that validation-related initiatives will be supported in the future.

NQF implementation

The Estonian NQF has reached a full operational stage in many respects. The Ministry of Education and Research and the Estonian Qualifications Authority are the main bodies involved in its

([122]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([123]) Standard of VET and Standard of higher education.

([124]) Archimedes foundation (2008): *Primus*: higher education quality enhancement programme in Estonia (2008-14). http://primus.archimedes.ee/sites/default/files/teavitus/Primus_eng.pdf

([125]) These materials were widely used in higher education, but also in VET, by adult education providers and in developing the professional qualification system. Principles of validation of non-formal and informal learning were implemented in several ESF programmes, such as the Development of VET (VET providers network), Development of professional qualifications system, programme *TULE* (bringing higher education drop-outs back to education through RPL), *KUTSE* (bringing VET drop-outs back to school using RPL)

([126]) Täiskasvanuhariduse programm 2016-2019: https://www.hm.ee/sites/default/files/lisa_9_taiskasvanuhariduse_programm_2016-2019.pdf

([127]) Kõrgharidusprogramm 2016-2019: https://www.hm.ee/sites/default/files/lisa_8_korghariduse_programm_2016-2019.pdf

([128]) Kutseharidusprogramm 2016-2019: https://www.hm.ee/sites/default/files/lisa_7_kutseharidusprogramm_2016-2019.pdf

implementation. A legal and institutional framework was set up by the amended Professions Act of 2008 and key responsibilities and roles of different stakeholders have been agreed. Quality criteria for inclusion and positioning of qualifications in the framework have been adopted. The framework includes all State-recognised qualifications, which have to meet two basic criteria: to be defined in learning-outcomes-based qualifications standards (curriculum or professional standards) and to be awarded by nationally accredited institutions.

The EstQF is well established, especially the sub-frameworks for VET, higher education and occupational qualifications. General education is formally connected to the overarching framework through relevant State programmes but the substantive link and common awareness about learning outcomes and qualification levels is rather weak in this subsystem. The *Strategy of lifelong learning 2020* does not refer explicitly to the EstQF, while in the new draft Law on education the EstQF and its levels are described only in relation to VET, due to the fact that the EstQF is already described in the Professions Act. ([129])

Implementation of the overarching framework has triggered discussions between stakeholders and has been used to identify gaps and imbalances in the provision of qualifications. For instance, EstQF level 5 was a focus of public debate from formal adoption of the framework in 2008. The main discussion centred on the fact that there were no qualifications from initial education and training identified at this level, only occupational qualifications. The need for these types of qualifications in the labour market, supported by different stakeholders, has impacted on policy decisions.

Following intense consultation with all stakeholders, a new VET Act came into force in mid-2013 ([130]), along with a new standard of VET. It substantially transformed the VET system and introduced qualifications at level 5 (both in initial and continuing VET), as previously there were no initial education qualifications at this level. It also established a new quality assurance framework for VET and the Estonian VET credit system. It stipulates five types of VET qualifications ([131]).

([129]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs*.
([130]) VET Institutions Act: https://www.riigiteataja.ee/akt/122122013002
([131]) (a) VET certificate, EstQF level 2; (b) VET certificate, EstQF level 3; (c) upper secondary VET certificate, EstQF level 4; (d) VET certificate, EstQF level 4; (e) VET certificate, EstQF level 5.

The framework has also been used to revisit current provision of professional higher qualifications referenced to EstQF level 6. It informs curriculum reform in VET and fine-tuning qualification descriptions from VET and higher education with NQF level descriptors.

EstQF and EQF levels have been indicated on higher education and occupational qualifications (that meet the requirements for inclusion into the EstQF) since 2012, and on general education and VET qualifications since 2013. Including the EstQF and EQF levels on Europass diploma and certificate supplements is general practice. The levels are also indicated in national qualifications databases, such as the VET curricula database ([132]) and the register of occupational standards ([133]). There are continuing discussions and plans to include EstQF and EQF levels into the envisaged new version of the Estonian education database (EHIS2).

Referencing to regional frameworks

Estonia completed the referencing of the EstQF to the EQF and self-certified the compatibility of the EstQF for higher education with the qualifications framework for the European higher education area (QF-EHEA) in October 2011. Following the 2013 VET reform, the referencing report was revised and presented to the EQF advisory group in 2015. In September 2016, an updated report was submitted, following the EQF AG recommendations.

Important lessons and future plans

One key objective of the EstQF is to improve comparability between formal school leaving certificates and occupational qualifications. Development of the framework and the referencing process have already contributed to this objective by building up a more coherent and responsive lifelong learning system. The process has been intense. As observed in the referencing report, 'a remarkable convergence' between the education system and the professional qualification system has taken place (Estonian Qualifications Authority et al., 2016).

Occupational qualifications that link lifelong learning with the labour market can be distributed on levels 2 to 8 of the EstQF, clearly indicating that not only higher education qualifications can be assigned

([132]) VET curricula database: https://enda.ehis.ee/avalik/avalik/oppekava/OppekavaOtsi.faces
([133]) Register of occupational standards: http://kutsekoda.ee/et/kutseregister/kutsestandardid

to levels 6 to 8 ([134]). Strict quality criteria have to be met: qualifications are based on professional standards and developed in cooperation with social partners, and awarding bodies have to be accredited. The relationship between occupational and VET qualifications was discussed in the EQF advisory group, covering how occupational qualifications differ and/or complement qualifications awarded in the initial education system. There are two main ways to obtain vocational or occupational qualifications (*kutsekvalifikatsioon*) in Estonia: either via work experience and assessment against a professional standard or via a VET programme based on professional standards as well as broader educational objectives. Both types of qualification have the same value on the labour market. According to the Professions Act of 2008, both VET and higher education institutions which have curricula based on professional standards and are accredited against quality standards could apply to become an occupational qualifications awarding body. Some kind of convergence of these two systems is expected.

Current activities for occupational qualifications include development and implementation of monitoring, analysis and forecasting of labour market needs (quantitative and qualitative) during 2015-20 ([135]).

A new Adult Education Act ([136]) was adopted in 2015, aiming at increasing the quality of adult learning through introducing the learning outcomes approach into curriculum design and assessment.

According to the Estonian Qualifications Authority ([137]), the main overall challenge related to the EstQF is recognition as a backbone of the national qualifications system and as a focal point of the system for lifelong learning. This could be addressed by increasing awareness of EstQF among end-users.

([134]) Occupational qualifications at levels 6 to 8 require mostly higher education qualifications as a basis.

([135]) During 2015-20 the monitoring, analysis and forecasting of labour market needs are being developed and implemented through the OSKA programme (a system of labour market monitoring and future skills forecasting). Each year, the need for labour and skills is analysed and recommendations for training requirements are prepared in five or six sectors. In 2016, forecasts of the need for labour and skills were prepared in the following sectors: accounting; forestry and timber industry; information and communication technology; manufacturing of metal products, machinery and equipment; social work. More information can be found at: http://oska.kutsekoda.ee/en/

([136]) New Education Act: https://www.riigiteataja.ee/en/eli/529062015007/consolide

([137]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

Further sources of information

The Estonian Qualification Authority is designated as EQF national coordination point: http://www.kutsekoda.ee/en/index

Information on NQF development is available at: http://www.valew.eu/project-valew/project-partners/6-estonian-qualification-authority

Abbreviations

ENIC	European network of information centres
EQF	European qualifications framework
EstQF	Estonian qualifications framework
NARIC	national academic recognition information centres
NQF	national qualifications framework
RPL	recognition of prior learning
VET	vocational education and training

Table 25 Estonian qualifications framework (EstQF)

NQF levels	Education qualifications	Occupational qualifications	EQF levels
8	Doctoral degree (*Doktorikraad*)	Level 8 occupational qualification Example: chartered engineer, chartered architect	8
7	Master degree (*Magistrikraad*)	Level 7 occupational qualification Example: diploma engineer, diploma architect	7
6	Bachelor degree (*Bakalaureusekraad)* Diploma of professional higher education (*Rakenduskõrgharidusõppe diplom*)	Level 6 occupational qualification Example: engineer	6
5	VET certificate, level 5 (5. *taseme kutseõppe lõputunnistus*)	Level 5 occupational qualification Example: master carpenter, construction site manager	5
4	Upper secondary general education certificate *(Gümnaasiumi lõputunnistus*) Upper secondary VET certificate (*Kutsekeskhariduse lõputunnistus*) VET certificate, level 4 (*4.taseme kutseõppe lõputunnistus*)	Level 4 occupational qualification Example: IT specialist	4
3	VET qualification certificate, level 3 (*3. taseme kutseõppe lõputunnistus*)	Level 3 occupational qualification Example: carpenter	3
2	Basic education certificate *(Põhikooli lõputunnistus*) Basic education certificate based on simplified curriculum *(Põhikooli lihtsustatud õppekava lõputunnistus*) VET certificate, level 2 (without basic education requirement) (*2.taseme kutseõppe lõputunnistus*)	Level 2 occupational qualification Example: cook assistant	2
1	Basic education certificate based on curriculum (for students with moderate and severe learning disabilities) (*Põhikooli toimetuleku õppekava lõputunnistus*)		1

Source: Adapted from Estonian Qualifications Authority and Estonian Ministry of Education and Research (2016).

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Estonian Qualifications Authority; Estonian Ministry of Education and Research (2016). *Referencing of the Estonian qualifications and qualifications framework to the European qualifications framework* https://www.hm.ee/sites/default/files/2015_referencing_report_revised.pdf

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

ETHIOPIA

Introduction and context

The Ethiopian national qualifications framework (ENQF) was developed by a taskforce set up in 2007 by the Ministry of Education (MoE). In 2010, the Higher Education Strategy Centre, now called the Education Strategy Centre (ESC), was mandated to coordinate the process of ENQF development and implementation in collaboration with the MoE and other relevant agencies (HESC, 2011).

Development of Ethiopia's national qualifications framework began in 2006 with the establishment of the Ethiopian technical and vocational education and training qualifications framework NTQF (National TVET Qualifications Framework). It was envisaged that the NTQF would be integrated into an overarching framework with the formation of the ENQF. The population of Ethiopia was estimated at 78 million in 2009/10 (MoE, 2010a); its economy is predominantly agrarian. In keeping with its commitment to the competitive global market economy and becoming a middle income country by 2025, Ethiopia has set a human resource development agenda to raise the quality of its workforce to international standards and build a culture of entrepreneurship among graduates.

Providing adequate employment opportunities for the growing labour force, particularly for young people, is a major socioeconomic challenge. According to the 2007/08 census, 15- to 24-year-olds accounted for 20.5% of the total population. A significant proportion of these work in agriculture, distantly followed by wholesale and retail trade, suggesting that young people are mainly engaged in sectors characterised by low productivity and incomes (MoE, 2010a).

Ethiopia's current labour market information system, by which data about the labour market is made available, is underdeveloped, fragmented, limited in scope and out-of-date. Strengthening the system is an important government objective (OECD, 2012).

Ethiopia's technical and vocational education and training (TVET) system is also in need of government attention to remedy the many challenges it currently faces. The MoE's Education Sector Development Programme IV (ESDP IV) calls for better quality TVET, both formal and non-formal; improved responsiveness of TVET to the needs of the labour market; establishment of outcomes-based approaches; and promotion of medium and small enterprises using new technologies.

Wider access to higher education, particularly science and technology, is also seen as paramount, as is high-quality training and relevant professional inputs to improve employability. ESDP IV also outlines a comprehensive development vision for education, covering formal, non-formal, initial and further training, providing open access to certification, and pathways between general, TVET and higher education (MoE, 2010a).

A number of other reform initiatives have been put forward in the last 20 years to address education and training challenges: the first national TVET strategy was developed in August 2006 (MoE, 2006b); in September 2006, the MoE developed a national TVET qualifications framework (NTQF); in 2010, improvements to the quality and relevance of the TVET system were made and new ways of recognising the wide range of formal, non-formal and informal learning opportunities that exist in Ethiopia were developed (MoE, 2010a).

These initiatives led to better access to qualifications for previously neglected target groups (MoE, 2006c). A TVET leaders and trainers qualifications framework (TLTQF) was introduced in 2010 to help address these issues (MoE, 2010b).

The national government's growth and transformation plan (GTP) for 2010-14 identified education as one of the key sectors contributing to the production of high-quality skilled labour for the Ethiopian economy (Assegidew, 2012).

Policy objectives

The ENQF aims to:

(a) make Ethiopian qualifications relevant to the socioeconomic needs of the country;
(b) establish national standards of knowledge, skills and competences that are expected of graduates/receivers of all EQF qualifications;
(c) promote the quality of the development, delivery and assessment, and the credibility of Ethiopian qualifications both nationally and internationally, through establishing quality assurance standards;
(d) make the comparability of qualifications more transparent by developing progression pathways between them;
(e) ensure equity in, and enhanced access to, education for promoting lifelong learning through formal, non-formal and informal settings.

The ENQF builds on the objectives of the already existing NTQF (MoE, 2006c), which are to:

(a) improve the transparency of the TVET qualifications system, ensuring that trainees know what they need to learn and employers know what they can expect of graduates;
(b) ensure flexibility, transferability and progression between different occupation and training fields and between different training venues;
(c) eliminate the barriers that currently block horizontal and vertical educational pathways;
(d) establish and maintain a levels-based system of competence, detailing the knowledge, skills and attitudes (KSA) acquired by trainees;
(e) create a single nationally and internationally accepted system against which all learning achievements may be measured and understood.

Levels and use of learning outcomes

The ten-level ENQF covers general education, TVET and higher education. Descriptors exist for each level in terms of knowledge, skills and competence.

All qualifications types are described by qualification descriptors in terms of purpose and characteristics.

Level descriptors in the NTQF are supported by mechanisms for standard-setting, assessment and certification in cooperation with employers, as well as a competence-based assessment system to support validation of non-formal and informal learning (MoE, 2006c).

Stakeholder involvement and institutional arrangements

An inquiry in June 2004 into governance, leadership and management in higher education produced the higher education system overhaul (HESO) report; the development of a national qualifications framework (NQF) for Ethiopia was recommended, focusing on post-secondary certification (post grade 12) and providing mechanisms for recognition of prior learning and for skills upgrading in the workplace (MoE, 2004).

The endorsement of Higher Education Proclamation No 651/2003 (FDRE), which was repealed and replaced by Proclamation No 650/2009, constituted a major step forward in education policy-making. The new Proclamation states that 'the Ministry [of Education], the Centre [HESC], and the Agency [HERQA] shall also guide institutional quality enhancement efforts as well as curricula development through a national qualifications framework that shall, as the case may be, determine or indicate core learning outcomes or graduate competences (Assegidew, 2012). At the same time, tools for public sector reforms such as business process re-engineering (BPR) ([138]) and balanced score card (BSC) ([139]) for public institutions created a need to reorganise education and training subsectors and establish the ENQF (HESC, 2011).

Recognising and validating non-formal and informal learning and learning pathways

Strengthening progression pathways between non-formal post-primary education and the TVET qualifications framework is one of the key objectives of the ENQF. The Federal Ministry of Education developed the non-formal TVET implementation framework for this (MoE, 2006a).

Mobility in the TVET system takes place horizontally and vertically. Horizontal mobility involves trainees moving from one programme to another in a different occupation field but at the same qualification level (for example, from accounting level II to plumbing level II). Vertical mobility involves trainees moving from one certification level to another or from a certificate level to a diploma level in the same occupation field (MoE, 2006c).

([138]) Business process re-engineering (BPR) is a tool for strengthening managerial capacities of public institutions.
([139]) Balanced score card (BSC) is a tool to measure and analyse organisational and individual performance information for informed decision-making in public institutions.

Table 26 Ethiopian national qualifications framework (ENQF)			
ENQF levels	**Grade**	**General and higher education**	**TVET**
10		PhD	
9		Master degree (240 credits)	
8		Graduate diploma (120 credits)	
7		Bachelor degree (360 credits)	
6		Diploma (120 credits)	Advanced diploma (120 credits)
5	12	Higher education entrance examination certificate (120 credits)	Diploma (120 credits)
4	11		Level 4 certificate (120 credits)
3	10	General education certificate (120 credits)	Level 3 certificate (120 credits)
2	8		Level 2 certificate
1		Primary school certificate (120 credits)	Basic certificate
Access	1-4 Including adult basic education		

Source: Higher Education Strategy Center (2011). *Ethiopian National Qualifications Framework Strategy Document and Roadmap, 2011-2015.* Addis Ababa.

While progression pathways are relatively easy to identify and maintain within a single subframework, the matter becomes more complicated in the context of an overarching ENQF covering all three education sectors. In this situation, proper coordination between stakeholders is crucial, as the different sectors may fall under different jurisdictions. A common language is also essential to facilitate the transfer of credits from TVET to higher education (Assegidew, 2012, p. 92).

NQF implementation

The period between 2004 and 2008 saw limited ENQF progress despite several attempts to maintain momentum through strategy papers, consultative documents and implementation plans (Assegidew, 2012). The reason was that Ethiopia's education and training policies continued to emphasise formal education more than non-formal and informal learning. Awareness of the ENQF was low in both the public and private sectors, and there was little interaction between education and training providers and the labour market. Further, an overwhelming variety of models and suggestions from other countries ended up complicating rather than aiding the ENQF design process. Various organisations, such as the South African Qualifications Authority (SAQA), Development Partnership in Higher Education (DeLPHE), *Gesellschaft für Internationale Zusammenarbeit* (GIZ, the German Agency for International Cooperation and Development), the Netherlands Universities Foundation for International Cooperation (NUFFIC) and the Tuning project for engineering and technology programmes of the European Union, offered different NQF models and proposed different orientations for the education system (British, American, German and Australian) (Ibid, p. 90).

The South African Qualifications Authority (SAQA) was appointed in January 2011 to provide technical assistance to the ENQF team. It also prepared a roadmap for ENQF development and implementation (ESC, 2011) with the financial support of NUFFIC. The aim of the project was to:

(a) consider how best to harmonise existing national qualifications;
(b) regulate national standards of knowledge and skills by defining qualifications levels with descriptors based on learning outcomes;

(c) create a system for comparing qualifications, making them more comprehensible to learners, providers and employers, so increasing confidence in the national qualifications system;
(d) investigate procedures to improve access to learning and possibilities for credit transfer and progression;
(e) look into the establishment of dedicated agencies to manage, monitor and evaluate the ENQF and support further reform;
(f) hold discussions with stakeholders to ensure common and deep understanding on all matters relating to the ENQF;
(g) develop a consultative document for the development of a national qualifications framework for Ethiopia (ENQF taskforce, 2008).

The most recent developments in ENQF-related policy have had a direct effect on implementation of the ENQF (Assegidew, 2012). This can be seen in the preparation of a road map and strategy to establish an ENQF advisory group, a technical working group and an ENQF management information system.

Referencing to regional frameworks

The annex to the East African Community (EAC) common market protocol (CMP) on mutual recognition of academic and professional qualifications recommends that qualifications frameworks in the region should have 10 levels. An audit covering regulated qualifications issued by national examination and awarding bodies in the EAC also resulted in the recommendation of a 10-level framework for academic and vocational qualifications. Other countries with 10-level frameworks include Tanzania, Mauritius and Australia.

Partner states have agreed to harmonise all national qualifications within the EAC. The harmonisation of East African education systems and training curricula is continuing.

Important lessons and future plans

Prospects for implementing ENQF seem generally bright. Political will, policy directives and global influence are in place, and importance is already being given in reform initiatives to raising the quality of Ethiopian education and improving economic growth. One of the main strengths of ENQF development is that it provides a platform for dialogue between stakeholders who do not usually interact with one another (Assegidew, 2012, p. 92). The government introduced the ENQF not as a stand-alone reform, but as an integral part of other reform initiatives, making it operational has been the work of many different reform initiatives over a period of time, a number of which are already bearing fruit.

An ENQF determination document was produced in 2013 and its implementation regulation is drafted and submitted to the Council of Ministers to be promulgated to facilitate and regulate the implementation of the framework. Nevertheless, implementation requires hard work. It requires the cooperation of national and regional governments and other stakeholders, as well as an understanding among all concerned parties of how the proposed changes are to be achieved (Teshome, 2005). It is often tempting to favour 'quick-fix' solutions, but developments in other countries have repeatedly demonstrated that NQFs are instruments of 'communication, collaboration and cooperation' that entail an iterative development process and take time to become familiar and accepted (SAQA Bulletin, 2012).

A recent study on the critical factors in ENQF implementation (Assegidew, 2012) made the following recommendations:

(a) more attention should be given to programme design and curriculum development;
(b) labour market linkages should be strengthened and comparability of qualifications improved;
(c) there should be greater involvement of experienced and knowledgeable academics in research;
(d) communication strategies should be developed for 'buy-in' of policy-makers' involvement, commitment and persistence;
(e) the language of the ENQF should be made more comprehensible to the public;
(f) a strong institutional support base should be established both at the level of manpower and of infrastructure;
(g) a plan should be developed for implementation and monitoring.

Abbreviations

BPR	business process re-engineering
BSC	balanced score card
DELPHE	Development Partnership in Higher Education
EAC	East African Community
ENQF	Ethiopian national qualifications framework
EQF	Ethiopian qualifications framework
ESDP	education sector development programme
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German organisation for international development)
GTP	growth and transformation plan
HERQA	Higher Education Relevance and Quality Agency
HESC	Higher Education Strategy Centre
KSA	knowledge, skills and attitudes
MoE	Ministry of Education
NTQF	national TVET qualifications framework
NUFFIC	Netherlands Universities Foundation for International Cooperation
SAQA	South African Qualifications Authority
TLTQF	TVET leaders and trainers qualifications framework
TVET	technical and vocational education and training

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Prepared by:
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FINLAND

Introduction and context

Work on the Finnish national qualifications framework (NQF) has taken longer than originally foreseen. It started in August 2008 and, following two public consultations in 2009 and 2010, the government presented a proposal to parliament in autumn 2010. According to this, the NQF would cover officially recognised qualifications (general, vocational education and training and higher education) at all levels. After a change of government in 2011, the original proposal was slightly revised and resubmitted to Parliament in May 2012 (Act on a national framework for exam-based and other competences). Due to resistance within parliament, this proposal was never taken forward and put up for voting. Following elections and yet another change of government, a third proposal was submitted to parliament in mid-2016 (Act on a national framework for qualifications and other competence modules) and came into force in January 2017. These delays have also affected the referencing to the EQF, which is now planned for spring 2017.

The law (as with the proposals from 2011 and 2012) outlines a comprehensive framework covering the full range of national qualifications, including those awarded outside the jurisdiction of the Ministry of Education (for example related to defence, police and border-guards). The law also allows part qualifications (competence-modules) to be levelled and included in the framework. While these will not be included in the first phase of framework implementation, starting from 2017, a phase two is envisaged where this will happen.

A qualifications framework for higher education, in line with the Bologna process, was developed in 2005 and now forms an integrated part of the NQF. Finland has decided to carry out the referencing to the EQF and self-certification to the European higher education area as one process.

Policy objectives

The framework, the law states ([140]), not only supports increased transparency of qualifications but can be used as a tool for strengthening the overall consistency of (learning outcomes based) qualifications across different education and training sectors.

This objective corresponds with the proposals from 2011 and 2012. All three focus on officially recognised qualifications awarded within the remit of the Ministry of Education (general, vocational education and training, and higher education) as well as on qualifications awarded by other public bodies, for example related to the armed services, police, prison and rescue services. The framework opens up for the levelling and inclusion of 'competence modules', also seen as part-qualifications, which can play a particularly important role in the following areas:

(a) in regulated professions, where there are legal requirements for certifications beyond initial education and training. This is the case for professions in the health and social sectors and also for teachers, divers and various groups within the construction sector;
(b) in all areas where there is need for increased competences and specialisations beyond initial education and training. The NQF proposal refers to the need to improve the visibility and valuing of 'specialisations' beyond initial education and training. These specialisations are a significant part of the existing Finnish lifelong learning landscape, in vocational training, higher education and in liberal adult education.

The objectives set for the new Finnish NQF are interesting as they combine a focus on transparency of qualifications with an explicit focus on system-development, explicitly using the framework as a tool for the gradual improvement of the quality and relevance of qualifications.

([140]) http://www.finlex.fi/sv/esitykset/he/2016/20160204.pdf

While the new framework seeks to describe existing qualifications in a better and more transparent way, its role as a tool for development is underlined (excerpt from the NQF law):

'The framework makes it possible to identify and further develop the strengths of the education system while also correcting shortcomings in the system. The framework forms a foundation which can in applicable parts be utilised when planning qualifications and preparing national core curricula, qualification requirements and local curricula. The descriptors of the framework levels will help clarify the differing learning objectives and requirements for various qualifications and education providing certain eligibilities by describing them in a more consistent manner. The framework will focus attention on competence and learning outcomes, both in terms of planning education and student assessment. The emphasis on learning objectives will help develop education and training so as to improve learning outcomes. More consistent descriptions of learning outcomes at different qualifications levels will facilitate education providers in developing the identification and recognition of prior leaning within the qualifications system. The framework can also be used in support of determining the level of competence modules not included in the framework, which will facilitate recognition of non-formal and informal learning.'

Levels and use of learning outcomes

The learning outcomes (competence) based approach is broadly accepted and used by all areas of Finnish education and training; it underpins most qualifications to be covered by the framework.

The NQF law (as with the 2011 and 2012 proposals) introduces an eight-level framework reflecting the knowledge, skills and competence components introduced by the EQF. While the descriptors have been inspired by the EQF they have also been adopted to suit the national context. The explicit distinction between knowledge, skills and competence used by the EQF is dropped and replaced by one 'integrated' column summarising the requirements for each level. This is seen as more in line with the way learning outcomes actually are written in Finland. Table 27 shows the components used to define and describe levels in the Finnish NQF.

Table 27 Level descriptors in the Finnish NQF

Knowledge	Levels 1-8
Work method and application (skills)	
Responsibility, management and entrepreneurship	
Evaluation	
Key skills for lifelong learning	

While the requirements for knowledge and skills are closely aligned to those of the EQF, the descriptors related to competences reflect national objectives in these areas (for example related to key competences). A good illustration is the descriptor for level 4, where personal and social competences are described in the following way (NQF law, p.39):

- 'Takes responsibility for completion of his/her tasks and works in a safe and responsible manner within a work community. Works in an economical, productive and systematic manner, taking other actors into consideration. Is able to supervise routine tasks performed by others. Has the ability to work in an entrepreneurial manner in someone else's service or as an independent entrepreneur. Evaluates his/her competence and scope of duties and improves actions relating to work or studies. Develops himself/herself and his/her work.
- Has the ability for lifelong learning. Communicates diversely and interactively in various situations and produces varied and also field-specific texts in his/her mother tongue. Acts according to the ethical principles when in interaction with different people in learning and working communities and other groups and networks.
- Can communicate at an international level and interact in a second national language and at least one foreign language.'

The example shows that, while the aspects of 'autonomy' and 'responsibility' are highlighted (as in the EQF), explicit reference is also made to the ability to work as 'an independent entrepreneur', to be able to 'evaluate and reflect on own activities', to pursue 'lifelong learning', 'to communicate and interact with others', 'to act according to ethical principles' and 'interact using other languages'.

Stakeholder involvement and institutional arrangements

A broad range of stakeholders ([141]) was involved in the early, preparatory stages of the NQF developments. The delays encountered with the legal proposal between 2012 and 2016 meant that systematic dialogue on the role of the framework stopped. The relaunch in 2016 was supported by broad consultation.

It is significant that higher education institutions have supported the development of the NQF from the start and have contributed to the framework design. This seems to reflect the existing Finnish education and training system, where interaction between general, vocational and higher education and training institutions seem to operate more smoothly than in many other countries. This may be explained by the role played by non-university higher education (promoting professional training at bachelor and master level) and by the increasingly important competence-based qualifications approach applied in vocational qualifications at levels corresponding to 4 and 5 of the EQF. This approach, gradually developed since the 1990s, is based on the principle that candidates without a formal training background can be assessed for a qualification. Finnish VET qualifications also give access to all forms of higher education. A qualifications framework for higher education, in line with the Bologna process, was developed from 2005 and is now an integrated part of the new comprehensive NQF.

([141]) Initiated and coordinated by the Ministry of Education and Culture, the original (2008) NQF working group consisted of the following: The Ministry of Justice, Ministry of Internal Affairs, Ministry of Employment and the Economy, Defence Command Finland (Ministry of Defence), Finnish National Board of Education, Confederation of Unions for Professional and Managerial Staff in Finland (AKAVA), Confederation of Finnish Industries (EK), Central Organisation of Finnish Trade Unions (SAK), Association of Finnish Local and Regional Authorities, Finnish Confederation of Professionals (STTK), the Association of Vocational Adult Education Centres (AKKL), Rectors' Conference of Finnish Universities of Applied Sciences (ARENE), Vocational Education Providers in Finland (KJY), Finnish Association of Principals, The Finnish Council of University Rectors, Finnish Adult Education Association, The National Union of University Students in Finland and the Union of Finnish Upper Secondary Students.

Recognising and validating non-formal and informal learning and learning pathways ([142])

Validation leading to formal recognition and certification in Finland is embedded in formal education and training systems. Validation in CVET (competence-based qualifications (CBQs)) has the longest history of over 20 years and it is well established and steered by detailed legislation and policies as well as quality assurance mechanisms. However, validation arrangements are also in place in IVET and higher education (both first and second cycle studies) and are developed through national measures, legislation and development projects, and are steered by legislation.

Typically, the validation arrangements in formal education include the four phases of validation listed in the Council recommendation on the validation of non-formal and informal learning ([143]) (identification, documentation, assessment and certification), but the processes and methodologies differ between education sectors. In all sectors the common denominator is increased cooperation with working life, especially concerning the identification and assessment phases.

Validation in the third sector is not defined by legislation, but its role is related more to identification and documentation of competences. The third sector also has a crucial role in terms of cooperation with the validation organisers (for example as work life assessors).

The strengths of the Finnish validation arrangements lie in cooperation between all stakeholders. The social partners are strongly involved in all aspects, from designing the content of qualification requirements to individual validation procedures. Transparency and cooperation promote trust and high market value for the system: employers see qualifications gained through validation as equally valuable or trustworthy as the qualifications gained through school-based learning.

The education provider decides how guidance is organised but it must be provided according to the needs of the learner. However, it has been pointed

([142]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([143]) Council of the European Union (2012). Council recommendation of 20 December 2012 on the validation of non-formal and informal learning. *Official Journal of the European Union*, C398, 22.12.2012, pp. 1-5. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:398:0001:0005:EN:PDF

out that the guidance procedures embedded in validation arrangements leave room for further development: 'It is not adequately defined what the guidance should entail, what the aim of guidance in the validation process should be, what the competences of the guidance providers in validation should be. From time to time, the qualification system appears to be mechanistic and focus on the recognition and certification process instead of individual and professional development' (Karttunen, 2015).

NQF implementation

The 2016 proposal envisages NQF implementation in two phases. In the first, to be implemented immediately after legal adoption of the framework, all formal qualifications under the responsibility of the Ministry of Education and other public administrations (such as police and armed forces) responsible for the award of qualifications. The aim is also to include in the framework specialist training (competence modules) in medicine and dentistry.

The second implementation phase could see an opening up of the framework to qualifications and competence modules outside the scope of the first phase. The ministry will initiate further development work in this area as soon as the Act enters into force. The current proposal gives no details on this opening up, but a possibility is to involve the private sector and allow for the inclusion/levelling of international qualifications.

Referencing to regional frameworks

Given that the NQF enters into force in January 2017, Finland will reference to the EQF late spring 2017.

Important lessons and future plans

This Finnish NQF could become a tool for long-term development of the education and training system and the qualification system. The introduction of learning-outcomes-based levels is seen by stakeholders as an instrument for

Table 28 Finnish national qualifications framework

NQF levels	Qualifications
8	Licentiate Doctor Specialist medical doctors, dentists and veterinarians General staff officer examination
7	Advanced vocational higher education Master
6	Vocational higher education qualifications Bachelor
5	Specialised VET qualifications Basic qualification for air traffic controllers Vocational qualification for construction production Qualification for police officer Qualification for officer, rescue services
4	Upper secondary education, general and vocational Certificates for prison warders Certificates for police Certificates for rescue workers Certificates for professionals working in alarm-centres
3	(Older) vocationally-oriented basic education and VET
2	Compulsory education certificates
1	

Source: National Board of Education (NBE).

increasing qualifications consistency. While learning outcomes are used widely in almost all education and training sectors, their interpretation varies, risking inconsistencies between institutions and sectors. The NQF is seen by some stakeholders as a reference point for improving the overall quality and relevance of Finnish qualifications.

The delays encountered since 2012 have resulted in a loss of national momentum. The relaunch of the legal process makes it possible to continue the extensive work carried out between 2008 and 2012. A legal adoption alone will not ensure the future of the framework: there is an urgent need to restart dialogue with stakeholders and make sure that trust and commitment develops.

Further sources of information

Finnish Ministry of Education and Culture: http://www.minedu.fi/OPM/?lang=en

Finnish National Board of Education; acts as EQF national coordination point: http://www.oph.fi/qualificationsframework

Abbreviations

EQF	European qualifications framework
IVET	initial vocational education and training
NQF	national qualifications framework
VET	vocational education and training

References

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Finland.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

Karttunen, A. (2015). *How informal and non-formal learning is recognised in Europe.* Finland country report. Bertelsmann Stiftung.

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

FORMER YUGOSLAV REPUBLIC OF MACEDONIA (FYROM)

Introduction and context

NQF snapshot

The framework consists of eight levels. Sublevels were introduced at levels V, VI and VII. The national qualifications framework (NQF) is managed by the National Board of the NQF. Qualifications are already placed in the framework. FYROM's NQF is referenced to the European qualifications framework (EQF) and self-certified against the Bologna framework in higher education.

Demographic, social, educational, economic and political context

In common with other countries in the region, the population (2 071 278 as at end-2015) shows signs of ageing. In the first quarter of 2016, the working age population was 1 678 411 and the labour force 945 821 ([144]).

The economy, the labour market indicators and the educational attainment of the population improved in global terms during 2010-15 and economic growth maintained an upward trend (3.8% in 2015, slightly higher than in 2014). The educational attainment of the active population improved substantially over the period as the share of holders of higher education increased from 19.5% to 23.6% (2015) and the proportion of the low-educated declined to 23.9% (from 28.3%) in the same period.

Thanks to economic reforms, improved business environment, and gradually improving educational attainment and labour force skills, labour market indicators show positive trends. Consistent policies to support job creation, entrepreneurship, skills matching and the overall quality of education are indispensable, as the country remains far from the EU-28 average: the employment rate (20 to 64) stood at 51.9%, against 70.1% in the EU-28 in 2015; the unemployment rate continued to decrease but stood at 26.1% in 2015 (or three times the EU-28 average); GDP per capita increased to EUR 4 377 EUR (from EUR 3 650 in 2012), but is well below the EU average.

The NEET rate (aged 15 to 24 years not in employment education and training) has been declining over time but remains high, at 24.7% in 2015 (against 12% in the EU-28). Large discrepancies in the labour market participation of youth and women, the persisting large share of long-term unemployment and high informal employment are severe structural challenges to be addressed through coordinated policies. Approximately 58% of upper secondary students are enrolled in VET pathways, and it is estimated that over 60% of graduates continue studies in higher education.

Policy objectives

Education and training reforms

The country was granted EU candidate status by the European Council in December 2005. Since 2009, the European Commission has five times recommended opening negotiations, but the Council has taken no decision.

Performance on the ET 2020 benchmarks has been mixed, since the country progressed visibly in the two education-related Europe 2020 headlines (early school leaving and higher education attainment), while effort will be required to catch up with the EU-28 average figures in the remaining benchmarks.

The NQF was adopted in 2013. It aims to improve education and training systems through implementation of the learning outcomes approach; to make easier the access to learning in every context and its results made explicit for every citizen; to raise the overall level of qualifications of the population; and to strengthen the links between qualifications and employment prospects.

([144]) Data from the ETF Torino process report 2016-17, FYROM.

International cooperation

NQF development and implementation have been strongly influenced by the process of European integration and the commitment of the former Yugoslav Republic of Macedonia to the Lisbon strategy, the Bologna process, the Copenhagen process, ET 2010, the Europe 2020 strategy and ET 2020. Nationally, reporting on the achievement of the Bruges process short-term deliverables (2010, 2012, 2013, and 2014) and preparation of the Strategy for vocational education and training in the context of lifelong learning (2013-20) have advanced work on the NQF and its implementation. The country participates in reporting under the Riga framework and Torino process 2016.

Levels and use of learning outcomes

Scope and structure of NQF

The Macedonian qualifications framework (MQF) is comprehensive (all levels of qualifications) and inclusive: it is open for qualifications acquired in formal education and training, as well as in non-formal and informal learning. It is based on:

(a) levels/sublevels of qualifications;
(b) descriptions of the levels and the learning outcomes for each level of qualification;
(c) types of qualifications and documents serving as evidence for the acquired qualification;
(d) volume of the qualification.

Currently the NQF includes:

(a) all qualifications from accredited higher education, described in learning outcomes;
(b) all qualifications from general education;
(c) the reformed VET-3 qualifications, which have been defined in learning outcomes, on the basis of occupational and qualification standards, notably those designed in 2012-13 within the IPA twinning project with Slovenia;
(d) on a temporary basis, conditional to their revision in line with the Article 6 of the NQF Law (Standard of qualifications): all qualifications from VET-4 programmes, as well as from VET-3 not yet reformed programmes;
(e) qualifications from verified non-formal adult education programmes: based on occupational standards and described in learning outcomes. The level of these qualifications is defined in coherence with the level of the underlying standard.

Alignment to NQF levels of qualifications from non-formal and informal learning is in development, as the country continues to clarify and strengthen quality assurance of such qualifications, notably coherence with underlying standards of their learning outcomes (expected and achieved). The Centre for Adult Education is preparing measures to reinforce the quality assurance and reliability of assessment of learning outcomes of verified non-formal adult education programmes.

NQF levels

The NQF consists of eight levels, with sublevels introduced at levels V, VI and VII. The sublevels reflect the specificities of the education system, the perceptions of the general public on the relative value of the qualifications and requirements of many employers. Levels cover:

(a) level I: completed primary education. On completion, participants receive a certificate (*svidetelstvo*);
(b) level II: vocational training lasting up to two years. On completion participants receive a certificate of vocational training (*uverenie za struchno osposobuvanje*).
(c) level III: vocational education and training for occupations lasting up to three years. On completion, participants receive a diploma (*diploma*).
(d) level IV applies to general secondary education (*gimnazija*), technical education or art education lasting four years. On completion, participants receive a diploma (*diploma*).
(e) level V:
    (i) level V, sublevel VB applies to post-secondary education (specialist education and craftsman exam); participants receive a diploma for specialist education (*diploma za specijalistichko obrazovanie*) and a diploma for the craftsman exam (*diploma za majstorski ispit*);
    (ii) level V, sublevel VA applies to short vocational study programmes in higher education; participants receive a credential (*uverenie*);
(f) level VI:
    (i) sublevel VIB applies to short vocational study programmes in higher education; participants receive a diploma (*diploma*). 180 ECTS credits;
    (ii) sublevel VIA applies to three-year and four-year undergraduate studies; participants receive a diploma (*diploma*). 240 ECTS credits;

(g) level VII:
    (i) sublevel VIIA applies to higher education master of science studies; participants receive a diploma (*diploma*). Total of 60 to 120 ECTS credits are acquired at this sublevel;
    (ii) sublevel VIIB applies to higher education specialist studies; participants receive a diploma (*diploma*). Total of 60 ECTS credits are acquired at this sublevel;
(h) level VIII applies to doctorate studies; participants receive a diploma (*diploma*).

The acquisition of qualifications from non-formal and informal learning is foreseen by the NQF law, but only within the range from level I to VB. Integrated studies of first and second cycle of studies refer to qualifications leading to titles for regulated professions. Currently they are not part of the NQF, as discussion on their inclusion is under way.

NQF structure and level descriptors

The level descriptors of the NQF are based on the combination of the three domains:

(a) knowledge and understanding;
(b) skills;
(c) competence.

The level descriptors have been defined taking into account:

(a) the Dublin descriptors;
(b) the EQF level descriptors;
(c) national characteristics of levels of education and training;
(d) strategic orientations for the medium term, such as growing importance of a more entrepreneurial society, creativity and innovation.

Use of learning outcomes

Use of learning outcomes in programmes and qualifications is more advanced in higher education, in certain segments of VET (qualifications at level 3), as well as in the newly verified programmes of adult learning leading to qualifications. Higher education has generalised the use of diploma supplements, unlike VET where the introduction of certificate supplements is planned but not yet piloted or prepared on even a small/project scale. General education has been gradually embracing the approach in defining learning outcomes in curricula, particularly in critical subject areas.

VET-4 programmes, designed over 2005-07, are based on learning objectives, which can be taken as proxies for learning outcomes by subject. However the clear definition of key learning outcomes describing the important outcomes of these programmes is yet to be developed.

Definition of qualification

The NQF Law defines qualification as the formal result of the evaluation and confirmation process, when the responsible institution certifies that an individual has achieved learning outcomes in accordance with established standards. Article 6 of the NQF Law stipulates that the qualification standard should include the following:

(a) title of the qualification;
(b) type of qualification;
(c) level or sublevel of the qualification;
(d) code of the qualification;
(e) credit value of the qualification;
(f) description of the qualification;
(g) content of the qualification (entry requirements, number of mandatory and optional subjects: modules, method of verification and criteria for verification of the learning outcomes).

The NQF defines the parameters for classification of qualifications according to levels, types, sectors and volume. They are registered in the national database of qualifications (register). The national register is under construction, and the Inventory of qualifications (2014) is its starting point. There is grouping of qualifications according to the purpose, type of documents issued, type of programmes and volume.

Article 11 of the NQF Law defines two types of qualifications: educational qualifications (education level) and 'vocational' (occupational) qualifications. These are reflected in the MQF:

(a) educational qualification: obtained by completing a publicly adopted educational programme within the formal education system, with necessary qualification volume, and documented with a diploma/certificate. It enables continuation of education, employment and personal development;
(b) vocational qualification: obtained by completing part of a publicly adopted educational programme (modules, courses), a special programme for adult education, or through validation of non-formal learning. It is documented with a certificate and enables employment and personal development. It contains competences relevant for the labour market presented within one or more standards of occupations. By their nature, these qualifications do not provide access to vertical progression in the formal education system. Vocational qualifications can be acquired for all MQF levels and sublevels, except level VIII. This type of qualification corresponds to the concept of 'partial qualification'.

Table 29 NQF structure and level descriptors in FYROM

NQF levels	Knowledge and understanding	Skills	Competence
VIII	Demonstrates a systematic understanding of the field of research and perfect knowledge of research methods and skills within this field in accordance with the highest international standards. Possesses knowledge gained with their own research or work, thus significantly contributing to the professional and scientific field of research, but also in the related fields.	Displays the ability to interpret, design, apply and adapt the essential subject of the research with scientific integrity. Uses their knowledge as a basis for original ideas and research that exceeds the current boundaries of knowledge, developing new knowledge, valued on the level of national and international peer-reviewed publications. Ability for critical analysis, evaluation and synthesis of new and complex ideas, necessary for solving complex problems in the field of research. Ability for independent initiation and participation in national and international research networks and events with scientific integrity. Ability for independent initiation of research and development projects, through which new knowledge will be generated as well as skills for development in the field of research. Expected to be capable of promoting themselves in academic and professional frameworks and in technological, social or cultural development in a knowledge-based society. Capable of communicating with colleagues, wider academic community and with society as a whole within their field of expertise.	Takes maximum responsibility for the outcomes of own work, but also for the work of the others in the group. Takes responsibility for managing complex processes, while simultaneously ensuring the professional development of the individual and the group as a whole.
VII	Displays knowledge and understanding of the scientific field of study (or learning) that is built upon the first cycle, by applying methodologies appropriate for resolving complex problems, both in a systematic and creative manner which provides the basis or the possibility for originality in the development and/or application of autonomous ideas in the context of the research. Displays a high level of professional competence in one or more specific scientific fields. Possesses knowledge from one or more subject areas which, in the given scientific fields, are based on most renowned scientific research in that scientific field, as well as the capability to connect wider and deeper knowledge in related professions or fields of science.	Capable of critical, independent and creative problem-solving with certain originality in new or unknown environments and in multidisciplinary contexts, connected with the field of study. Capability to synthesise and integrate the knowledge and to handle complex issues, in a systematic and creative manner. Capability to evaluate and select scientific theories, methodologies, tools and general skills from the subject areas, and to put forward new analyses and solutions on a scientific basis. Capability to recognise the personal need for further knowledge and capability for Independent and autonomous actions when acquiring new knowledge and skills in general terms. Capability to exchange conclusions and proposals by arguing and rationally substantiating thereof, both with experts and non-experts clearly and unambiguously.	Displays significant responsibility for own and shared results, for leading and initiating activities. Capability for solid evaluation even of incomplete and limited information, which includes personal, social and ethical responsibilities in the application of the acquired knowledge and evaluation thereof. Capable of taking responsibility for further professional development and education, both for themselves and for the group with which they cooperate.

NQF levels	Knowledge and understanding	Skills	Competence
VI	Displays knowledge and understanding in the scientific field of study that is built upon previous education and training, including the domain of theoretical, practical, conceptual, comparative and critical perspectives in the scientific field according to the relevant methodology. Understanding of a certain area and knowledge of current issues in relation to scientific research and new sources of knowledge. Displays knowledge and understanding of different theories and methodologies necessary for the wider area of research.	Is able to apply knowledge and understanding in a manner that reflects a professional approach to the work or profession. Displays the ability to identify, analyse and solve problems. Capability to find and support arguments within the profession or the field of study. Capability to collect, analyse, evaluate and present information, ideas and concepts from the relevant data. Capability to assess theoretical and practical issues, provide explanations for the reasons and select an appropriate solution. Takes initiative to identify the requirements for acquiring further knowledge and study with a high degree of independence. Capability to communicate and discuss information, ideas, problems and solutions, when the decision criteria and the scope of the task have been clearly defined, both with experts and the non-expert public.	Takes responsibility for own results and shared responsibility for collective results. Capability for independent participation, with a professional approach, in specific scientific and interdisciplinary discussions. Makes the relevant judgement by taking into consideration the personal, social, scientific and ethical aspects.
V	Displays knowledge and understanding in the field of study or work that is built upon general secondary school education supported with professional literature. Possesses specialist theoretical and professional knowledge and understanding of individual basic theories from the narrow scientific and expertise area. Possesses limited knowledge of contemporary developments in the area of work or study, which provides support to the field of work or profession, potential for personal development and basis for further studies to complete the first cycle.	Applies skills that are based on understanding of theoretical principles and their application in solving problems and in the execution of complex and specific tasks in the field of work and study, with the selection and use of relevant data, methods, procedures, techniques, instruments, devices, tools and materials. Possesses the skills to study in order to become able to take over further research with a certain degree of independence. Possesses the ability to communicate and discuss with target groups from the narrow profession or area of study, with colleagues, superiors and clients.	Has a high degree of personal and business responsibility, and ability to evaluate own work and the work of the group based on criteria in the field of work. Capability of transferring knowledge to others, organising, communicating and controlling own work and the work of others. Takes responsibility for own results, but also shares responsibility for the activities, results and work of others in the group.

NQF levels	Knowledge and understanding	Skills	Competence
IV	Knows the concepts, principles and processes from the study subjects and areas. Possesses systematic theoretical and professional knowledge within the specified area of work or study that includes analysing and connecting facts and theoretical principles when performing the work, while at the same time enabling further studying.	Possesses various cognitive, practical and creative skills, based on theoretical knowledge and principles, necessary for studying, working and solving problems in changeable conditions in a certain field of work or study. Trained to collect, analyse, select and use relevant information from various sources, tools, methodologies, techniques and materials in the area of study. Trained to perform complex procedures and use methods, instruments, tools, installations and materials in the operation. Communicates and cooperates with the group in changeable conditions.	Independently plans, organises and runs own work and conducts supervision of the mutual work. Independently performs complex tasks and solves problems, adjusting behaviour in accordance with given instructions, in changeable conditions. Responsible for own work and the work of the group, for the purpose of evaluating the results of the work and improving the quality, in accordance with predefined standards and criteria.
III	Possesses theoretical and systematic adopted professional knowledge, facts, principles, processes and general concepts for a certain area of work or study, while at the same time enabling further studying.	Possesses practical and creative skills that enable the solving of known (predictable) and less known (unpredictable) situations. Performs work and tasks of medium complexity, less standardised and relatively visible. Uses various devices, tools, equipment and materials in the process of production and in services. Communicates and cooperates with the group.	Plans, prepares, organises and values own work, based on predetermined instructions, within the scope of their work. Performs work that is not always defined in advance, with a certain degree of independence and responsibility.
II	Possesses basic theoretical and professional knowledge, necessary for the requirements of the work, which can be applied when performing simple working tasks, while at the same time enabling further studying.	Possesses practical and creative skills for solving simple or less complex and predefined work in known conditions and predictable situations. Uses simple methods, tools, instruments, devices and materials based on detailed instructions. Communicates and cooperates with specific persons.	Works independently under known conditions and under intermittent supervision and with limited responsibility for performing working tasks. Establishes simple communication and cooperation with some employees in known situations.
I	Possesses basic knowledge of the function of certain objects and occurrences with the possibility to apply them in practice and other disciplines, while at the same time enabling further studying.	Possesses basic skills for performing simple operations. Uses simple methods, tools and instruments with instructions and under supervision. Possesses general rules of communication.	Performs simple tasks under direct supervision. Takes responsibility for performing working tasks.

Source: NQF Law, Article 7 (unofficial translation – for reference purposes only).

Qualifications in the key subsectors

Within level 5, the country has renewed attention on qualifications of the NQF level sublevel 5B (specialised education and master craft exams), as they are expected to respond to demand from the labour market, provide advantageous career alternatives for the young, and meet the requirements of companies in many sectors for higher-level professional skills. From 2016, the country is operating a specific project, with EU support.

Post-secondary education provides deeper knowledge and understanding, skills and competence for working with more complex technology, specialised top quality services, organisation of work, managerial positions of first level, instructorship, and mentorship.

Two types of pathway currently lead to qualifications at level VB: specialised education and master exam.

Table 30 Diplomas and certificates awarded in FYROM's secondary education

Type of secondary education	Type of school	Exam	Title of public document	Institution awarding the qualification	Qualification level according to NQF
Gymnasium education	Secondary school Gymnasium		Certificate for completed year *Svidetelstvo za zavrsena godina*	School	
		State *matura*	Diploma for State matura *Diploma za drzavna matura*	School	IV
		School *matura*	Diploma for school matura *Diploma za ucilisna matura*	School	IV
Vocational education	Secondary school (Technical education)		Certificate for completed year *Svidetelstvo za zavrsena godina*	School	
		State *matura*	Diploma for State matura *Diploma za drzavna matura*	School	IV
		Final exam	Diploma for final exam *Diploma za zavrsen ispit*	School	IV
	Secondary school (Vocational education for occupations)		Certificate for completed year *Svidetelstvo za zavrsena godina*	School	
		Final exam	Diploma for final exam *Diploma za zavrsen ispit*	School	III
	Secondary school (Vocational training)		Certificate for completed year *Svidetelstvo za zavrsena godina*	School	
		Vocational competence exam	Certificate for vocational training *Uverenie za strucna osposobenost*	School	II
Art education	Secondary school		Certificate for completed year *Svidetelstvo za zavrsena godina*	School	IV
		State *matura*	Diploma for State *matura* *Diploma za drzavna matura*	School	IV
		School *matura*	Diploma for school *matura* *Diploma za zavrsen ispit*	School	IV

Source: EQF referencing report of the FYROM qualifications framework and self-certification to the QF-EHEA (December 2015), p. 27.

Table 31 Qualifications acquired through post-secondary education in FYROM				
Type of institution	**Exam**	**Title of the public document**	**Institution issuing the qualification**	**Level of qualification according to NQF**
Accredited institution for post-secondary education	Specialist exam	Diploma for specialised education (*Diploma za specijalisticko obrazovanie*)	Accredited institution	VB
	Master exam	Diploma for completed master exam (*Diploma za polozen majstorski ispit*)	Accredited institution	VB

The standards and programmes for specialised education are proposed by the VET Centre and adopted by the Minister for Education and Science. Admission criteria are completed technical, vocational education for occupations, gymnasium or art education, with or without working experience. These programmes are provided by accredited public and private institutions: secondary schools, higher vocational schools, specialised institutions for post-secondary education and institutions for post-secondary education as part of chambers, employers' organisations, work associations and companies.

The standards and programmes for the master exam are prepared by the VET Centre and adopted by the Chamber of Crafts of the Republic of Macedonia, upon prior positive opinion by the Ministry of Education and Science.

Access, progression and credit

Education policies in the past decade have resulted in visible improvement in transition to higher levels of education and training. There has also been an associated increase in educational attainment of the younger generations, notably by making secondary education compulsory. The State has also improved the progression routes of graduates, boosting programme length from VET-3 (three years) to VET-4 (four years) (NQF level IV), thus allowing VET graduates to access higher education.

Passing external exams – State *matura* – is the main condition for eligibility to access to higher education. Apart from vertical progression in formal education and training (and acquisition of) 'education level qualifications', citizens have the possibility to acquire other qualifications for employment and personal

Table 32 Qualifications in FYROM's higher education system					
Cycle	**Type of studies**	**ECTS credits**	**Title of public document**	**Title**	**Level of the qualification in the NQF**
First cycle studies	Short cycle studies	60-120	Certificate		VA
	Academic studies	180-240	Diploma in the specific area	baccalaureate	VIA
	Professional studies	180-240	Diploma in the specific area	baccalaureate	VIB
Second cycle studies	Academic studies	60-120	Master degree diploma	master	VIIA
	Professional studies	60-120	Specialist diploma	specialist	VIIB
Third cycle studies	Doctoral studies	At least 180	Diploma	Doctor of science/ Doctor of art	VIII

Source: EQF referencing report of the FYROM qualifications framework and self-certification to the QF-EHEA (December 2015), p. 34

development purposes: these are 'vocational (occupational) qualifications'. This type of qualification contributes to broadening the knowledge and skills of their holders and the acquisition of occupationally relevant skills in new fields, but they are not designed to lead to higher levels.

The NQF Law defines three types of credit system:

(a) ECTS ([145]) credits in higher education: one ECTS credit is defined as 30 working hours with duration of 60 minutes each. This definition differs from the ECTS principles (25 working hours with duration of 60 minutes each);
(b) ECVET ([146]) credits in vocational education and training: one ECVET credit is defined as 25 working hours of duration of 45 minutes each;
(c) MCSGE ([147]) for credits in primary education and general secondary education: one credit is defined as 25 working hours of the duration of 45 minutes each.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The NQF Law was adopted in October 2013 and entered into force in September 2015 ([148]). Apart from the NQF Law, other important legal acts are: the Decree on the national framework for higher education qualifications ([149]), laws on higher education, VET, secondary and adult education.

Roles and functions of actors and stakeholders

The NQF Law stipulates that the development, adoption, approval and classification of qualifications are under the responsibility of the National Board for NQF, established in October 2015, and the sectoral qualifications councils, currently in the process of establishment.

The Ministry of Education and Science and the Ministry of Labour and Social Policy coordinate the NQF, leading its development and implementation. The Ministry of Education and Science is more directly concerned with the content and technical development of the framework, covering qualification standards and EQF referencing. It also acts as national contact point for NQF. The Ministry of Labour and Social Policy looks at labour market needs and functions, including labour market forecasting for skills, oversees development of occupational standards, and conducts labour market reporting such as on employment of those holding recognised qualifications in the NQF.

Other parties involved are the Bureau for Development of Education, the VET Centre, and the Centre for Adult Education.

Competent institutions for development of qualifications are the VET Centre, Centre for Adult Education and Bureau for Development Education for levels I to VB and higher education institutions for levels VA to level VIII.

The National Board for the FYROM qualifications framework is composed of representatives from the Ministry of Education and Science, Ministry of Labour and Social Policy, VET Centre, Centre for Adult Education, Bureau for Development of Education, National Agency for European Educational Programmes and Mobility, higher education institutions, the chambers of commerce and trades unions. Its functions include policy evaluation in VET and recommendations to link training to labour market needs more effectively. It decides on allocation of qualifications to MQF levels and proposes development of new, or improvement of existing, qualifications to the competent institutions. It also deals with the sectoral qualifications councils, including authorising their establishment.

The sectoral qualifications councils are composed of nominees from ministries, employers and trades unions, universities, the VET Centre, the Centre for Adult Education, Bureau for Development of Education, and the relevant competent bodies for regulated professions in the country. The councils are principally concerned with specific sector qualifications needs, identifying qualifications needs and proposing new qualifications for the relevant sector.

Resources and funding

Financial resources for functioning and development of NQF-related bodies and projects are shared between national and international sources. The State budget assures the functioning of the NQF unit at the Ministry of Education and Science and the other relevant State bodies (BDE, VET Centre, Centre for Adult Education). A number of IPA-funded projects started in 2016 have a direct contribution to funding of activities related to NQF implementation and qualifications reforms. Other donors have included the World Bank and the British Council.

([145]) European credit transfer and accumulation system.
([146]) European credit system for vocational education and training.
([147]) Macedonian credit system for general education.
([148]) Main NQF legal texts available at: http://mrk.mk/?page_id=531&lang=en
([149]) http://mrk.mk/?page_id=531&lang=en

Quality assurance of qualifications

Quality-assuring the NQF and qualifications addresses both the wider national education and training system and MQF procedures and processes.

The Ministry of Education and Science runs accreditation procedures for primary and secondary schools and programmes for adult education. The verified institutions and providers are entered in the respective database of the Ministry of Education and Science.

Programmes for secondary education, including VET, are developed by the Bureau for Development of Education and/or the VET Centre and approved by the Minister for Education and Science. The (2013) reformed vocational programmes for occupations (three years) are based on learning outcomes, and are linked with qualifications standards and occupational standards.

Implementation of curricula for secondary education is supported and monitored by advisors from the Bureau for Development of Education, the VET Centre and the State Education Inspectorate.

Assessments are continuous but with variations; this is the norm in adult education plus some final examination. At secondary level, students prepare for the *matura*, which includes both internal evaluations and some external assessment and examination by the National Examination Centre.

The legal basis of the quality assurance framework in the qualification system is drawn from other NQF-related laws such as those on general, VET, higher and adult education cited earlier.

Quality assurance bodies in implementation are the Ministry of Education and Science, the Bureau for Development of Education, the VET Centre, the Centre for Adult Education, the Board for Accreditation and Evaluation of Higher Education, the National Examination Centre and the State Education Inspectorate.

The main quality assurance issues and challenges for the NQF and qualifications involve practical application of the shift to the learning outcomes approach, particularly shifting focus more to qualifications themselves.

Recognising and validating non-formal and informal learning and learning pathways

In its October 2015 concept paper, the government foresees the development and implementation of a system for VNFL by 2018 ([150]). Laws on VET and adult education also allow for VNFIL. The Centre for Adult Education, jointly with stakeholders, is currently developing a model for VNFIL and associated processes, inspired by the principles of the VNFIL EU Council recommendation of 2012. This model is based on the four phases of validation and aims to improve the reliability and transparency of assessment, by introducing better instruments, particularly criteria allowing coherent assessment of the learning outcomes specified in the qualification standards. An information-methodology package to support practitioners (providers of VNFIL services) is at an early stage of design. Piloting in selected sectors is expected to start in 2018.

NQF implementation

Inclusion of qualifications in a register

The inventory of qualifications, completed in March 2015, is the first version of a database of qualifications. This inventory, carried out in cooperation with ETF, is comprehensive and exhaustive, as it covers all existing formal qualifications (accredited higher education programmes, general education, and VET), as well as verified non-formal adult education programmes. It is available on the MQF website ([151]).

The inventory includes 241 qualifications from general education, formal VET, non-formal verified programmes, qualifications that exist in the aviation sector, and others. A few higher education qualifications (43) were integrated in the inventory, to complement the 1 147 already listed in the higher education qualifications register (created with support of a Tempus project support before the start of this inventory). More specifically, in line with the types of qualifications (NQF Law: Articles 11 and 12), the inventory includes:

Monitoring, evaluation and review of the NQF

The roadmap for NQF implementation contains a specific work package on coordination, monitoring, and analysis of results from the roadmap, plus transfer to legislation. The NQF unit is currently in charge of coordination and reporting, but it is likely to face human resources constraints in the short-run, due to upcoming retirement of the most experienced staff and limited public finance. It is important to make sure that new staff is duly trained

([150]) The deadline given in the Council recommendation of 2012 on VNFIL for all countries implementing the recommendation.

([151]) http://mrk.mk/?page_id=408&lang=mk

in 2016-17, taking advantage of the capacity building activities of the IPA twinning project and other international initiatives and EU resources.

Impact for end-users

Qualifications are placed in the framework.

Referencing to regional frameworks

The former Yugoslav Republic of Macedonia has been a full member of the Bologna process, or European higher education area, since 2003. The country is a full member of the EQF and successfully referenced the NQF to the EQF on 3 February 2016, at the 34th meeting of the EQF advisory group. Simultaneously, the country presented its self-certification report, demonstrating compatibility with the qualifications framework of the European higher education area. The 'EQF referencing report of the Macedonian qualifications framework and self-certification to the QF-EHEA' is available on the MQF website ([152]). The report will be uploaded on the EQF website in the first quarter of 2017, upon the presentation of updates to the endorsed report.

Important lessons and future plans

Implementation of the NQF is a main priority integrated in the Comprehensive strategy of education 2016-20 and a central theme of the Economic reform programme report 2016. The NQF is high on the agenda, and this momentum is sustained by the launch in 2016 of several international projects focused on reform of VET qualifications, of non-formal learning, higher education and NQF implementation. Such a multidimensional reform activity in the qualifications landscape is beneficial, but heightens demands on the ministry's capacity to coordinate the projects' approaches and outputs towards coherent outcomes. In 2016 the national NQF team and key stakeholders, with support of the EU twinning project, developed the draft roadmap for further development and implementation of the NQF. New local, national and international partnerships were initiated and developed within these activities. Implementation of the NQF roadmap is conditional to good coordination of all planned inputs, actions and projects, and to collaboration between key bodies and stakeholders, which concur with the overall roadmap. The NQF roadmap is structured in work packages covering concepts, governance, learning outcomes implementation, VNFIL, QA; levelling methodologies, and legislation.

Type: education level qualification		Type: professional qualification	
Qualifications acquired through successful completion of:	**Number**	**Qualifications acquired through successful completion of:**	**Number**
Primary education	2	Verified adult education training programmes	58
General secondary education	9	Civil aviation	22
Secondary arts education	29	Master of crafts exam	1
two-year VET	1		
three-year VET	64		
four-year VET	55		
Higher education (all cycles) (1 147+43)	1190		

([152]) http://mrk.mk/?page_id=443&lang=en

Abbreviations

ECTS	European credit transfer and accumulation system
ECVET	European credit system for vocational education and training
ENQA	European Association of Quality Assurance in Higher education
EQAVET	European quality assurance reference framework in vocational education and training
EQAR	European quality assurance register for higher Education
EQF	European qualifications framework
ERP	Economic reform programme
ESG EHEA	European standards and guidelines in quality assurance in the European higher education area
ETF	European Training Foundationn
ET 2020	Education and training 2020 (EU's framework for cooperation and action in education in the EU)
IBE	Education Research Institute, Poland
IPA	instrument for pre-accession
MCSGE	Macedonian credit system for general education
MK	FYROM
MQF	Macedonian qualifications framework
NEET	not in employment, education or training
PISA	programme for international student assessment
QF-EHEA	qualifications framework for European higher education area
SQCs	sector qualification councils
VNFIL	validation of non-formal and informal learning

Prepared by:
the European Training Foundation (ETF).

FRANCE

Introduction and context

The setting up, in 2002, of the National committee on vocational qualifications (*Commission nationale de la certification professionnelle* (CNCP)) and the National register of vocational qualifications (*Repertoire national des certifications professionnelles* (RNCP)) signalled the establishment of the French national qualifications framework (NQF). Supported by the system for validation of non-formal and informal learning (*validation des acquis de l'experience*), the French framework can be seen as belonging to the first generation of European qualifications frameworks. While not including general education (primary and secondary education as well as the upper secondary Baccalaureate), more than 10 000 qualifications (including in higher education) are currently covered by the framework ([153]).

Some stakeholders consider the existing five-level structure (dating back to 1969) to be in need of replacement. Apart from the need to align the level descriptors to those now commonly used across Europe, qualifications and certificates below EQF-level 3 are currently not included. A proposal for a seven-level structure exists (following the work of a national committee set up in 2012), but it is not clear if and when this will be adopted. The proposed seven-level structure distinguishes between three main groups or domains of learning outcomes; skills, autonomy/responsibility, and knowledge.

The framework, which is operational, was referenced to the European qualifications framework (EQF) in October 2010. The EQF levels, and their alignment with the five-level structure, are clearly indicated in databases as well as in certificate and diploma supplements.

([153]) At the start of 2016, CNCP included a total of 12 589 qualifications. A main distinction is made between qualifications awarded by public authorities and referring to national law (Ministries of National Education and Higher Education, Agriculture, etc.) and qualifications awarded by training providers, chambers and social partners. In the first category we find 8 295 qualifications, in the second 4 294.

Policy objectives

The French NQF, as defined by the RNCP, covers all vocationally and professionally oriented qualifications, including all higher education qualifications with a vocational and professional orientation and purpose. The framework covers three main types of qualification:

(a) those awarded by French ministries (in cooperation with the social partners through a consultative vocational committee (*Commission professionnelle consultative*, CPC));
(b) those awarded by training providers, chambers and ministries but where no consultative committee is in place;
(c) those set up and awarded by social partners under their own responsibility.

The French NQF has more limited scope than most comprehensive NQFs now operating across Europe. Qualifications from general education, notably primary education and general upper secondary qualifications (the general baccalaureate) are not included. Recent policy initiatives and reforms have emphasised the need to give high priority to employability and equip candidates with competences better aligned with the needs of the labour market. Education and training providers at all levels (including universities) have been obliged to reformulate and clarify their qualifications, also in terms of labour market relevance. The proposal for revision of the level-structure and its descriptors (2016) strengthens this labour market and competence focus (see below).

The French NQF operates with less clear distinction between VET and higher education than many other European countries. This signals a wish to promote vocationally and professionally oriented qualifications at all levels. Since the 1970s, vocational courses and programmes have been an important and integrated part of traditional universities; professional bachelor and master degrees are common. Outside universities we find specialist technical and vocational schools offering high level courses and certificates. These schools are run by different ministries covering

their respective subject areas (such as agriculture, health), or by chambers of commerce and industry. *Ingénieurs* from these institutions or students in business schools hold qualifications at a high level, equivalent to those from universities with a master degree. The Ministry of Higher Education delivers the bachelor and master degrees and recognises the diplomas. This has an integrating effect on the diplomas awarded by other ministries such as culture or industry.

Levels and use of learning outcomes

The original five-level structure introduced in 1969 was used as the basis for referencing the French framework to the EQF in 2010. Given that the French qualification system has developed considerably since 1969, a number of stakeholders have pointed to the need for an updated level structure. In 2012 a working group of representatives of the committee on national qualifications (CNCP) and stakeholders submitted a report on the possible introduction of an eight-level structure, distinguishing between knowledge, skills and competence. This proposal was not followed up politically and a new committee has recently (2016) proposed a seven-level structure referring to skills, autonomy/responsibility and knowledge as main learning outcomes categories/domains. Revision of the level structure and accompanying descriptors is considered politically sensitive: existing levels are used as reference points for salary agreements and a change could influence these. There is also some scepticism towards an extension of the framework to include certificates at lower levels (equivalent to EQF 1 and 2). This latter question is also linked to labour agreements, such as negotiations on minimum wages.

Table 33 Levels in the French national qualifications framework

Level	Level definition	Learning outcomes
V	Personnel holding jobs normally requiring a level of training equivalent to that of the vocational studies certificate (BEP) or the certificate of vocational ability (CAP), and by assimilation, the level 1 certificate of vocational training for adults (CFPA).	This level corresponds to full qualification for carrying out a specific activity with the ability to use the corresponding instruments and techniques. This activity mainly concerns execution work, which can be autonomous within the limits of the techniques involved.
IV	Personnel holding jobs at a supervisory highly skilled worker level and able to provide proof of a level of training equivalent to that of the vocational certificate (BP), technical certificate (BT), vocational baccalaureate or technological baccalaureate.	A level 4 qualification involves a higher level of theoretical knowledge than the previous level. This activity concerns mainly technical work that can be executed autonomously and/or involve supervisory and coordination responsibilities.
III	Personnel holding jobs normally requiring a level of training equivalent to that of a diploma from a university institute of technology (DUT) or a technology certificate (BTS) or a certificate corresponding to the end of the first higher education cycle.	A level 3 qualification corresponds to higher levels of knowledge and abilities, but without involving mastery of the fundamental scientific principles for the fields concerned. The knowledge and abilities required enable the person concerned to assume, autonomously or independently, responsibilities in design and/or supervision and/or management.
II	Personnel holding jobs normally requiring a level of training comparable to that of a bachelor or master degree.	At this level, exercise of a salaried or independent vocational activity involves mastery of the fundamental scientific principles for the profession, generally leading to autonomy in exercising that activity.
I	Personnel holding jobs normally requiring a level of training above that of a master degree.	As well as confirmed knowledge of the fundamental scientific principles for a vocational activity, a level 1 qualification requires mastery of design or research processes.

Source: French National Statistics Commission (1969). *Nomenclature des niveaux de formation: approuvée par décision du groupe permanent de la formation professionnelle et de la promotion sociale, le 21 mars 1969*. http://www.rncp.cncp.gouv.fr/grand-public/explorerBaseDocumentaire?dossier=64

Although it is likely that a seven or eight-level structure can be introduced at some stage (based on technical work carried out so far), it is not clear when this could happen. A particular issue is how the new structure will link to occupational standards, particularly the national register of occupations in the labour market (*Répertoire opérationnel des métiers et des emplois* (ROME)) and the international standard classification of occupations (ISCO).

While the level structure and its descriptors can be considered as dated, the definition, writing and assessment of qualifications follows clearly defined national requirements. The approach was strengthened by the 2002 law on validation of non-formal and informal learning (*validation des acquis de l'expérience* (VAE)) and its emphasis on learning outcomes as the basis for awarding any kind of certified qualification.

Emphasis has recently been given to implementing the learning outcomes approach in higher education. The law of August 2009 (*Loi sur les responsabilités et libertés des universités*) creates the obligation for universities to set new services dedicated to employability. This law requires universities to improve their learning outcomes descriptions, both for employers and students. The learning outcomes descriptions form the basis on which all qualifications are approved by the CNCP. This is illustrated by the criteria ([154]) for writing learning outcomes for bachelor level (licences) which are divided into the following main areas:

(a) common generic competence;
(b) pre-professional competences;
(c) transferable competences;
(d) specific competences related to broad, disciplinary subject areas.

Revision of the learning outcomes of bachelor and master degrees is being carried out in 2016. The aim is to reduce the number of national qualifications (to approximately 1000 and 300 respectively for bachelor and master) and to ensure stronger national consistency between the different titles.

Initial vocational qualifications are defined according to the same logic as for higher education qualifications, in terms of skills, knowledge and competences. There are different forms of VET provision though, influencing the way learning outcomes are assessed, following four main approaches:

(a) qualifications based on training modules, each module assessed or validated separately ([155]);
(b) qualifications based on a two-block approach, theory and practical experience, the learning outcomes of the two blocks being assessed separately;
(c) qualifications linked to a single, coherent block of learning outcomes/competences requiring a holistic approach to assessment of learning outcomes;
(d) qualifications based on units of learning outcomes, which can be assessed separately, and capitalised independent of any kind of learning process.

Stakeholder involvement and institutional arrangements

Belonging to the first generation of European frameworks, the French NQF is fully implemented and operational. It is a regulatory framework playing a key role in the overall governance of education and training systems, particularly for vocationally or professionally oriented qualifications. While emphasising the importance of transparency (for example by integrating the Europass tools), the framework directly influences access and progression in the system as well as funding and quality assurance issues. The number of qualifications covered by the CNCP has been steadily increasing in recent years. A significant part of this growth was caused by vocationally and professionally oriented higher education qualifications, mainly at EQF levels 5 and 6.

The CNCP is a platform for cooperation between all ministries involved in design and award of qualifications (ministries of education, higher education, labour, social affairs, agriculture, culture, youth and sports, defence, finance) and for the social partners and other stakeholders (such as chambers) involved in coordinating the qualifications system and framework. This broad involvement is seen as necessary (both for technical and administrative reasons) to capture the diversity of qualifications in France and also for reasons of credibility and ownership. CNCP is entitled to be informed about vocational qualifications created by social partners, even in cases where there is no intention to enter them in the national register.

([154]) Ministère de l'enseignement supérieur et de la recherche, 16 July 2012.

([155]) A French qualification can be divided into modules, or 'blocs de competences', if deemed relevant by the awarding body.

Recognising and validating non-formal and informal learning and learning pathways ([156])

The French VAE system allows the award of whole or parts of qualifications with a vocational and professional orientation and purpose (*finalité professionnelle*) at all levels, without the need to go through formal training. Qualifications obtained through VAE are the same as those awarded via initial or continuous formal training or apprenticeship. VAE includes, by definition, the stages of identification, documentation, assessment and certification. Development of VAE was simultaneous to restructuring the certification system in France; with the introduction of RNCP, any qualification to be obtained via VAE must be registered in the RNCP. VAE has developed from a national perspective, strongly articulated to lifelong learning, training and employment policies. It is now integrated in the Labour and education code. Since 2013, looking at qualifications awarded by ministries, more than 307 000 full qualifications have been awarded through VAE, and today, about 1 300 qualifications are accessible through VAE.

In comparison with systems for validation of non-formal and informal learning in other European countries, the French VAE system is very well developed. However, efforts to broaden access, diversify candidate profiles, shorten the length of the process and encourage its use across a wider range of qualifications are still required for further development of the system. VAE is demanding, especially for candidates with low skills and low levels of qualifications, although surveys show that these candidates recognise that a diploma cannot be awarded as a single certificate; it still poses important challenges to training providers responsible for its implementation. Barriers and difficulties are well identified by public authorities, as in reports published by the general inspectorates. Recent revisions of the legislative framework (Law of 5 March 2014) introduced important changes which are expected to have a positive impact on the take-up of VAE. It should provide better support to candidates, smooth procedures, improve coordination between stakeholders, and improve data monitoring.

NQF implementation

The role of the CNCP as the 'gatekeeper' of the French framework is important. No qualification can be included in the official register without the approval of the CNCP. For a qualification to be registered in the RNCP, several requirements have to be met; these aim for national coherence and strengthening the overall quality and transparency of qualifications. All qualifications registered in the RNCP must be possible to acquire through validation of non-formal and informal learning. Registration signals that all stakeholders, as represented in the CNCP, underwrite the validity of a particular qualification. Registration is necessary for:

(a) receiving funding;
(b) financing validation of non-formal and informal learning;
(c) exercising certain professions and occupations;
(d) entering apprenticeship schemes.

The strength of the CNCP lies in its openness to public and private providers and awarding institutions. The procedures and criteria developed and applied for this purpose may be of interest to countries currently implementing new (and open) NQFs. Any institution (public or private) wanting to register a qualification must respond to the following main issues:

(a) legal basis of the body (or network of bodies) awarding the qualification;
(b) indication of procedures if the awarding institution discontinues its activity;
(c) description of tasks addressed by the qualification;
(d) link to ROME (register of occupations in the French labour market);
(e) competences (learning outcomes) related to these tasks;
(f) competences (learning outcomes) to be assessed;
(g) mode of assessment;
(h) relationship to existing qualifications in France and abroad;
(i) composition of the assessment jury;
(j) link to validation.

([156]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

French experiences since 2002 illustrate the need for NQFs to evolve continuously to stay relevant. The lack of progress in introducing a new level structure is hindering framework development into a comprehensive NQF along the lines followed by other European countries. The CNCP has broadened coverage of its work by developing an inventory of certificates not having been attributed levels in the national framework ([157]). While there can be many reasons for a qualification not to be included in the RNCP, the inventory makes it possible to give an overview of all labour market relevant certificates, not only those with a RNCP level.

([157]) http://www.cncp.gouv.fr/actualites/inventaire-dernieres-certifications-recensees-et-prochaines-echeances-0

Referencing to regional frameworks

A referencing report (CNCP, 2010) was presented to the EQF advisory group in October 2010. From the start the process involved all ministries, social partners and other stakeholders (represented in the CNCP).

The lack of low level vocational/professional qualifications has posed a particular challenge. Members of the EQF advisory group argued that the

Table 34 French national qualifications framework (NQF/RNCP)

French nomenclature	Qualifications types	EQF levels
I-Doctorat	Doctoral programmes (*Doctorats*)	8
I-Master	Master degrees (*Masters*) Degrees in engineering (*titre d'ingénieur)* (titles at level I)	7
II-Grade de Licence	Bachelor programmes (*Licences*) Vocational bachelors *(Licence professionnelle*) (titles at level II)	6
III	Undergraduate technician certificates (*Brevet de technicien supérieur)* (BTS) Undergraduate technician certificates in agriculture (*Brevet de technicien supérieur agricole*) (BTSA) Undergraduate certificates in technology (*Diplôme universitaire de technologie*) (DUT) Master qualifications (*Brevets de maîtrise*) issued by the Chambers of Trade *(Chambre des métiers)*	5
IV	Vocational baccalaureates (*Baccalauréat professionnel)* Technological baccalaureates (*Baccalauréat technologique*) Professional certificates *(Brevet professionnel*) Applied arts certificates (*Brevet des métiers d'art*) Technician certificates (*Brevet de technicie*n)	4
V	Secondary vocational certificates (*Certificat d'aptitude professionnelle*) (CAP), *Brevet d'études professionnelles* (BEP)) Secondary vocational certificates in agriculture (*Certificat d'aptitude professionnelle agricole*) (CAPA) *Brevet d'études professionnelles agricoles* (BEPA))	3
	No French qualifications and certificates at these levels	1 and 2

Source: EQF, French national contact point.

absence of lower level qualifications in the French framework (in a worst case scenario) could prevent migrants holding qualifications at EQF level 1 or 2 from entering the French labour market, given lack of equivalents in the French system. There is now national debate on this issue.

The timing for the presentation of an updated referencing report to the EQF advisory group is uncertain and will depend on the revision of the level-structure and possibly on clarification of how to deal with the lower levels of vocational/ professional qualifications.

Further source of information

EQF national coordination point for France: the National committee on vocational qualifications (CNCP): http://www.cncp.gouv.fr

Abbreviations

CNCP	*Commission nationale de la certification professionnelle* [National committee on vocational qualifications]
CNIS	*Conseil national de l'information statistique* [National council of statistics]
CPC	*Commission professionnelle consultative* [Consultative vocational committee]
EQF	European qualifications framework
NQF	national qualifications framework
QF-EHEA	qualifications frameworks in the European higher education area
RNCP	*registre national de la certification professionnelle* [national register of vocational qualifications]
ROME	*répertoire opérationnel des métiers et des emplois* [register of occupations in the French labour market]
VAE	*validation des acquis de l'expérience* [validation of non-formal and informal learning]

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Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

GAMBIA

Introduction and context

Gambia is in the process of developing a unified national qualifications framework for all education sectors in the country. In doing so, it will build on the Gambian skills qualifications framework (GSQF), established in 2006 and designed to extend into a full qualifications framework (Gambia National Training Authority, 2006, p. 4).

Although the Gambian skills qualifications framework (GSQF) of 2006 made significant contributions to the regulation of technical and vocational education and training (TVET) institutions, the absence of a national regulatory body to control, monitor and evaluate the progress and performance of tertiary and higher education institutions has limited their progression. In recent years, there has been a proliferation of international and private universities in Gambia, complicating the management and governance of tertiary and higher education further. To address this issue and improve TVET standards, the Ministry of Higher Education, Research, Science and Technology (MoHERST) established the National Accreditation and Quality Assurance Authority (NAQAA). NAQAA oversees all qualifications offered by TVET, tertiary and higher education institutions, and the accreditation and awarding of all qualifications delivered in the institutions, with the exception of degree qualifications.

In addition to the establishment of NAQAA, a number of national priorities were identified. In the short term, basic and secondary education sectors should be linked with other sectors to provide a continuum of high-quality lifelong learning opportunities. Relevant structures and systems to instigate essential legislative and regulatory frameworks should be established to help with this.

In the medium term, efforts should be made to increase the number of graduates in science and to provide students with the relevant knowledge, skills and understanding for full participation in socioeconomic development.

In the long-term, the government intends to extend the GSQF into a comprehensive qualifications framework covering all education and training sectors.

Challenges faced by Gambia's education sector that are relevant to the development of a unified national qualifications framework (NQF) were listed in the Draft Tertiary and Higher Education Policy 2013-22 (MoHERST, 2013).

There is an increasing demographic trend in the post-secondary population and the country has seen an increase in the educational aspirations of young Gambians. This has resulted in significant growth in the tertiary and higher education sector. While some young people have been afforded a relatively straightforward pathway into and through tertiary and higher education, many have not. It is important that students can pursue not only their careers, but also advanced education goals.

There are several challenges. Access to, and equity in, education between TVET institutions and higher education institutions is insufficient.

Training at most TVET institutions does not adequately respond to labour market needs for the socioeconomic development of the country in terms of relevance and quality, vocational education is not considered a viable option by many students. The low number of TVET graduates does not meet the demand for skilled manpower, and the absence of a standardised quality assurance framework has led to institutions self-regulating by means of internal quality assurance mechanisms. Lack of coordination among training programmes makes it difficult to transfer relevant academic or professional credits.

There is minimal coordination among educational institutions in harmonising courses and programmes and introducing administrative arrangements that would optimise resources and credit transfers.

Policy objectives

Taking these challenges and government priorities into account, the aims of the unified NQF for tertiary and higher education in Gambia will be to:

(a) provide a framework for improved communication between education, training and employment stakeholders by enabling schools, parents, prospective students, employers and others to understand the achievements and attributes represented by the main qualification titles, and how qualifications relate to one another;
(b) create a nationally relevant, coherent and responsive qualification system, and assist higher education institutions, learners and others in doing so;
(c) clarify potential routes for progression and credit transfer, particularly in the context of wider participation in lifelong learning;
(d) support the alignment of qualifications in Gambia with international standards, ensuring international competitiveness and aiding student and graduate mobility;
(e) provide a point of reference for setting and assessing standards, assisting higher education institutions and their external examiners;
(f) support smooth transition into employment by aligning education with current and future labour market needs through the use of an 'outcomes-based' metric for knowledge, skills and competences.

The NQF also comprises the following GSQF objectives:

(a) support human resource development across all economic sectors by defining skills standards clearly to support vocational training;
(b) support learners whose literacy levels are functional but low.

Table 35 Proposed NQF for tertiary and higher education in Gambia

Main stages of education (employment status)	Level	Tertiary and higher education
Professional or postgraduate education or research (Senior manager)	9	Doctoral degree
Higher education advanced skills training (Senior manager/middle manager or professional worker)	8	Master degree, specialist professional qualification (postgraduate diploma and postgraduate certificate)
Entry to professional graduate employment (Middle manager/professional worker/supervisor or team leader)	7	Bachelor degree
Specialised education and training (Management training/advanced skilled worker)	6	Advanced diploma (equivalent to higher national diploma)
Specialised education and training (Management training/skilled worker)	5	Advanced certificate (equivalent to higher national certificate)
Entry to higher or tertiary education/completion of secondary education (Skilled worker; WASSCE)	4	WASSCE (grade 12)
Continuation of secondary education (Progression to skilled employment, semi-skilled worker, trainee/apprentice; GABECE equivalent level)	3	GABECE (grade 9)
Basic skills required to function in the workplace	2	Pre-grade 9; can be achieved at any age to return/ enter the workplace or secondary education
Advanced literacy and numeracy skills required to enter the workplace and undertake vocational training	1	
Basic literacy and numeracy skills required to enter the workplace and undertake vocational training	Access level	

Source: MoHERST, 2015.

Levels and use of learning outcomes

The proposed NQF for tertiary and higher education in Gambia, as shown in Table 35, has nine levels. The learning outcome domains include:

(a) knowledge and understanding;
(b) applied knowledge and understanding;
(c) generic cognitive skills;
(d) communication, ICT and use of data.

In the new NQF, qualifications will consist of stand-alone units of work, with each unit and qualification being assigned a credit value; each credit point awarded to a unit or qualification will represent approximately 10 hours of learning. A credit point does not indicate the level of difficulty of a unit or qualification: this is determined by the assigned 'level' of the qualification, as detailed in the generic level descriptor. A credit point is determined by the size or amount of time or amount of learning that has to take place to complete the unit and/or qualification. The size, amount of time or amount of learning will be defined as any formal or non-formal learning along with the amount of time spent completing practical work and any form of assessment.

Stakeholder involvement and institutional arrangements

MoHERST has overall responsibility for TVET, tertiary and higher education institutions in Gambia. Prior to the establishment of NAQAA, the National Training Authority within MoHERST was responsible for overseeing the TVET institutions; however, this did not include quality assurance, delivery, accreditation or awarding of any of the qualifications that these institutions offer.

Recognising and validating non-formal and informal learning and learning pathways

Gambia has made efforts to identify learning pathways at different levels of the NQF; these are indicated in the entry requirements for each level of tertiary and higher education. The entry level could be defined as duration of study and its associated credits, but it could also be credits obtained through the recognition of non-formal and informal learning outcomes.

Table 34 indicates the duration of study, the required entry level and the associated credits for each level of tertiary and higher education.

Having standards and quality assurance processes in place will make it easier for a credit transfer system to be implemented successfully across TVET, tertiary and higher education institutions in Gambia. The 'hours of learning' include formal and non-formal learning, all forms of assessment and practical work.

When applying to transfer credits from one course to another, whether in the same institution or from one institution to another, the number of transfer credits awarded will be determined by the relevant individual institution and not by the new regulatory body. Agreement between different education providers helps successful credit transfer across education systems. Credit accumulation and transfer systems not only allow for recognition of a student's prior learning but also encourage lifelong learning and student mobility within and between institutions without interruption of their studies or the need to repeat examinations.

In addition to transfer of credits, accreditation of prior experiential learning (APEL) also opens up access to tertiary and higher education to those who would not otherwise be able access these levels through normal institution admissions procedures. APEL is a procedure whereby previous relevant high-quality professional or non-standardised learning qualifications that do not meet normal admission requirements may be taken into account for admission to some courses of study in some education institutions. In some international education institutions, candidates wishing to take advantage of APEL must sit an examination at the relevant institution prior to being considered for admission.

Having the opportunity to make use of both credit transfers and APEL helps to promote lifelong learning for Gambians wishing to progress their careers and/or expand their knowledge of a particular specialist area.

NQF implementation

There are three phases of implementation of the NQF for tertiary and higher education.

Phase one involves consultation with the key stakeholders from tertiary and higher education institutions and employer representatives. It is crucial for stakeholders to 'buy in'. They will be asked to review the level descriptors and to discuss whether these are an accurate indication of the knowledge, skills and competences that employers are seeking from employees holding related qualifications.

Table 36 Duration of study and required entry level for tertiary and higher education in Gambia

Duration of course of study Entry level (credits awarded)	Level	Tertiary and higher education
Four-year course of full-time study Entry level 7 qualification or Three-year course of full-time study Entry level 8 qualification (maximum allowance of 60 credits carried forward)	9	Doctoral degree
One or two-year course of full-time study Entry level 7 qualification	8	Master degree, specialist professional qualification (Postgraduate diploma and Postgraduate certificate) (60-120 credits)
Four-year course of full-time study Entry level 4 qualification (equivalent to five academic credits at WASSCE or equivalent or two-year course of full-time study) Entry level 6 qualification (maximum allowance of 120 credits carried forward)	7	Bachelor degree (240-420 credits)
Three-year course of full-time study Entry level 4 qualification (WASSCE or equivalent) or two-year course of full-time study Entry level 5 qualification (maximum allowance of 60 credits carried forward)	6	Advanced diploma (180 credits)
One-year course of full-time study Entry level WASSCE or equivalent	5	Advanced certificate (60 credits)
Entry to tertiary or higher education/ completion of secondary education	4	WASSCE (grade 12)

Source: MoHERST, 2015.

Phase two will consist of standardising qualification levels and finalising credit values. In collaboration with MoHERST, tertiary and higher education institutions will be required to:

(a) identify and map the level of difficulty for each qualification currently on offer at each of the tertiary and higher education institutions using NQF level descriptors;
(b) standardise the type and title of each qualification:
    (i) certificate (for WASSCE or GABECE);
    (ii) advanced certificate;
    (iii) advanced diploma;
    (iv) degree;
(c) determine the duration of the course of study necessary to achieve each of the qualifications;
(d) determine the stand-alone 'units of learning' (learning outcomes) that make up each qualification:
    (i) allocate credit points to the 'units of learning' (based on duration, i.e., one credit point equivalent to approximately 10 hours of learning)
    (ii) allocate a credit value to each qualification.

The quality of the qualification content and its subsequent delivery in institutions is crucial to the successful implementation of NQF. This will be a key focus at NAQAA.

Phase three will consist of capacity-building and awareness sessions. MoHERST (NAQAA) will conduct a series of awareness sessions prior to implementation of the NQF. Attendees at the sessions will include, among others:

(a) staff from TVET, tertiary and higher education institutions;
(b) school representatives;
(c) employers;
(d) students and parents;
(e) relevant government agencies, including those responsible for employment and economic development;
(f) employee representative bodies;
(g) professional bodies;
(h) career guidance professionals.

Referencing to regional frameworks

Gambia is one of the member states in the Economic Community of West African States (ECOWAS). For qualifications listed in the GSQF, the descriptions provided and the quality assurance process during assessment allow for acknowledgement by another country in the ECOWAS subregion. The Gambian approach permits the recognition of learning outcomes, which will aid individual mobility.

Important lessons and future plans

The Gambian Government has risen to the challenge and acknowledged the importance of taking a unified approach to the development of an NQF encompassing TVET, tertiary and higher education institutions, and schools.

The process of developing the NQF has demonstrated the importance of tailoring a qualifications framework to realities in the country. The NQF will be designed with a view to ensuring that the fourth level of the existing GSQF represents entry level to tertiary and higher education, particularly for entry into an advanced diploma/higher national diploma. The design will ensure that there are sufficient levels in the GSQF to cater for all possible education levels of students/adults returning to or entering into vocational education. If necessary, an additional level will be added, between levels three and four of the current GSQF. If the entry requirements into vocational education in the GSQF are too demanding to be accessible by school-age students and/or adults returning to or entering into vocational education, the existing foundation (basic skills) level could be split into two or three levels, making the requirements easier to fulfil and giving students a sense of achievement.

Completing the GSQF review will support alignment of the new national qualifications framework for tertiary and higher education with the GSQF in a unified, coherent manner, allowing the development of a complete NQF for Gambia. The framework will promote lifelong learning access, mobility and progression into and between education and training sectors. This will be achieved by integrating existing vocational education and training, general education, and tertiary and higher education into a national framework with levels accommodating all learners from various educational backgrounds.

Abbreviations

APEL	accreditation of prior experiential learning
ECOWAS	Economic Community of West African States
GABECE	Gambia basic education certificate examinations
GSQF	Gambian skills qualifications framework
MoHERST	Ministry of Higher Education, Research, Science and Technology
NAQAA	National Accreditation and Quality Assurance Authority
NQF	national qualifications framework
TVET	technical and vocational education and training
WASSCE	West African Senior School Certificate Examination

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GEORGIA

Introduction and context

NQF snapshot

The Georgian national qualifications framework (NQF) was adopted by ministerial decree in 2010 and is currently under reform, aiming to improve coherence between its three sectors, engagement of socioeconomic partners and compatibility with the European qualifications framework (EQF).

The National Centre for Education Quality Enhancement (NCEQE) is in charge of managing NQF implementation, reviewing and updating the legal basis and monitoring its impact. The NQF and the education and training quality assurance framework are closely linked.

Georgia has participated since 2005 in the Bologna process, but has not yet presented a self-certification report. It is at the structured stage of NQF development.

Educational, social, economic and political context

According to the 2014 census, the population was 3 729 635 in January 2015 ([158]), which is a striking reduction of 14.7% compared with 2002. Partly this is due to high emigration and to the consequences of the tensions with Russia over territory. Over 57% of the population is urban, with Tbilisi alone accommodating 30% of the whole. The share of the age group 15 to 24 slightly declined to 20.2% in 2015.

The population has relatively high educational attainment: 62.1% have ISCED 97 level 3 to 4 and 33.5% have level 5 to 6. Younger age group participation in higher education has expanded but along unequal lines (based on factors such as income and urban-rural residence).

([158]) Data from the ETF Torino process report 2016-17, Georgia.

Since 2014, there has been a clear reorientation to promote and reinforce vocational education and training (VET): increased public expenditure and extensive reform to modernise curriculum and teaching and to widen access. The share of upper secondary students in VET has increased, but remains low when compared with the other Eastern Partnership (EP) countries.

Economic context

Georgia is a lower-income country with a growing GDP per capita reaching USD 9 379 in 2015 (purchasing power parity, current international dollars).

While the geopolitical context affects growth across the Eastern Partnership, Georgia is among the region's best performers in GDP growth terms (4.6% in 2014 and 2.7% in 2015). Small and medium-sized enterprises account for 96% of all businesses but their contribution to GDP is relatively modest (21.1% in 2014). Over two fifths of the employed are in SMEs (2014). Tourism is a dynamic sector of the economy and continues to grow, contributing 23.5% to GDP and 20.1% employment (direct and indirect) in the sector. The share of agriculture in GDP slightly decreased to 9.2% in 2015, while the contribution of industry increased to 24.5%. The services sector contributes 66.3% to GDP and maintains its predominance.

Labour market indicators

Georgia's labour market indicators show continuous improvement in the past years, but challenges persist that will require the continuation of coherent policies to promote job creation, to minimise qualifications mismatch and support access to labour market information for all job seekers, employers and learners.

The employment rate increased by 5.6 percentage points between 2010 and 2015 (68.8%), but youth employment (age group 15 to 24) remains modest (27.3%). The unemployment rate declined by 4.3 percentage points (12% in 2015) in the same period, but youth unemployment (15 to 24) remains a challenge (30.8%). The proportion of

long-term unemployment is not the highest among the Eastern Partnership countries, but deserves continuous attention (42.7% in 2015), given the known adverse impact on people's skills and motivation to stay in the labour market.

The rate of those not in employment, education or training (NEET) aged 15 to 29 is a concern, but in 2013-15 this improved, with a reduction of over nine percentage points. However, unlike other countries in the Eastern Partnership, the NEET rate of Georgian young women significantly exceeds – by 14 percentage points – that for young men.

Policy objectives

Education and training reforms

As a country which is undergoing a transition from the former Soviet system to a market economy, Georgia is implementing reforms in education and training, qualifications and employment policies aimed at simultaneously addressing growth and competitiveness, employment and social inclusion. Social policy objectives and renewed attention to employment have been reinforced since the 2013 elections. Unemployment has been a high priority for the new government, as the steady economic growth in the past decade has not been accompanied by commensurate job creation.

Stakeholders have high expectations of the NQF as a catalyst for implementation of essential reforms in education and training. The socioeconomic context justifies the emphasis placed on employability, and continuing reform of education and training contribute to this. The NQF in action is expected to contribute to improving permeability between subsectors, to helping match qualifications and labour market needs, to supporting quality assurance of education and training, and increasing the transparency of learning outcomes.

The NQF, adopted by a decree of Ministry of Education and Science in December 2010, is intended to act as a driver of system change, and is a key tool in VET system reform.

The NQF adopted in 2010 ([159]) has multiple aims ([160]): to establish a learner-oriented qualification system; promote linking to international standards; aid learner mobility; support lifelong learning; and boost quality of qualifications.

The NQF structure is influenced by the European qualifications framework (EQF) but the separation of the three sub-frameworks for general education, VET and higher education, and associated progression difficulties in practice, mark a fundamental difference.

The NQF has been in implementation since 2010; lessons from this experience prompted the decision to reform it. The NQCE, stakeholders and experts have studied other national frameworks, and analysed the important issues in the NQF that hamper its effectiveness. Major challenges are being addressed by this review: separation of the three sub-frameworks, which lack clear links to each other; consequent permeability barriers, particularly between VET and higher education; and the compatibility and coherence of the level descriptors.

The NQF-review group elaborated a new draft of an eight-level NQF, plus proposed amendments to respective laws and an action plan for implementation. The adoption of the new VET Law conditions the entry into force of the revised framework.

A number of critical issues persist in the qualifications system. Some of these are specific to Georgia, others are found in many other countries: permeability between general, vocational and higher education; getting the right mix of technical and transversal knowledge-skills-competences; matching of qualifications to demand; and place of qualifications acquired outside of formal education and training, as with lifelong learning.

International cooperation

Georgia has been a full member of the Bologna process since 2005 and participates in the ministerial meetings and regular reporting.

The EU-Georgia Association Agreement was signed on 26 September 2014 and entered into provisional application from September 2014. Its Chapter 16 refers to cooperation towards recognition of qualifications. Annex XXXII lists the *acquis* to be adopted by the country, including the EQF. Article 96 refers to mutual recognition (negotiation of mutual recognition agreements) ([161]).

([159]) Order No 120/N of the Minister for Education and Science of Georgia, on the approval of the national qualifications framework, 10 December 2010, Tbilisi.

([160]) Source: National centre for educational quality enhancement: http://eqe.ge/eng/static/125/system/national-qualifications-framework

([161]) https://eeas.europa.eu/sites/eeas/files/association_agreement.pdf

Levels and use of learning outcomes

The Georgian NQF is formed by three sub-frameworks. It is a compromise between existing education structures and the continuing shift to outcomes-based approaches in development of curricula, standards and qualifications. In line with the respective legal acts and principles of the education quality assurance legislation, standards and curricula in general, vocational and higher education are based on learning outcomes.

Annexes 1 to 3 of the NQF Law define the types of institutions that can award the respective qualifications:

(a) vocational qualifications awards: vocational colleges (levels 1 to 3); community colleges (all levels); general education institutions (levels 1 to 3 only); higher education institution (all levels).
(b) higher education qualifications awards: colleges (only cycle 1); teaching university (cycles 1 and 2); university (all cycles).

NQF structure and level descriptors

All three sub-frameworks use similar categories of level descriptors, reflecting influence from the Dublin level descriptors and contextualised to country specificities. The six categories used in the three sub-frameworks in Georgia are:
(a) knowledge and understanding;
(b) applying knowledge;
(c) making judgements;
(d) communication skills;
(e) learning skills;
(f) values.

Level descriptors

Sub-framework 'general education'

The text defines three cycles (primary, six years of schooling; basic, three years, compulsory; and secondary education, three years), though it defines level descriptors only for basic and secondary cycles.

The definition of the final cycle is: 'The qualification of general secondary education is the learning outcome, attained through successful accomplishment of the programmes of all three cycles of general education, what is certified by a document, recognised by the State'.

Basic cycle

(a) Knowledge and understanding: basic knowledge of key disciplines, understanding of the steps necessary for carrying out routine simple tasks.
(b) Applying knowledge practice: ability to apply cognitive and practical skills for carrying out routine simple tasks.
(c) Making judgements: ability to understand routine simple problems with the help of practical and cognitive skills and establish links between them.
(d) Communication skills: ability to communicate both orally and in writing on routine simple matters, search for necessary information using information technologies, also the ability to understand and communicate some ideas in a foreign language.
(e) Learning skills: ability to understand the importance of lifelong learning and make choice on further studies.
(f) Values: ability to respect national and common values; ability to understand personal rights and obligations to family and society.

Secondary education cycle

A holder of a general education qualification should meet the following criteria:

(a) knowledge and understanding: knowledge of general facts, principles, processes and concepts, characteristic for key disciplines; understanding steps necessary for carrying out complicated tasks;
(b) applying knowledge: ability to apply a wide range of cognitive and practical skills, evaluate different approaches for carrying out tasks, select adequate methods, tools and materials;
(c) making judgements: ability to use, evaluate and analyse known sources of information for the solution of problems, arising in different environments;
(d) communication skills: ability to communicate both orally and in writing in different environments on general matters, to use efficiently information and communication technologies, use a foreign language in practice;
(e) learning skills: ability to assume responsibility over own learning within the context of predetermined tasks;
(f) values: ability to act in accordance with common values in different environments.

Vocational qualifications framework: five levels

First level: admission with successful basic education

(a) Knowledge and understanding: general knowledge of the principles of the field of study and understanding of the steps necessary for carrying out simple tasks.
(b) Applying knowledge: ability to perform simple and homogeneous tasks in a structured environment under direct supervision using basic materials and tools.
(c) Making judgments: ability to identify simple tasks revealed during the working process with due consideration of superior's directions.
(d) Communication skills: ability to communicate both orally and in writing about profession-related simple matters, basic knowledge of information and communications technologies, and also of a foreign language.
(e) Learning skills: ability to learn under supervision.
(f) Values: knowledge of values, characteristic of professional activity.

Second level

(a) Knowledge and understanding: general knowledge of the field of study based on factual circumstances and understanding steps necessary for carrying out basic tasks.
(b) Applying knowledge: ability to perform predetermined tasks in a stable/structured environment with certain level of independence using basic methods, materials and tools.
(c) Making judgments: ability to use information provided for solving a problem and making conclusions about performance of relevant work with a certain level of independence.
(d) Communication skills: ability to communicate in detail both orally and in writing on profession-related simple matters, use information and communications technologies in a professional context; ability to communicate in a foreign language on profession-related matters at an elementary level.
(e) Learning skills: ability to learn under supervision with a certain level of independence.
(f) Values: ability to understand values, characteristic of professional activity and act in compliance with them.

Third level

(a) Knowledge and understanding: knowledge of the basic facts, principles, processes and general concepts of the field of study; understanding of steps necessary for the accomplishment of complicated tasks.
(b) Applying knowledge: ability to apply a wide range of field specific skills; ability to evaluate various approaches for the performance of tasks; ability to select and adapt adequate methods, tools and materials.
(c) Making judgments: ability to use, evaluate and analyse known sources of information for solving problems arising in different situations.
(d) Communication skills: ability to communicate both orally and in writing on profession-related matters in different situations; ability to efficiently use information and communications technologies; ability to use a foreign language in practice.
(e) Learning skills: ability to take responsibility over own learning within the context of predetermined tasks.
(f) Values: ability to act in line with values, characteristic of professional activity in different situations.

Fourth level

(a) Knowledge and understanding: knowledge based on factual circumstances and theoretical principles of the field of study, understanding of general options for solving tasks.
(b) Applying knowledge: ability to apply reliable sources of information in the course of planning and performance of work, ability to develop strategy for solving a specific problem and evaluation of results for further perfection of work done.
(c) Making judgments: ability to develop relevant approaches for solving specific problems to discuss alternative solutions and analyse the results.
(d) Communication skills: ability to communicate both orally and in writing on profession-related matters in different situations; ability to master new information and communication technologies independently; ability to process profession-related information acquired in a foreign language.
(e) Learning skills: ability to identify independently learning needs in predictable, but partially different environments.
(f) Values: ability to respect values, characteristic of professional activity and act in accordance with them in different situations.

Fifth level

(a) Knowledge and understanding: comprehensive and/or specialised theoretical and practical knowledge related to a professional activity; understanding of the potential (scope) of professional activity.

Table 37	Summary representation of the Georgian NQF: three sub-frameworks		
	General education	**Vocational qualifications**	**Higher education qualifications**
Levels ('cycles')	Primary (six years) Basic (three years) - compulsory Secondary (three years)	five levels	three levels: first cycle (with short-cycle); second cycle; third cycle
Objectives defined in the respective legal acts (annexes of the NQF decree of 2010)	(a) Describing the interrelation between the competences of general education and competences of various cycles of the education system	(a) Ensuring transparency of the vocational education system and clarity of vocational qualifications	(a) Description of the interrelation between qualifications existing in the country
	(b) Supporting general education quality assurance internal and external systems and enhancement of the quality of general education	(b) Promoting interrelation between demands of the country's economy, labour market and the education system	(b) Making the existing qualifications easily understandable for students, employers, and academic staff
	(c) Ensuring the compatibility and comparability at international level for the purpose of simplifying the process of acquiring education and recognising qualifications	(c) Focusing on education quality	(c) Assisting higher education institutions in improving existing educational programmes and planning new ones
	(d) Promoting lifelong learning	(d) Promoting lifelong learning	(d) Supporting quality assurance internal and external systems and enhancement of higher education quality
		(e) Ensuring system flexibility the, promoting recognition of qualifications and mobility	(e) Creating the basis for a student-oriented education system
		(f) Assisting education institutions in improving current educational programmes and planning new ones.	(f) Ensuring compatibility and comparability at the international level and promoting recognition of qualifications
			(g) Promoting and supporting student mobility
			(h) Promoting lifelong learning

Source: ETF.

(b) Applying knowledge: ability to use a wide range of cognitive and practical skills for creative solution of abstract problems.
(c) Making judgments: ability to isolate clearly defined problems, to identify relevant data for their solution and analyse them by standard methods; ability to make sound judgements.
(d) Communication skills: structured and coherent communication of ideas and information to specialists and non-specialists using quantitative and qualitative data; ability to use modern information and communication technologies; ability to communicate profession-related information and make presentations in a foreign language.
(e) Learning skills: ability to identify independently own learning needs in different and unpredicted environments.
(f) Values: ability to evaluate and share with others own and others' attitude towards values, characteristic of professional activity.

The VET law defines the levels of vocational qualifications as follows:

Higher education framework: four cycles

Short cycle: level descriptors are fully identical with those of fifth level of the vocational sub-framework

(a) Knowledge and understanding: comprehensive and/or specialised theoretical and practical knowledge of the field of study; understanding of the possibilities (scope) of professional activities.
(b) Applying knowledge: ability to use a wide range of cognitive and practical skills for creative solution of abstract problems.
(c) Making judgments: ability to identify clearly defined problems; ability to identify and analyse relevant data for their solution using standard methods, also the ability to make sound judgements.
(d) Communication skills: ability to communicate ideas and information structurally and coherently to specialists and non-specialists using qualitative and quantitative data; ability comprehensively to use modern information and communication technologies; ability to communicate field related information and make presentations in a foreign language.
(e) Learning skills: ability to define own learning needs in different and unpredictable situations.
(f) Values: ability to evaluate and share own and others' attitude towards values, characteristic for professional activity.

First cycle

(a) Knowledge and understanding: advanced knowledge of the field of study, including critical analysis of theories and principles; understanding of complex matters of the field of study.
(b) Applying knowledge: ability to use field specific methods and also certain selected methods for solving problems; ability to carry out research and practical projects under predetermined directions.
(c) Making judgments: ability to select and interpret field-specific data, also to analyse abstract data and/or situations using standards and certain selected methods, ability to make sound judgement.
(d) Communication skills: ability to prepare a detailed written report on ideas, current problems and solutions to them and to communicate information orally to specialists and non- specialists in Georgian and foreign languages; ability to use modern information and communication technologies creatively.
(e) Learning skills: ability to evaluate own learning process in a coherent and comprehensive manner; ability to identify further learning needs.
(f) Values: ability to participate in the formation of values and strive for their establishment.

Second cycle

(a) Knowledge and understanding: advanced and systemic knowledge of the field of study, which allows for the generation of new, original ideas, understanding solutions to certain problems.
(b) Applying knowledge: ability to act in a new, unpredictable and multidisciplinary environment; ability to search for new, original methods of solution for complex problems, amongst them, using the most recent methods and approaches.
(c) Making judgments: ability to make judgements on the basis of critical analysis of complex and incomplete information (including recent research); ability to synthesise innovatively based on recent data.
(d) Communication skills: ability to communicate own judgments, arguments and research methods to academic and professional community in Georgian and foreign languages, with due consideration of the academic integrity standards and recent developments in the field of information and communication technologies.
(e) Learning skills: ability to manage the learning process independently, to understand the specificities of the learning process and make strategic plans at a high level.
(f) Values: ability to evaluate own and others' attitude towards values and contribute to the establishment of new ones.

Third cycle

(a) Knowledge and understanding: knowledge based on the most recent developments of a field/subfield of study or an interdisciplinary field, allowing for further expansion of existing knowledge and use of innovative methods (at the level of standards required for referable publications); understanding of the renewed scope of knowledge through re-analysis and partial re-evaluation of existing knowledge.
(b) Applying knowledge: ability to plan, carry out and supervise innovative research independently; ability to develop new research and analytical methods and approaches, which are oriented to the creation of new knowledge and reflected in international reference publications.
(c) Making judgments: ability to analyse critically new, complex and controversial ideas and approaches, promoting the development/enhancement of new methods; ability independently to make correct and efficient decisions for the solution of problems.
(d) Communication skills: ability clearly and soundly to demonstrate new knowledge; also the ability to engage in thematic debates with international scientific community in a foreign language.
(e) Learning skills: readiness to progress new ideas or processes stemming from knowledge based on recent developments in the course of learning and professional activity, amongst them, in the course of research.
(f) Values: ability to research the ways of establishing values and develop innovative methods for their establishment.

Use of learning outcomes

The NQF legal act mentions 'learning outcome' in several annexes:

(a) Annex 1: to define the qualifications of general secondary education, as the compounded outcome of learning of the three cycles of this sub-framework;
(b) Annex 3:
    (i) to define the higher education qualification, as result of learning and certified by a diploma issued by the higher education institution;
    (ii) as a tool to describe higher education qualifications

Annex 3 also indicates the role of learning outcomes in describing the qualifications:

(a) learning outcomes of a specific educational programme are defined on the basis of the NQF, relevant sectoral standards and the mission of the higher education institution;
(b) learning outcomes of an educational programme (or a module) are described through field-specific and generic competences.

Definition of qualification

Annexes 1 to 3 of the NQF Decree define qualifications in similar fashion but modified for each sub-framework (general, VET and higher). Each refers to learning outcomes and completion of programmes. Definition of a VET qualification is '... the level of vocational knowledge, skills and values, which is certified by a vocational diploma, issued by an institution carrying out the vocational educational programme.'

Access, progression and credit

Access to first cycle higher education is possible only through successful assessment in the unified national examinations. Holding VET qualifications from the upper levels of VET does not grant eligibility to access higher education.

Alignment to other classification systems

All occupational standards are linked with the national classification of occupations, based on ISCO-08. The approved template for occupational standards includes a field for the relevant code from ISCO-08.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The principal legal act defining the NQF is the Decree of Ministry of Education and Science of 20.12.2010, composed of five main annexes ([162]). Annex 4 was amended in 2014, to define submission frequency (once a year) for requests to add, change, and remove directions, field/specialities, subfields or professional specialisation in the NQF. Other important legal acts that have been harmonised with that decree are laws on education quality, higher education, and VET. Important bylaws and regulations that underpin implementation of the NQF include:

(a) Order No 8 of the Minister for Education and Science of Georgia (3.2.2011) on approving the conditions and procedures of recognition of informal professional education;

([162]) See the NQF web page of the National Centre for Educational Quality Enhancement: http://eqe.ge/eng/static/125/system/national-qualifications-framework

(b) Decree of Director of NCEQE, No 492 of 15.7.2015 on approving rules of development of occupational standards, VET framework document and modules;
(c) rule of development of vocational standards, education programme framework document and modules.

Governance and institutional arrangements for the NQF

The National Centre for Education Quality Enhancement (NCEQE) manages the NQF. Its functions include implementing quality assurance measures; maintaining the register of occupational standards and register of accredited programmes and facilitating social partner engagement, such as in development of occupational standards.

The Ministry of Education and Science defines policy, oversees validation arrangements, authorises establishment of VET providers, and oversees recognition of vocational education received in a foreign country.

Sector councils identify particular components of vocational qualifications, modules and need for development of frameworks/modules of vocational standards; they submit relevant proposals to NCEQE. To date, 11 sector councils have been established in fields including humanities; business, administration and law; engineering; industry, food processing; construction, engineering; information and communication technologies; agriculture, forestry, fishing, veterinary; and healthcare and social care. Each council is composed of seven to nine members. Social partners are represented.

Resources and funding

Financial resources for NQF functions and bodies are the State budget, as well as limited resources from stakeholders involved in qualifications design and approval. International partners contributing directly to developing the NQF and its instruments include the EU.

Quality assurance of qualifications

The Law on education quality enhancement defines the approach to quality assurance (external and internal). In 2013-16 stakeholders and key institutions worked to improve the quality assurance frameworks and procedures of higher education, general education and VET.

Assuring quality of qualifications takes a multidimensional approach, combining external authorisation/accreditation as well as innovation in organising curricula/learning outcomes (modular approach), teacher training, engaging employers in joint development of standards and curricula, and improving learner assessment. Work-based learning has gained support and employers are interested in contributing.

Recognising and validating non-formal and informal learning and learning pathways

The NQF decree is not explicit on qualifications acquired outside of formal education and training. Similarly, the relevant Decree of 3.2.2011 (see below) does not refer to the NQF.

A decree by the Minister for Education and Science of 3 February 2011 sets out framework regulations on VNFIL. The decree allows for recognition of vocational education at levels 1 to 3, defines the bodies responsible for recognising informal/non-formal education and describes the framework for recognition and formation of validation/examination committees. The decree delegates definition of exact procedures and rules for validation of evidence (work experience, prior non-formal qualification) and assessment of competences to bodies responsible for recognition (VET institutions that deliver respective formal education).

NQF implementation

Inclusion of qualifications in a register

Annexes 4 and 5 of the NQF Decree of 2010 define the classification of qualifications and the rules on including qualifications in the list of qualifications.

NCEQE manages the register of occupational standards for VET ([163]). In 2010-14, 54 academic and 32 vocational qualifications were added to the NQF.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of NQF implementation are stated in the National VET strategy and in the matrix of policy indicators agreed in the framework of the EU sector reform contract for VET and employment (continuing).

Impact for end-users

New VET qualifications have been introduced for learner use.

([163]) Occupational standards web page of the National Centre for Educational Quality Enhancement: http://eqe.ge/eng/static/83/vocational-education/occupational-standards

Referencing to regional frameworks

Georgia has participated in the Bologna process since 2005, but has not yet presented a self-certification report. The new EQF recommendation, adopted by the European Council in May 2017 provides for comparison of third country NQFs with the EQF. The EQF advisory group, which steers implementation of the recommendation, must agree criteria and procedures for this comparison. Georgia is more advanced than other European Neighbourhood countries in readiness to link or benchmark its NQF in this way.

Important lessons and future plans

The revised NQF aims to unite the three sub-frameworks, use descriptors more in line with EQF, set eight levels of qualifications and reference all qualifications to the new unified framework. It should also introduce terminology more compatible with the needs of validation of non-formal and informal learning; and contribute to improved progression pathways for VET qualifications.

Success factors to date have been:

(a) adoption of the 2010 NQF occurred as important reforms in VET and higher education were enacted and its implementation benefited from that momentum;
(b) NQF level descriptors guided the design of occupational (qualification) standards in VET, and these underpinned the development of programmes and curricula by the wide variety of VET providers;
(c) quality assurance principles of VET programmes included alignment with national occupational standards, based on the learning outcomes approach;
(d) the reinforced engagement of socioeconomic partners and employers through the sector (branch) councils;
(e) support of international partners (EU, US, UN) in designing and implementing reforms, notably actions impacting the quality and transparency of qualifications, in all sub-frameworks.

Abbreviations

EP	Eastern Partnership
ECVET	European credit system for vocational education and training
EQF	European qualifications framework
ISCED	international standard classification of education
NCEQE	National Centre for Education Quality Enhancement
NEETs	young people not in employment, education or training
NQF	national qualifications framework
SME	small and medium-sized enterprise
VNFIL	validation of non-formal and informal learning

Prepared by:
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GERMANY

Introduction and context

Germany has one of the highest employment rates for recent graduates in the EU. The employment of people with medium level qualifications (ISCED levels 3 and 4) in 2015 was 88.2% compared with an EU average of 70.8%. The employment of recent tertiary graduates is also high at 93.3%, far above the EU average of 81.9%. Participation in all forms of education and training has increased in recent years and outcomes have improved, including for disadvantaged groups. Early leaving from school was with 5.8% in 2014, below the EU average. Socioeconomic background has a strong impact on educational outcomes and integration of high number of recently arrived refugees – many being young and poorly qualified – is a major challenge (European Commission, 2016).

Germany has an eight-level national qualifications framework (NQF) for lifelong learning based on learning outcomes (German qualifications framework for lifelong learning (*Deutscher Qualifikationsrahmen für lebenslanges Lernen* (DQR)). The framework is fully operational. It was given official status in May 2013 by the joint resolution of the Standing Conference of the Ministers for Education and Cultural Affairs of the Länder, the Federal Ministry of Education and Research, the conference of Ministers for Economics of the Länder and the Federal Ministry of Economics and Energy ([164]). No other form of legal regulation is planned for the time being. A complete list of qualifications allocated to DQR levels and the DQR manual are included as annexes to the joint resolution ([165]). The DQR does not yet include all formal qualifications, though it includes most VET and higher education qualifications. Those from general education (including the general school leaving certificate *Allgemeine Hochschulreife*) are not yet part of the framework and, consequently, not linked to the EQF. A decision on which levels they will occupy has been postponed and is planned for 2017.

The DQR is the result of lengthy development work which started in 2006, when the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung (BMBF)) and the Standing Conference of the Ministers for Education and Cultural Affairs of the Länder (Kultursministerkonferenz (KMK)) agreed to work together on it in response to the emerging European qualifications framework. Following extensive preparatory work, a proposal for a German NQF was published in February 2009. The development and implementation of the DQR has been a widely supported initiative in which social partners and business organisations have played a fundamental role through the German qualifications framework working group (*Arbeitskreis* DQR).

The DQR was referenced to the EQF in 2012.

Policy objectives

Germany has actively supported the EQF initiative from the start and the extensive effort put into developing the DQR reflects this. The EQF, with its insistence on the learning outcomes perspective, is seen as an opportunity to classify German qualifications adequately and to use it as a tool to improve opportunities for German citizens in the European labour market (Hanf, 2011, p. 50) ([166]).

The learning outcomes approach is seen as a catalyst for strengthening the coherence and overall permeability (Durchlässigkeit) of German

([164]) Joint resolution on the German qualifications framework for lifelong learning: https://www.bmbf.de/files/Gemeinsamer_Beschluss_final_ohne_Unterschriften.pdf

([165]) *Handbuch zum Deutschen Qualifikationsrahmen* [Manual for the German qualifications framework]: http://www.kmk.org/fileadmin/Dateien/veroeffentlichungen_beschluesse/2013/130823_Handbuch_mit_nicht-barrierefreier_Anlage_MAM.pdf

([166]) '... the clear outcomes and competence orientation of the EQF is first and foremost seen as an opportunity to classify German qualifications more adequately than existing international classifications, such as ISCED-97 or the 2005 EU directive for recognition of qualifications based on types of certificates and time spent in education and training.' (Hanf, 2011).

education and training system, linking and integrating various subsystems and improving progression possibilities ([167]). Learners should be allowed to move between levels and institutions according to their knowledge, skills and competences, and be less restrained by formal, institutional barriers.

Providers of continuous training and those who provide training for groups at risk see opportunities to become part of the integrated system and offer better progression possibilities (Hanf, 2011, p 52) ([168]). The number of learners in the 'transitional sector' increased in 2015 by 7.2% compared to the previous year (BMBF, 2016a: pp 56-57).

The objectives of the DQR are:

(a) increase transparency in German qualifications and aid their recognition elsewhere in Europe;
(b) support mobility of learners and employees between Germany and other European countries and within Germany;
(c) improve visibility of equivalence and differences between qualifications and promote permeability;
(d) promote reliability, transfer opportunities and quality assurance;
(e) increase skills orientation of qualifications;
(f) reinforce learning outcomes orientation of qualification processes;
(g) improve opportunities for validation and recognition of non-formal and informal learning;
(h) encourage and improve access to, and participation in, lifelong learning.([169])

Levels and use of learning outcomes

An eight-level structure has been adopted to cover all main types of German qualification.

Level descriptors describe the competences required to obtain a qualification. The overall structure is guided by the established German terminological and conceptual approach referring to the ability to act (*Handlungskompetenz*) (Gehmlich, 2009). The DQR differentiates between two categories of competence: professional and personal. The term competence lies at the heart of the DQR and signals readiness to use knowledge, skills and personal, social and methodological competences in work or study situations and for occupational and personal development. Competence is understood in this sense as comprehensive action competence (Table 38). Methodological competence is understood as a transversal competence and is not separately stated in the DQR matrix. The DQR expresses only selected characteristics; the comprehensive and integrated notion of competence, underlying the DQR, has a strong humanistic and educational dimension ([170]).

Descriptors are partly expressed as alternatives, such as 'field of study or work' and 'specialised field of study or field of occupational activity'. The broad and inclusive nature of level descriptors, using parallel formulations if necessary, makes it possible to open up all levels to different kinds of qualifications. This means that higher levels are not restricted to qualifications awarded within the Bologna process. The table of level descriptors (DQR matrix) and a glossary are included in the DQR outline.

Each reference level maps comparable, rather than homogeneous, qualifications. One key principle of DQR is that 'alignment takes place in accordance with the principle that each qualification level should always be accessible via various educational pathways' (DQR, 2011, p. 6).

Orientation to learning outcomes is increasingly becoming standard in education, vocational training and higher education (BMBF and KMK, 2013, p. 96). All subsystems of education and training have made important steps since 2009, albeit to varying degrees (Cedefop, 2016).

In VET, continuous development of the 'ability to act' concept (*Handlungskompetenz*), introduced in the 1990s, has gradually assumed a key role in qualifications definition, with clear input requirements about place, duration and content of learning. Competence-based training regulations and framework curricula structured in 'learning fields' have been developed.

Competence orientation is also characteristic of reform in general education and development of national educational standards (*Bildungsstandards*).

([167]) One important principle of DQR is that each qualification level should always be accessible via various education pathways.
([168]) 'One of the main concerns in the past 15 years in Germany is increased enrolment in the so-called 'transitional sector', where students stay for about 0.5-1.5 years; this includes different training schemes, which do not lead to full qualifications. A total of 70-80% of students move into the dual system or full-time vocational schools afterwards.' (Hanf, 2011).
([169]) German EQF referencing report (BMBF and KMK, 2013). https://ec.europa.eu/ploteus/sites/eaceqf/files/German_EQF_Referencing_Report.pdf
([170]) The ability to act (*Handlungskompetenz*) in vocational school curricula is not restricted to the world of work, but implies individual ability and readiness to act adequately socially and be individually responsible.

Table 38 Level descriptors in the German qualifications framework for lifelong learning

Level indicators (*)			
Structure of requirements			
Professional competence		**Personal competence**	
Knowledge	Skills	Social competence	Autonomy
Depth and breadth	Instrumental and systemic skills, judgment	Team/leadership skills, involvement and communication	Autonomous responsibility/ responsibility, reflectiveness and learning competence

(*) This is just an analytical differentiation; the interdependence between different aspects of competence is emphasised (DQR, 2011, p. 5).

Source: The German qualifications framework for lifelong learning (DQR, 2011).

They currently exist for German and mathematics in primary education; for German, mathematics and first foreign language (English/French) for the secondary general school certificate (*Hauptschule*); for German, mathematics, foreign language (English/French), biology, chemistry and physics for the intermediate leaving certificate (*Realschule*); and for German, mathematics and first foreign language (English/French) for the upper secondary school leaving certificate (*Abitur*) (BMBF and KMK, 2013, p. 99). Curricula are reformed to reflect educational standards. There is an ever-increasing focus on competence-based teaching, assessment and evolution in general education.

In higher education, the implementation of learning outcomes orientation was strengthened through the Bologna process in general and through the NEXUS project and the Quality pact for teaching, among others.

Stakeholder involvement and institutional arrangements

Development and implementation of the DQR is characterised by a bottom-up and consensus-seeking approach (Klenk, 2013). A national steering group (*Bund-Länder-Koordinierungsgruppe*) was jointly established by the BMBF and the KMK at the beginning of 2007. This coordination group appointed a working group (*Arbeitskreis* DQR) which comprises stakeholders from higher education, school education, VET, social partners, public institutions from education and the labour market, as well as researchers and practitioners. Decisions are based on consensus and each of the members works closely with their respective constituent institutions and organisations.

The body in charge of implementation is the coordination point for the German qualifications framework (*Bund-Länder Koordinierungsstelle* (B-L-KS)), set up by a joint initiative of the federal government and the Länder. The B-L-KS which emerged from the former *Bund-Länder-Koordinierungsgruppe* also assumes the function of the national coordination point (NCP) for the EQF. It has six members, including representatives from BMBF, the Federal Ministry of Economics and Energy, the KMK and the Conference of Ministers for Economics of the Länder. Its main role is to monitor allocation of qualifications to ensure consistency in the overall DQR structure.

The work of the B-L-KS (NCP) is supported by the appropriate units of the BMBF and the Secretariat of the KMK. The units collaborate in performing their tasks.

Recognising and validating non-formal and informal learning and learning pathways ([171])

Development of the NQF has also strengthened work on validation.

Various arrangements permit full or partial recognition of informally or non-formally acquired competences. Validation of non-formal and informal learning occurs in all education sectors but with different, tailor-made approaches. Such validation also supports the transition from one education sector to another.

([171]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

Legislation for validation of non-formal and informal learning is in place in VET. This includes the external students' examination under Paragraph 45 (2) of the Vocational Training Act and Paragraph 37 (2) of the Crafts Code. These arrangements lead to award of a full qualification (equal to those formally acquired) in a recognised apprenticeship. Admission to the external exam is subject to specific employment requirements: this is usually 1.5 times the length of the formal programme or equally long periods of initial training in another training occupation, or if applicants can convincingly demonstrate that they have acquired vocational competence.

Similar to the external students' examination within IVET, admission to further training examinations in the context of, among others, the *Industriemeister* (industrial master) and *Handwerksmeister* (master craftsman) is also possible via validation. This means that access to the examination is granted by work experience only. Preparatory training for this examination is not compulsory. General education school leaving certificates can be also acquired through an external examination (*Schulfremdenprüfung, Externenprüfung*) in all Länder, fulfilling the residence and minimum age requirements as well as evidence of appropriate examination preparation.

The Vocational Qualifications Recognition Act (BQFG), introduced in April 2012, provides individuals with the right to have their foreign-acquired qualifications matched to a German qualification by an appropriate authority. This act also includes, in Paragraph 14, other procedures for determining equivalence when no proofs for prior learning can be provided; this opens opportunities for validation of non-formal and informal learning. The act applies to initial vocational education and training (IVET) as well as further vocational education and training (CVET). The implementation and impact of the BQFG are evaluated regularly ([172]).

To complement these procedures with a systemic approach, the BMBF agreed with the umbrella organisations of the chambers to run the pilot project ValiKom ([173]) from 2015. ValiKom is considered as the reference project to set up a validation system in Germany, addressing adults who acquired skills and competences through work but lack a formal qualification and a certificate. The project takes into account both the commitment the German government states in its coalition treaty and the Council recommendation. However, it addresses not only low-skilled adults working in Germany but also employees from a variety of backgrounds who wish to access further training. Refugees with work experience who have no formal qualifications and are not targeted by the Recognition Act (BQFG) might also benefit from the validation procedure. The project builds explicitly on the unique role chambers have to play as suitable bodies due to the vocational training act (BBiG). In doing so, the project avoids setting up a parallel activity outside the regular VET system. Instead, the approach refers to the prevailing training regulations and occupational profiles and finally issues a certificate (*Gleichwertigkeitsfeststellung*) expressing the extent to which the skills demonstrated are equivalent to those normally gained under the vocational training act.

Two decisions of the KMK provide the basis for validation in higher education. The first refers to access to higher education for qualified workers and has been in place since March 2009. People holding certain vocational qualifications, without a proper upper secondary qualification, can be admitted to higher education. The second refers to granting credits for competence acquired at work. According to these decisions, knowledge and skills acquired outside higher education can be recognised up to a maximum of 50% if content and level are equal to the equivalent in formal qualifications. Procedures to credit non-formal and informal learning were developed and tested in the Transitions from VET to higher education initiative (*Übergänge von der beruflichen in die hochschulische Bildung* (ANKOM)) ([174]).

There are also several initiatives below legislative level, in the form of projects or different stakeholder programmes. The Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung (BIBB)) currently manages the project *Implementation of methods for the validation of non-formal and informal learning – requirements and possible courses of action*. In 2015, expert monitoring was put in place by the BIBB and the *Bertelsmann Stiftung* ([175]) regarding expert opinion on opportunities and limitations of validation methods for recognising non-formal and informal learning ([176]).

([172]) BMBF (2016b). *Bericht zum Anerkennungsgesetz 2016* [Report on the Recognition Act 2016]. https://www.bmbf.de/pub/Bericht_zum_Anerkennungsgesetz_2016.pdf

([173]) ValiKom project: http://www.bildungsspiegel.de/news/weiterbildung-bildungspolitik/17-valikom-chancen-fuer-menschen-ohne-berufsabschluss

([174]) The ANKOM initiative: http://ankom.his.de/beschluesse

([175]) The Bertelsmann Foundation: https://www.bertelsmann-stiftung.de/en/home/

([176]) The monitoring stressed the need for stronger appreciation (valuing) of non-formal and informal learning in Germany. 70% of the experts support a nation-wide validation system. Current validation opportunities such as *Externenprüfung* are considered as insufficient by the experts (Velten and Herdin, 2016).

Further projects and initiatives directed towards auditing individual competence profiles, to define a career project or plan professional reorientation or training, are often (but not exclusively) initiated below legislative level. One of the most successful initiatives of this type is ProfilPASS, a system of counselling and documentation of learning outcomes based on biographical methods ([177]).

There are different certificates and validation opportunities in the third sector that document voluntary engagement. *Kompetenznachweis Kultur* (Certificate of competence culture) documents competences acquired in artistic and cultural activities. The *Nachweis International* documents participation (Certificate of participation international), engagement (Certificate of engagement international) and competences (Certificate of competence international) acquired in international youth work projects. Links to general education are so far not established, although strongly advocated by youth and youth workers. However, such validation results have been evaluated as very positively perceived by potential employers (Baumbast et al., 2012).

Qualifications from the non-formal sector have not yet been allocated to the DQR. An expert working group has developed recommendations on behalf of the German qualifications framework working group for linking learning outcomes of non-formal education to the DQR. DQR committees are currently examining the possibility of developing appropriate procedures for the non-formal sector.

NQF implementation

The DQR is fully operational. Key documents and responsibilities for its implementation have been agreed by main stakeholders and published:

(a) the joint resolution of 1 May 2013 paved the way to full operation of the DQR ([178]).
(b) a new DQR website and database was launched in mid-2014 ([179]);
(c) the DQR manual was adopted ([180]). It describes responsibilities, procedures ([181]), standards and methods of qualification allocation. A list of allocated qualifications is attached. It will be updated continuously. A description of the procedure for allocating qualifications from non-formal learning contexts will be added when agreed.

Most qualifications from VET and higher education have been included in the framework. An important characteristic of DQR is that each qualification level should always be accessible via various education pathways. VET qualifications were allocated from levels 1 to 7. One example is allocation of the bachelor and master craftsman qualification to level 6, which shows that higher DQR levels are open to qualifications from different education sectors and regarded as comparable ([182]). Qualifications from general education (including the general school leaving certificate, *Allgemeine Hochschulreife*) are not yet allocated and consequently not linked to the EQF. A decision on inclusion level has been postponed and is planned for 2017. Higher education levels and qualifications have been integrated into the DQR.

In 2016, 21 qualifications from regulated further training were allocated to the DQR. Currently, there are discussions on assigning remaining further training qualifications. Developing and implementing criteria and procedures to include the results of non-formal learning in the DQR by 2017 is also an important goal ([183]).

The DQR is a non-regulatory framework and its integration into policies of different education sectors is an evolutionary process. First references to the DQR and its categories have already been made in regulatory instruments of the formal sector and in curricula of the non-formal sector, as in the new framework curricula for part-time vocational schools (*Berufsschule*) of the Länder. The DQR is also used in the academic sector for development of accreditation procedures. BMBF, with the Federal Institute for VET (*Bundesinstitut für Berufsbildung* (BIBB)), social partners and universities, carried out a project exploring possibilities of joint descriptions of learning outcomes and development of joint curricula based on DQR level 5. Two subprojects analysed the level 5 qualifications 'IT specialist' and 'motor vehicle service technician' in comparison with higher education

([177]) ProfilPASS-system: the feasibility study was conducted over 2002-03 while the system itself was implemented over 2003-07: thttp://www.profilpass.de/fuer-nutzer-innen/profilpass-system/.
([178]) See the joint resolution on the German qualifications framework for lifelong learning: https://www.bmbf.de/files/Gemeinsamer_Beschluss_final_ohne_Unterschriften.pdf
([179]) DQR website and database: http://www.dqr.de. An extended version of the databased has been developed in an EU funded project from 2014 to 2016.
([180]) *Handbuch zum Deutschen Qualifikationsrahmen [Manual for the German qualifications framework]*: http://www.kmk.org/fileadmin/Dateien/veroeffentlichungen_beschluesse/2013/130823_Handbuch_mit_nicht-barrierefreier_Anlage_MAM.pdf
([181]) See http://www.dqr.de/content/2445.php
([182]) See http://www.bmbf.de/press/3574.php
([183]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

study programmes. The aim is to aid permeability between VET and higher education in both directions ([184]). Evaluation of the results continues. The BMBF has launched a study, supported by EU funding, on use of the DQR for main target groups: learners, workers, employers, education providers. First results are scheduled for mid-2017.

Referencing to regional frameworks

The joint steering committee set up by the federal government and the Länder in 2007 is in charge of referencing. The referencing report was presented in December 2012 (BMBF and KMK, 2013).

Gradually, from January 2014, EQF and DQR levels are featuring on VET certificates, certificate supplements and higher education diploma supplements. DQR levels are also indicated in the qualification database ([185]). For example, German master craftsperson certificates have indicated the NQF/EQF level since 2014. Like the bachelor degree, they are related to level 6. From an education and training policy perspective, this is considered a milestone ([186]). Allocation to level and reference on certificates signal the high value and quality of this qualification. In Germany, VET qualifications are placed on nearly all NQF/EQF levels except level 8, with three-year apprenticeships leading to level 4.

Important lessons and future plans

Development of the DQR is embedded in a broader context of reforms to strengthen the outcome orientation of German education and training. It is also linked to initiatives to support permeability within VET and between VET and higher education, such as the ANKOM initiative, that involves stakeholders from VET and higher education to support recognition of learning outcomes.

Development of the DQR is also characterised by a comprehensive vision and coherent set of level descriptors, spanning all levels of education and training. This approach makes it possible to identify and understand better the similarities and differences between qualifications in different areas of education and training. A permeable system, with better horizontal and vertical progression possibilities, is at the heart of DQR developments, as is parity of esteem between VET and general education and efforts to include non-formal and informal learning.

NQF development and implementation is also characterised by a strong and broad involvement of stakeholders from all subsystems of education and training (general education, school and work-based VET, higher education), and from the labour market, ministries and Länder.

Stakeholders also agree that alignment of qualifications within German education to reference levels of the DQR should not replace the existing system of access. Achieving a DQR reference level does not provide automatic entitlement to access the next level. Achievement of a reference level has also not been considered in conjunction with implications for collective wage bargaining and the Law on Remuneration (DQR 2011, pp. 5-6).

The five-year implementation phase of the DQR ends in 2017. It is expected that all main qualifications of the formal sector will be allocated by that time. The inclusion of qualifications outside the formal sector will take longer.

Further source of information

German qualifications framework webpage: http://www.dqr.de

Abbreviations

ANKOM	*Übergänge von der beruflichen in die hochschulische Bildung* [transitions from vocational high school education]
BIBB	Bundesinstitut für Berufsbildung [Federal Institute for VET]
B-L-KS	*Bund-Länder Koordinierungsstelle* [national coordination point]
BMBF	*Bundesministerium für Bildung und Forschung* [Federal Ministry of Education and Research]
BQFG	Vocational Qualifications Assessment Law
DQR	*Deutscher Qualifikationsrahmen für lebenslanges Lernen* [German qualifications framework for lifelong learning]
IT	information technology
KMK	*Kultusministerk Konferenz* [Standing Conference of the Ministers for Education and Cultural Affairs of the Länder]
NQF	national qualifications framework
VET	vocational education and training

([184]) See https://www.bibb.de/de/25789.php
([185]) See https://www.dqr.de/content/2316.php#qs-result
([186]) See the relevant press release of the Federal Ministry of Education and Research: http://www.bmbf.de/press/3574.php

Table 39 German national qualifications framework (DQR)		
NQF levels	**Qualifications**	**EQF levels**
8	Doctoral studies	8
7	Master, strategic IT professional (certified)* *Strategischer IT Professional (Geprüfter)*, other further vocational training qualifications according to Vocational Training Act and Handicraft Code (level 7)	7
6	Bachelor, commercial specialist (certified) (*Fachkaufmann (Geprüfter)*), business management specialist (certified) *(Fachwirt (Geprüfter)*), master craftsman (certified), (*Meister (Geprüfter)*), operative IT professional (certified)* (Operativer IT Professional *(Geprüfter)*), Fachschule (State-certified…), *Fachschule* (*Staatlich Geprüfter…*), other further vocational training qualifications according to Vocational Training Act and Handicraft Code (level 6)	6
5	IT specialist (certified) (*IT-Spezialist (Zertifizierter)*), service technician (certified)* *(Service-techniker (Geprüfter)*)	5
4	Dual VET (three-year and three-and-a-half-year training courses), full-time vocational school (assistant occupations) *(Berufsfachschule)*, full vocational qualification (full-time vocational school) *(Berufsfachschule)*	4
3	Dual VET (two-year training courses), full-time vocational school (general education school leaving certificate obtained on completion of grade 10 at *Realschule* or, under certain circumstances, at other lower secondary school types) *(Berufsfachschule) (Mittlerer Schulabschluss)*	3
2	Vocational training preparation (*Berufsausbildungsvorbereitung*), employment agency measures (*Maßnahmen der Arbeitsagentur*), year of prevocational training (*Berufsvorbereitungsjahr*), introductory training for young people (*Einstiegsqualifizierung*), full-time vocational school *(Berufsfachschule)*, basic vocational training, *(Berufliche Grundbildung)*	2
1	Vocational training preparation (*Berufsausbildungsvorbereitung),* employment agency measures (vocational preparation schemes) *(Maßnahmen der Arbeitsagentur)* (*Berufsvorbereitende Bildungsmaßnahmen*), year of prevocational training (*Berufsvorbereitungsjahr*)	1

(*) The DQR working group agreed that additional further vocational training qualifications should be allocated in accordance with the procedures described in the DQR manual.

Source: German EQF referencing report (BMBF and KMK., 2013): EQF NCP.

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Prepared by:

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GHANA

Introduction and context

Ghana's national technical and vocational education and training qualifications framework (NTVETQF) came into effect on 3 September 2012 under the Council for Technical and Vocational Education and Training (COTVET) Act. The eight-level framework is tailored to the present realities of the Ghanaian education system and labour force. Its qualifications are designed to complement existing ones while providing the improvement and modernisation necessary to take the country's education system into the future. The qualifications framework provides space for apprenticeships in the informal sector and is also designed to accommodate recognition of prior learning (RPL).

The education and training currently on offer in Ghana is failing to meet the needs of the labour market. Most graduates lack the skills required for effective participation in industry. In a Nuffic report, a spokesperson for the Ministry of Employment and Social Welfare says: '[T]he fact that our educational system continues to pour unskilled, semi-skilled, and unemployable young graduates into a job market with comparably few job opportunities shows there is a need for sober reflection and deeper thoughtfulness on the kind of policy interventions which will be needed to overcome the challenges' (Gondwe and Walenkamp, 2011, p. 41).

Current statistics reveal that over 90% of employees in Ghana have less than secondary education, and that only 9.4% of graduates enter the labour force from secondary and higher education institutions. The Nuffic report concludes that 'even if these graduates who enter the labour market were perfectly aligned and suited to the requirements of the labour market, the labour market would still have a problem since 90% of the workforce would still not have passed through the education system at an advanced enough level, or at all, to benefit from improvements' (Gondwe and Walenkamp, 2011, p. 41).

The Ghanaian labour market is fragmented and uncoordinated, making it difficult to gather data. It is doubted whether some of the agencies that are supposed to gather information on groups of learners actually exist.

Together with numerous African heads of State and ministers of education gathered at the last ADEA ([187]) meeting in Ouagadougou, Burkina Faso, Ghana expressed the belief that NQFs should no longer be reserved for formal qualifications, as is currently the case in most countries in the region, but should also take into account the informal and non-formal means by which many people acquire technical and vocational skills. NTVETQF qualifications are, therefore, modular or assessed in units of competences and outcomes-based, and not restricted to academic attainment.

Policy objectives

The objectives of the NTVETQF are to:

(a) bring all post-basic, occupation-oriented qualifications together under a unified qualifications framework;
(b) aid access to further education and training for individuals in technical and vocational occupations;
(c) improve product and service quality by ensuring uniform standards of practice in trades and professions;
(d) promote access to lifelong learning for all, especially those working in the informal economy.

([187]) Every two or three years, the Association for the Development of Education in Africa (ADEA) organises a major conference on key education challenges facing African countries. At the last conference in Burkina Faso in 2012, which gathered together 650 representatives of some 45 countries including four heads of State and 33 ministers of education, participants strongly agreed that it is time to move away from the traditional dichotomies between post-primary education and TVET, and between TVET and alternative paths to technical and vocational skills development (TVSD).

Table 40 Ghana's national TVET qualifications framework (NTVETQF)			
Level	**Qualification**	**Status**	**Certifying institution**
8	Doctor of technology	Formal	-
7	Master of technology	Formal	-
6	Bachelor of technology	Formal	Polytechnics
5	Higher national diploma	Formal	Polytechnics
4	Certificate II	Formal	GES-TVET Inst.*
3	Certificate I	Formal	GES-TVET Inst.*
2	Proficiency II	Informal/Non-formal	NVTI / Informal trade associations
1	Proficiency I	Informal/Non-formal	NVTI / Informal trade associations

(*) Technical Institutes under the Ghana Educational Service.
Source: COTVET Legislative Instrument LI 2195 (2012).

Levels and use of learning outcomes

The NTVETQF is an eight-level national qualifications framework for TVET. Levels 1 and 2, covering informal apprenticeships, are the lowest and least demanding, while level 8 (doctorate in technology) is the highest and most demanding (Table 40). The level descriptors of NTVETQF are shown in Table 41.

Stakeholder involvement and institutional arrangements

The Council for Technical and Vocational Education and Training (COTVET), a semi-autonomous body under the Ministry of Education, is responsible for coordinating and overseeing TVET and skills development across the formal and informal, and public and private sectors. It answers to a 15-member board made up of stakeholders from various sectors, including industry.

Act 718 of 2006, which established COTVET, has been mandated to set up five standing committees to support its activities. The following committees are currently operational:

(a) the Industry Training Advisory Committee (ITAC), which is responsible for national occupational standards development;
(b) the National Training Quality Assurance Committee (NTQAC), which is responsible for quality delivery in the TVET sector;
(c) the National Technical and Vocational Education and Training Qualifications Framework Committee (NTVETQFC), which is responsible for overseeing the NTVETQF, taking into account non-formal and informal learning;
(d) the National Apprenticeship Committee (NAC), which is responsible for the preparation of apprenticeship policy to support the national apprenticeship programme;
(e) the Skills Development Fund Committee.

COTVET has teamed up with a number of leading employers to develop competency-based training (CBT) programmes. The CBT approach is currently being rolled out on a national scale and has been successfully piloted in three TVET institutions: Accra Polytechnic (HND in plant engineering, level 5), Accra Technical Training Centre (Certificate 2 in welding and fabrication, level 4) and the National Vocational Training Pilot Centre in Accra (Certificate 1 in electronics, level 3).

Nevertheless, significant challenges remain. Participation from industry stakeholders in the creation of CBT programmes and the training and assessing of students has so far been limited. Many TVET institutions have neither the infrastructure nor the teaching staff they need to deliver CBT programmes, and coordination problems across the many different ministries implementing the programmes are rife. Partly as a result of these difficulties, the quality of students admitted onto CBT programmes is variable at best.

COTVET is making efforts to develop demand and supply analysis to support the recognition and validation of non-formal and informal learning.

Table 41 Level descriptors for NTVETQF in Ghana			
Level	**Qualifications**	**Knowledge (i.e., enables learners to…)**	**Skills and attitudes**
1	National proficiency I		Require basic skills of trade and craft and the ability to perform routine and predictable tasks Are repetitive and familiar Require close supervision Require practical and oral tests for qualification
2	National proficiency II	Demonstrate basic numeracy, literary and IT skills: for example, carry out limited range of simple tasks of data processing	Confirm competence in the handling of hand tools and machinery components Require performance of varied activities that are routine, predictable and non-complex in nature Require limited supervision Require practical and oral tests for qualification
3	National certificate 1	Demonstrate a broad knowledge base incorporating some technical concepts Demonstrate knowledge of the theoretical basis of practical skills Demonstrate basic numeracy, literacy and IT skills	Require a wide range of technical skills Are applied in a variety of familiar and complex contexts with minimum supervision Require collaboration with others in a team
4	National certificate 2	Demonstrate specialised knowledge base with substantial depth in area(s) of study Analyse and interpret a range of data and be able to determine and communicate appropriate methods and procedures and outcomes accurately and reliably to deal with a wide range of problems Demonstrate numeracy, literacy and IT skills commensurate with this level Present results of study accurately and reliably	Require specialised knowledge of skill competence in different tasks in varied contexts Require wide and specialised technical and/or supervisory skills which are employed in different contexts Require the ability to adapt and apply knowledge and skills to specific contexts in a broad range of work activities Require minimum supervision
5	Higher national diploma (HND)	Demonstrate considerable theoretical knowledge and solid practical skills in area(s) of study Integrate, contextualise and apply knowledge to a range of complex technical or professional activities Have a command of planning, analytical, supervisory and management functions under minimum direction Display qualities and transferable skills for employment	Require a wide range of highly specialised technical and /or management and /or conceptual or creative skills Require qualities and transferable skills necessary for formal and self-employment Involve some level of organisational ability, resource management and personal responsibility

Level	Qualifications	Knowledge (i.e., enables learners to…)	Skills and attitudes
6	Bachelor (professional/ technology)	Demonstrate high level of conceptual knowledge in a broad range of complex and changing contexts Demonstrate basic research skills Undertake tasks involving high level organisational ability, resource management and personal responsibility Demonstrate a significant degree of strategic thinking and judgment Have a high level of supervisory and management capabilities	Apply methods, techniques and modes of practice learned and reviewed, to consolidate, extend and apply knowledge and understanding to initiate and carry out projects Promote further training, development of existing skills and acquisition of new competences that enable responsibility within organisations in self-employment Require qualities and transfer of skills necessary for formal and self-employment Communicate information in a variety of formats appropriate to both specialists and non-specialist audiences
7	Master (professional/ technology); technically oriented researched Master's	Have a systematic understanding of knowledge and a critical awareness of current problems and/or new insights in academic discipline, fields of study, or area of professional practice Possess comprehensive understanding of relevant techniques in research or advanced scholarship Demonstrate originality in the application of knowledge, together with a practical understanding of established techniques of research Critically evaluate current research, methodologies and advanced scholarships in the discipline and, where appropriate, to propose new hypotheses	Involve the resolution of complex issues and make sound judgments in the absence of complex data, and communicate these conclusions to both specialists and non-specialist audiences Possess self-direction and originality in tackling and solving problems, and act independently in planning and implementing tasks at a professional or equivalent level Continue to advance knowledge and understanding, and to develop new skills to a high level Promote qualities and transferable skills necessary for employment, initiative and personal responsibility, and decision-making in complex and unpredictable situations, and the exhibition of independent learning ability required for continuing professional development.
8	Doctorate degree (professional/ technology)	Create new knowledge through research that extends the discipline Possess substantial acquired knowledge that is at the forefront of technology or area of professional practice Ability to conceptualise, design and implement a project to generate new knowledge, or applications at the frontier of technology or professional practice Comprehensive and detailed knowledge and application of research methodology applicable to complex inquiry	Make informed judgment on complex issues in the area of technology or professional practice often in the absence of complete data and be able to communicate ideas and conclusions clearly to specialist and non-specialists in the discipline Exhibit qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and initiative in complex and unpredictable situations.

General education qualifications fall within the ambit of the Ministry of Education, whereas tertiary qualifications are coordinated by the National Council on Tertiary Education (NCTE) and the National Accreditation Board (NAB), semi-autonomous organisations under the Ministry of Education. The NCTE has the financial authority to approve programmes for public universities, while the NAB, which was established through the National Accreditation Board Act 744 of 2007, provides quality assurance for programmes in both public and private tertiary institutions.

Recognising and validating non-formal and informal learning and learning pathways

Transfer from one programme to another within the general education system remains difficult. By contrast, the recently approved TVET qualifications framework is designed to offer learners who opt for the TVET pathway the possibility of credit transfers and progression from the lowest to the highest qualification level in all subject areas.

Validation of informal and non-formal learning is a key component of Ghana's lifelong learning strategy. National regulations on the recognition of prior learning (RPL) have been developed and are in the process of legal formalisation. As a first step, the lowest two qualifications, national proficiency I and II, recognise competences from traditional informal apprenticeship, an important means of training in Ghana. The new RPL policy will enable informal and non-formal learners to benefit from both formative and summative assessment. Some mechanisms for RPL are already in use, such as oral, observation and demonstration-based assessment.

Equivalence programmes that allow non-formal learners to return to formal education, leading to a basic certificate in education, are currently permitted only in primary or junior high school (nine years of schooling) (Ministry of Education, 2010). Similarly, recognition of non-formal and informal learning in the TVET sector is currently possible only within NVT institutes leading to trade test grades I and II (TVET Final Report, 2007). The NTVETQF will reform this situation, allowing employees to work towards new qualifications on the job through workplace-based assessment. Employees in industry may choose to work towards specific modules only to ensure that their skills keep pace with changes in technology.

NQF implementation

COTVET and the Japanese International Cooperation Agency (JICA) are currently working together on the introduction of demand-oriented, competence-based TVET curricula that will incorporate creative and innovative skills acquired through work and informal learning. It is hoped that these curricula will produce students who are better capable of responding to the practical demands of a wide variety of workplace challenges.
Besides JICA, COTVET is working with other development partners including the World Bank, the Danish International Development Agency (DANIDA), the African Development Bank and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ, German Agency for International Cooperation and Development) together with the KfW banking group.

The partners supported the development of CBT quality assurance manuals and tools to guide its implementation. Other activities delivered under the Ghana skills and technology development project (GSTDP) include:

(a) retooling and minor renovation works of 10 TVET institutes across the country, selected through a competitive process;
(b) the development of institutional development plans (IDPs);
(c) promotion of the skills development fund (SDF);
(d) institutional strengthening of science and technology development at the Ministry of Environment, Science, Technology and Innovation (MESTI);
(e) development of a workplace experience learning (WEL) policy;
(f) establishment of a TVET guide;
(g) development of quality assurance and recognition of prior learning (RPL) policies.

Referencing to regional frameworks

ADEA leads the regional referencing of qualifications frameworks in Africa. At the second meeting of the Inter-Country Quality Node on Technical and Vocational Skills Development (ICQN/TVSD) held in Abidjan, Côte d'Ivoire, from 19 to 21 September 2011, the ministers and representatives of the 20 countries present decided to create thematic groups on the following three topics:

(a) the transition to work;
(b) national qualifications frameworks;
(c) the role of trade and business associations in technical and vocational skills development (TVSD).

ADEA held a seminar on NQFs on 8 and 9 July 2013 in Abidjan. The seminar produced a final synthesis of the regional referencing of qualifications frameworks in Africa, which was adopted by all participating countries and submitted to the ministerial meeting of the ICQN/TVSD in mid-September 2013.

Important lessons and future plans

The following lessons have been learned over the four-year period that Ghana has been working on the NTVETQF (Baffour-Awuah, 2013):

(a) it is important to hold regular discussions with all stakeholders so that they feel a sense of trust and ownership of the framework. Setting up a comprehensive NQF needs to be done incrementally; although Ghana has so far only initiated a TVET subframework, it is hoped that general education will be integrated into a full framework;
(b) policy-makers need to decide which levels of a qualifications framework are the most important. In a country like Ghana, where approximately 80% of all basic skills and 82% of economic activity is in the informal economy ([188]), the focus needs to be on levels 1 and 2;
(c) in setting up the committees, it was important to find the right people with the requisite expertise. Committee members must be motivated and should be well remunerated to maintain their motivation;
(d) obtaining parliamentary approval for the development of the NTVETQF was a vital step which could not have been taken without the commitment of the ministry responsible for TVET. The Minister for Education was instrumental in the passing of Law LI 2195, which laid the groundwork for the framework;
(e) it is essential that governments provide the necessary financial resources to support the establishment and implementation of an NQF. Most of the funding to set up the NTVETQF came from development partners in Ghana, without whose aid the council could not have achieved meaningful results.

Abbreviations

ADEA	Association for the Development of Education in Africa
COTVET	Council for Technical and Vocational Education and Training
GES	Ghana Educational Service
IDPs	institutional development plans
ITAC	Industry Training Advisory Committee
JICA	Japanese International Cooperation Agency
MESTI	Ministry of Environment Science Technology and Innovation
NAB	National Accreditation Board
NAC	National Apprenticeship Committee
NCTE	National Council on Tertiary Education
NTQAC	National Training Quality Assurance Committee
NTVETQF	national technical and vocational education and training qualifications framework
NTVET	national technical and vocational education and training
QFC	Qualifications Framework Committee
NUFFIC	Netherlands Organisation for International Cooperation in Higher Education
RPL	recognition of prior learning
SDF	skills development fund
SDFC	Skills Development Fund Committee
TVET	technical and vocational education and training
WEL	workplace experience learning

([188]) 2010 Population and housing census (final report published in 2012).

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GREECE

Introduction and context

During recent years, Greece has suffered a multifaceted and deep economic crisis, its most apparent form being the debt crisis. Under this pressure, the country has introduced and is implementing challenging fiscal adjustment measures, resulting in a long and cumulative reduction of GDP. Unemployment in Greece has reached almost 30%, and is much higher among young people. Despite this difficult economic and social situation, Greece has committed to profound reforms which are crucial for the country within the European context. Education and vocational training issues are a central component of these reforms.

Greece has developed a comprehensive NQF for lifelong learning, the Hellenic qualifications framework (HQF), aiming at a coherent and comprehensive system of qualifications from all parts and levels of education and training. The QF for higher education (HE) is a part of the overarching NQF. The developments build on the Act on Lifelong Learning (3879/10) ([189]), that introduced levels and the learning outcomes concept as essential elements of qualifications and awards. The act provided the basis for a more coherent and integrated approach to lifelong learning, as coordination of relevant issues is now under the Ministry of Education and Religious Affairs.

The framework is awaiting formal adoption. A draft presidential decree on HQF has been prepared and submitted to the Minister for Education, Research and Religious Affairs.

Policy objectives

Apart from responding to the European qualifications framework (EQF) initiative, HQF work is directly linked to the country's efforts to develop a framework for improving lifelong learning policies and practices, which will allow recognition and certification of all kinds of education and training. Compared to other European Union (EU) countries, participation of adults in lifelong learning in Greece remains low and has tended to stagnate over time: it stood at 3.0% in 2014, compared to an EU average of 10.7% (European Commission, 2015) and systematic and coherent policies have largely been lacking. Strengthening the learning outcomes dimension in all parts of education and training is considered a precondition for moving towards lifelong learning. This will not only provide the basis for a more transparent and open qualification system, it will also allow individuals to have their learning validated and recognised throughout their lives. The Act on Lifelong Learning (3879/10) was an important milestone in these developments. Reforms in vocational education and training (VET), underpinned by legislation (2013) ([190]) and (2014) ([191]), have been embedded in the HQF. Within the context of developing and updating the HQF ([192]) in line with recent social and economic developments, the HQF aims to:

(a) improve transparency of quality procedures regarding qualifications and qualification titles;
(b) enhance horizontal mobility (within and outside the country), as well as vertical mobility (showing pathways that a person can follow to move from one level to another);
(c) support lifelong learning.

([189]) Law 3879/2010 on the development of lifelong learning and other provision. http://www.edulll.gr/wp-content/uploads/2010/06/nomos_-3879_2010.pdf

([190]) Law 4186/2013 on restructuring of secondary education and other provisions, http://www.ilo.org/dyn/natlex/docs/ELECTRONIC/100472/120536/F1637832161/GRC100472%20Grk.pdf

([191]) By Law 4283/2014 on the establishment and function of the council of national policy for education and other provisions, the classification of vocational titles was legislated.http://www.ilo.org/dyn/natlex/docs/ELECTRONIC/100582/120713/F-1116751819/GRC100582%20Grk.pdf

([192]) This section draws on input from a note by the National Organisation for the Certification of Qualifications and Vocational Guidance (the designated national coordination point for EQF): *Latest developments of the Hellenic qualifications framework: response to the EQF advisory group, 2015* [unpublished. http://www.esos.gr/arthra/47414/ta-8-epipeda-toy-ethnikoy-plaisioy-prosonton

An objective for 2014-15 was to consolidate the HQF as the main lever for reforming the Greek education system.

Levels and use of learning outcomes

An eight-level structure has been proposed for the HQF, reflecting the existing formal education and training system in Greece. Levels are defined in terms of knowledge, skills and competence. Work on level descriptors for HQF and on a qualifications framework for higher education has taken place separately, but the final objective is to have a comprehensive framework, covering all levels and types of qualifications. Strengthening the learning outcomes approach is seen as an important dimension of current reforms in primary, secondary and tertiary education.

Following European education policies, since 2006 Greece has developed – by Ministerial Decree 110998/8-5-2006 ([193]) – a methodology for analysing occupational profiles (standards) incorporating the learning outcomes approach ([194]). This was an early effort to create a methodology for modularising VET curricula and part of a broader strategy aiming at upgrading VET. It was also seen as a precondition for setting up a system for validating informal and non-formal leaning and for accrediting training programmes. The decision was taken to shift from task (used in the past) to function, as it has been argued that function provides a broader perception for the content of the outcomes. Authorities developed 202 job profiles based on learning outcomes; updating and renewing outcomes in occupational profiles is a necessity, according to labour market research, surveys, and evaluation of existing curricula. This is a major task for all stakeholders, most importantly for social partners.

Working groups were formed under the auspices of the Ministry of Education and Religious Affairs to draft learning outcomes of qualifications provided in subsystems of formal education and suggest their allocation to the eight levels of the HQF. In general education and VET, reforms are initiated under the Law 4186/2013 on restructuring secondary education ([195]). Higher education qualifications are included in the HQF and general descriptors have been developed. Evaluation of higher education institutions has been completed ([196]) and self-certification against the framework of qualifications of the European higher education area is in progress.

The shift to learning outcomes represents a significant change in the Greek system, which, until now, has relied on an 'input' approach. The outcomes-based HQF is expected to support design of future outcomes-based qualifications. One anticipated benefit of the HQF is to promote open dialogue and collaboration among a wide range of stakeholders; it will also help clarify and reinforce the relationship between education and training and the labour market.

Stakeholder involvement and institutional arrangements

The Ministry of Education and Religious Affairs is the competent authority, responsible for coordinating and monitoring the HQF. The National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP) was set up in 2011 to develop and put the HQF into practice, link the HQF to EQF, as well as put procedures for validation of learning outcomes into practice and assure quality in lifelong learning. EOPPEP operates as the national coordination point (NCP) for EQF and is the awarding body in relation to one qualification type in the framework (vocational training diploma – level 5). EOPPEP cooperates with the Hellenic Quality Assurance and Accreditation Agency (HQAAA) on quality issues in higher education.

An advisory committee, comprising representatives from public administration, the education and academic community, social partners and external consultants, was established to support EOPPEP in developing the HQF. The members of the advisory committee were appointed by the Minister for Education, Research and Religious Affairs, by social partners, by the National Centre for Public and Local Administration and by Cedefop. Greece is planning to reform the HQF advisory committee which will be consulted for further development.

A steering committee for referencing the HQF to EQF was also established: this involved representatives from the Ministry of Education and Religious Affairs, the higher education sector (universities/technological educational institutions), social partners, the HQAAA and international

([193]) Common Ministerial Decision No 110998/19-04-2006 (Official Journal issue 566/B'/02-05-2006) on the accreditation of occupational profiles.

([194]) See: Dželalija Mile (2015). *Methodology for the design and development of learning outcomes*.

([195]) Law 4186/2013 on restructuring of secondary education and other provisions, http://www.ilo.org/dyn/natlex/docs/ELECTRONIC/100472/120536/F1637832161/GRC100472%20Grk.pdf

([196]) In June 2016, the Hellenic Quality Assurance and Accreditation Agency finished evaluation of 36 higher education institutions.

experts. The ministry is also planning to proceed with the next steps, forming a steering committee that will include relevant actors.

A new body, the Authority for Quality Assurance in Primary and Secondary Education (ADIPPDE), has been established and is responsible for quality assurance both in general and vocational education. It is fully operational (levels 1, 2, 3, 4) and is working closely with the Ministry of Education, Research and Religious Affairs.

Recognising and validating non-formal and informal learning and learning pathways ([197])

There is no comprehensive strategy in Greece for validation of non-formal and informal learning, though a national system for the certification of outputs is currently in development ([198]). This system aims at certifying qualifications that are expected to boost employment. The presidential decrees (PDs) required to put the system in place are currently drafted in line with the Article 19 of Law 4115/2013 ([199]); it is anticipated that they will be legislated during 2016. Once the PDs are issued, certification will be implemented according to criteria and processes that will ensure that the qualifications correspond to the requirements of the relevant certified occupational profiles (*Epaggelmatiko Perigramma*). The national system will allow all interested individuals to certify their qualifications, regardless of the learning pathway.

Validation of non-formal and informal learning has been in place in Greece since 2006 for adult trainers of non-formal learning certifying their teaching competence qualification. The new certification system for adult trainers of non-formal learning was designed by EOPPEP and was finalised in 2012 with the contribution of the General Secretariat of Lifelong Learning; the goal at the moment is to implement it fully. At the same time it was decided to extend the existing register of adult trainers of non-formal learning ([200]) to include those trainers that have certified educational proficiency ([201]). Under new legislation ([202]), certification procedures are currently open to all interested parties fulfilling prescribed eligibility criteria. The updated system foresees three pathways:

(a) direct certification of conditions and criteria;
(b) participation in an assessment process, and then certification;
(c) enrolment in training programmes and subsequent certification.

Although these are significant steps for the country, validation of non-formal and informal learning is not yet as developed in Greece as in other EU countries. Even though informal and non-formal learning is gaining importance, such learning is not adequately valued and recognised in society.

NQF implementation

The Ministry of Education and Religious Affairs is responsible for HQF implementation, with EOPPEP as the main actor. The framework is an early operational stage. A draft presidential decree entitled *Terms of formulation and implementation of the HQF – Referencing to the EQF* has been prepared and submitted to the Minister for Education, Research and Religious Affairs. For the HQF to become fully operational, important legal measures need to be taken, for instance the legislative framework of the HQF and the legal framework for the validation of non-formal education and informal learning.

Inclusion of qualifications in the framework is defined through qualification type specifications. They include title, level, awarding body, summary descriptor, volume of learning, purpose, education sector, learning outcomes, employment relevance, and progression possibilities. Having already developed qualifications types, which are a key element in the framework, the country is now placing in each one the individual (named) qualifications expressed in learning outcomes. For

([197]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).
([198]) Certification of 'outputs' refers to the certification of graduates of initial vocational training and continuing vocational training, certification of qualifications, and falls under the responsibility of EOPPEP (Paragraph 2 of Article 17 of Law 4186/2013 on restructuring of secondary education and other provisions, http://www.ilo.org/dyn/natlex/docs/ELECTRONIC/100472/120536/F1637832161/GRC100472%20Grk.pdf).
([199]) Law 4115/2013 providing for the organisation and function of the Institute of Youth and Lifelong Learning and of the National Organisation for the Certification of Qualifications and Career Guidance, and other provisions. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/100402/120427/F54687558/GRC100402%20Grk.pdf
([200]) Some 11 500 trainers enrolled in EOPPEP's register of adult trainers have been certified and have become eligible for tuition in non-formal learning programmes.
([201]) Law 4115/2013.
([202]) Law 4386/2016 (Article 67) on rules for research and other provisions.

example, in level 7 of the HQF, there is the type 'master degree' ([203]). EOPPEP has also established a qualifications register ([204]), which already includes 674 individualised qualifications of the formal educational system expressed in learning outcomes. This has been done in cooperation with the respective educational institutions. HQF / EQF levels are being indicated on new certificates; 205 certificate supplements have been issued so far with reference to HQF and EQF levels and levels are also being indicated on certificate and diploma supplements (issued by the various HE institutions).

Referencing to regional frameworks

The HQF was referenced to the EQF in 2015 but has not yet been self-certified against the QF-EHEA. EOPPEP is responsible for referencing to the EQF, under the supervision of the Ministry of Education and Religious Affairs.

Important lessons and future plans

The HQF is expected to have an important impact on education: there has been increased attention to validation of non-formal and informal learning, improvement of the transparency and quality of the Greek qualification system, and reconstruction of the qualifications registry in accordance with compatibility requirements of both the EQF portal and European skills, competences, qualifications and occupations portal.

Involvement of a broad range of stakeholders in HQF development and implementation is seen as crucial, but remains a challenge. Other challenges include referencing international sectoral qualifications to the HQF, identifying and referencing qualifications awarded for specific economic sectors, such as agriculture, shipping and tourism, and qualifications acquired through programmes run by foreign universities, which cooperate with private institutions in Greece. There is a clear division between non-university, mostly private, institutions and the university sector, which is public, charges no fees and offers entrance through national examinations, in accordance with the constitution.

An update of the evaluation of the education system and of the implementation of the HQF is scheduled for 2016-18 as specific activities are planned. Greek authorities, jointly with the OECD and EC, will review the OECD's evaluation report on the Greek education system by 2016 (Law 4336/2015 ([205]). The conclusions will help the reforms already planned by the Ministry of Education, Research and Religious Affairs. The impact of HQF in the education system will be a major part of this evaluation. The updated roadmap for 2016-18 includes establishment of labour market needs diagnosis already included in the final draft of the Greek strategic framework for VET, establishment of a quality framework for developing vocational education curricula (already approved by the Institute for Education Policy (IEP) legalisation of the national quality assurance framework for lifelong learning 'π3' ([206]), and building up a system for upgrading/updating VET curricula, which will aid the development of new/renewed occupational profiles, curricula based on learning outcomes.

Restructuring of secondary education and upgrade of the apprenticeship system ([207]) introduces a learning outcomes approach in curriculum design and development. Although the institutional framework and the building capacity of the public bodies underline a significant shift to a learning outcomes approach in all levels and subsystems of learning, common understanding and application of learning outcomes is not yet established; developing necessary methodologies, procedures and standards remains a major challenge.

Further source of information

EOPPEP is the designated EQF NCP: http://www.eoppep.gr/index.php/en/

([203]) (a) Master degree (MSc) in renewable energy systems. Department of Mechanical Engineering. Faculty of Applied Technology. Technological Educational Institute (TEI) of Western Greece;
(b) Master degree in science and technology of food and human consumption. Department of Food Science and Human Nutrition. Faculty of Food, Biotechnology and Development. Agricultural University of Athens;
(c) Master Degree in techno-economic management and security of digital systems. Directions: techno-economic management of digital systems/ digital systems security. Department of Digital Systems. School of information and communication technologies. University of Piraeus.

([204]) Greek qualification register: http://proson.eoppep.gr

([205]) Law 4336/2015 on provisions regarding pensions: http://www.iep.edu.gr/index.php/el/

([206]) 'π3' is the Greek acronym for the national quality assurance framework for lifelong learning. It denotes 'quality, always and everywhere'. http://www.eoppep.gr/index.php/el/quality-asssurance/national-framework-for-quality-assurance-in-lifelong-learning

([207]) Law 4186/2013 on restructuring of secondary education and other provisions: http://www.ilo.org/dyn/natlex/docs/ELECTRONIC/100472/120536/F1637832161/GRC100472%20Grk.pdf

Table 42 Greek national qualifications framework (HQF)

NQF levels	VET	General education	Higher education	EQF levels
8			Doctorate *(didaktoriko diploma)*. (Universities)	8
7			Master degree (*metaptychiako diploma eidikefsis*) (Universities/ technological education institutions (TEI)- higher education)	7
6			Bachelor degree (*ptychio*) (Universities/TEI- higher education)	6
5	Vocational upper secondary school 'degree' (**) (vocational upper secondary school 'degree'/certificate and apprenticeship class) (**) (*ptychio epaggelmatikis eidikotitas*-EPAL) Vocational training diploma (Initial vocational training) (post-secondary level) (*diploma epaggelmatikis eidikotitas*) (vocational training institute) (institouto epagelmatikis katartisis, IEK) Vocational training diploma (*) (*diploma epaggelmatikis katartisis epipedou metadefterovathmias epaggelmatikis katartisis*, IEK) (post-secondary level) Post-secondary and not higher education diploma or 'degree' (**) (*diploma/ptychio anoteras scholis*)			5
4	Vocational school (*epaggelmatikes sxoles*) (EPAS) certificate (post-lower secondary level) (*ptychio* EPAS) Vocational upper secondary school (*epaggelmatika lykeia*) (EPAL) `degree' (**) (*ptychio epaggelmatikis eidikotitas*-EPAL) EPAL certificate (*apolitirio epaggelmatikou lykeiou*-EPAL)	General upper secondary school certificate (*apolytirio lykeiou*)		4
3	Vocational training school (SEK) certificate (post-lower secondary level) (*ptychio epaggelmatikis eidikotitas*-SEK) IEK certificate (*) (initial vocational training, post-lower secondary level) (*pistopoiitiko epagelmatikis katartisis epipedou 1– IEK epipedou 1*)			3

NQF levels	VET	General education	Higher education	EQF levels
2		Lower secondary school certificate (compulsory) (*apolytirio gymnasiou*)		2
1		Primary school certificate (compulsory) (*apolytirio dimotikou*)		1

(*) This qualification is no longer awarded since the enactment of Law 4186/2013.

(**) The word `degree', whenever used within quotation marks, signifies that it is a direct translation from the terminology in Greek as it appears in the Greek legislation (ptychio). In Greek, the word ptychio is used for titles of study from different education levels (higher, secondary, etc.). It is not to be confused with its usage in the English language, whereby the word degree refers to higher education title of study, i.e. bachelor degree.

Source: Greek Ministry of Education and Religious Affairs and EOPPEP, 2015.

Abbreviations

CVET	continuous vocational education and training	EQF	European qualifications framework
EOPPEP	National Organisation for the Certification of Qualifications and Vocational Guidance	EU	European Union
		HQF	Hellenic qualifications framework
		IEK	*institouto epagelmatikis katartisis* [vocational training institute
EPAL	*epaggelmatika lykeia* [vocational upper secondary school]	IVET	initial vocational education and training
		SEK	*sxoli epaggelmatikis katartisis* [vocational training school]
EPAS	*epaggelmatikes sxoles* [vocational school]	TEI	technological educational institutions

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European Commission (2015). *Education and training monitor 2015. Greece.* http://ec.europa.eu/education/tools/docs/2015/monitor15-vol-2_en.pdf

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Greece.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

Prepared by:

The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

HONG KONG SAR, CHINA

Introduction and context

The Education Bureau of the Hong Kong Special Administrative Region (HKSAR) Government launched the Hong Kong qualifications framework (HKQF) in 2008. The aim was to promote lifelong learning and continuously improve the quality, professionalism and competitiveness of Hong Kong's workforce in an increasingly globalised and knowledge-based economy.

During recent decades, Hong Kong has undergone a dramatic transformation to become a leading international financial centre. To stay ahead in an increasingly competitive market, Hong Kong must constantly upgrade the capability of its workforce. However, with a shift in Hong Kong's economy towards highly skilled activities, jobs for workers with low educational attainment are disappearing rapidly while demand for workers with higher education continues to grow. To narrow this gap, the government has taken steps to provide workers with more effective training to motivate them to increase their employment potential.

In response, the educational attainment of Hong Kong's workforce has improved significantly. The proportion of the employed with tertiary education increased from 10% in 1985 to 38% in 2015. However, with the proliferation of training programmes and qualifications comes the potential difficulty that learners may not know which qualification is recognised and which course to choose. On the other side, an employer presented with an assortment of certificates may be unsure of the actual competence level of the holder.

Policy objectives

The main objectives of the HKQF are to:

(a) define clearly the competency standards required of practitioners in different industries;
(b) ensure the quality of qualifications and enable citizens to obtain recognised qualifications either through education and training or through recognition of prior learning (RPL);
(c) ensure that education and training providers, employers and the public understand the range of qualifications available and appreciate how they can contribute to improving workforce skills;
(d) delineate the links between different types and levels of qualification and clearly articulate the qualifications;
(e) recognise workers' existing skills, knowledge and work experience through an RPL mechanism developed for industries that have adopted specification of competency standards (SCS) ([208]);
(f) simplify and standardise the use of award titles through the award titles scheme (ATS), which is applicable to qualifications at all HKQF levels;
(g) specify the size/volume of learning by introducing a qualifications framework (QF) credit, which enables learners to ascertain the time it will take to complete a learning programme and facilitates credit accumulation and transfer (CAT).

Levels and use of learning outcomes

Qualifications recognised under the HKQF are characterised by three key features: level, which reflects the outcome standards, i.e., depth and complexity of learning leading to the qualification; award title, which reflects the level of the qualification; and credit, which indicates the volume of learning leading to the qualification.

Hong Kong introduced the ATS in 2012 with the aim of standardising and simplifying the titles of HKQF qualifications. The ATS, together with China's Operational guidelines on use of credit and implementation timetable, stipulates that:

([208]) The specification of competency standards (SCS) sets out the skills, knowledge and competency standards required of practitioners to perform various job functions in industries effectively. SCS can be grouped together to form a qualification at a particular HKQF level.

(a) certificate titles may be awarded for qualifications from levels 1 to 6;
(b) level 1 and 2 qualifications may also be called 'foundation certificates';
(c) a diploma can only be used for qualification levels 3 to 6. A diploma must comprise 60 or more credits. There is no minimum credit requirement for a certificate programme.

ATS specifies which qualifiers (such as foundation, higher, advanced, professional and postgraduate) providers may use in the titles of their qualifications. No qualifier is allowed for qualifications at level 3 (certificate and diploma). Providers may choose to add 'QF level' to the titles of their qualifications: for example, 'Professional diploma in business management (QF level 6)'. Providers may continue to use titles traditionally used for degree and sub-degree qualifications in mainstream education (associate degree at level 4, bachelor at level 5, master at level 6, and doctorate at level 7).

Providers who wish to use non-ATS specified titles for their programmes may apply for approval from a review panel, part of the Education Bureau (EDB) since January 2013. The use of titles outside ATS is not encouraged, however, as this would be contrary to the intention and purpose of ATS. Only in very exceptional circumstances should a provider be allowed to use titles not specified in ATS.

Stakeholder involvement and institutional arrangements

The EDB issued a public consultation paper on *Proposed establishment of an HKQF and its associated quality assurance mechanism in Hong Kong* (EDB, 2002). This was followed by a series of consultations, pilot studies and seminars for industries, employers' associations, trade unions and professional bodies, culminating in the launch of the qualifications framework in 2008.

The Qualifications Framework Secretariat (QFS) is the executive arm of the EDB and is responsible for implementing and promoting the HKQF.

Industry training advisory committees (ITACs) or cross-industry training advisory committees (CITACs) play a pivotal role in HKQF implementation and development of specification of competency standards (SCS). ITACs/CITACs are established for respective industries/sectors by the Education Bureau. They comprise representatives of employers, employees, professional bodies, regulatory bodies and the relevant government bureaus and industry departments.

Table 43 Hong Kong qualifications framework: choice of award titles for different levels

QF level	Choice of award titles for different levels						
7	Doctor						
6	Master	Postgraduate diploma Postgraduate certificate	Professional diploma Professional certificate	Advanced diploma Advanced certificate	Diploma	Certificate	
5	Bachelor						
4	Associate	Higher diploma Higher certificate					
3							
2							
1							Foundation certificate

Source: HKQF website (www.hkqf.gov.hk).

The ITACs have three main objectives:

(a) to develop, maintain and update SCS and to formulate recognition of prior learning (RPL) for the industry concerned.
(b) to promote the HKQF within the industry concerned.
(c) to give advice on matters relating to the development and implementation of HKQF to the Secretary for Education.

The Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ) is an independent statutory body established under HKCAAVQ Ordinance (Cap. 1150). This 2007 ordinance represents a legislative amendment of the HKCAA (Hong Kong Council for Academic Accreditation), and came into effect to expand the scope of its services to cover accreditation of vocational qualifications. With the enactment of this ordinance, the council was renamed HKCAAVQ. In accordance with the Accreditation of Academic and Vocational Qualifications (AAVQ) Ordinance (Cap. 592), which came into operation on 5 May 2008, the HKCAAVQ is now the accreditation authority and is responsible for developing and implementing the standards and approach for accreditation of academic and vocational qualifications to underpin the HKQF. HKCAAVQ also took on the statutory role as the Qualifications Register Authority (QR) under Cap. 592. The QR is a web-based database containing information on qualifications and their respective learning programmes that have been quality assured and recognised under HKQF; it is available to the public free of charge.

To encourage people aged 18 to 60 to continue their education, a continuing education fund (CEF) of HKD 5 billion was set up by the government in 2002. To provide fair and impartial reviews of relevant courses, the CEF was reviewed by a committee of quality assurance and accreditation experts, as well as specialists from commerce, finance, education and training, and other industries; all such courses have to be recognised under HKQF. Training courses developed with special reference to SCS have been included in the reimbursable course list under the CEF; the aim is to improve the linkage between CEF and HKQF and the relevance of CEF courses to industry needs.

A credit accumulation and transfer (CAT) system provides the flexibility needed to suit individual learners' circumstances and minimise duplication of training. The system helps learners to accumulate credits from diverse courses and convert them into a recognised qualification. One QF credit consists of 10 notional learning hours, which takes into account the total time likely to be required by an average learner in all modes of learning, including class attendance, private study, online learning, practical learning, and examination. The HKQF is expected to support CAT arrangements between different sectors and training providers by providing a unified platform and common benchmarks.

The HKQF also plays a role in secondary education, because the specification of generic competencies (SGC) ([209]) developed under the HKQF serve as a useful reference for applied learning courses under the new structure for senior secondary education. These courses enable students to understand fundamental theories and concepts and to develop beginners' skills sets and generic skills through application and practice. They also help students to explore their career aspirations and orientation for lifelong learning.

Recognising and validating non-formal and informal learning and learning pathways

The major purpose of setting up an RPL mechanism, which is a form of validation of non-formal and informal learning under the HKQF, is to enable workers of various backgrounds to receive formal recognition of the knowledge, skills and experience they have already acquired at the workplace. Whether or not to implement RPL, and the suitable timing of implementation, are matters to be determined mainly by the ITACs concerned.

So far 14 industries have introduced RPL since its inception in 2008. Successful applicants are awarded a statement of attainment (QF level 1 to level 4) issued by the relevant assessment agency appointed by the Secretary for Education for industry sectors. The number of RPL qualification holders to date has exceeded 18 000.

NQF implementation

The implementation of the HKQF since 2008 can be characterised in the following way.

Stakeholders and partners from various industries have supported and participated in the development of the HKQF, providing the valuable human resources needed in a knowledge-based economy.

([209]) SGC sets out the foundation competencies from HKQF level 1 to QF level 4, which covers four strands of generic skills: English, Chinese (including Cantonese and Putonghua), IT, and numeracy.

As of August 2016, a total of 20 ITACs/CITACs for 21 industries/sectors have been set up under the HKQF, covering about 53% of the total labour force in Hong Kong.

Some industries have applied the results of the HKQF to their work, for example by designing training courses in accordance with HKQF competency standards and applying these standards to human resource management: examples are designing recruitment advertisements, commending staff, formulating job descriptions, deploying manpower and organising internal training. The standards have also been used as references for performance benchmarking.

A substantial number of training courses have been quality assured to become HKQF-recognised courses listed in the QR.

Referencing to regional frameworks

The EDB is committed to developing Hong Kong SAR as the regional education hub through internationalisation and diversification of the post-secondary education sector. It has increased non-local student admission quotas for publicly funded institutions, provided government scholarships to outstanding non-local students, and relaxed employment and immigration restrictions for non-local students. The EDB has also introduced various measures to support the development of the self-financing post-secondary sector: grant of land to training providers at nominal premium, interest-free start-up loans, quality assurance subsidies, and a HKD 3.52 billion (about USD 450 million) self-financing post-secondary education fund to provide scholarships to outstanding self-financing students.

The EDB also supports worthwhile initiatives and schemes to enhance and assure the quality of self-financed post-secondary education: in November 2014, it collaborated with the European Commission on a comparability study of the HKQF and European qualifications framework (EQF) with a view to providing a translation device to understand and compare the level-to-level relationship between the two frameworks. The major objectives of the comparability study are to promote better understanding of the qualifications offered under HKQF and by European countries referenced to the EQF, and to support mobility of learners and labour between the two places.

Over the years, the EDB and Qualifications Framework Secretariat have also signed memorandums of understanding (MoU) with different overseas QF authorities, including the Scottish Credit and Qualifications Framework Partnership (SCQFP), New Zealand Qualifications Authority (NZQA) and Thailand Professional Qualifications Institute (TPQI), to strengthen international networks and to explore possibilities for collaboration in matters of mutual benefit and interest with overseas partners.

Important lessons and future plans

The Education Bureau plans to step up its publicity efforts to promote wider acceptance of the HKQF among all sectors. Industry-specific websites should enable stakeholders in a particular industry (as well as the general public) to search for the latest information on education and training and the development of the HKQF in the industry concerned.

Further sources of information

EDB Qualifications register: http://www.hkqr.gov.hk/HKQRPRD/web/hkqr-en/

Government of Hong Kong SAR, qualifications framework: https://www.hkqf.gov.hk/en/home/index.html

Abbreviations

AAVQ	accreditation of academic and vocational qualifications
ATS	award titles scheme
CAT	credit accumulation and transfer
CEF	continuing education fund
CITAC	Cross-Industry Training Advisory Committee
EDB	Education Bureau
EQF	European qualifications framework
HKCAAVQ	Hong Kong Council for Accreditation of Academic and Vocational Qualifications
HKQF	Hong Kong qualifications framework
HKSAR	Hong Kong Special Administrative Region
ITACs	industry training advisory committees
MoUs	memorandums of understanding
NZQA	New Zealand Qualifications Authority
QF	qualifications framework
QFS	Qualifications Framework Secretariat
QR	qualifications register
RPL	recognition of prior learning
SCQFP	Scottish Credit and Qualifications Framework Partnership
SCS	specification of competency standards
SGC	specification of generic competencies
TPQI	Thailand Professional Qualifications Institute

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Qualifications Framework Secretariat (2012). Award titles scheme and the use of credit qualifications. Hong Kong: QFS. https://www.hkqf.gov.hk/filemanager/en/content_14/ATS_and_Credit%20Leaflet_E%202012.pdf

Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with national experts.

HUNGARY

Introduction and context

Hungary faces several challenges in education and training, such as an increasing percentage of students with low achievement in basic skills, high socioeconomic and regional gaps in relation to student performance, low participation in lifelong learning, and lack of attractiveness and flexibility of the vocational education and training (VET) system. A number of national strategies were adopted in recent years to address these challenges: an early school leaving prevention strategy; a mid-term strategy of public education development; a new concept paper for vocational training; a higher education strategy; and a new lifelong learning strategy (European Commission, 2015).

The comprehensive national qualifications framework (NQF) for lifelong learning was adopted in July 2012 by government decree and published in the Hungarian official journal ([210]). It encompasses all State-recognised national qualifications that can be acquired in general education, higher education qualifications (BA/BSc, MA/MSc and PhD) ([211]) and those vocational qualifications registered in the national vocational qualifications register (NVQR). Significant progress was made between 2012 and 2014, by further social dialogue and dissemination, developing the methodology for including qualifications in the framework and linking qualifications from all education and training subsystems to the HuQF levels.

Inclusion of certain types of non-formal qualifications that are regulated by the Act on Adult Training ([212]) is on the policy agenda.

The HuQF was referenced to the European qualifications framework (EQF) and self-certified to the qualifications framework of the European higher education area (QF-EHEA) in 2015.

Policy objectives

The main aims for development of the HuQF are to have a comprehensive framework that includes all state-recognised Hungarian qualifications gained at different levels of education and training, and to strengthen the learning-outcomes approach at each level of education. The framework is expected to increase education and training transparency, and compatibility and transferability between national education subsystems and between formal and non-formal pathways.

The HuQF has the following objectives (EQF national coordination point, Hungarian Education Authority (2015):

(a) to create a coherent national qualification system by bringing together regulative measures of different subsystems of education and training into a unified system, including those acquired outside the formal system;
(b) to strengthen the outcome-based approach in regulatory documents ([213]);
(c) to strengthen quality assurance systems;
(d) to recognise learning outcomes achieved in non-formal and informal settings;
(e) to strengthen coordination of education and training policies and cooperation with stakeholders;

([210]) So far, four government decisions dealt with the establishment of the Hungarian qualifications framework:
- Government Decision No 2069/2008. (VI. 6);
- Government Decision No 1004/2011. (I.14);
- Government Decision No 1229/2012. (VII. 6);
- Government Decision No 1791/2013. (XI. 7).

http://www.oktatas.hu/LLL/kepesitesi_keretrendszer/mkkr/jogszabalyok

([211]) Qualifications acquired in higher education through postgraduate specialisation training are not yet linked to the HuQF.

([212]) Act LXXVII of 2013 on Adult Training. http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A1300077.TV

([213]) The Hungarian education system has traditionally been characterised by a content- based approach to education and assessment with substantial differences between study fields and programmes.

(f) to orient better the design of new qualifications and education and training programmes, and revision of existing qualifications;
(g) to provide better support to individual career choices, as well as career guidance and counselling systems;
(h) to systematise information about qualifications and to make it understandable to employers in a European context;
(i) to improve the relevance of qualifications in the labour market.

The NQF can also play an important role in supporting lifelong learning in Hungary. Adult participation, at 3.2% in 2014, is below the EU average and one of the lowest in Europe (European Commission, 2015). The need to maintain and develop new skills and to adapt to structural challenges is regarded as particularly challenging.

Levels and use of learning outcomes

The HuQF has an eight-level structure and is viewed as a 'communication framework'. The level descriptors were based on analysis of existing approaches in the relevant subsystems. The hierarchic and cumulative nature of the level descriptions of the EQF has been taken into account and applied in the HuQF as well. Learning outcomes are defined in four categories: knowledge, skills/abilities, attitudes and autonomy/responsibility. The 'knowledge' and 'skills' categories are directly comparable with homologous categories in the EQF, the 'autonomy/responsibility' category shares common features with the 'competence' category from the EQF, while the 'attitude' category (which includes emotional, cognitive and behavioural components in relation to the object of learning) is not present as such in the European framework.

Methodologies were developed within three different projects (one for general education, one for VET, and one for higher education), for linking qualifications to the HuQF. There was regular consultation between those responsible for each subsystem and agreement on common principles.

The focus on learning outcomes has received support mostly from qualification developers and in research studies in different education and training subsystems. It has been mostly driven by EU policy and the need to link the HuQF to the EQF. However, stakeholders' views differ based on their previous knowledge, information and involvement. According to a recent Cedefop study, 'a shift to learning outcomes has not been a clearly articulated policy objective in recent years' (Cedefop, 2016). In practice, the education subsystems differ significantly in the extent to which they are outcome-oriented, and they apply different terminology and varying notions of competence in defining outcome requirements/standards.

In general education, the newest core curriculum, issued in 2012, redefines key competences and broad standards in 10 subject areas as learning outcomes, or outcome requirements; these are described in terms of knowledge, skills and attitudes. However, general education in Hungary has placed the main emphasis on process and content regulation since 2010 ([214]), with the only outcome requirements present as standards in the upper secondary school leaving examination. Since 2005, the final secondary school examination (*maturita* examination) has been reformed, enabling more accurate assessment of competences acquired by students. Secondary education finishes with a school leaving certificate issued after completing the 12th grade and holders can take a secondary school leaving examination in specific subjects chosen at medium or advanced level. Exams measure both declarative knowledge and skill, the ability to apply knowledge. The certificate obtained following the examination is an entry condition to higher education and most higher education courses require the secondary school leaving examination at advanced level.

There have been two VET reforms in the past 12 years: in 2004-06 and in 2011-12. The NVQR was reformed and a modular system and competence-based training was introduced in 2006 (the renewed NVQR was generally introduced in all VET schools from 2008). The 2012 revision of the NVQR kept the competence-based approach and the modular principle. Vocational and examination requirements (VERs) were developed for each qualification, consisting of a 'task competence profile' and an 'attribute competence profile' that lists the vocational knowledge and skills, as well as social (communication, cooperation and conflict-resolution), methodological (logical thinking, problem-solving) and personal (flexibility, creativity, independence) competences required to perform the tasks. Vocational school programmes, which prepare students for State-recognised vocational qualifications, run for three years, simultaneously providing general education and VET. The proportion of practical training in the new three-year programme is significantly higher, while

([214]) The national curriculum (2012) reintroduced the definition of 'mandatory minimum content' (with extensive amounts), which together with the new mandatory, centrally published framework curricula and the central selection of textbooks, leave little professional autonomy for schools.

that of vocational theoretical education, particularly general education, is lower. Advanced VET has been reorganised: it is now solely provided by higher education institutions. Learning outcomes descriptions were prepared in cooperation with providers in 2012 and higher education quality assurance measures apply.

Learning outcomes have partly appeared in higher education qualifications requirements through regulatory measures and acts. All first and second cycle higher education qualifications in Hungary, including advanced VET qualifications, are increasingly described in terms of both input and outcome criteria. However, student-centred learning, outcomes-based orientation and use of learning outcomes in designing programmes and learning modules are still key challenges in higher education. In 2016, the new educational and outcome requirements of higher education study programmes have been rewritten in terms of HuQF level descriptors ([215]). The higher education accreditation committee has to assess new programme proposals in accordance with HuQF-compatible outcome requirements defined in the educational and outcome requirements.

Stakeholder involvement and institutional arrangements

Overall responsibility for developing and implementing the HuQF, and for initiating related legislation, is shared between the Ministry of Human Resources and the Ministry of National Economy.

Conceptualisation of an NQF started in early 2006; establishment of the framework and its referencing to the EQF was legislated through two government decisions, in 2008 and 2011, respectively ([216]). During 2008-10, stakeholder involvement in the development of the NQF was ensured through the Social renewal operational programme (SROP) of the new Hungary development plan (2007-13). Between 2011 and 2014, framework development was carried out as part of three different projects of the SROP: one for general education, one for higher education, and one for vocational and adult education. Each of the three projects was responsible for involving their own sector-specific stakeholders through conferences and workshops. To ensure coordination, information sharing, and harmonised working methods, an operational interministerial task force ([217]) was set up and met regularly. A national consultation on the development of the HuQF grid also took place.

The latest government decree ([218]) regulated the governance for the development phase of the HuQF. However, the legal basis for the institutional setting and the operational aspects for the implementation phase are still under discussion. A proposal has been drawn up to adjust the governance structure for the specific purpose of NQF implementation, which has its own challenges, but this is yet to be approved ([219]). Currently, there is a discussion about the future management and sustainability of the HuQF, but no decision has yet been made.

Professional support to the interministerial task force has been provided by the education authority since September 2012. In spring 2012, the national coordination point (NCP) ([220]) was placed within the education authority as a project unit, mainly to coordinate stakeholders and prepare the referencing process. The NCP and the Tempus Public Foundation organised subsector-specific and horizontal consultations and events. Of the three educational subsystems, involving stakeholders from general education remains a challenge to be addressed.

Recognising and validating non-formal and informal learning and learning pathways ([221])

The legal framework governing VET, higher education and adult education allows for validation and recognition of prior learning, but there is no explicit policy on validation of non-formal and informal learning in the country. Practice is still limited. The *Strategic framework for policy of lifelong learning for 2014-20* adopted at the end of 2014, establishes the ground in measure 3.7: 'development of human resources with the tools of lifelong learning (LLL)' of the Human resources

([215]) Decree No 18/2016 (VIII. 5) of the Ministry of Human Resources on the educational and outcome requirements of higher vocational programmes, bachelor and master programmes and on the modification of Decree No 8/2013 of the Ministry of the Human Resources on the common requirements for teacher training and educational and outcome requirements for teacher training programmes.

([216]) Government Decision No. 2069/2008 and No 1004/2011.

([217]) The operational task force consisted of the projects' key experts, the Hungarian national coordination point (NCP) and the Hungarian representative in the EQF advisory group.

([218]) Government Decree No 1229/2012.

([219]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

([220]) The EQF NCP existed before 2012 within the Ministry of Human Resources.

([221]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

development operative programme in the new national development plan. The text establishes that the Hungarian Government – following the 2012 Council recommendation (Council of the European Union, 2012) – will engage in establishing a national validation system by 2018. At the moment, there are discussions within the different sectors on how this can be achieved.

According to the amended Higher Education Act (2011) ([222]), at least one third of the credits in a qualification should be earned in the institution issuing the diploma. Two thirds can be acquired in another way, including through validation of non-formal and informal learning. The development of validation in higher education ([223]) was concluded in 2015 and integrated into the NQF development. In the first phase of the project (2009-11) a model for the validation procedure for higher education was elaborated and disseminated. The second phase of this same project was launched in the middle of 2012: it developed recommendations for higher education institutions taking into account the specificities of different branches and study fields. The text provides ideas on how to organise the validation process at an institutional level ([224]). A 2015 government decree ([225]) stipulates that validation of formerly acquired non-formal competences (acquired outside the school system, but in training conducted in an organised form), informal competences (acquired outside the school system, through experience), competences acquired by learning, and experience acquired through working, may be implemented by validating competence (knowledge, achievement, result, skill, other competences) in a course by means of credits or exemption from the performance of a requirement. The specific procedure is determined at institutional level.

A prior learning assessment scheme in the adult training system has existed since 2001 and aims to customise training provision. The Adult Training Act (2013) ([226]) retained the previous scheme and made assessment of prior learning an obligation in vocational training and language training. These validation procedures, however, do not seem to be much used due to the link between adult education provision and subsidies (European Commission et al., forthcoming).

VET provision is modularised and the qualifications and requirements are described in terms of competences, so VET is closer to the learning outcomes-based approach. Regulation of the VET examination system has been 'open' to validation since 1993 (Law on VET) ([227]), making it possible for applicants to take an examination without entering a formal VET programme, though this option is not much used.

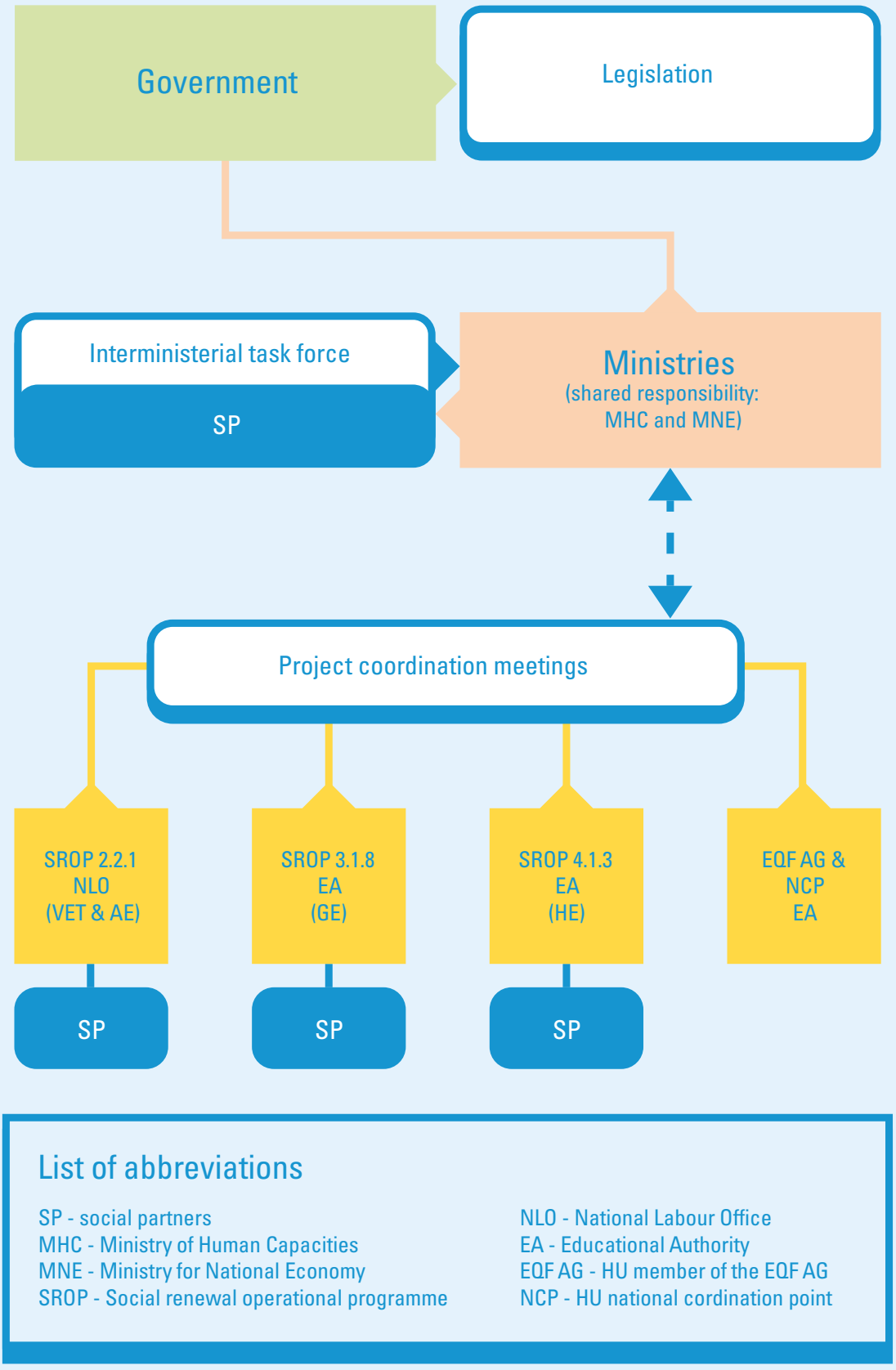
Without an overall policy and procedure on validation, education institutions tend to operate validation autonomously in the framework of their given legal environment. Adapting to a learning-outcomes approach remains the major difficulty in implementing validation in Hungary. Validation reference standards are those of the formal education system; having input-oriented standards makes it difficult to relate to validation. Further NQF development is expected to assist validation through implementation of the learning outcomes approach and because the framework is open to including qualifications obtained through validation of prior learning achieved in non-formal and informal settings.

NQF implementation

The HuQF was formally adopted by Government Decision No 1229/2012 and is partly operational. Since the adoption of the framework, its development has been carried out in the three projects of the Social renewal operational programme (SROP): VET and adult learning, higher education and general education, following the logic of three education and training subsystems. Over recent years, NQF developments were closely linked to new legal provisions in all subsystems of education and training: new VET law (2011) ([228]), new law on general education (2011) ([229]), new act on adult learning (2013) ([230]) and amended law on higher education (2011) ([231]).

([222]) Act CCIV of 2011 on National Higher Education. http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A1100204.TV (in Hungarian only).
([223]) In the framework of SROP 4.1.3: Social renewal operational programme in the frame of the new Hungary national development plan.
([224]) Éva Tót (2015) Intézményi validációs rendszer – ajánlások a hazai felsőoktatási intézmények számára/Institutional level validation scheme – recommendations for higher education institutions; p. 62. The text has been distributed in electronic file format (publication on the internet is planned).
([225]) Government Decree No 87/2015. (IV.9) on the execution of certain provisions of Act CCIV of 2011 on National Higher Education.
([226]) Act LXXVII of 2013 on Adult Training. http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A1300077.TV
([227]) Act CLXXXVII of 2011 on VET. http://net.jogtar.hu/jr/gen/getdoc2.cgi?dbnum=1&docid=A1100187.TV
([228]) Act CLXXXVII of 2011 on VET. http://net.jogtar.hu/jr/gen/getdoc2.cgi?dbnum=1&docid=A1100187.TV.
([229]) Act CXC of 2011 on National Public Education.
([230]) Act LXXVII of 2013 on Adult Training. http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A1300077.TV.
([231]) Act CCIV of 2011 on National Higher Education. http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A1100204.TV

Figure 12 Responsibilities related to development and implementation of the Hungarian qualifications framework (*)



(*) VET and adult education are managed by the Ministry of National Economy, while general education and higher education by the Ministry of Human Resources. The National Labour Office falls under the Ministry of National Economy. The Education Authority falls under the Ministry of Human Resources.

Source: EQF NCP, Education Authority, 2015.

Assigning qualifications to NQF levels has started. First, reference qualifications from higher education and higher vocational qualifications were assigned to NQF levels. A recent government regulation ([232]) made it compulsory for higher education institutions to revisit and adjust the educational and outcome requirements for higher education study programmes in line with NQF descriptors. New higher education programmes will be evaluated and accredited based on the new educational and outcome requirements.

General education qualifications have also been linked to HuQF levels: the leaving certificate awarded after six grades of primary school (to those who move to general secondary schools covering grades 7 to 12), the primary educational qualification certifying the completion of the first eight grades, the secondary educational qualification certifying the completion of secondary education after the 12th grade, the certificate for the secondary school leaving examination, as well as the two bridge programmes ([233]).

In VET, assignment of VET qualifications to NQF levels started with the qualifications included in the national vocational qualifications register, using technical comparisons between qualifications and NQF descriptors and – if needed – social judgement and examination of legal backgrounds.
For future stages of development, the framework is open to linking qualifications acquired in non-formal settings. Besides linking new and existing qualifications to the HuQF, a regular revision of the qualifications framework was proposed on a five-year basis; however no specific policy provision has yet been made on this issue.

The HuQF currently serves as an instrument for transparency and communication of qualifications for experts and stakeholders, and plays a role in the lifelong learning narrative, but concrete implementation actions are still limited. Within its limited budgetary and human resources capacity, the NCP has carried out information and dissemination activities, and staged workshops aimed at raising awareness about learning outcomes approaches among target groups from the different education subsystems.

([232]) Government Regulation No 139/2015 (VI. 9) on the qualifications obtainable in the higher education and recording new qualifications in the higher education catalogue.

([233]) Bridge programmes are one-year programmes that prepare students who have not completed lower secondary studies or who performed so poorly that they were not admitted to upper secondary education to continue their studies in vocational schools.

Referencing to regional frameworks

Hungary submitted the referencing and self-certification report of the Hungarian qualifications framework to the EQF and to the QF-EHEA in January 2015 (EQF national coordination point, Hungarian Education Authority, 2015) ([234]), and the report was approved in the EQF advisory group.

The legal basis for the three education subsystems (the Act on national higher education, the Act on national general education and the Act on vocational education and training) foresees the inclusion of NQF and EQF levels on certificates and diplomas and on the Europass supplements for qualifications linked to the HuQF. In higher education, a regulation ([235]) has been adopted making it compulsory to indicate HuQF and EQF levels in diplomas. In public education ([236]) the modification of the ministerial decree ([237]) on the operation of public education institutions is under way; this will regulate the inclusion of HuQF and EQF levels in official qualifications. Similarly, a 2016 government decree ([238]) on the national vocational qualifications register regulates the possibility for NQF and EQF levels to be added to vocational education certificates.

Important lessons and future plans

One main role of the NQF is to function as an interface between education and the labour market; it is crucial to get all stakeholders on board. As NQF development has been running within three separate projects, following the three education subsystems (VET, higher education, general education), cross-subsystem cooperation has been a challenge. Particular aspects that could be addressed in the future include the involvement of stakeholders from general education, as well as wider dissemination of the benefits of the framework among end users (students, parents, employers and employees). Awareness among guidance practitioners and employment services could be raised through conferences and seminars ([239]).

([234]) The report can be found at: https://ec.europa.eu/ploteus/documentation

([235]) Government Decree No 87/2015. (IV.9) on the execution of certain provisions of Act CCIV of 2011 on National Higher Education.

([236]) Public education includes general education and initial VET (12 years).

([237]) Ministerial Decree 20/2012 (VIII. 13) on the operation of the public education institutions.

([238]) Government Decree 25/2016 (II. 25). http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A1600025.KOR&timeshift=fffffff4&txtreferer=00000001.TXT

([239]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

Table 44 Hungarian national qualifications framework (HuQF)

NQF levels	Types of qualification	EQF levels
8	PhD/DLA (doctor of liberal arts) (*Doktori fokozat*)	8
7	Master degree (MA/MSc) (*Mesterfokozat*)	7
6	Bachelor degree (BA/BSc) (*Alapfokozat*) Advanced VET qualifications (entry requirement is BSc degree) (*Felsőfokú szakképzettség*)	6
5	Advanced VET qualifications (higher VET programmes – short cycle) (*Felsőfokú OKJ szakképesítés*) Postsecondary full and add-on* VET qualifications (based on upper secondary school leaving examination) (*Érettségire épülő szakirányú OKJ szakképesítés*)	5
4	Certificate for upper secondary school leaving examination (*érettségi bizonyítvány*) General upper secondary school leaving certificate (*gimnáziumi záróbizonyítvány*) Vocational grammar school leaving certificate (*szakgimnáziumi záróbizonyítvány*) Vocational secondary school leaving certificate (*szakközépiskolai záróbizonyítvány*) Full/add-on* VET qualification of vocational secondary schools (*szakiskolában megszerezhető teljes vagy ráépüléses OKJ szakképesítés*) Partial**/full VET qualification of vocational grammar schools (*szakgimnáziumban megszerezhető rész- vagy teljes OKJ szakképesítés*)	4
3	Leaving certificate and VET qualification (vocational schools for SEN students) (*Speciális szakiskolai záróbizonyítvány és OKJ szakképesítés*) Lower secondary and secondary*** level partial**, full and add-on* VET qualifications (*Alapfokú és középfokú teljes, rész- és ráépüléses OKJ szakképesítés*)	3
2	Primary (general) school leaving qualification (primary level educational attainment) (eight years) (*általános iskolai záróbizonyítvány*) Leaving certificate of skills development (vocational schools for SEN students) eight years) (*Speciális készségfejlesztő szakiskolai bizonyítvány)* Partial** VET qualification after Vocational Bridge Programme *(Híd program)*	2
1	Leaving certificate after six grades of primary school (for those who move to general secondary schools covering grades 7 to 12) (6. *osztályos általános iskolai bizonyítvány*)	1

(*) Add-on qualifications build on one or more full qualifications. These consist of additional modules that extend the scope of activities for which the holder is qualified.

(**) Partial qualifications cover a subset of the modules included in a full qualification. They prepare the holder for simpler occupations or for a narrower scope of tasks.

(***) Lower secondary and secondary qualifications have different access requirements.

Source: Hungarian Education Authority, 2016.

Following the work on NQF development and on the referencing process, implementation of learning outcomes has been identified as a key area for further work. NQF development work and related work on validation has generated common understanding of the learning outcomes approach and initiated revision of regulatory documents. Three supporting projects in school education, VET and higher education have disseminated the learning outcomes approach to a wider circle of stakeholders. However, the education subsystems are at different stages of development in this regard and strengthening the learning outcomes approach would be an essential step before moving on. In line with the lessons of the referencing report on the HuQF, revision of the contents of training programmes leading to qualifications at levels 5, 6 and 7 (higher vocational education and training, bachelor courses, master courses) has been completed in 2016.

An important aspect still to be tackled is laying down regulations for the operational phase of the HuQF. The legislation concerning the overall institutional setting, as well as sectoral regulations for implementation of the framework, are yet to be discussed. An explicit strategic vision to integrate the HuQF in the different education subsystems is still to be defined.

Abbreviations

CVET	continuing vocational education and training
NQF	national qualifications framework
EQF	European qualifications framework
ESF	European Social Fund
ERDF	European Regional Development Fund
HuQF	Hungarian qualifications framework
VET	vocational education and training
NQF	national qualifications framework
NVQR	national vocational qualifications register
QF-EHEA	qualifications framework of the European higher education area
VERs	vocational and examination requirements
SROP	social renewal operational programme

Further source of information

More information is provided on the homepage of the Education Authority, available soon in English as well: http://www.oktatas.hu/

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ICELAND

Introduction and context

Iceland has developed a national framework – the Icelandic national qualifications framework (ISQF) – consisting of seven learning-outcomes-based levels and covering all levels and types of qualification. Work started in 2006 and has been closely linked to extensive reform of the Icelandic education system, including changes in legislation and education policy. The focus on the learning outcomes principle and the national qualification levels in the education reform was underpinned by the parallel development of the ISQF.

While there is currently no single act or decree introducing the ISQF, its role and mandate are explicitly stated through a series of acts and decrees introduced between 2006 and 2010. Starting with the Act on Higher Education, and followed by acts on pre-school education, compulsory education, upper secondary education, teacher training and adult education, there was a sufficiently strong formal basis for the framework to be able to move into an early operational stage during 2013.

The Icelandic NQF was referenced to the European qualifications framework (EQF) in December 2013. The ISQF can (2016) be described as having reached an early operational stage. The relationship to higher education qualifications has yet to be clarified, depending on possible revision of the level structure (with a split of ISQF levels 4 and 6 into sublevels). The relationship of the ISQF to adult learning is also being debated, particularly addressing the added value of the framework for low-skilled adults.

Policy objectives

The ISQF is defined as a lifelong learning framework and aims to cover all levels and types of education and training offered in the country, including adult education. The framework is designed to make the pathways through the education system clearer, to increase student mobility within the country and between countries, and to motivate further learning.

The framework starts with, and is anchored to, reform of Icelandic education and training initiated by the Act on Higher Education adopted in 2006 ([240]). While this act referred to the Bologna process and the introduction of a three-cycle approach for Icelandic higher education, the acts on compulsory school and upper secondary education in 2008 ([241]) and on adult education in 2010 ([242]) address the remaining parts of education and training and point towards a comprehensive national qualifications framework. No separate legislative basis has yet been developed for the ISQF: this has been deemed unnecessary due to the integration of framework developments into the 2006-10 legal acts.

The Icelandic NQF, through its systematic application of learning outcomes, is seen as a tool for reviewing the overall functioning of education and training and supporting long-term reform. This is exemplified by the Act on Upper Secondary Education, which provides for a new, decentralised approach to organising study programmes and curricula. Education providers are entrusted with increased responsibility and enjoy more autonomy in developing study programmes and curricula in general education and VET, using an approach combining learning outcomes, workload and credits. Descriptions have to be validated by the Ministry of Education, Science and Culture.

([240]) Icelandic Ministry of Education, Science and Culture: Higher Education Institution Act, No 63/2006; entered into force on 1.6.2006: http://eng.menntamalaraduneyti.is/media/MRN-PDF-Althjodlegt/Higher-Education-Act-no.-63-2006nytt.pdf

([241]) Icelandic Ministry of Education, Science and Culture: the Upper Secondary School Act, No 92/2008; entered into force on 1.8.2008: https://eng.menntamalaraduneyti.is/media/MRN-pdf_Annad/Upper_secondary_school_Act.pdf

([242]) Icelandic Ministry of Education, Science and Culture: the Adult Education Act; No 27/2010; entered into force on 1.10.2010: https://eng.menntamalaraduneyti.is/media/MRN-PDF-Althjodlegt/Adult-Education-Act.pdf

Levels and use of learning outcomes

Iceland has decided to introduce a seven-level framework distinguishing between knowledge, skills and competence. Development of level descriptors for the ISQF has been an important part of the overall strategy to shift to learning outcomes. The NQF descriptors for levels 1 to 4 were published in the national curriculum guide for upper secondary school in 2012 ([243]). Descriptors for three higher education levels were published in the form of a decree in 2011. Combined, these two approaches add up to a seven-level NQF. In 2015-16 there has been a discussion on potential revision of the level structure, possibly by introducing sublevels for levels 1, 4 and 6.

Competences are expressed in more detail than in the EQF and reflect the importance attributed to key competences. This is a positive feature and contributes to the overall relevance of the descriptors at national level. Key competences and transversal skills and competences have been taken into consideration. When comparing the ISQF descriptors to those of the EQF, however, there are often overlaps between the headline-terms knowledge, skills and competences. This can be illustrated in the 'skills' category where ISQF tends to combine and extend the (EQF) focus on cognitive and procedural skills to aspects like autonomy, initiative, and creativity. The implication of this is that the distinction between skills and competence is somewhat blurred. This problem can be overcome by reading across the knowledge, skills and competence categories but indicates that the internal consistency of the ISQF descriptors could be further strengthened.

Compared to the EQF, and other national framework descriptors, those at ISQF levels 1 to 4 (EQF 1 to 5) are very much focused on the vocabulary of students and their ability to express themselves orally and verbally. Compared to the general definition of learning outcomes, where the focus is on what a person knows, is able to do and understand, the ISQF descriptors seem to have adopted a narrower approach.

The shift to learning outcomes is considered an important part of the reform of Icelandic education and training. Systematic use of learning outcomes, referring to a national set of descriptors, is seen as essential for future qualifications design.

([243]) The Icelandic national curriculum guide for upper secondary schools: http://brunnur.stjr.is/mrn/utgafuskra/utgafa.nsf/RSSPage.xsp?documentId=2149C139F3FA145B00257A240035BA1B&action=openDocument

Stakeholder involvement and institutional arrangements

A wide range of stakeholders from education and training, and from the labour market, has been involved in developing the ISQF. Apart from the political debate surrounding the preparation and passing of the education and training acts (between 2006 and 2010), representative working groups have been active during all stages of the process. Development of framework structures has been combined with extensive efforts to introduce the learning outcomes perspective in curricula and in teaching and learning practices. The strong link to continuing reforms has benefitted stakeholder involvement.

More than 20 working groups, involving representatives of education and training and occupational sectors, were set up from 2009 to work on the level descriptors and their integration into the framework. Focusing on vocational qualifications, this work proved important for testing the relevance of the learning outcomes approach and the framework to the labour market. All upper secondary schools were invited to contribute to the level descriptors and give their view on the potential role of the framework. This involvement of stakeholders and practitioners contributed to the 'anchoring' of the NQF proposal not only in education and training but also among labour market stakeholders.

The Icelandic higher education sector has been less involved in the development of the ISQF and has, since 2007, mainly focussed on the link to the qualifications framework in the European higher education area (QF-EHEA). There is now agreement, however, that the three cycles of the higher education framework will provide the three highest levels in the Icelandic NQF. During 2015 a working group looked into the conditions for better integrating higher education qualifications into the ISQF. This group proposed to revise the level structure and split ISQF level 4 (diploma) and 6 (master) into two sublevels each. A final decision on this has still to be made by the Ministry of Education. Adult learning stakeholders expressed concern over the lower levels of the ISQF, noting that there is no level into which adults with low formal qualifications and/or special needs could enter. A final decision on this has yet to be made.

The framework has generally been received positively by the different stakeholders, including teachers and trainers who are actively involved in continuing reforms related to learning outcomes, curricula and key competences.

Since 2015, the Icelandic Centre for Research – Rannís ([244]) – has been in charge of NQF coordination. This takes place under the supervision of the Ministry of Education, Science and Culture. Rannís is also acting as EQF national coordination point.

Recognising and validating non-formal and informal learning and learning pathways ([245])

A national strategy for the validation of non-formal and informal learning is in place for people with low levels of education and qualifications. Most of the work undertaken on validation has been carried out by the Education and Training Service Centre ([246]) (ETSC) since it was established in December 2002 by the Icelandic Confederation of Labour (ASÍ) and the Confederation of Icelandic Employers (SA). Since 2010, the ETSC has also been owned by the Federation of State and Municipal Employees, the Association of Local Authorities in Iceland, and the Ministry of Finance. The target group for the work of the ETSC and of its validation activities is people with little formal education; almost 30% of those aged 25 to 64 on the labour market have not completed upper secondary education ([247]).

The ETSC works according to a contract with the Ministry of Education, Science and Culture. One of the main objectives of this contract is the development of a national strategy on validation in cooperation with social partners, so the model of validation is centralised through the ETSC. The strategic focus has been on individuals who have not completed upper secondary education and, since 2006, has been mostly industry-based. Extensive development was planned in other sectors through the EU Instrument for pre-accession assistance (IPA) project *Increasing employability of low qualified workers through the development of a skill recognition system in adult education*. This was successfully launched in autumn 2012 and 17 sectors (16 curricula and one job) were piloted. The project had planned to open 47 new validation pathways in 2012-15, but the financing was terminated by the EU in early 2014. Developments are currently taking place at a slower pace.

There are some developments in validation against job standards in cooperation with stakeholders in the service and tourism sectors, which have been growing rapidly.

The main obstacles for further development are mostly related to the need for open gateways for participants in validation to complete studies in upper secondary schools. Challenges ahead are also linked to including working life in the national qualifications framework in order to have workplace learning recognised, and to secure the quality of the validation system.

NQF implementation

Following the referencing to the EQF in December 2013, the ISQF has now reached an early operational stage. The Ministry of Education, Science and Culture coordinates developments, supported by Rannís. A NQF coordination committee has yet to be set up but progress is expected in the near future. Implementation of the ISQF is largely based on limited resources: for 2015 Rannís had a budget of EUR 50 000 and 0.35 staff dedicated to the work ([248]) though since the NQF forms an integrated part of the education and training system, these figures are misleading. NQF/EQF levels now are being included in all qualifications issued at upper secondary level, both for general and vocational pathways, so visibility is increasing, including to students and parents.

Referencing to regional frameworks

The link between the EQF and the ISQF is described in the Icelandic referencing report, submitted to the EQF advisory group in December 2013 (Icelandic Ministry of Education, Science and Culture, 2014). The outcome descriptors of the ISQF levels are generally more detailed than those in the EQF, and key competences and transversal skills are taken into consideration. ISQF development has been supported by discussions in a network of Nordic countries and by international experts. Among topics discussed was where to place primary and (lower) secondary education certificates in the frameworks of the Nordic countries.

([244]) Icelandic Centre for Research: https://en.rannis.is/

([245]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([246]) Education and Training Service Centre: http://www.frae.is/um-okkur/about-us/

([247]) Statistics Iceland, 2013. News item from 1 October: http://www.statice.is/Pages/444?NewsID=10137

([248]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs* [unpublished].

Table 45 Icelandic qualifications framework (ISQF)

ISQF levels	Examples of qualifications			EQF levels
7	Doctorate degree			8
6	Master and *candidatus* degree			7
5	Bachelor degree			6
4	Diploma at higher education level		Additional studies at upper secondary level	5
3	Matriculation examination	Preliminary higher education	Vocational examination for professional rights	4
2	Upper secondary school leaving certificate Other final examinations		Vocational qualification for professional rights	3
1	Upper secondary school leaving certificate Other upper secondary school final examinations Compulsory school final examinations			1 & 2

Source: Icelandic Ministry of Education, Science and Culture, 2014.

Important lessons and future plans

Promotion of the ISQF is planned for the near future to support implementation. The ISQF is regarded as a living tool that can regularly be revised and adapted according to developing needs and requirements of the education system.

A main challenge in the next few years is to continue the process of dialogue and information. Retaining stakeholder involvement and clarifying roles in future implementation of the framework will be important, as will establishing an active stakeholder coordination committee. Without this there is a risk that momentum will be lost and the opportunity created by the ISQF not used. Whether this committee would be best supported by a body outside the ministry is an open question but could be considered.

The link to higher education seems important for the years to come. The overlaps between levels 3 and 4 need to be further discussed, as does overall coordination between the ISQF and the QF-EHEA.

In support of learner mobility and recognition of competences between education levels, an accreditation process for curricula in adult education is currently being developed, together with the relevant quality criteria. The question of validation is of major importance, and is expected to be a vital element when adult learning is being developed and connected to the ISQF.

Further source of information

Information and documents covering Icelandic developments can be found on the website of the Icelandic Ministry of Education, Science and Culture: http://eng.menntamalaraduneyti.is/

Abbreviations

EQF	European qualifications framework
ETSC	Education and Training Service Centre
ISQF	Icelandic qualifications framework
NCP	national coordination point
NQF	national qualifications framework
QF-EHEA	qualifications framework in the European higher education area

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Icelandic Ministry of Education, Science and Culture (2014). *Reference report of the Icelandic qualifications framework to the European qualifications framework for lifelong learning*. Reykjavík: Icelandic Ministry of Education, Science and Culture. https://ec.europa.eu/ploteus/sites/eac-eqf/files/EQF_Reference_Report_2014.pdf

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INDIA

Introduction and context

The National policy on skill development and entrepreneurship 2015 supersedes the 2009 National skill development policy, which already recognised the need to establish a national qualifications framework (NQF). The new policy guides the skills development strategies and initiatives of all stakeholders, and provides clarity and coherence on how skill development efforts across the country can be aligned with existing institutional arrangements to improve the employability and productivity of learners (Ministry of Skill Development and Entrepreneurship, 2015). It is designed to cover both general and vocational education and training by providing a national framework for the implementation of learning activities in order to:

(a) align them with international standards;
(b) link knowledge and skills with the demands of the labour market;
(c) identify the various institutional frameworks that can help achieve successful outcomes.

Realising the need to have a unified framework that covers both technical and vocational education and training (TVET) and general education, the Cabinet Secretariat formed an interministerial committee with an aim of developing a national skill qualification framework (NSQF). This new framework is anchored in the National Skill Development Agency (NSDA) and comprises both the national vocational qualifications framework (NVQF) and the national vocational educational qualifications framework (NVEQF). The NSDA operates under the Ministry of Skill Development and Entrepreneurship, and ensures that NSQF quality and standards meet sector-specific requirements.

The implementation of the NSQF is supported by an EU-funded technical assistance programme, currently in its final year, whose purpose, inter alia, is to enable policy-makers and key counterparts to implement the NSQF and support the creation of labour market information systems (LMIS). The overall objective of this exercise is to improve the quality and relevance of training provision and the number of certified and skilled workers in various employment sectors in India (India-EU Skills Development Project, 2013).

Since India has set its sights on becoming an important source of talent for national and global business, the country's great challenge is to ensure that its workforce possesses skills appropriate to the needs of both the national and global economies.

India's labour market situation, however, is paradoxical: many millions of people graduate from schools and colleges and work in the labour market, yet the supply of skilled workers is inadequate in some sectors.

A skill gap study conducted by the National Skill Development Corporation (NSDC) between 2010 and 2014 revealed a net incremental requirement of 109.73 million skilled workers by 2022 in 24 key sectors (Ministry of Skills Development and Entrepreneurship, 2015, p. 6). On the supply side, analysis based on the results of recent employment and unemployment surveys by the NSSO (National Skill Survey Organisation) shows that the total workforce in the country is estimated at 487 million, of which approximately 57% is in the non-farming sector. Excluding the workforce with higher education but without formal skills training leaves about 450 million workers (MSDE, 2015).

The existing non-farming workforce aged between 15 and 45 is approximately 170 million. This workforce will need to be assessed by recognising existing competences before providing the training and skills necessary to increase productivity and opportunities for advancement (MSDE, 2015).

It is estimated that 104.62 million entering the workforce for the first time over the next six years (up until 2022) will need training of some sort. Training is also needed for 298.25 million of the existing workforce in both farming and non-farming sectors. Appropriate infrastructure needs to be created, taking into consideration the growing labour force, sectoral division and spatial disbursal across the country and in other parts of the world.

Another challenge for India today is the public perception of TVET, which is viewed as a last resort for those who have been unable to progress or who have opted out of the formal academic system. Many micro-, small- and medium-sector businesses in larger industries tend to see skilled and unskilled persons as inadequately trained, depriving TVET of any meaningful economic incentive. Most vocational training programmes are not aligned with industry requirements, so unemployment continues to coexist with a lack of skilled people to build roads and bridges, lay pipelines, work in factories, engage in offshore drilling, and build ships.

Central government skill development programmes have been spread across more than 20 ministries/departments over the years without coordination and monitoring mechanisms to ensure convergence. This legacy has resulted in a multiplicity of norms, procedures, curricula and certifications. There are also multiple assessment and certification systems in the country, leading to inconsistent outcomes and causing confusion among employers. Another key challenge is to increase women's participation in the labour force; according to census data, this has fallen from 33.3% to 26.5% in rural areas and from 17.8% to 15.5% in six urban areas between 2004 and 2011 (MSDE, 2015).

Only 10% of Indian workers have acquired vocational skills; of these, 8% have done so on the job, so less than 2% have acquired recognised vocational qualifications (Planning Commission 2007-12). The 13-30 age group in the Indian population is currently growing by 28 million people each year, yet there are only about 2.5 million vocational training places available in the country (MHRD, 2011). However, the number of those skilled in non-agricultural trades under various government schemes in 2013-14 was over 5 million.

The government's industrial training institutes are often criticised as being dead-end pathways but continue to be the mainstay of skills needed for the manufacturing sector. TVET is often of poor quality, and general education has frequently led to poor employability of secondary school and higher education graduates. Inadequate training of TVET teachers is also a significant barrier. The share of TVET in India needs to be increased if the country is to meet its huge skills needs. At present, it is difficult for people with informally acquired skills to move from informal to formal programmes, though that seems to be changing as various projects on recognition of prior learning (RPL) have been launched in recent months.

The informal economy ([249]) both rural and urban, employs up to 94% of the national workforce; yet most training programmes cater to the organised sector ([250]) (NCEUS report, 2009). India urgently needs to find ways of bridging the traditional divide between education and training and working life. In today's climate of rapid change, such a strict divide can no longer be sustained. Learning must be made more relevant to the workplace, and must continue to take place during employment (Singh, 2012).

India has a big challenge ahead of it, as it is estimated that only 4.69% of the total workforce in India has undergone formal skill training, compared to 68% in the United Kingdom of Great Britain and Northern Ireland, 75% in Germany, 52% in the United States of America, 80% in Japan and 96% in the Republic of Korea (NSSO, 2011-2012; see MSDE, 2015). Only 12% (for 2010) of young people aged 18 to 24 were enrolled in higher education (Indian Express, 2010). India thus falls not only well below the OECD average of 80% on this count, but also below the global average of 23% (Odisha HRD, 2011). National policies aim to enrol 30% of Indian youth in higher education by 2020 (Indiainfoline, 2011). The government is currently seeking to create alternative pathways to post-secondary and higher education. It also aims to create job opportunities for 150 million students who will not have access to higher education by 2020.

Policy objectives

The objectives of the NSQF need to be considered in relation to the new National policy for skill development and entrepreneurship of 2015. They include:

(a) making quality vocational training attractive to both young people and employers;
(b) ensuring that both vertical and horizontal pathways are available to the skilled workforce for further growth;
(c) providing seamless integration of skill training with formal education;

([249]) In India, informal sector enterprises are considered to be a subset of the unorganised sector, 'comprising in addition to the unincorporated proprietary and partnership enterprises, enterprises run by cooperative societies, trust, private and limited companies' (National Accounts Statistics [NAS], Sharma and Chitkara, nd).

([250]) The International Labour Organisation's definition of the informal economy comprises three categories: small or microenterprises, household-based activities carried out by family members, and independent service activities including domestic helpers, cleaners, street vendors, and shoe-shiners (ILO, 1998, p. 168).

(d) focusing on an outcomes-based approach to quality TVET;
(e) increasing the capacity and quality of training infrastructure and trainers;
(f) addressing human resource needs by aligning the supply of skilled workers with industry requirements;
(g) promoting national standards in skills training by involving employers in the process of:
    (i) setting occupational standards;
    (ii) helping develop curriculum;
    (iii) providing apprenticeship opportunities;
    (iv) participating in assessments;
    (v) providing gainful employment to the skilled workforce with adequate compensation;
(h) operating a well-defined quality assurance framework aligned with global standards to support mobility of labour;
(i) promoting commitment among stakeholders to skill development and creating an effective coordination mechanism for this;
(j) providing vertical growth pathways in the general education system so that skills education and training is seen as a valid route to earning degrees and diplomas, and consequently a valid route to positions of authority linked to such qualifications.

The government also expects the NSQF to help achieve the following objectives (Ministry of Finance, 2013):

(a) accommodate the diversity of Indian education and training systems;
(b) allow the development of a set of qualifications for each level, based on outcomes that are accepted across the nation;
(c) provide structure for developing and maintaining progression pathways that provide access to qualifications and enable easy movement between different education and training sectors and within the labour market;
(d) give individuals an option to gain recognition for prior learning and experiences;
(e) underpin national regulatory and quality assurance arrangements for education and training;
(f) support and boost the national and international mobility of persons with NSQF-compliant qualifications by increasing recognition of their value and comparability with other Indian qualifications.

Levels and use of learning outcomes

NSQF is a competency-based framework that organises qualifications into 10 levels: level 1 is entry, level 10 the highest. Each level is characterised by the following categories of competences:

(a) professional knowledge: what the person must know at that level;
(b) professional skills: what the person should be able to do at that level;
(c) core skills: soft and interpersonal skills.
(d) responsibility: the degree of supervision the person needs while doing the job, or the degree of supervision that person is capable of exercising over others.

These are the competences which learners must possess regardless of whether they were acquired through formal, informal or non-formal education and training. Levels are described by level descriptors that delineate the knowledge, skills and competences required at the level in question.

Qualifications are made up of occupation standards for specific learning units. This allows learners, educators, training providers and employers to gain information about the broad equivalence of qualifications across different skill sectors. The competence frameworks are expected to align curricula with the skills needs of industry. The NSQF also aims to include a range of qualifications currently provided through TVET programmes run by more than 17 different ministries (MHRD, 2011). A further objective is to boost flexibility in vocational courses by developing a 'modular' competency-based curriculum in collaboration with industry.

Stakeholder involvement and institutional arrangements

The National Skill Development Agency (NSDA), an autonomous body registered as a society under the Society's Registration Act 1860, was created in June 2013 with the mandate to coordinate and harmonise skill-development activities in the country. The agency is now part of the Ministry of Skill Development and Entrepreneurship (MSDE). The NSDA is responsible for:

(a) the NSQF;
(b) the quality assurance framework embedded in the NSQF;
(c) the National Skill Qualifications Committee (NSQC);
(d) the national labour market information system;
(e) developing national protocols for registration and accreditation of private training providers;
(f) promoting improvement in consistency of outcomes in skills development (MSDE, 2015).

The NSDA will aid the operationalisation of the NSQF by bringing together the key sectoral stakeholders through the NSQC, which is chaired by the NSDA chairperson and includes

Table 46 India's NSQF level descriptors

Level	Process required	Professional knowledge	Professional skill	Core skill	Responsibility
1	Prepares person to carry out processes that are repetitive and require no previous practice	Familiar with common trade terminology and instructional terms	Routine and repetitive, takes safety and security measures	Reading and writing, addition, subtraction, personal financing, familiarity with social and religious diversity, hygiene and environmental awareness	No responsibility, always works under continuous instruction and close supervision
2	Prepares person to carry out processes that are repetitive with little application of understanding, more of practice	Material tools and application in a limited context, understands context of work and quality	Limited service skill used in limited context, select and apply tools, assist in professional works with no variables, differentiates between good and bad quality	Receive and transmit written and oral messages, basic arithmetic, personal financing, understanding of social, political and religious diversity, hygiene and environmental awareness	No responsibility, works under instruction and close supervision
3	Person may carry out a routine and predictable job requiring limited range of activities	Basic facts, process and principle applied in trade of employment	Recall and demonstrate practical skill, routine and repetition in narrow range of application	Written and oral communication, with minimum required clarity, basic arithmetic and algebraic principles, personal banking, basic understanding of social and natural environment	Under close supervision. Some responsibility for own work within defined limit
4	Work in familiar, predictable, routine situations of clear choice	Factual knowledge of field of knowledge or study	Recall and demonstrate practical skill, routine and repetitive in narrow range of application, use of appropriate rules and tools, using quality concepts	Written or oral communication with required clarity, basic arithmetic and algebraic principles, basic understanding of social, political and natural environment	Responsibility for own work and learning
5	Job that requires well-developed skill, with clear choice of procedures in familiar context	Knowledge of facts, principles, processes and general concepts within a defined field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Desired mathematical skill, understanding of social and political environment, some skill in collecting and organising information, communication	Responsibility for own work and learning, and some responsibility for others' work and learning

Level	Process required	Professional knowledge	Professional skill	Core skill	Responsibility
6	Demands wide range of specialised technical skills, clarity of knowledge and practice in broad range of activities involving standard and non-standard practices	Factual and theoretical knowledge in broad contexts within a defined field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems within a defined field of work or study	Reasonably good in mathematical calculation, understanding of social, political and natural environment, reasonably good in data collecting and organising information, and ability to communicate	Responsibility for own work and learning and full responsibility for others' work and learning
7	Requires a command of wide-ranging specialised, theoretical and practical skills, involving variable routine and non-routine contexts	Wide-ranging, factual and theoretical knowledge in broad contexts within a defined field of work or study	Wide range of cognitive and practical skills required to generate solutions to specific problems within a defined field of work or study	Good logical and mathematical skills and understanding of social, political and natural environment. Good at collecting and organising information, communication and presentation skills	Full responsibility for output of group and its development
8	Comprehensive, cognitive, theoretical knowledge and practical skills to develop creative solutions to abstract problems. Undertakes self-study, demonstrates intellectual independence, analytical rigour and good communication				Exercise management and supervision in the context of work/study with unpredictable changes, responsible for development of self and others
9	Advanced knowledge and skills. Critical understanding of the subject, demonstrating mastery and innovation, completion of substantial research and dissertation				Responsible for decision-making in complex technical activities, involving unpredictable study/work situations
10	Highly specialised knowledge and problem-solving skills to provide original contribution to knowledge through research and scholarship				Responsible for strategic decisions in unpredictable complex situations of work/study

Source: Ministry of Finance, 2013, pp. 9-11.

representatives from key ministries involved in skills development, representatives of State skills development missions, industry representatives, and heads of relevant regulatory and training bodies/agencies. As a preliminary step, the NSDA has launched an evaluation survey to give a better picture of the current situation in India with regard to TVET. This will help highlight good practices that can be built on in future policy-making (ibid.).

The National Skills Development Corporation (NSDC) is tasked with supporting private sector participation in skills development, including incubation of industry-led bodies known as sector skill councils (SSCs), which define the national occupational standards (NOS) and qualification packs (QPs) for various job roles in their respective skills sectors. The outcome standards for each job role are clearly defined and detailed in the NSQF.

SSCs ensure that persons trained according to NOS/QPs are employed by employers in their sector. The National Skills Qualification Committee (NSQC) of the NSQF oversees SSC standards. All NOSs and QPs developed by the SSCs will be examined and reviewed by the NSQC and conferred the status of a 'national standard'. All skill training in the country will need to be aligned with these national standards.

The Ministry of Human Resource Development (MHRD) coordinates the efforts of different players in vocational education at secondary level. Several major reforms are either starting or are already under way in the MHRD's areas of responsibility; these include curriculum reform, the community colleges initiative (CCI) programme and reform of the polytechnic approach to curriculum development. Interministerial cooperation and engagement with stakeholders is growing and ways are being sought to incentivise private schools to engage with TVET (Kumar, 2013). The Directorate General for Employment and Training (DGE&T), which was earlier under the MoLE, has now been subsumed under MSDE.

Awarding bodies such as school boards are expected to ensure that the curriculum is designed and delivered in consultation with industry and trade associations and that it conforms to national standards set out in the NSQF. Relevant bodies include boards of open schools for distance education, technical education boards, the Central Board of Secondary Education (CBSE), the All-India Council for Technical Education (AICTE) and the University Grants Commission (UGC). The National Council for Vocational Training (NCVT), established in 1956, currently provides a national framework for setting curricula for various vocational courses and also prescribes equipment standards, scales of space, course durations and training methods, conducts All India Trade Tests and awards national trade certificates. NCVT is being strengthened by scaling up industry representation through SSCs and by laying down a national framework for all certifications in the skill space through an autonomous body.

Consolidated guidelines for accreditation of training providers, based on aspects such as capabilities, infrastructure, trainer availability, and industry affiliations will be drawn up. This will help accreditation at multiple levels and for multiple courses. The accreditation, which will be revised periodically, will help students to make informed choices about training providers. The assessment system will also be fortified with a framework for the accreditation and evaluation of assessors to ensure consistent outcomes.

Curriculum development has been promoted by sectoral mentor committees that include representatives from concerned SSCs, sector experts and relevant academia. This is to ensure curricula are aligned with emerging market demands and the latest NOSs and QPs. The curricula should also consider the latest teaching aids available to disseminate quality training on a large scale. The curricula will be reviewed every three years to align with dynamic market needs; industries may also run courses with high potential for employment through the appropriate affiliation framework. All training programmes will include basic modules of employability skills: computer literacy, finance, language and soft skills, such as etiquette, gender diversity in the workplace, building positive attitudes towards health, and social and life skills.

Skill development programmes implemented by various central government ministries/departments/agencies have different norms for eligibility criteria, training duration, maximum number of places, outcomes, and monitoring and tracking mechanisms. This multiplicity of norms and parameters results in complications and makes it difficult to evaluate the performance of the skill development programmes across the central government in an objective manner.

The MSDE, which was set up to coordinate skill development efforts in the country, will determine common norms. These norms will include input/output standards, funding/cost aspects, third-party certification, and assessment costs across the various skill development programmes, while allowing flexibility to meet regional and socioeconomic requirements. Ministries will, however, be free to frame schemes to meet local/sectoral needs at their discretion, while adhering to common norms.

Recognising and validating non-formal and informal learning and learning pathways

According to the National skill development policy (2015), the 'RPL framework is an outcomes-based qualifications framework linked to NSQF against which prior learning through formal/informal channels would be assessed and certified. The RPL process would include a pre-assessment, skill gap training and final assessment leading to certification of existing skills in an individual. The RPL certification would be at par with the certifications following various skill trainings in the country. It will provide both horizontal and vertical pathways to an individual for acquiring additional skills for better livelihoods. Adequate resources will be earmarked under various

government schemes for equitable access to RPL programmes. The government will provide detailed guidelines for RPL initiatives which will ensure quality and consistent outcomes' (MSDE, 2015, p. 22).

The NSQF will open up several entry and exit points between TVET and general education and will aid movement between the two. The NSQF will emphasise industry participation in vocational education, with a specific focus on creating opportunities for students who are unable to enter colleges and universities. Vocational education courses will be designed, assessed and certified in consultation with industry stakeholders and employers. Industry stakeholders will be encouraged to partner with educational institutions so that vocational students can work on their premises. Workshops will be set up for a cluster of schools, polytechnics and other government institutions, and, where possible, in industry.

The NSQF will support seamless transition from VE secondary level (Class X–XII) to undergraduate level, for bachelor degrees at colleges and universities. To ensure compatibility between academic and vocational courses, the University Grants Commission (UGC) created a task force in 2006 to standardise knowledge and skills imparted by education institutions and industrial training programmes.

The NSQF will improve the progression pathways between formal TVET programmes in schools and ITIs. It will also improve progression opportunities to polytechnics, colleges of engineering and higher education more generally and, ultimately, to employment. Students from vocational streams currently have limited progression possibilities for further education, but that is now changing through the NSQF. Strengthening links between the skills sector and vocational education will call for greater cooperation between MoLE, MSDE and MHRD.

NSQF levels will also be assigned to modular employable skills training organised by the Directorate General of Training (DGT) und the Ministry of Skills Development and Entrepreneurship (MSDE). This is currently a competency-based training (CBT) pathway providing the minimum skill sets needed for gainful employment. The programme targets workers, young people not in school, the unemployed, former child labourers, and people with incomplete Industrial Training Institute (ITI) education.

According to the National policy for skill development and entrepreneurship 2015, recognition of prior learning (RPL) is the key instrument to help map existing skills in the informal or unregulated economy, and integrate them into the formal economy as well as into the formal training landscape. Skills recognition and certification initiatives will provide an important pathway for the 90% of Indians who work in the so-called unorganised sector (NCEUS Report, 2009). However, skills recognition in the informal economy will need to be supported by RPL infrastructure, which is affordable, reliable and efficient. There will be challenges in identifying where skills exist, documenting those skills and communicating with the potential candidates, as well as in administering the process. A number of pilot projects to identify the issues with RPL in the Indian context are currently under way, and most rely on the challenge approach to assessment of skills. An open and transparent examinations system will need to be created that relates to a national qualifications framework to benefit those who have acquired their knowledge and skills outside formal education. Guidance and information campaigns will be needed to guide learners through the process (Singh, 2011).

The National Institute for Open Schooling (NIOS), which offers distance learning courses for out-of-school young people and adults, will align non-formal learning courses to suit the requirements of NSQF levels and will offer bridge or foundation courses to enable seamless progression from one level to another. Recognition of prior learning is an important component of this process. The objectives of RPL will be recognition of prior learning or qualifications acquired outside the formal education system and recognition of credits obtained through formal learning. The NIOS will conduct RPL assessment both at the lowest levels and at community colleges and polytechnics, which offer qualifications such as associate diplomas (MHRD, 2012). To conform to the NSQF and support RPL, community colleges will offer training programmes and courses that are modular, credit-based, career-oriented, flexible on entry and exit and, most important, relevant for local employers (Planning Commission, 2013).

An indicative credit framework has also been proposed (MHRD, 2012). A credit framework has the dual objective of achieving both a skill certificate and an academic general education certificate of equivalent level for each job role and level of learning. School boards, technical boards and universities are being encouraged to switch to credit-based curricula and to establish equivalences between vocational and general education (MHRD, 2012).

NQF implementation

The protocols of meetings held by the National Skills Qualifications Committee (NSQC) now serve as a mechanism to take stock of NSQF implementation in India.

According to the report from the 12th meeting of the committee held in July 2016 ([251]), the NSDA had informed the NSQC that, under the quality assurance framework, the first manual – the overview – was approved. The three manuals, which cover the registration of NSQF qualifications, the accreditation of training/education institutions, and the accreditation of assessment bodies respectively, were tabled for approval.

The NSDA has undertaken various skill development initiatives in alignment with the NSQF in Indian states and with central ministries.

The draft RPL policy has been submitted to the MSDE.

The NSDA has revealed that there has been limited industry consultation on the industrial process to validate qualification files. It was therefore recommended that assessments be undertaken by industry experts instead of by consultants lacking industry expertise. It has also been suggested that the status of qualifications approved by the NSQF to date should be analysed.

The NSQC provided recommendations for setting up three newly formed sector skill councils (SSCs) in the chemical and petrochemical industries, for 'green' jobs, and coating and painting. The NSDA has established specific conditions to be fulfilled by the respective SSCs and informed them accordingly.

The NSDA developed the national qualifications register, the repository for all approved qualifications with their corresponding NSQF levels. As of July 2016, the register comprises 1 520 NSQC-approved qualifications and has been published online for public viewing at www.nqr.gov.in; further qualifications files are currently being brought before the NSQC for approval. NSDA has reiterated the importance of employer involvement in qualification. To encourage this, it will conduct verifications in collaboration with industry representatives. The NSDA recommends that all stakeholders work together and learn collectively to address this issue. India can learn much from the French example, in which the ultimate value of qualifications is measured by actual deployment on the ground.

Referencing to regional frameworks

Given that India is expected to have a workforce surplus of 56 million by 2020 against a shortage of 47 million in Western countries, the India–EU skills development project will support labour force mobility in the ever-changing global employment market. The project now includes referencing of the NSQF with the EQF as a major objective.

The eight Member States of the South Asian Association for Regional Cooperation (SAARC) – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka – finalised the SAARC framework for action (SFFA) for education 2030, which led to its adoption at the third meeting of Ministers of Education/Higher Education held in Male, Maldives in 2016. Through regional collaboration and partnerships, the ministers agreed to:

(a) share the national skills qualifications framework (NSQF) and develop a regional quality assurance framework for vocational/skills education;
(b) undertake case studies, document country cases of qualifications frameworks, and prepare a regional inventory of national qualifications frameworks in education and training;
(c) make technical support available to aid NQF development/review in education and training, including national qualifications frameworks in technical and vocational education and training (TVET), and to develop links between NQFs and the validation of formal, non-formal and informal learning;
(d) support mutual recognition of qualifications and student mobility;
(e) form an expert group to review the frameworks/procedures followed in different SAARC countries for the recognition, validation and accreditation of the outcomes of formal, non-formal and informal learning;
(f) establish a mechanism to develop and implement a regional framework for comparability and mutual recognition, validation and accreditation of tertiary education qualifications, and mobility of students and faculty members across the South Asian region (SAARC, 2016).

Important lessons and future plans

India's development of the NSQF in the context of its skills development policy has underlined the importance of continually improving both the quality of education and training and its relevance to the labour market and population. The NSQF is at the centre of the biggest-ever nationwide skills transformation, with simultaneous emphasis being placed on increasing the volume of opportunities, improving access, and enhancing the quality of provision through activities and partnership across the subsectors.

([251]) Minutes of the 12th NSQC, held on 19.2.2016.

The formation of the NSDA as a gatekeeper of national and sectoral qualifications is an important step. The NSDA will open the door for much-needed recognition of prior learning, so that all learning can be recognised, regardless of the way it has been acquired (Castejon, 2013).

India intends to build on its existing wealth of expertise in vocational education and training rather than starting anew. The country has expertise in assessment, which is at the core of the qualifications framework. It also already benefits from the work of the National Council for Vocational Training, the All India Council for Technical Education (AICTE) and the University Grants Commission, all of which have been functioning as awarding bodies for some time.

Partnership with industry and with all levels of governance (notably, across India's 29 states) in a country this large is important for successful reform. The NSQF provides a forum for this partnership through the SSCs. Within the NSQF, India will pay greater attention to creating a balance between public and private sector provision. It hopes to achieve this by developing national standards in training delivery common to public and private stakeholders. The shift from learning input to learning outcomes in training delivery will be an important move towards quality assurance. Research will be undertaken to broaden the notion of skills beyond technical and practical to include notions such as communication and personal skills or attributes (Castejon, 2013).

The new policy gives a direction in terms of implementing the qualifications framework and building the capacity of existing stakeholders while focusing on quality.

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Abbreviations

AICTE	All India Council for Technical Education
CBT	competency-based training
DGT	Directorate General of Training
ITI	Industrial Training Institute
LMIS	labour market information system
MHRD	Ministry of Human Resource Development
MoLE	Ministry of Labour and Employment
MSDE	Ministry of Skill Development and Entrepreneurship
NCVT	National Council for Vocational Training
NIOS	National Institute for Open Schooling
NOS	national occupational standards
NSDA	National Skill Development Agency
NSDP	National Skill Development Policy
NSQC	National Skill Qualifications Committee
NSQF	National skill qualification framework
NSSO	National Skill Survey Organisation
NVEQF	national vocational educational qualifications framework
NVQF	national vocational qualifications framework
QP	qualification pack
RPL	recognition of prior learning
SFFA	SAARC framework for action
SSC	sector skill council
TVET	technical and vocational education and training
UGC	University Grants Commission

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INDONESIA

Introduction and context

Indonesia developed the Indonesian qualifications framework (IQF) in 2012. The IQF has a legal endorsement in the form of Presidential Decree No 8/2012, and addresses schooling from year 9 to TVET and higher education. IQF implementation stages are currently being designed.

The Ministry of Education and Culture has produced a key strategic document on the IQF (Directorate General of Higher Education, n.d.). According to the Minister for Higher Education, the IQF is 'one of the national standards in the education sector from which graduates, education and training institutions under the authority of the Ministry of Education and Culture could assess their learning outcomes or certificates' proficiency in conjunction with one of the relevant qualification levels specified in the IQF' (Directorate General of Higher Education, n.d., p. 3).

Currently, the Ministry of Labour under the supervision of the Directorate of training and productivity development is planning and documenting the delivery of IQF to professional field workers through the standardisation of training programmes and certification of qualifications and competences.

The Government of Indonesia sees the legal endorsement of the IQF in the context of other laws and regulations. For example, Law No 13/2003 on manpower development, Government Regulation No 31/2006 on the national job training system, and Law No 20/2003 on the national education system. The IQF is also in line with existing regulations endorsed by other ministries and authorised organisations relating to manpower quality and development and competence certification (Directorate General of Higher Education, n.d.).

Education and training provision in Indonesia is currently fragmented and often of poor quality. The IQF is intended to address this to meet the demands of an increasingly mobile and globalised higher education market. It will also raise the quality of qualifications and clarify their levels, allowing manpower to be deployed more effectively in both formal and informal sectors of the economy. It will specify equivalences between Indonesian and foreign qualifications, improve Indonesia's international competitiveness and make the country more open to global trade. The IQF is also intended to provide a unified reference point for all education and training providers in Indonesia, especially those engaged in efforts to direct the unemployed towards appropriate job opportunities. At present, it is difficult for employees to upgrade their qualifications. The IQF will address this by setting out qualification levels against which employees can be assessed. Those who do not reach the expected level will be encouraged to enrol in education or training in order to attain an IQF-approved qualification. Education or training providers whose learning outcomes or certificate statements do not conform to IQF descriptors will also be able to carry out internal quality improvements to bring their qualifications in line with IQF requirements.

Policy objectives

In response to the above challenges, the main policy objectives of the IQF are to increase:

(a) the quantity and quality of Indonesian manpower in order to obtain greater access to both national and international job markets;
(b) the contribution of all learning outcomes to national economic growth, whether achieved through formal, non-formal or informal education or work experience;
(c) educational mobility to foster mutual understanding and collaboration between higher education institutions across the world;
(d) the awareness of Indonesia, both regionally and internationally, without losing sight of its national identity and character (Directorate General of Higher Education, n.d.).

Levels and use of learning outcomes

The IQF consists of nine levels characterised by both learning outcomes and job-specific competences. Descriptors at each level specify

the learning outcomes or competences that can be demonstrated by an individual at that level, and are divided into two categories: general and specific. The general descriptors cover personality, working attitude and ethics, and are applicable to every Indonesian citizen at every level. The specific descriptors describe each individual's knowledge and skills and are level-specific.

Table 46 illustrates the referencing scheme between the learning outcomes of different education streams and IQF qualification levels. This scheme will make it easier to ensure that graduates of education programmes possess the right competences at the right level.

Stakeholder involvement and institutional arrangements

Three ministries have been chiefly responsible for the development of the IQF: the Ministry of Education and Culture, the Ministry of Manpower, and the Ministry of Research, Technology and Higher Education. Within the Ministry of Education and Culture, the IQF has been administered by the Directorate-General of Elementary and Secondary Education Management and the Directorate-General of Early Childhood, Non-Formal and Informal Education; within the Ministry of Manpower, the IQF has been the responsibility of the Directorate-General of Training and Productivity Development and within the Ministry of Research, Technology and Higher Education, it has been the responsibility of Directorate Higher Education.

The Indonesian Qualifications Board (IQB) will manage the development of the IQF. The Board is expected to oversee matters such as regulations, descriptors, guidelines, standards-setting documents and other support work, including coordination with organisations or other parties relevant to the IQF and international public relations. There is also currently an ACDP funded-project in Indonesia to provide advice for the establishment of IQF governance arrangements (SHARE, 2015).

The stakeholders believe that the IQF should be the basis for the development of national standards of education and professional (vocational) competency standards. These will provide a point of reference for accreditation, assessment and certification by bodies such as the National Accreditation Board (NAB) and the National Professional Certification Board (NPCB), as well as professional and occupation competence certification boards and private accreditation bodies.

The Ministry of Research, Technology and Higher Education has already referenced existing learning outcomes in higher education to qualifications levels in the IQF. During this process, it analysed learning outcome descriptors from more than 1 000 study programmes within 97 higher education institutions across Indonesia (A and B accreditation category). Institutions were selected which had implemented

Table 47 Equivalences between learning outcomes from different types of education in Indonesia

Academic qualifications	IQF	Technical and vocational education and training		
S3	9	S3 (Applied)	Specialist	
S2	8	S2 (Applied)		
	7		Profession	
S1	6	D IV		
	5	D III		
	4	D II		
	3	D I		
General high school	2	Vocational high school		
Junior high school	1	Junior high school		

Source: Directorate General of Higher Education, n.d.

an appropriate internal quality assurance system, and which had a good track record in international collaboration. The referencing process was supplemented by comparative studies carried out by qualifications agencies in various countries, as well as through discussions with professional associations, scientific colleges, and employers and recruiters of university graduates in Indonesia (Directorate-General of Higher Education, n.d.).

The Ministry of Education and Culture, the Ministry of Research, Technology and Higher Education, and the Ministry of Man Power acknowledge that a quality assurance system is needed if the IQF is to be trusted nationally and internationally. It is envisaged that the National Standards of Education Board will adopt IQF level descriptors for designing national standards of education and associated assessment procedures. Education institutions will ensure the quality of graduates through their own internal quality assurance systems and the National Accreditation Board is expected to expand its current external quality assurance procedures by taking into account learning outcomes as described in the IQF.

Recognising and validating non-formal and informal learning and learning pathways

The Ministry of Education and Culture and the Ministry of Research, Technology and Higher Education define recognition of prior learning as the process by which learning outcomes acquired through non-formal or informal education or life experiences are recognised in the formal education sector. Recognition of prior learning (RPL) has three purposes: first, to provide wider access to formal education pathways, fulfilling the mandate authorised by Indonesian law for promoting individuals' lifelong learning; second, to recognise learning outcomes from forms of learning outside the formal education system for the purpose of awarding an equivalent degree; finally, according to Law No 14/2005 relating to teachers and lecturers, to recognise people with expertise in a particular field, such as industry, as lecturers in higher education.

A credit transfer scheme has been designed to improve mobility across the different education streams with the aim of developing learners' expertise in specific fields. Built into the scheme are bridging programmes which aim to boost the performance of individuals who fail to meet the minimum requirements of the institution conferring their credits.

NQF implementation

The Ministry of Education and Culture, the Ministry of Research, Technology and Higher Education and the Ministry of Labour have introduced the IQF throughout vocational education, in programmes of studies in higher education and in vocational/professional training.

Referencing to regional frameworks

The IQF was designed in response to the Indonesian ratification of the regional convention of the recognition of studies, diplomas and degrees in higher education in Asia and the Pacific, which was signed on 16 December 1983 and renewed on 30 January 2008. The ratification was legalised by Presidential Decree No 103/2007.

Currently, the IQF is not linked to any other framework. Additionally, relevant ministries carry out assessment and recognition of qualifications from other economies in accordance with their needs. For example, the Ministry of Research, Technology, and Higher Education is responsible for overseas diploma recognition. The IQB is expected to coordinate links to other frameworks (SHARE, 2015).

Important lessons and future plans

Given the increasingly international nature of the global higher education market, the government sees the IQF as a continuously evolving concept that will need to be regularly updated in order to maintain the highest standards. It is for this reason that the IQF is legally enshrined in a presidential decree rather than a government regulation or law, since this allows the necessary leeway for qualifications and level descriptors to be improved and updated over time.

In future years, Indonesia aims to tackle several practical issues, including but not limited to the following:

(a) incorporating credit transfer and RPL processes into the IQF;
(b) establishing a National Qualifications and Assessment Model;
(c) developing a working group to address how to link the IQF to the Association of Southeast Asian Nations (ASEAN) regional qualifications framework;
(d) establishing authorities for accreditation, standard-setting and certification;
(e) harmonising methods for recognising institutions and qualifications.

Abbreviations

ACDP	Education sector – analytical and capacity development partnership
ASEAN	Association of Southeast Asian Nations
IQB	Indonesian Qualifications Board
IQF	Indonesian qualifications framework
NAB	National Accreditation Board
NPCB	National Professional Certification Board
RPL	recognition of prior learning
TVET	technical and vocational education and training

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SHARE (2015). *ASEAN qualifications reference framework and national qualifications frameworks: state of play report, October 2015.* http://share-asean.eu/wp-content/uploads/2015/10/AQRF-NQF-State-of-Play-Report.pdf

Prepared by:
UNESCO in collaboration with national experts.

IRELAND

Introduction and context

Ireland is well situated according to several performance indicators for education and training, surpassing the EU average figures and, in some cases, EU targets. The country has one of the highest rates of tertiary education attainment in Europe (52.2% in 2014), a low percentage of early leavers (6.9%, compared with the EU average of 11.1%), as well as positive developments in basic skills proficiency. Current reforms have among their priorities an increase in labour market relevance of higher education, upskilling and reskilling in further education and training (FET), and extension of the apprenticeship system to new sectors (European Commission, 2015).

The Irish national framework of qualifications (NFQ) is among the early developed qualifications frameworks in Europe, the concept having been first proposed in legislation in 1999 ([252]). The development of the framework was undertaken by the National Qualifications Authority of Ireland (NQAI) supported by the two main awarding bodies, the Further Education and Training Awards Council (FETAC) and the Higher Education and Training Award Council (HETAC). The NFQ was officially launched in 2003 following extensive public consultation, and has now reached an advanced operational stage.

It is a comprehensive and learning outcomes-based framework, covering all subsystems and levels of qualifications. It is defined as a `single, nationally and internationally accepted entity, through which all learning achievements may be measured and related to each other in a coherent way and which defines the relationship between all education and training awards' ([253]) (NQAI, 2009). The 10 levels, defined in terms of knowledge, skills and competence, capture all learning, from initial stages to the most advanced.

All qualifications awarded by the national awarding bodies in Ireland are now included in the NFQ, including those developed by the State examinations commission, FETAC, HETAC ([254]), universities and the Dublin Institute of Technology.

In 2006 the NFQ was the first national qualification framework to be self-certified to the qualifications framework in the European higher education area (QF EHEA) and in 2009 it was referenced to the European qualifications framework for lifelong learning (EQF). A study on the impact and implementation of the Irish NFQ covering the period between 2003 and 2008 was carried out, and the results published in 2009, emphasising the long-term, cyclic and iterative nature of framework development.

Implementation was carried out by agreement within the education and training subsectors, with strong support from national stakeholders. The NFQ is seen as an enabler of institutional reform and further policy development in education, training and qualifications. Since 2012, the body responsible for the maintenance, implementation, further development and promotion of the framework is Quality and Qualifications Ireland (QQI), a new agency established under the Qualifications and Quality Assurance (Education and Training) Act ([255]).

Policy objectives

A national objective of moving towards a 'lifelong learning society', in which learners can benefit from learning opportunities at various stages throughout their lives, was a key factor in the developments that have taken place in Ireland. Major changes were envisaged for the qualifications system to achieve coherence, relate all qualifications to each other, ensure the quality of awards and shift the focus of qualifications from inputs to outcomes.

([252]) Qualifications (Education and Training) Act, 1999. http://www.irishstatutebook.ie/eli/1999/act/26/enacted/en/pdf

([253]) Framework implementation and impact study: report of study team, 2009. http://www.qqi.ie/Publications/Framework%20Implementation%20and%20Impact%20Study.pdf

([254]) HETAC is the qualifications awarding body for higher education and training institutions outside the university sector.

([255]) Qualifications and Quality Assurance (Education and Training) Act, 2012. http://www.oireachtas.ie/documents/bills28/acts/2012/a2812.pdf

Although the NFQ was conceptualised as a driver of systemic change towards the objective of lifelong learning, it is currently viewed more as an enabler – rather than a driver – of wider reform, with implications for setting standards, developing awards, teaching, assessment, and programme design. The specific aims for the development of the NFQ included:

(a) development of a more flexible and integrated system of qualifications that could recognise all learning acquired by learners in Ireland;
(b) establishment of learning outcomes as a common reference point for qualifications and for recognition of non-formal and informal learning;
(c) responding to the qualification needs of individuals, society and the economy through a range of available qualifications and the recognition of diverse forms of learning (NQAI, 2009).

Levels and use of learning outcomes

The main building blocks of the Irish NFQ are the 10 learning outcomes-based levels of the framework, level indicators and award-types ([256]).

The 10 levels of the framework capture all learning, from initial stages to the most advanced: qualifications achieved in schools, further education and training, and higher education and training are all included, and are all quality assured. Each level has a specified level descriptor (broad description of the learning outcomes at a given level) and one or more award types also expressed in terms of learning outcomes. Four classes of award type have been determined to ensure that the framework is capable of recognising all types and sizes of learning achieved by a learner:

(a) major: the principal class of awards at each level, capturing a typical range of learning achievements at that level;
(b) minor: for partial completion of the outcomes for a major award;
(c) supplemental: for learning that is additional to a major award;
(d) special purpose: for relatively narrow or purpose-specific achievements.

Each award type includes a wide range of qualifications which have been developed by awarding bodies.

Each level of the NFQ is based on nationally agreed standards of knowledge (breadth and kind), know-how and skills (range and selectivity) and competence. Competence is subdivided into context, role, learning to learn, and insight. Knowledge, skills and competences are defined as expected learning outcomes to be achieved by the qualification holder.

The learning outcomes approach was central to establishment of the NFQ, associated legislation and system reforms. The learning outcomes are indicators of what a person knows, can do and understands, rather than time spent on a programme. They refer both to general standards (for a level in the framework or an award type) and specific standards for awards in particular fields of learning.

The 2009 study on framework implementation and impact (NQAI, 2009a) concluded that a learning outcomes-based approach has been implemented in all subsystems, but is progressing at variable speeds. The study reported that 'although different strategic approaches have been and are being taken to the introduction of learning outcomes, there appears to be a common lag in implementation between the administrative centres within awarding bodies and institutions and those engaged in teaching, training and assessment' (NQAI, 2009a, p. 39). The need for continued debate within and across sectors and the need to tackle the implications of the learning outcomes approach for assessment practices are also emphasised.

According to a recent Cedefop study (2016), 'there is no literature that explicitly sets out the definition used for learning outcomes in Ireland', but the concept is widely used in the literature and discussions related to the NFQ. The same study suggested that Ireland has recently focused on institutional reform, and relatively less attention has been paid in the country to learning outcomes. However, the learning outcomes approach has started to provide common ground for different stakeholders (general education, higher education, VET, policy-makers, students, trade unions) and it has become the basis for shared dialogue on the purpose of education. Increased progression between VET and higher education is deemed to be the biggest achievement in the steps taken so far. A key area to be addressed is implementation of an integrated and effective quality assurance process for learning outcomes referenced qualifications, operating across institutions, sectors and levels of education and training.

([256]) http://www.nfq-qqi.com/index.html

Stakeholder involvement and institutional arrangements

The development of the NFQ was initially coordinated by the NQAI, established in 2001 by the Department of Education and Science and the Department of Enterprise, Trade and Employment, following the Qualifications (Education and Training) Act from 1999. Two awards councils (HETAC and FETAC) were also created under the 1999 Act. Implementation of the framework was carried out by NQAI, while consultation and stakeholder involvement were key features of the process. Awarding bodies and education and training providers from all subsystems of education and training were engaged in accordance with their statutory roles and responsibilities. NQAI was designated as national coordination point and was responsible for referencing the Irish NFQ to the EQF. A national steering committee – made up of the National Council for Curriculum and Assessment, HETAC and FETAC – was convened by NQAI to oversee the referencing process.

A new agency, Quality and Qualifications Ireland (QQI), was established on 6 November 2012 under the Qualifications and Quality Assurance (Education and Training) Act 2012 ([257]). The new authority was created by an amalgamation of four bodies that had both awarding and quality assurance responsibilities: FETAC, HETAC, NQAI and the Irish Universities Quality Board. QQI has assumed all functions of the four legacy bodies while also having new statutory responsibilities in particular areas. The agency is now responsible for the maintenance, promotion, further development and implementation of the framework.

This was an important step in consolidating the governance structure for deepening implementation of a comprehensive NFQ. It also suggests that Ireland's focus on qualifications has become more systematic, with stronger coordination of qualifications and quality assurance policies. The new agency sits at the centre of the qualification system and cooperates with ministries, higher education institutions, employers and the voluntary sector.

Current NFQ governance is ensured within the broader structures of QQI, which follow two strands: corporate and operational. The corporate strand includes the QQI board, appointed by the Minister for Education and Skills, and a consultative forum consisting of stakeholder representatives from further and higher education and training. The board includes 10 members, of which at least two must represent learners. The operational strand includes four sub-board committees made up of experts in the areas of their remit ([258]). Stakeholder consultation and knowledge-sharing continues to play an essential role ([259]). Along with the staff dedicated to NFQ development, other staff across this integrated agency contribute to QQI work on implementation of the NFQ: staff in awards development, validation, quality assurance, corporate services and communication, as well as the national Europass centre and the Irish National Recognition Information Centre (NARIC), both hosted by QQI.

National awarding bodies offering qualifications included in the NFQ are currently QQI, the State Examinations Commission, the Institutes of Technology, and the universities.

Recognising and validating non-formal and informal learning and learning pathways ([260])

There is currently no single national strategy for validation in Ireland, but there have been positive developments towards a system for recognition of prior learning (RPL) ([261]). NQAI principles and operational guidelines for RPL (NQAI, 2006) continue to provide the current policy and practice framework. Although theoretically possible for all qualifications, only higher education and further training qualifications (originally under the HETAC and FETAC remit) can be acquired through validation of non-formal and informal learning. As the qualification framework is based on learning outcomes, qualifications acquired through validation of non-formal or informal learning use the same standards as formal qualifications. It is also interesting to note, as the OECD indicated, that 'RPL arrangements in Ireland that lead to qualifications in the NFQ are fully integrated with existing arrangements for qualifications,

([257]) Qualifications and quality assurance (Education and Training) Act, 2012. http://www.oireachtas.ie/documents/bills28/acts/2012/a2812.pdf

([258]) The four sub-board committees of QQI are: programmes and awards executive committee, programmes and awards oversight committee, policies and standards committee, and approvals and reviews committee. http://www.qqi.ie/Pages/Policies-and-Standards-Committee-.aspx

([259]) Quality and Qualifications Ireland – QQI governance website. http://www.qqi.ie/Pages/QQI-Governance-.aspx

([260]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([261]) RPL includes prior formal, informal and non-formal learning.

e.g. they operate within the overarching funding arrangements, rules and regulations on provision, quality assurance and assessment' (Harold et al., 2008, p. 39).

Quality and Qualifications Ireland (QQI) has a statutory obligation to establish updated policies and criteria for access, transfer and progression, including RPL. Since 2013, QQI has advanced a comprehensive policy development programme and is consulting and reflecting on development of several different policy areas, including RPL. More recently, a national recognition of prior learning practitioner network has been established to coordinate validation developments across sectors; the inaugural meeting was held in 2015. Further, the Department of Education and Skills has assumed a coordinating role and is considering the establishment of a national steering group for RPL. These developments demonstrate a targeted and strategic approach towards RPL implementation.

The National forum for the enhancement of teaching and learning in higher education (NFETL) commissioned a focused research project on RPL in higher education ([262]) and QQI intends to commission parallel research into RPL in the publicly funded FET sector during 2016. The NFETL research highlights the critical role of RPL as an instrument for access to education, training and formal qualifications, helping to meet individual, societal and national needs in a rapidly changing labour market and competitive global economy. Current issues and challenges were also identified: gaps in information and communication on RPL, lack of data on the costs, availability and outcomes of RPL, limited evaluation of practice, lack of dedicated funding and uncertainty around relevant roles of actors. All these contribute to a call for a national approach to RPL.

The new *National skills strategy: Ireland's future* ([263]), published in January 2016 includes among its objectives the development of a system for RPL and better recognition of workplace learning, supporting lifelong learning. Comprehensive reforms in both further education and training (FET) and higher education (HE) are under way to take forward the national skills strategy. Both the FET strategy and the HE strategy call for systematic implementation of RPL in the two sectors and a national RPL framework spanning across sectors.

QQI has issued a restatement of policy and criteria for access, transfer and progression (ATP), in relation to learners, for providers of further and higher education and training. Providers are required to submit to QQI for approval policies for access, transfer and progression, which should include arrangements for credit accumulation and transfer, and identification and formal assessment of knowledge, skills and competence previously acquired by learners. QQI has published two other relevant policy documents: *Quality assurance guidelines* ([264]) and *Validation policy and criteria* ([265]). The guidelines include recognition of non-formal and informal learning among the elements considered for learner admission, progression and recognition, while validation policy and criteria require that the provider has suitable procedures and criteria for RPL for access and advanced entry to programmes, and for exemptions.

NQF implementation

The Irish NFQ has reached an advanced operational stage, and all national qualifications in general education, VET and higher education have now been included in the framework. The NFQ is an inclusive framework, with the stated policy intent that it be open also to fit-for-purpose qualifications awarded outside the remit of national authorities. Qualifications offered by professional bodies and international awarding bodies operating in Ireland may also be recognised through the NFQ (NQAI, 2003).

This has been achieved through a combination of legislation, institutional reform, and political support, which helped integrate the NFQ in broader education, training and labour market policies. In 2009 the NQAI commissioned a study (NQAI, 2009) into the implementation and impact of the framework; review of the Irish NFQ was initiated by QQI in 2016.

Although the 2009 study could not authoritatively determine the impact of the NFQ or identify causal contributions of the framework, it provided important insights into policy formation and implementation. Three distinct processes related to the implementation of the NFQ were discerned: placement of existing awards in the framework; introduction of framework standards

([262]) National forum for the enhancement of teaching and learning in higher education (2015). *A current overview of recognition of prior learning (RPL) in Irish higher Education*. Focused research report No 2. http://www.teachingandlearning.ie/wp-content/uploads/2015/11/Project-2.pdf

([263]) https://www.education.ie/en/Publications/Policy-Reports/pub_national_skills_strategy_2025.pdf

([264]) http://www.qqi.ie/Publications/Policy%20on%20Quality%20Assurance%20Guidelines.pdf

([265]) http://www.qqi.ie/Publications/Validation%20Policies%20and%20Criteria%20QP17.pdf

and associated programme validation; and the deeper implementation of a learning outcomes approach in all aspects of qualifications ([266]). Though at an early stage, an initial impact on learners was already noticed and reported in the 2009 study. The NFQ was seen as providing a language to underpin learners' choices, encouraging new approaches to learning, teaching and assessment, as well as new career routes, stimulating the development of provision in new areas and opening up new opportunities for transfer and progression.

According to QQI (2014), by 2015 the NFQ had become widely known, its communications icon – the 'NFQ fan diagram' – is highly visible, and the idea of qualification level has become embedded in public consciousness. Approximately 61% of all graduate employers and 33% of the general public had heard of the NFQ. Schools, colleges, the guidance and career management services, as well as the redesigned NFQ website hosted by QQI, are important channels providing information on the NFQ to end-users.

The NFQ is an outward-looking framework with a strong external dimension through engagement with non-European countries: Australia, Hong Kong, Jordan and Bahrain, Malaysia and New Zealand (NQAI and New Zealand Qualifications Authority, 2010).

Referencing to regional frameworks

The referencing of the Irish NFQ to the EQF was completed in 2009. It built on experiences and conclusions of self-certification of compatibility of the Irish NFQ with the qualifications framework for the European higher education area (QF-EHEA), completed in 2006.

NQF and EQF levels have been included in Europass diploma supplements and Europass certificate supplements since 2012 and since 2013, respectively, and since June 2015 EQF levels have been indicated on all QQI major, special purpose and supplemental awards. Other national awarding bodies in Ireland are, as yet, unconvinced of the merits of including EQF levels on qualifications, particularly in those cases where Europass diploma/certificate supplements are available ([267]).

Important lessons and future plans

Implementing the NFQ relies on a broad partnership approach, incremental development, and strong support from different stakeholders. The deeper the implementation, the greater the support required from different stakeholders. According to the 2009 impact study conducted by NQAI, 'sustained leadership and oversight of the implementation process is required. Flexibility and partnership should remain the guiding principles for managing the NFQ.' (NQAI, 2009, p. 50). The establishment of QQI in 2012 has been a key step in this direction.

The increased institutional coherence, the statutory basis underpinning the NFQ, a commitment to decision-making by consensus, and political support since its establishment have been important factors in the success of the Irish NFQ.

A recent Cedefop study on the application of learning outcomes (Cedefop, 2016) suggested that further work towards the shift to a learning outcomes approach may strengthen the capacity of the NFQ to meet its aims. Establishing an effective quality assurance process for learning outcomes, operating across institutions and levels of education and training, could be a positive step forward.

In a recent survey conducted by Cedefop ([268]), QQI identified new opportunities and challenges for the Irish NFQ. The structural and strategic reforms that are currently underway in Ireland ([269]) – *Further education and training strategy 2015-20; National strategy for higher education to 2030;* and *Review*

([266]) The study found that NFQ implementation was progressing well, though at an uneven pace across the system, in a long-term, dynamic process of progressive alignment between the framework and the education and training system. The NFQ was seen more as an enabler than a driver of change, developed in a centrally driven process which ensured political support, but also resulted in tension between an outcomes-based approach to qualifications and an education and training system largely predicated on inputs. Stakeholder involvement, partnerships and flexibility were essential and remaining challenges included labour market engagement with the NFQ (including assisting development of career pathways, certifying learning achievements acquired at work, guidance) and a need to deepen the implementation of the learning outcomes approach.

([267]) QQI, in response to a survey on the sustainability and visibility of NQFs, conducted by Cedefop in 2015.

([268]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

([269]) (a) Further education and training strategy 2015-20 https://www.education.ie/en/Publications/Policy-Reports/Further-Education-and-Training-Strategy-2014-2019.pdf
(b) National strategy for higher education to 2030. http://www.hea.ie/sites/default/files/national_strategy_for_higher_education_2030.pdf
(c) Review of apprenticeship training in Ireland. Department of Education and Skills 2014. https://www.education.ie/en/Publications/Policy-Reports/Review-of-Apprenticeship-Training-in-Ireland.pdf

Table 48	Irish national qualifications framework (NFQ)	
NQF levels	**Qualifications**	**EQF levels**
10	Doctoral degree	8
9	Master degree Postgraduate diploma	7
8	Honours bachelor degree Higher diploma	6
7	Ordinary bachelor degree	6
6	Advanced certificate e.g. Level 6 advanced certificate in horticulture Higher certificate	5
5	Level 5 certificate e.g. Level 5 certificate in hospitality operations Leaving certificate	4
4	Level 4 certificate e.g. Level 4 certificate in engineering skills Leaving certificate	3
3	Level 3 certificate e.g. Level 3 certificate in information and communication technology Junior certificate	2
2	Level 2 certificate e.g. Level 2 certificate in general learning	1
1	Level 1 certificate e.g. Level 1 certificate in communications	1

Source: Adapted from NQAI, 2009a.

of apprenticeship training in Ireland – present an opportunity to establish the NFQ as a mechanism contributing to the quality and qualifications interests of these reforms.

A key challenge remains: to demonstrate the impact of the framework. The sustainability of NFQ depends on whether or not it can be shown to contribute to education, training and labour market national policy agendas. Several factors have already been suggested as determining the impact and utilisation of the Irish NFQ: institutional and statutory arrangements, consensus and capacity building, timing issues, international influences, and connections with broader policy agendas. However, further empirical studies and evidence-informed explanations are necessary to assess more rigorously the effects of the NFQ, its relevance to education and skills policy in Ireland and the conditions necessary for its sustainability, to warrant public and private investment in the framework.

As a first step in tackling this challenge, QQI has initiated discussion and critical reflection on the purpose and contribution of the NFQ, and on the appropriate design and methodology for the framework review to be carried out in 2016. In a reflection paper (QQI, 2015) set out for discussion, it is argued that there is a need to understand 'how NQFs operate within complex and dynamic social, cultural, political, historical, technical and economic contexts. This ambition may be undermined if we subject NQFs to narrow instrumental assessments, aimed at isolating discrete impacts. Unreflexive approaches that seek to measure only 'what works' should be expanded to include critical reflection about why, how, for who and under what conditions NQFs 'work'.' (QQI 2015, p. 13).

Further source of information

Quality and Qualifications Ireland (QQI):
http://www.qqi.ie/

Abbreviations

EQF	European qualifications framework
FET	further education and training
FETAC	Further Education and Training Awards Council
HETAC	Higher Education and Training Award Council
NFETL	national forum for the enhancement of teaching and learning in higher education
NFQ	national framework of qualifications
NQAI	National Qualifications Authority of Ireland
QQI	Quality and Qualifications Ireland
RPL	recognition of prior learning

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ITALY

Introduction and context

The Italian education system has undergone several improvements in recent years, with greater proficiency in basic skills and almost universal participation in early childhood education. However, although the early school leaving rate has decreased, it remains above the EU average. The rate of tertiary education attainment is the lowest in the EU – 18.8% in 2014, compared to the EU average of 33.6% – while the employment rate of recent graduates is relatively low at 45.0% in 2014, compared to the EU average of 76.1% (European Commission, 2015).

Since 2003, reforms have been implemented across education and training (upper secondary general education, vocational education and training (VET) and higher education) anticipating the principles of a learning-outcomes-based NQF. Technical work has been carried out in recent years towards a national qualifications framework (NQF). Given the complex model of governance in the country and the fragmentation of the education and training system ([270]), one of the challenges has been to achieve effective inter-regional coordination with a view to encouraging recognition of the regional qualification systems and inter-regional mobility, especially with reference to the labour market ([271]).

The European qualifications framework (EQF) is seen as a point of reference for indicating the level of learning outcomes related to nationally recognised education and training pathways. In spite of not yet having an NQF, work has been done to reference public national formal qualifications directly to the eight EQF levels. The first Italian referencing report was adopted in December 2012 and presented to the EQF advisory group in May 2013 (Italian technical working group, 2012). The report focuses on describing levels and subsystems of formal education and training, along with the formal qualifications awarded throughout, and those awarded by regions in the framework of the State-regions agreement, and on their referencing to the EQF.

The Italian qualifications framework for higher education (*Quadro dei Titoli Italiano dell'Istruzione Superiore* – QTI) ([272]) was published in 2010 by the Ministry of Education, University and Research. Self-certification to the qualifications framework for the European higher education area (QF-EHEA) was completed in 2012 ([273]) and decisions made for higher education qualifications were taken up in referencing to EQF.

Referencing is work in progress towards putting in place an NQF, in dialogue with all national stakeholders. The EQF national coordination point has been mandated to prepare a proposal for a comprehensive national qualifications framework, which has been submitted for approval. A decree for the establishment of an NQF is currently underway.

Policy objectives

Italy faces a challenge of integrating different levels of lifelong learning systems into a coherent national qualification system. It is a complex context, governed by multiple legislation on competences of regional and national authorities in designing and awarding qualifications.

A comprehensive NQF would help with transparency and comparison between different qualification types awarded by different authorities. A coherent NQF, based on explicit levels of learning

([270]) In Italy there are 21 regions and two autonomous provinces. With the modification of the V Title of the Constitution in December 2001, the regions increased their competence in education, maintained the competence in vocational training field and in the definition of the professional profile and qualifications, with a greater need for coordination between regions.

([271]) Cedefop (2014). *The common European tools reaching European citizens – Country studies: Italy* [unpublished].

([272]) The Italian qualifications framework for higher education is available at: http://www.quadrodeititoli.it/index.aspx?IDL=2

([273]) National report regarding the Bologna Process implementation 2012-15 – Italy, 2015. http://media.ehea.info/file/Italy/84/4/National_Report_Italy_2015_567844.pdf

outcomes, would also ease validation of non-formal and informal learning. It would also support adult participation in lifelong learning, an area challenged by both low participation and a large proportion of people with low literacy and numeracy skills ([274]).

Development of a system in the NQF direction would respond to several needs:

(a) make integration of the different systems within the national context easier;
(b) respond to a request of the EQF recommendation designed to ease dialogue between education systems and the labour market;
(c) make individual geographic and professional mobility easier, both at national and European levels;
(d) help individuals, throughout their lives, to capitalise on their non-formal and informal experiences. The system should promote social inclusion for people without regular qualifications and competences needed in the labour market; a national system based on a learning outcomes approach and involving different stakeholders is a precondition for validating non-formal and informal learning.

All institutional, national and regional authorities are aiming towards a NQF and a clearer commitment to the EQF. An important milestone is Law 92/2012 on labour market reform ([275]), with provisions related to lifelong learning. This aims to set up a national system of certification of competences and services for validation of non-formal and informal learning.

In 2015 ([276]), stakeholders reached agreement on an operational common framework for national recognition of regional qualifications and related skills. For the purposes of matching and recognising regional qualifications across the whole national territory ([277]), this common framework is seen to represent:

(a) a professional reference in terms of occupational standards;
(b) a reference for the recognition of the regional qualifications and competences at national and European level;
(c) a performance reference for the assessment to be carried out within the services of identification, validation and certification of competences (European Commission et al., 2016).

Levels and use of learning outcomes

The Italian education and training system has introduced the learning outcomes approach at national and regional levels, with each subsystem having its own characteristics. The debate on using learning outcomes in the country started about a decade ago and it is still going on, along with the gradual reform of the entire education and training system. One of the main fora for this debate was the public consultation that preceded the adoption of the first EQF referencing report.

The eight EQF levels and level descriptors have been used directly in the Italian referencing process to link all national qualifications from formal education and training to the EQF. The starting point of the referencing process was analysis of both learning processes and learning outcomes in relation to the EQF levels, including a critical analysis of the EQF level descriptors: knowledge, skills and competence. The 'knowledge' and 'skills' descriptors of the EQF were deemed clear enough to permit correlation with Italian qualifications, while the 'competence' descriptor was divided into three dimensions: work/study context; type of tasks, problems and problem-solving approaches; and autonomy and responsibility.

However, despite the move towards a learning outcomes approach, a gap still exists between theory and practice, especially in general school education and higher education. Learning outcomes implementation is mainly part of pilot projects.

In general school education, there has been a shift towards a more student-centred approach and, due to the introduction of ICT tools, teaching is more focused on competences: a combination of competences and knowledge replaces the idea of purely content-based learning (Cedefop, 2016). At upper secondary level, there are three main pathways: general *(licei)*, technical and vocational education. Each pathway lasts five years, leading to a diploma, and learning outcomes are linked to the EQF.

In vocational training, where the regions have main responsibility, there is a focus on competences, which are described in terms of learning outcomes. There are two different possibilities for vocational

([274]) Adult participation in lifelong learning has increased to 8% in 2014, but remains lower than the EU average (10.7% in 2014). European Commission (2015). *Education and training monitor 2015: Italy.*
([275]) Law 92/2012 on labour market reform: http://www.dplmodena.it/leggi/92-2012%20legge%20RML.pdf
([276]) Inter-ministerial decree of 30 June 2015 (Ministry of Labour and Ministry of Education) defining the operational common framework for national recognition of regional qualifications and related skills.
([277]) Qualifications databases of 21 regions can be found at: http://nrpitalia.isfol.it/sito_standard/sito_demo/atlante_repertori.php

training: a three-year or a four-year pathway. Both lead to a diploma and a qualification acknowledged at national level. The four-year course can open up higher education options, provided the student takes an additional year and sits a State exam. The apprenticeship system has also been reformed in recent years, and the new legislative framework ([278]) includes important references to the EQF and the use of learning outcomes. It contains the definition of competences as the smallest units for certification defining a professional profile, collected into codified lists based on the relevant EQF level and on clear explanation of learning outcomes (Italian technical working group, 2012).

The higher (non-academic) technical education and training pathway (*Istruzione e formazione tecnica superiore*) (IFTS) used a national standard system based on competences from 2000; since 2008 the standards have been updated to make them more coherent with the learning outcomes approach. With this 2008 amendment, IFTS was reorganised and higher technical education (*istruzione tecnica superior* (ITS)) was established ([279]). IFTS courses last one year, ITS courses two. Both types of curricula are made up of units consistent with the learning outcomes approach. They are linked to EQF levels.

In academic education (universities), policy-makers strengthened the need to align diplomas and certificates to commitments of the Bologna process. In the existing framework for higher education (QTI), Dublin descriptors ([280]) are used nationally for the cycles of higher education agreed within the Bologna process. More specific descriptors are being defined for each programme by universities but clear evidence on application of the learning outcomes approach is still missing (Cedefop, 2016). Higher education is still under reform, aiming to move the system closer to the European standards designed by the Bologna process.

Stakeholder involvement and institutional arrangements

The Ministry of Education, University and Research and the Ministry of Labour and Social Policies are leading developments in EQF-related processes, in agreement with the regions, autonomous provinces and social partners, as laid down in several agreements. The Ministry of Education, University and Research is the competent authority for qualifications awarded in the education system, while the Ministry of Labour and Social Policies is responsible for qualifications awarded by the regions.

At technical level, the National Institute for the Development of Vocational Training (ISFOL) sets up national methodologies and coordinates sectoral and professional expert groups involving social partners. ISFOL has been designated as the EQF national coordination point (NCP), and hosts the national Europass centre and the national reference point for quality assurance in VET (part of the EQAVET network). The country is represented in the EQF advisory group by a representative of ISFOL, and a representative jointly designated by the two leading ministries (labour and education).

Since the referencing process started in 2008, a technical group has involved stakeholders in the work: Ministry of Labour and Social Policies, Ministry of Education, University and Research, Department for European policies of the Presidency of the Council of Ministers (involved in referencing professional licences in regulated professions), regions and autonomous provinces (in charge of initial and continuous vocational training) and the social partners. In addition, ISFOL and the Information Centre on Academic Mobility and Equivalence (CIMEA), a body of the Ministry of Education, were involved.

The first Italian referencing report was adopted in the State-regions conference, following public consultation in 2012. A total of 150 stakeholder organisations took part in the consultation, along with universities, regions and enterprises.

The national repertory of qualifications, established by Decree 13/2013 ([281]), will comprise six different sections ([282]), with three already available. The repertory is managed by a national technical

([278]) Legislative Decree No 167/2011 (entered into force on 25 April 2012) and the State-regions agreement on the national apprenticeship certification system (19 April 2012).

([279]) Higher technical education and training courses organised by higher technical institutes with qualifications awarded by the Ministry of Education.

([280]) The Dublin descriptors used are: knowledge and understanding; applying knowledge and understanding; making judgements; communication skills; learning skills.

([281]) Legislative Decree No 13/2013 *Definition of general rules and basic level of performance for the identification and validation of non-formal and informal learning and minimum service standards of the national system of competences certification.* http://www.gazzettaufficiale.it/eli/id/2013/02/15/13G00043/sg;jsessionid=QtVQDnVhW+1EjOvvz7I8GA__.ntc-as1-guri2b

([282]) The national repertory of qualifications (*Repertorio nazionale dei titoli di istruzione e formazione e delle qualificazioni professionali*): http://nrpitalia.isfol.it/sito_standard/sito_demo/atlante_repertori.php#repertori_SR

committee led by the Ministry of Labour and Ministry of Education and composed of all the qualification authorities. The committee is also responsible for developing the validation system.

The EQF NCP was tasked with managing EQF implementation, preparing the technical referencing report, and communication with stakeholders. It has also been mandated to develop the proposal for a comprehensive national qualifications framework based on the national repertory of qualifications ([283]).

Recognising and validating non-formal and informal learning and learning pathways ([284])

A national legal framework on validation has been progressively developed in Italy since 2012. Law 92/2012, reforming the labour market, prepared the creation of a national system of competence certification and validation of non-formal and informal learning as key elements of lifelong learning. The law establishes rules and regulatory requirements (standards) concerning the characteristics of validation/certification services and the parties involved, with the aim of ensuring transparency, usability and broad accessibility. The implementation of Law 92/2012 led to the adoption of different provisions including Legislative Decree No 13/2013 on National competences certification and validation of non-formal and informal learning. The decree defines some important principles and features for the validation system in its Article 3:

(a) the focus is on the competences acquired by an individual;
(b) a whole qualification or parts of it can be validated;
(c) the system is designed to serve the individual, assuring simplicity, confidentiality and reliability;
(d) documents and certificates issued in the validation process are public;
(e) the reliability of the national competence certification system is based on a shared and progressive system of indicators, tools and quality standards applied at national level.

The system designed by Decree 13/2013 is national and comprehensive as it covers all qualifications from general education, higher education and VET. It also includes professional qualifications and regulated ones. The institutional authority in charge of implementing the system is a national technical committee led by the Ministry of Labour and by the Ministry of Education and comprising all qualification authorities (entitling bodies). The committee took office on 28 January 2014.

Agreement on an operational common framework for national recognition of regional qualifications and related skills was reached in 2015, followed by an inter-ministerial decree signed by the Ministry of Labour and Ministry of Education. This framework establishes a mechanism of mutual recognition for regional qualifications, and standard procedures for the process, attestation and system for validation services. It is expected that, by 2016, validation services will be available across the regions according to the same methodological and system standard; the outcomes of validation processes will be related to the official qualifications framework and recognised at national level. The national technical committee decided in 2015 to agree on a draft of national guidelines for validation of non-formal and informal learning and certification of competences.

There is already some application of these rules for specific target groups: a national programme has run over the course of 2015/16 to validate the competences of approximately 5 000 volunteers in the civil service within the *Youth guarantee programme*. The main challenge for the future will be to extend the new validation services to other target groups, to ensure reliability and sustainability. Other priorities are related to training or requalifying practitioners (counsellors and assessors), and strengthening the capacity of the education system to develop validation tools and create greater involvement of companies and the third sector.

NQF implementation

Developing an Italian national qualifications framework is still a work in progress and has been carried out alongside wider reforms of the education and training system. In the first stage, the country has referenced its formal qualifications recognised at national level directly to the eight levels of the EQF. The qualifications described in the referencing are already included and positioned in the national education and training system. These qualifications are used by almost 85% of people involved in education and training activities in Italy. One important issue not covered by the referencing report refers to the qualifications awarded by regional authorities, their importance, the methodologies used for developing them and their recognition beyond the regions. This issue remained to be dealt with in the second stage of referencing planned for 2017.

([283]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs* [unpublished].
([284]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

An important milestone towards the development of an NQF occurred as part of wider labour market reform. Law 92/2012 and the ensuing Decree 13/2013 support the work on a comprehensive validation system and further developments towards a NQF.

Decree 13/2013 also establishes a national repertory of education, training and professional qualifications ([285]) as the single framework for certifying competences, which could form the basis for designing a comprehensive NQF. The register is a comprehensive collection of existing national, regional and sectoral repertories, under the responsibility of the competent authorities or 'entitling bodies'. It contains qualifications from the following subsystems: higher education (universities); secondary education; vocational education and training; national framework of regional qualifications; apprenticeship system; regulated professions. For each title, it is necessary to identify standard features: competent certification bodies, definition of qualifications including the relevant competences, correlation with the national statistical code of economic activities and of professional units, and correlation with the EQF. According to comments and suggestions on the first referencing report, Italy is analysing regional vocational qualifications to be included in the national repertory.

In January 2015 the State and the regions agreed on setting up the national framework of regional qualifications, in order to reference qualifications issued by the regions, and on using the national repertory of qualifications as a basis for this work. The operational common framework for national recognition of regional qualifications and related skills was subsequently established through a decree in June 2015. The national framework of regional qualifications is structured according to the classification of 24 economic-professional sectors and is intended to serve as a reference for the regional qualifications repertories, including:

(a) referencing to the national statistical codes and to the sequence of descriptors of the classification of economic-professional sectors;
(b) identification and description of qualifications and their related competences in line with the criteria of the EQF;
(c) referencing of qualifications according to the EQF, carried out through the formal inclusion of these qualifications in the EQF national referencing process (European Commission et al., 2016).

([285]) The national repertory of qualifications *(Repertorio nazionale dei titoli di istruzione e formazione e delle qualificazioni professionali)*: http://nrpitalia.isfol.it/sito_standard/sito_demo/atlante_repertori.php#repertori_SR

Work towards an overarching NQF has progressed over the past couple of years. The EQF NCP has set up a working group composed of representatives of qualification authorities and social partners. In 2016, a technical proposal for a comprehensive framework was elaborated, along with guidelines for its management. The proposal was submitted to the institutional stakeholders and a decree for establishment of the NQF is currently underway. The Italian NQF will be a comprehensive framework including qualifications from general education, higher education, regional qualifications and, in the future, also professional and private qualifications.

The EQF NCP has also organised communication actions aiming to inform Italian citizens and different groups of stakeholders on the qualifications referenced to the EQF and on the significance of the EQF levels recorded on qualifications. This has been done through events, articles, leaflets and brochures, as well as workshops and promotion on the web.

Referencing to regional frameworks

The referencing of Italian qualifications to the EQF started in 2008; the first report was adopted in 2012 and presented to the EQF advisory group in May 2013. National qualification descriptors have been analysed in terms of learning outcomes and mapped directly to EQF level descriptors.

The first referencing report represented an important milestone for subsequent developments. The second stage of referencing has built upon new legislative measures brought about by labour market reform and materialised in the form of the new national repertory of education, training and professional qualifications, which is seen as a step towards a comprehensive NQF.

The EQF level is currently indicated directly on several types of certificate and diploma ([286]); starting with the school year 2015/16 it is compulsory to indicate the EQF level on Europass certificate supplements and diploma supplements. The country is preparing a national qualifications database (called DBQc) and all qualifications included in this will indicate the EQF level.

([286]) The EQF level is indicated in the following types of certificate and diploma: professional operator certificate (EQF level 3); professional technician diploma (EQF level 4); upper secondary education diploma (EQF level 4); higher technical specialisation certificate (EQF level 4). For higher technical education diploma (EQF level 5) and university degrees the EQF level is indicated in Europass diploma supplement.

The referencing of qualifications to the EQF is continuing in dialogue with stakeholders.

Important lessons and future plans

Italy has been implementing reforms consistent with EQF principles and the learning outcomes approach in various subsystems of education and training. In recent years, legislative initiatives as part of the labour market reform have led to important steps forward: setting important priorities in defining national qualifications standards based on learning outcomes; developing a national public certification system and a national register of qualifications as a step towards the NQF; and setting out principles for developing a system of validation of non-formal and informal learning.

Now the main challenge is to put in place a comprehensive NQF including all qualifications awarded at national and regional level and to establish procedures for including private qualifications in the NQF. The main difficulty in this is the high degree of fragmentation of the education and training system and the difficulty of harmonising qualifications issued at regional level. Steps towards this aim have been the creation of an operational common framework for national recognition of regional qualifications and related skills, and the establishment of the national repertory of education, training and professional qualifications. Adoption of the decree for a comprehensive NQF establishment is expected in the near future.

A related area of work in recent years has been the development of a national system for validating non-formal and informal learning. Here the main challenge is to implement the newly adopted validation services beyond the initial target groups and to ensure the sustainability of validation practices.

The adoption of a learning outcomes approach has gradually started, but the gap between formal regulations and practical implementation of learning outcomes remains a challenge. For example,

Table 49 Italian national qualifications framework

EQF levels	Qualifications
8	Research doctorate *(Dottorato di ricerca)* Academic diploma for research training *(Diploma accademico di formazione alla ricerca)* Specialisation diploma *(Diploma di specializzazione)* Second level university master (*Master universitario di secondo livello)* Academic specialisation diploma (II) *(Diploma accademico di specializzazione* (II)) Higher specialisation diploma or master (II) (*Diploma di perfezionamento o Master* (II)
7	Master degree (*Laurea magistrale*) Second level academic diploma (*Diploma accademico di secondo livello*) First level university master (*Master universitario di primo livello*) Academic specialisation diploma (I) *(Diploma accademico di specializzazione* (I)) Higher specialisation diploma or master (I) *(Diploma di perfezionamento o Master* (I))
6	Bachelor degree *(Laurea)* First level academic diploma *(Diploma accademico di primo livello)*
5	Higher technical education diploma *(Diploma di tecnico superiore)*
4	Professional technician diploma *(Diploma professionale di tecnico)* Upper secondary education diploma *(Licei diploma liceale)* Upper secondary education diploma – technical schools *(Diploma di istruzione tecnica)* Upper secondary education diploma – vocational schools *(Diploma di istruzione professionale)* Higher technical specialisation certificate *(Certificato di specializzazione tecnica superiore)*
3	Professional operator certificate *(Attestato di qualifica di operatore professionale)*
2	Compulsory education certificate *(Certificato delle competenze di base acquisite in esito all'assolvimento dell'obbligo di istruzione)*
1	Lower secondary school leaving diploma *(Diploma di licenza conclusiva del primo ciclo di istruzione)*

Source: Adapted from the Italian technical working group (2012).

curricula in VET and higher education are still influenced by the subject-based approach, although necessary regulations are in place. According to a recent Cedefop study on the application of learning outcomes (Cedefop, 2016), more tools and incentives should be provided to teachers and a cultural change from an input to an output orientation is necessary.

Although working with national qualifications in a possible framework should strengthen the orientation towards a lifelong learning approach, it remains a challenge that lifelong learning aspects are not well enough communicated. There is little information so far on system flexibility and on future plans for promoting lifelong learning and supporting access, progression and participation, especially for adults.

Further sources of information

The Italian Ministry of Education, University and Research: http://www.istruzione.it/

The Italian Ministry of Labour and Social Policies: http://www.lavoro.gov.it/Pagine/default.aspx

ISFOL (National coordination point for EQF): http://www.isfol.it

Abbreviations

EQF	European qualifications framework
IFTS	*Istruzione e formazione tecnica superiore* [higher (non-academic) technical education and training pathway]
ISFOL	National Institute for the Development of Vocational Training
ITS	*Istruzione Tecnica Superiore* [higher technical education]
NCP	national coordination point
NQF	national qualifications framework
QF-EHEA	qualifications framework in the European higher education area
QTI	*Quadro dei Titoli Italiano dell'Istruzione Superiore* [Italian qualifications framework for higher education]
VET	vocational education and training

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European Commission (2015). *Education and training monitor 2015: Italy* http://ec.europa.eu/education/tools/docs/2015/monitor2015-italy_en.pdf

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Italy.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

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JORDAN

Introduction and context

NQF snapshot

The technical and vocational qualifications framework (TVQF) has four levels and will cover all vocational qualifications offered in Jordan. The Employment-VET Council (E-TVET) acts as the national qualifications framework (NQF) board, while operational management lies with the Centre for Accreditation and Quality Assurance (CAQA).

Educational, social, economic and political context

Jordan's education system performs relatively well compared to its neighbouring countries. Its adult literacy rate is the highest in the Middle East region, standing at 93% in 2013 ([287]). Gross enrolment rates are high: for primary education, they are 99% for males, 97% for females; for secondary education 87% for males and 89% for females; and for the tertiary level 43% for males and 50% for females.

Even so, almost 53% of the population still has less than secondary-level education, because of the large number of people with basic education or less in the older generations.

Technical and vocational education and training (TVET) in Jordan is mainly delivered in the initial vocational education system (IVET). Most training provision is public and consists of:

(a) secondary vocational education of two years' duration in comprehensive upper secondary schools under the Ministry of Education (MoE);
(b) vocational training (targeting 16 to 18 year-olds) by the Vocational Training Corporation (VTC), a semi-autonomous agency under the Ministry of Labour (MoL);
(c) technical education after secondary comprehensive school, delivered by 26 publicly supported community colleges, which offer two-year programmes leading to a diploma.

([287]) Data from the ETF Torino process report 2016-17, Jordan.

Jordan is increasingly becoming a service economy. In 2012, services constituted 67% of the GDP, industry 30% and agriculture only 3%. Since 2009, due to the global economic downturn, economic growth has slowed. Jordan's economy has also been significantly affected by domestic events related to the 'Arab spring' and continuing regional unrest. Lower tourism and the foreign direct inflows (FDI), higher international energy prices and repeated disruptions to the natural gas supply from Egypt have affected economic growth.

The intensification of the Syrian crisis and the consequent inflow of refugees have fiscal implications and add to the pressure on the labour and housing markets. The public sector employed over half the Jordanian labour force until the late 1990s, and it continues to be the preferred option for the majority, in particular women: queuing for public sector employment is an accepted phenomenon. Public sector employment offers better job security, shorter working hours and guaranteed medical insurance but employment opportunities in the sector are diminishing. Nevertheless, in the first quarter of 2014, 39% of Jordanians in employment were still government employees, 52% of all employed women and 37% of employed men.

The private sector is dominated by small and medium-sized enterprises (SMEs). They represent around 94% of existing companies, account for more than 60% of economic output and employ about 50% of the labour force. The informal sector is of significant size. Government research has estimated, on the basis of a 2010 survey, that informal employment represents 44% of total employment. Jordan has one of the lowest economic activity rates in the world: contributory factors include the large number of inactive women and students, remittances from Jordanians living and working abroad, high reservation wages and early retirement arrangements (such as retirement after 16 years of service in the military). Female activity rates are at a record low, with only 13% of women participating in the labour force, in comparison to 60% of men.

The high level of unemployment is generally explained by:

(a) insufficient job creation to absorb the increasing influx of job seekers and the already existing unemployed;
(b) mismatches between education outputs and labour market needs;
(c) high job expectations and high reservation wages due to remittances from abroad;
(d) geographic mismatches and low mobility.

Unemployment is particularly high for the young (31%); within the age group 15 to 24 female unemployment rate was as high as 55% in 2013.

Policy objectives

Education and training reforms

Despite the increasing need for more technical and vocational skills, TVET careers are not considered attractive, for both social and economic reasons; students whose grades allow it tend to opt for general and academic education rather than vocational or technical streams. Total participation in TVET has declined in recent years as a percentage of all enrolment in education and training. TVET is seen as unattractive because of the poor image of technical and vocational careers, wages and labour conditions in these careers, and the expectations that young and unemployed people have regarding wage levels and their professional careers.

Although Jordan has a number of strategies covering employment and TVET, effective implementation has not always ensued. The E-TVET strategy for 2014-20 will have as one of its fundamental tasks the creation of a more coherent E-TVET system including a network of public and private training providers with different institutional setups and specific training philosophies (Torino process report 2014).

The E-TVET (Employment-VET) Council stated in its action plan that:

(a) a national qualifications framework will accommodate certificates/qualifications awarded by the various TVET providers starting with key industry sectors;
(b) it aims to establish a comprehensive system to accredit, monitor and evaluate the E-TVET delivery system according to national standards and within a national qualifications framework;
(c) programme-planning of TVET providers will increasingly be sector-based with progressive, articulated programmes offered through the various providers in the system;
(d) the social partners have a key role to play in leading, organising and supporting a sectoral approach to identifying skill training needs and developing training responses which meet international standards, are accredited and are articulated within a national qualifications framework.

International cooperation

Various donors and agencies (EU, GIZ, USAID, the World Bank and others) are working in E-TVET in Jordan and both the international donors and the Jordanian Government have a responsibility to coordinate the diverse projects and initiatives to give coherent and efficient support to the reform of the sector. Current policies, strategies and action plans for adult training in the TVET sector pay little attention to lifelong learning and the continuing education system. There is no vision suggesting how continuing training could become an integrated part of the TVET sector and which institutional setting would best fit the needs of the labour force and the private sector. Education and training for adults have been neglected and reforms and restructuring have focused on initial training.

The technical and vocational qualifications framework for Jordan (TVQF) was developed in the scope of a former EU project. The TVQF is now being implemented with EU budget support.

Jordan is participating in the regional project *Qualifications for the Mediterranean* (Q4M), which aims to develop mechanisms and tools supporting mutual understanding of national and sectoral qualifications. Q4M involves eight countries: five are from the South-Mediterranean region (Algeria, Egypt, Jordan, Morocco and Tunisia) and three are EU Member States (Spain, France and Italy). Participating countries are piloting tools and methodologies in two sectors, construction and tourism. The ETF coordinated this project until 2015. Egypt has coordinated since 2016. The Centre for Accreditation and Quality Assurance (CAQA) is the national coordinator for Jordan in Q4M.

In October 2014, the EU and Jordan established a mobility partnership to manage mobility and migration better.

Levels and use of learning outcomes

Scope and structure of NQF

The technical and vocational qualifications framework (TVQF) will cover all vocational qualifications offered in Jordan.

Alignment to other classification systems

There are currently no regional qualifications frameworks in the Middle East/Arab region, but Jordan has adopted the Unified Arab standard classification of occupations 2008 (ASCO), which is compatible with the international standard classification of occupations (ISCO), as a general framework for occupational classification and standards in Jordan.

NQF levels

The technical and vocational qualifications framework has four levels.

Access, progression and credit

Technical and vocational education and training in Jordan is mainly delivered in the initial vocational education system (IVET):

(a) the Ministry of Education (MoE) develops secondary vocational education programmes leading to secondary education certificates. These qualifications are based on educational standards;
(b) the Vocational Training Corporation (VTC), a semi-autonomous agency under the Ministry of Labour (MoL), develops vocational training (targeting 16 to18 year-olds) leading to a Vocational Training Corporation (VTC) occupational certificate. CAQA issues occupational licences for holders of a VTC certificate after an assessment. The assessment is based on occupational standards.

CAQA uses the DACUM method – developing a curriculum – to produce occupational standards. To date, occupational standards have been produced for six sectors. Occupational standards are being prepared for seven other sectors.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

No legal adoption formalised of the TVET NQF.

Governance and institutional arrangements for the NQF

The E-TVET Council acts as the NQF board, while operational management lies with CAQA.

Roles and functions of actors and stakeholders

While the E-TVET Council includes labour market actors, CAQA's board does not.

Funding

The CAQA currently lacks the necessary staff numbers and technical capabilities to act as a qualifications authority, so capacity-building and financial support is required.

Quality assurance of qualifications

Quality, efficiency and effectiveness in the TVET system are affected by the fragmentation of TVET providers. The sector is characterised by a centralised, top-down approach, with each subsector (vocational education, vocational training and technical education) having bureaucratic systems that seldom work together to improve relevance, quality or efficiency.

Three accreditation and quality assurance systems are operating within the E-TVET sector:

(a) the Higher Education Accreditation Commission (HEAC) for technical education;
(b) the Centre for Accreditation and Quality Assurance (CAQA) for vocational training;
(c) the MoE for vocational education.

CAQA's cooperation with HEAC and the MoE on establishing a system of external quality control for the whole TVET sector is essential as part of an overall external quality assurance approach for human resources development in Jordan. However, CAQA falls within the MoL's oversight and the ETVET Council's technical operation. To provide greater coherence and independence, by-laws for the E-TVET Council and CAQA are needed to enforce accreditation and standards across all VET providers, including those within MoE and HEAC oversight. The establishment of CAQA is a considerable step towards setting up a quality assurance system in TVET but, for it to play its role in full, it needs further resources and political empowerment to coordinate beyond the VTC.

The lack of a system of transparent qualifications and the limited flexibility of the current pathways for progression are persistent challenges. The focus of quality assurance also needs to shift from inputs and control to outcomes and employability for students and the performance of teachers and TVET institutes. Recent steps towards designing a qualifications framework for TVET create an opportunity to reinforce quality assurance and, at

the same time, make it sector-wide rather than divided into three subsystems ([288]).

Recognising and validating non-formal and informal learning and learning pathways

Jordan currently has no system for recognising skills and validating non-formal and informal learning. One of CAQA's tasks is to conduct occupational tests for those involved in technical and vocational work and granting occupational licences. This opens up options to validate skills acquired in the workplace or though other forms of non-formal and informal learning but, in practice, there is little use of this route.

NQF implementation

Inclusion of qualifications in a register

No register has yet been developed.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of TVQF implementation have not yet been defined.

Impact for end-users

No impact yet as qualifications are only now being introduced into the qualifications framework.

Referencing to regional frameworks

There are currently no regional qualifications frameworks in the Middle East/Arab region. Jordan has adopted the Unified Arab standard classification of occupations 2008 (ASCO), which is compatible with the international standard classification of occupations (ISCO), as a general framework for occupational classification and standards in Jordan.

Important lessons and future plans

It is important that political backing for the framework is secured; it has already been significantly delayed by disagreements or opposition from various national actors. Without stakeholder and institutional consensus, the framework will not be implemented or will exist only on paper, as has been the fate of previous NQF initiatives.

To improve the quality and relevance of qualifications (ultimately) the social partners should be engaged at least in the sector teams, which are developing occupational standards, if they are not to sit on the CAQA board.

Abbreviations

ASCO	Unified Arab standard classification of occupations
CAQA	Centre for Accreditation and Quality Assurance (the qualifications and quality assurance agency)
DACUM	developing a curriculum method
E-TVET Council	Employment-VET Council
HEAC	Higher Education Accreditation Commission
ISCO	international standard classification of occupations
IVET	initial vocational education and training
MoE	Ministry of Education
MoL	Ministry of Labour
NQF	national qualifications framework
Q4M	Qualifications for the Mediterranean
TVET	technical and vocational education and training
TVQF	technical and vocational qualifications framework
VTC	Vocational Training Corporation

Prepared by:
the European Training Foundation (ETF).

([288]) ETF Torino process report 2016-17, Jordan.

KAZAKHSTAN

Introduction and context

NQF snapshot

The Joint Order 8022 of 19 October 2012, adopted by the Ministries of Health and Social Development and Education and Science, specified the structure of the national qualification system: the national qualifications framework (NQF), the sectoral qualifications framework (SQF) and occupational standards. There is currently also a draft Law on Qualifications.

According to the registered Joint Order 8022, 2012, the NQF comprises eight levels. The NQF concept was updated jointly by the Ministry of Education and Science and the Ministry of Healthcare and Social Development on 16 March 2016.

Kazakhstan's NQF is influenced by the European qualifications framework (EQF) and has drawn heavily on international support, especially from the World Bank. It is now working with national authorities and actors on the *KZ skills and jobs* project, 2016-20.

Educational, social, economic and political context

The country has a population of 17.5 million, and growing ([289]). Young people aged 15 and under account for 26% of the population. This follows low birth rates in the 1990s.

Kazakhstan has enjoyed continuous economic growth over the past 12 years, with rates averaging 8%. However, these rates may slow with declining world oil and gas prices. Efforts are being made to move the country away from heavy resource-dependency, including attempts to stimulate small and medium-sized enterprise (SME) expansion. Yet the proportion living below the nationally defined poverty line has fallen dramatically, from 47% in 2001 to about 3% in 2013. Growth has, therefore, been inclusive and prosperity quite widely shared.

The overall percentage share of students in vocational education and training (VET) in 2012 was only 6.7%. VET still suffers from a poor image. Pathways to higher education (HE) are complex and students enrolling in HE with a secondary VET qualification need to take both VET and HE entry exams. Nevertheless, the ministry and employers are demanding more VET graduates – general education graduates often struggle to find work – and the Ministry of Education and Science (MES) is continuing to fund more VET places.

The ministry is also encouraging flexibility of VET provision so that colleges and other providers determine 25% of the curricula, as opposed to the previous system of completely centralised curricula.

Policy objectives

Since 2008, Kazakhstan has launched a series of initiatives aimed at modernising its education and training system, including the State programme for modernising TVET 2008, the Accelerated industrialisation and innovation strategy, adopted in 2010, and Strategy 2050, which is looking to attract inward investment.

The NQF is intended to address the challenges of streamlining existing qualifications, of linking qualifications more closely to labour market needs and of clarifying the relationship between qualifications, salaries and career paths; it is both reformist and communicative.

Levels and use of learning outcomes

Scope and structure of NQF

The NQF covers general, VET, post-secondary and higher education qualifications.

Alignment to other classification systems

Related instruments and references include: the State classifier of occupations; the union-wide classifier of workers' professions; the unified tariff

([289]) Torino process report, European Training Foundation 2016.

manual of workers' professions; qualifications manual; the compulsory State education standards in technical vocational education and training (TVET); and the compulsory State education standards in higher education. Both standards were created in 2012 (with amendments in 2016).

Kazakhstan had developed over 20 sectoral qualifications frameworks (SQFs) by 2016 in areas such as metallurgy, construction, oil and gas, engineering, and transport etc. The SQFs classify industry requirements for each qualification by complexity and demand of skills required. SQFs are used to certify industry personnel.

However, the SQFs are not yet linked to the NQF. They are arguably not QFs per se, as they are in practice sectoral groupings of qualifications, but they are formally approved by relevant ministries whose remits cover the respective sectors.

Kazakhstan has an estimated 449 occupational standards, of which 183 have so far been approved by relevant government bodies, the most important of which is the Ministry of Education and Science.

The World Bank project *KZ skills and jobs* will develop a new set of sectoral qualifications and occupational standards.

No system of validation of non-formal learning has yet been established. However, the SQFs could support validation by setting criteria for the award of qualifications and certification of skills; in turn, these qualifications need to be recognised and included formally in the NQF.

In HE, more than 60 universities have signed the Bologna process.

NQF levels

The KZ QF is an eight-level structure. Currently, levels 6 to 8 are reserved for degrees awarded in higher education; levels 2 to 4 for qualifications in TVET education; and level 5 for post-secondary education.

Level descriptors

The level descriptors are: knowledge, skills and competences (personal and professional) and ways of achievement.

Use of learning outcomes

New qualifications are outcomes-based.

Definition of qualification

A qualification '… is an official recognition of the value learned competences for the labour market and further education and training, giving right to carry out work' ([290]).

Access, progression and credit

The framework allows for progression but links between the various sectors of education and training should be strengthened. In particular, levels 6 to 8 remain the preserve of higher education institutions and their qualifications.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The 2012 legally mandated NQF is part of the wider national qualification system, which, according to the Labour Code, consists of: the NQF, the sectoral qualifications frameworks and occupational standards.

By resolution of the Government of the Republic of Kazakhstan (Resolution 616, 18.6.2013), the Gradual Development Plan of the national qualification system was approved.

Governance and institutional arrangements for the NQF

The ministries of Education and Science, and Health and Social Development together lead the NQF. The MES is responsible for TVET overall.

Roles and functions of actors and stakeholders

The MES develops compulsory education standards for qualifications and occupations in the State system.

A total of 16 sector councils operate to oversee skills development. They have also led the development of occupational standards. Businesses are gradually becoming more engaged in VET by developing qualifications and curricula, such as the National Chamber of Entrepreneurs which is active in TVET modernisation. Its functions also include approving occupational standards.

([290]) Joint Order 8022 of 19 October 2012, adopted by the Ministries of Health and Social Development and Education and Science.

Funding

While the country is resource-rich and can fund some of its TVET initiatives, it also relies on donor support, notably from the World Bank for, the NQF.

Quality assurance of qualifications

Sector-led testing and certification was piloted in three sectors. Accreditation of providers and programmes has developed but more needs to be done about validating qualifications and assessment procedures, paying special attention to adapting to the learning outcomes paradigm.

Recognising and validating non-formal and informal learning and learning pathways

Despite efforts by some stakeholders, there are no formal plans yet for validation.

NQF implementation

Inclusion of qualifications in a register

No database has yet been established which is linked to the NQF. However, Kazakhstan has a qualification and specialties classifier for VET qualifications and occupations.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of the NQF's implementation have not yet been defined.

Impact for end-users

Providers are informed of qualifications and curricula via the country's membership of the Bologna process.

Referencing to regional frameworks

Kazakhstan has been a member of the Bologna process in higher education since March 2011, and is, therefore, committed to implementing the qualifications framework for the European higher education area.

Important lessons and future plans

The country's strong economic growth and consequent need to develop relevant qualifications has driven the development of the NQF. The strength of Kazakhstan's industries has contributed particularly to a focus on labour market relevance, and especially on occupational standards.

The NQF descriptors are considered by many to be overly generic. This also applies to the SQFs, which should be linked to the NQF. The development of defined qualification types, and certainly better coordination, is needed, as is expert and social partner input to inform development of new occupational standards to ensure labour market relevance. Existing NQF and qualifications-related legislation needs to be streamlined.

Social partners' and other stakeholders' participation needs to be institutionalised in permanent bodies such as sector skills councils. Attention should be paid to incorporating SMEs in particular; currently, larger enterprises and their representative bodies have predominated in NQF discussions.

Abbreviations

HE	higher education
KZQF	Kazakh qualifications framework
MES	Ministry of Education and Science
NQF	National qualifications framework
QF-EHEA	qualifications framework in the European higher education area
SQFs	sectoral qualifications frameworks
TVET	technical and vocational education and training
VET	vocational education and training

Prepared by:
the European Training Foundation (ETF).

KENYA

Introduction and context

The Kenyan qualifications framework (KQF) is currently being developed by the Kenyan Qualifications Authority (KQA) in accordance with the Kenyan Qualifications Framework Act No 22 of 2014 and under the supervision of the Ministry of Higher Education, Science and Technology (MoHEST).

The Sessional Paper of 2005 (MoE, 2005) and the Policy framework for education of 2012 (MoE, 2012) highlighted the need both to coordinate and to clarify Kenya's education and training. The current multiplicity of qualifications and awarding bodies ([291]) makes it difficult for employers to understand what competences they can expect the holder of a particular qualification to possess (ibid.). The KQF is intended to address this situation by establishing a common regulatory system for the development, assessment and award of qualifications. A central register of qualifications will set out clear criteria for achieving awards, detailing the knowledge and skills required in each case (MoHEST, 2014).

The KQF needs to be understood in the context of the two major reforms to Kenya's education and training policy, which occurred in 2005 and 2012.

Policy objectives

The objectives of the KQF are set out in the KQF Act No 22 of 2014 (MoHEST, 2014). They are as follows:

(a) to establish the Kenyan National Qualifications Authority;
(b) to establish standards for recognising qualifications obtained in and outside of Kenya;
(c) to develop a system of competence, lifelong learning and attainment of national qualifications;
(d) to align the qualifications obtained in Kenya with global benchmarks in order to promote national and transnational mobility of workers;
(e) to strengthen quality assurance systems for national qualifications;
(f) to support mobility and progression within education, training and career paths.

No institution may award national qualifications unless it is recognised or accredited in accordance with the KQF or unless it is a university accredited in accordance with the Kenya Universities Act No 42 of 2012.

Levels and use of learning outcomes

The 10-level KQF is aligned with the East African Community (EAC) qualifications framework. The EAC framework is annexed to the EAC common market protocol for mutual recognition of academic and professional qualifications, to which Kenya is a signatory.

The KQF acknowledges two separate sub-frameworks within this overarching framework: one for academic and the other for vocational qualifications. However, core generic competences involving the application of knowledge in practical situations are the same for both domains. These core competences include the ability to:

(a) analyse, synthesise and create;
(b) solve problems;
(c) organise, plan and communicate;
(d) use ICT;
(e) work in teams;
(f) engage in developing projects, research and innovations;
(g) work autonomously.

KQF qualifications incorporate both theoretical knowledge and employable skills. Credits obtained through RPL are taken into account to determine which level of qualification an individual should work towards.

The KQF contains level descriptors at primary, secondary, tertiary, TVET and university levels. Descriptors are also provided for 'short cycles' linked to the main TVET levels and graded 'sub-cycles' for artisanal skills (Table 49).

([291]) Kenya's three main awarding bodies are the Directorate of Industrial Training (DIT), the Kenya National Examination Council (KNEC) and the Council of Higher Education (CHE).

Table 50 Kenyan qualifications framework (KQF)

KQF levels	Cycle	Qualification	Holders (Nomenclature: ISCED 97)
10	Cycle V: Higher education (HE) HE sub-cycle 3: Doctoral programme	PhD / Doctoral degree	Researcher/Innovator
9	HE sub-cycle 2: Master programme	Master degree	Scientist/Manager
8	HE sub-cycle 1: Undergraduate programme	Bachelor degree + professional cert./ award Bachelor degree	Professional nonprofessional/uncertified worker
7 6 5	Cycle IV: Post-secondary training (PST) Post-secondary training sub-cycle 6 Post-secondary training sub-cycle 5 Post-secondary training sub-cycle 4 Post-secondary training sub-cycle 3 Post-secondary training sub-cycle 2 Post-secondary training sub-cycle 1	KCVET/KCSE + Tech. diploma KVCET/KCSE + Craft certificate KVCET/ KCSE + Non-tech. diploma KVCET/ KCSE + craft certificate KVCET + non-employment skill certificate	Associate professional, certified specialist or technician Master craftsperson Semi-skilled para-professional Craft operator Semi-skilled Semi-skilled
4	Cycle IV: Upper secondary education	KVCET KCSE	Semi-skilled school leaver Unskilled school leaver
3	Cycle III: Junior secondary education	KJCVET KJSE Artisan cert. (theory and practice) Artisan cert. (practice)	Semi-skilled Unskilled Skilled artisan Skilled operator
2 1	Cycle II: Upper primary education Cycle I: ECDE & Lower primary education	CPE + GTT Cert. I CPE + GTT II CPE + GTT III	Teenager Skilled operative Semi-skilled Semi-skilled Child

Source: MoE, 2012; MoHEST, 2012.

Stakeholder involvement and institutional arrangements

The KQF Act mandated the establishment of the KQA (MoHEST, 2014). This, in turn, is responsible for coordinating and supervising the development of policies on national qualifications, and developing a framework for a qualifications accreditation system and a system for assessing national qualifications.

The KQA also develops and reviews the interrelationships of national qualifications in consultation with stakeholders, relevant institutions and agencies. The authority maintains a national

database of national qualifications and publishes associated manuals, codes and guidelines. Another important function of the KQA is to advise and support any person, body or institution that is responsible for awarding national qualifications. It sets standards and benchmarks for qualifications and competences including skills, knowledge, attitudes and values; defines the levels of qualifications and competences; and provides for the recognition of attainment or competences including skills, knowledge, attitudes and values. It also aids linkages, credit transfers and exemptions, as well as vertical and horizontal mobility at all levels; this in turn enables entry to, return to, and exit from learning programmes.

Given the importance of the international comparability of qualifications, the authority also establishes standards for harmonisation and recognition of national and foreign qualifications, and promotes the recognition of national qualifications internationally. It builds confidence in the national qualifications system that contributes to the national economy and provides pathways that support the development and maintenance of flexible access to qualifications (MoHEST, 2014).

Recognising and validating non-formal and informal learning and learning pathways

One of the key goals of the KQF is to recognise and assess the outcomes of learning in all settings, whether formal, non-formal or informal, including in the workplace. A number of measures are being taken to pursue this goal. Progression pathways from primary to higher education in the technical and vocational education and training (TVET) sector are being promoted through the TVET curriculum development framework (TCDF), which was established in 2010 according to KQF occupation standards. This is helping to link youth polytechnics (YP) and vocational and industrial training (VIT) qualifications to formal TVET provision.

Several agencies offer courses at various levels to young people and adults. Open universities offer a range of distance learning, evening, bridging and recognition of prior learning (RPL) courses; such courses were previously available only at the University of Nairobi. Complementary basic education (COBET) programmes (non-formal programmes equivalent to formal education) offer children and teenagers who have dropped out of school the opportunity to reintegrate into the formal system.

Three international standards guide the assessment of skills in Kenya: these are the International Labour Organisation's ISCO 88 standard, UNESCO's ISCED 97 standard, and the ISO standard 9000 Series on education. In addition, the Kenya national occupation classification standard (KNOCS) guides the exemption and credits transfer system (ECTS), which is promoted through a combination of conventional testing and e-assessment for RPL.

NQF implementation

The government intends to reform existing institutions for KQF implementation. One of these institutions is the Kenya National Examination Council (KNEC), which was established in 1980 to oversee national examinations and award certificates in both the formal and informal learning sectors. In formal education and training, a national system of certification from primary through secondary, post-secondary and tertiary education already exists. In the informal learning sector, trade tests are used to certify artisans and craftspeople (Kerre and Hollander, 2009); the KQF will continue to use these existing systems of certification.

Referencing to regional frameworks

The Annex to the EAC common market protocol for mutual recognition of academic and professional qualifications has proposed a 10-level framework designed to accommodate all qualification types and levels in the region. This framework emerged as a result of an audit of qualifications frameworks in the East African Partner States, which have agreed to harmonise the qualifications frameworks within the EAC. Other qualifications frameworks with 10 levels include those of Mauritius, the United Republic of Tanzania, and Australia. An exercise on harmonisation of the East African education systems and training curricula is currently in progress.

Important lessons and future plans

The Kenyan Government sees the KQF as tool to aid accreditation, teaching and assessment in accordance with established national curriculum development practice and standards. The KQF has already had a number of successes. For example, mutual recognition of Kenyan and international qualifications has been greatly helped by the KQF. Foreign qualifications can now be much more easily assessed, which has resulted in an influx of foreign teachers to Kenya.

Kenya's development of the KQF highlights the importance of building on existing institutions and structures rather than importing models from outside the country.

Abbreviations

COBET	complementary basic education
EAC	East African Community
ECTS	exemption and credits transfer system
ICT	information communications technology
KNEC	Kenya National Examination Council
KNOCS	Kenya national occupation classification standard
KQA	Kenyan Qualifications Authority
KQF	Kenyan qualifications framework
MoE	Ministry of Education
MoHEST	Ministry of Higher Education, Science and Technology
RPL	recognition of prior learning
TCDF	TVET curriculum development framework
TVET	technical and vocational education and training
VIT	vocational and industrial training
YP	Youth Polytechnic

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Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with national experts.

KOSOVO

Introduction and context

NQF snapshot

Kosovo ratified its national qualifications framework (NQF) in law in 2008. The framework comprises eight levels, embracing lifelong learning.

It is overseen by a dedicated and autonomous body, the National Qualifications Authority (NQA), and is supported by other public institutions with responsibility for different education subsectors, such as higher or general education.

Implementation has begun, with more than 25 qualifications already included in the qualifications framework (QF).

Educational, social, economic and political context

A Stabilisation and Association Agreement (SAA) between the European Union (EU) and Kosovo came into force on 1 April 2016. The SAA will support the implementation of reforms and will give Kosovo an opportunity to move closer to Europe as an important anchor of stability.

It is essential to underline the EU's influence on the NQF: Kosovo intends its NQF to be compatible with the European qualifications framework (EQF), an aim reflected in the structure and nature of the framework, which is largely influenced by the EQF. The Kosovo authorities have opened discussions with the Commission on how to establish a relationship between the Kosovo NQF and the EQF.

Kosovo's NQF has to be placed within the context of the recent history of the country and its resulting economic, social and education challenges and, specifically, the continuing political uncertainty. The tense relationship with Serbia particularly hinders the country's economic growth and social stability.

Unemployment levels remain high and the country has the weakest employment record in Europe. Growth is limited, the private sector is small and foreign investment limited. The country depends largely on remittances from the many Kosovars abroad and on donor activity and support. Approximately 57% of upper secondary students in Kosovo follow a vocational education and training (VET) pathway ([292]), but the sector remains dogged by its lack of attractiveness to students and their families, with general and higher education enjoying greater prestige. Several surveys of Kosovo's education and training system have emphasised the need to make it more relevant to the labour market and to develop the education infrastructure. For example, teacher-training provision is limited and most VET instructors, for example, do not have a teaching qualification. Opportunities for young people to access work-based learning, whether through placements, internships and apprenticeships or some other variation of professional practice, remain limited, mainly owing to the small size of the private sector and the predominance of small and medium-sized enterprises, which have scant provision to offer structured work experience.

Kosovo governments have sought to address these issues, developing strategies for human resource development and education reform. In education, the key action plan is the Kosovo education strategic plan 2011-16 (KESP), the overarching national education and training strategy. Lifelong learning and inclusiveness are the key underpinning principles of the plan. The development of the Kosovo NQF is a key element within KESP. Since 2012, the Ministry of Education (MEST) has hosted a joint annual review conference to review the progress of KESP.

Kosovo's education and training system reflects the country's very specific circumstances. For example, it is characterised by a large international donor community and strong external influences from the USA and the EU. The centres of competence established by donors, in particular Norway and Luxembourg, in regional centres across the country are key to VET, specialising in fields such as

([292]) Data from the ETF Torino process report 2016-17, Kosovo.

business, medicine and agriculture. This approach is not without its critics who cite the high set-up costs of the Centres and their alleged isolation from the rest of the national VET system. However, in recent years, especially in VET, donors have been either scaling down or withdrawing.

The NQF was developed by the Kosovo government in cooperation with EU support provided under various projects, including KOSVET II, KOSVET III and, finally, KOSVET V; the European Training Foundation has also assisted and advised the Kosovo authorities. KOSVET V concluded its work at the end of 2011, and subsequently the NQA, as an autonomous agency, has been solely responsible for implementing the framework.

Strategic challenges facing the NQF are: how to contribute to the establishment of KESP, including the overall improvement of the quality of education and training provision; how to support the move to an education training system with lifelong learning at its core; and how to link higher education (HE) and VET more closely.

Specific challenges include: conducting accreditation of VET schools and other providers; carrying out validation processes for new qualifications so that these can be registered in the NQF, and ensuring the NQF performs its quality assurance role.

Policy objectives

Education and training reforms

The Kosovo qualifications framework is central to the government's aim to improve the quality of the education and training system and to drive it towards EU standards.

The Kosovo NQF is explicitly intended as a reform instrument. Indeed, it even goes beyond other 'reforming' NQFs in being perceived as a key tool in building and structuring the national education system. It will, therefore, not only relate or link the different subsectors of the national system, but also initiate and stimulate curricular and qualifications re-design and promote institutional change.

Kosovo's vision is to develop its VET system as part of an inclusive education system, based on lifelong learning principles offering quality education to all. The government's continuing education reforms aim to increase the quality of pre-university education, develop teaching as a career, ensure that VET programmes better reflect economic demands, and expand practical elements. Reforms in the education sector are building on recent evaluation of the Kosovo education strategic plan (KESP) 2011-16, which has identified key achievements and the need for further interventions. Based on this evaluation and measures identified under the national development strategy, which recognise the need for investment and improvements in the education sector, including VET, to turn Kosovo's labour force into an engine for development, the government is developing a new KESP for the period 2017-21.

Since 2015, VET has been identified as the top priority among the different education sectors, confirmed by the considerable efforts of the Ministry of Education, Science and Technology (MEST) in establishing both the Agency for VET and Adult Education (AVETAE) in 2014 and setting up the Council for VET and Adult Education. The functioning and capacity building of AVETAE as well as the Council is both a challenge and a prerequisite for creating a more coherent approach in VET and adult education, and for bringing all relevant stakeholders together to improve cooperation between the public and private sector.

The second priority is the implementation of the national qualifications framework (NQF). Kosovo has already put in place many of the elements of a modernised qualification system. However, it needs to accelerate its development and the adoption of occupational standards for use in developing new qualifications, validate more new qualifications for inclusion in the framework and implement its developing system of validation of non-formal and informal learning, which is also one of the key issues for European education policy.

National strategies related to NQF are the following:

(a) Kosovo education strategy plan 2011-16;
(b) Strategy for development for pre-university education in Kosovo 2007-17;
(c) Strategy for integration of Roma, Ashkali, and Egyptian Communities in Kosovo (Education component 2007-17);
(d) Strategy for the development of higher education in Kosovo (2005-15);
(e) Sectoral strategy 2014-20 of MLSW (developed and expected to be approved soon).

International cooperation

EU assistance to Kosovo under the priority sector of education, employment and social policies (financial assistance under IPA II) is focusing on: improving the functioning of the labour market; raising education standards; promoting skills development; and restructuring the social welfare system.

Kosovo's education and training system reflects the country's very specific circumstances; for example, it is characterised by a large international donor community presence.

Arguably, the education and training system is overly influenced by such donors, who pull in different directions, offering money to Kosovo's VET sector but undermining efforts at coherent reform.

Levels and use of learning outcomes

Scope and structure of NQF

The Kosovo NQF is a comprehensive, lifelong learning framework; its descriptors are intended to cater for all types of learning contexts and experiences: general education, higher education, vet; and formal, non-formal and informal.

The Qualifications Law (2008) defines NQF as the national mechanism for classifying qualifications awarded within the national qualification system according to a set of criteria defining levels.

There are six specified types of qualification recognised in the NQF:

(a) higher education qualifications under the institutional responsibility of the higher education accreditation agency (KAA);
(b) general education qualifications under the institutional responsibility of the Ministry of Education, Science and Technology;
(c) national combined VET/general qualifications under the institutional responsibility of the NQA;
(d) national vocational qualifications under the institutional responsibility of the NQA;
(e) qualifications based on international standards under the institutional responsibility of the NQA;

Table 51 NQF and qualification types in Kosovo

National qualifications framework				
NQF levels	**Contains qualifications associated with**			**EQF levels**
	Education/training programmes	**Currently available qualifications (type)**	**Potential work roles/occupational requirements**	
8	Higher education – Bologna 3rd cycle (Doctorate)	Doctorate	Entry to, or continuing professional development within, senior levels of management or higher level professional occupations	8
7	Higher education – Bologna 2nd cycle (master)	Master degree		7
6	Higher education – Bologna 1st cycle (Bachelor)	Bachelor degree		6
5	Bologna short cycle and /or post-secondary VET	Diploma of formal providers Certificates of non-formal providers	Specialist/Trainer/Manager	5
4	Preparation for progression into higher education and/or labour market entry	*Matura* certificate in general or vocational subjects Vocational education diploma	Qualified worker/supervisor	4
3	Preparation for labour market entry (young people and adults)	Vocational education certificate Certificates of non-formal VET providers	Semi-skilled worker	3
2	Progression from lower to upper secondary education (young people), preparation for labour market (adults)	No existing qualifications of formal education system identified Certificates of non-formal providers	Low-skilled worker	2
1	Basic education	No existing qualifications of formal education system identified Certificates of non-formal providers	Minimum level of basic skills, including literacy/numeracy, required for entry to lowest level of employment	1

(f) tailored qualifications under the institutional responsibility of the NQA.

Qualifications are for the most part being developed along unit or modular lines, in both VET and HE (general school compulsory education does not, however, use a modular approach).

Alignment to other classification systems

The national qualifications framework is the national mechanism for classifying qualifications awarded within the national qualification system according to a set of criteria defining levels.

The credibility of the assessment system depends on fair, accurate assessment and effective quality assurance. External verification plays a vital role in the quality assurance of vocational qualifications in Kosovo. There are three strands to external verification, each requiring a different visit procedure and report, although all are based on the quality criteria of the national quality assurance framework (NQAF).

NQF levels

The basic structure of the Kosovo NQF consists of eight levels of qualifications and modules; other qualification components can be placed across the existing levels and types.

Level descriptors

According to the Law 03/L-060, 2008, the level descriptors are defined in terms of learning outcomes. The Kosovo national qualifications framework classifies a learning outcome as:

(a) knowledge: which may be theoretical or practical;
(b) skills: which may be cognitive, practical or creative;
(c) wider competences: specifically, autonomy and responsibility.

The descriptors, as well as the framework overall, are strongly influenced by the EQF and also drawn from elements of other existing NQFs, such as the Scottish qualifications framework. They have been elaborated for Kosovo's context.

Use of learning outcomes

The national qualifications framework is built on the principles of learning outcomes.

The qualifications are defined through the learning outcomes which state what the learner is expected to know and to be able to do on the successful completion of the module or of the full programme. For occupational qualifications, the learning outcomes derive directly from the competences identified in the occupational standards.

Definition of qualification

The definition of 'qualification' in the NQF (Law 03/L-060 on national qualifications, 2008) is 'an official recognition of achievement that recognises completion of education or training or satisfactory performance in a test or examination'.

Most qualifications are being developed as unit or modular structures for both VET and HE. General compulsory education, however, uses a modular approach.

It is relevant to mention the other related definitions also stated in the NQF:

(a) a certificate is an official document attesting to a person's completion of a course, education or training programme, or the requirements for award of a qualification, or recording partial completion of a qualification;
(b) certification is the process of recognising the achievements of candidates for qualifications through the award of a certificate or diploma;
(c) 'diploma' means a document given upon completion of an extensive education programme.

There are six specified types of qualification recognised in the Kosovo NQF:

(a) higher education;
(b) general education;
(c) national combined;
(d) national vocational;
(e) qualifications based on international standards;
(f) tailored qualifications.

Qualification standards

Law 03/L-060 (Article 2) defines standards as measurable indicators of achievement, defined either in terms of qualitative or quantitative criteria that are required to be achieved by candidates for the award of qualifications.

In the context of the development of a system of vocational qualifications for Kosovo, there are two main applications of the term 'standards'. Occupational standards are measures of expected work. Outcomes and qualification standards are measures of assessed learning achievements.

The definition of occupational standards should be the starting point for the development of curricula and assessment for outcomes-based VET qualifications and competence-based VET programmes.

When submitting a qualification for validation and approval for inclusion in the NQF, the following features will be described in the qualification specification and application:

(a) qualification title;
(b) rationale for the qualification, and evidence of the need for the qualification;
(c) aims of the qualification, and main target groups of learners;
(d) NQF level of the qualification and the credit value of the whole qualification;
(e) recommended access routes to enter the qualification and any entry requirements;
(f) progression routes after completion of the qualification (e.g. further learning);
(g) structure of the qualification;
(h) approaches to assessment for the award of the qualification;
(i) specific quality assurance requirements of the qualification;
(j) any mutual recognition agreements with other qualifications;
(k) detailed specifications (e.g. modules; programmes).

The specifications for a vocational education and training qualification also include a description of how the qualification is linked to employment, and evidence about consultation with labour market stakeholders.

As well as providing the information required for validation, the qualification specification can ensure that relevant information is also easily available for users of the qualification, including learners and employers.

Qualifications development process

NQA is responsible for standard-setting for the validation (approval) of qualifications and the accreditation of providers (authorisation to develop, offer and assess qualifications). Qualifications/modules are developed by MEST, AVETAE, relevant ministries and other providers. Most VET qualifications are developed by the providers, then submitted for approval to NQA.

VET qualifications have to be based on occupational standards (of which 26 now exist). Occupational standards are the starting point for outcomes-based curricula and outcomes-based VET qualifications. VET qualifications can be placed in the NQF if they are based on occupational standards.

Occupational standards should be used to provide a reference point for identifying the modules that should be included in each qualification, together with the learning outcomes to be achieved for the candidate to be credited with having achieved each module. The main functions generally identified in the occupational standards will lead to the definition of modules for learning and assessment.

Modules provide building blocks for qualifications, enabling systems of credit accumulation and credit transfer to be developed. They can be offered in prescribed combinations to meet the requirements of particular programmes, as elective options or individually. Vocational qualifications should normally be based on a 'core' and 'options' structure, allowing some degree of choice with regard to the modules taken.

Occupational standards are developed in cooperation with: MEST, MLSW, other relevant ministries and social partners. They are verified by NQA and approved by the CVET.

The NQA administrative instruction defines the process of qualification validation as follows:

(a) qualifications/modules for validation must have measurable learning outcomes;
(b) qualification/module levels must be clearly defined according to the NQF descriptors;
(e) the credit value of the qualifications/modules that are included in the NQF must be determined accurately according to the NQF.

NQA has validated 13 qualifications, which have been placed at NQF levels II, III, IV and V.

Access, progression and credit

The NQF has been designed to enable and promote access, progression and transfer and to support the building of pathways between different subsectors of education and training, for example HE and VET. The redesign of qualifications using learning outcomes and the structuring of courses on modular lines should, in many cases, support progression and transfer, for example where units or modules are the same or similar between different courses or qualifications.

In practice, however, direct linking of qualifications to particular types of programme in many cases is a barrier to flexible access to qualifications. Some institutions remain reluctant to be flexible in offering learner access to programmes or qualifications. Within higher education, for example, it can be difficult for students to transfer credits between universities or even across faculties at

the same university. In some cases, providers are unwilling to accept assessment of the learner's previous institution.

According to the Law on national qualifications, qualifications must be 'designed to allow for the accumulation and transfer of credit'. This can be achieved through developing modular qualifications. The qualifications and individual learning modules should be developed in subject hierarchies to allow learners to progress within the national qualifications framework to their ability level.

One of the objectives of the NQF is to facilitate the accumulation and transfer of learning outcomes between different learning contexts or systems – this includes learning in the formal and non-formal and training sectors. The NQA has developed a VET credit system based on ECVET recommendations. This aims to support learners' geographical and occupational mobility by enabling them to accumulate and combine learning outcomes from different settings and use them in different education pathways.

Credit

The NQA's credit system uses learning outcomes, categorises qualifications by measuring the volume of learning, and identifies providers that have a role and responsibility in allocating credit.

One credit is awarded for 10 notional learning hours. This convention was selected because it allows credit to be awarded for learning outcomes gained in very short periods of time (for example, one or two day training programmes). It also offered relatively easy conversion to ECTS points (2.5 ECVET points = 1 ECTS point).

The NQA regulates the credit system by accrediting providers and setting criteria to determine which providers can submit qualifications for inclusion in the NQF. These criteria include strict procedures for allocating credits, which ensures that providers have the necessary capacity and expertise. The NQF also provides the basis for cooperation and mutual recognition of VET qualifications with other countries.

A credit system has been established for the higher education sector and is aligned to the European Credit Transfer System (ECTS).

Stakeholder involvement and institutional arrangements

Legal basis of NQF

Law No 03/L-060 on national qualifications, adopted on 7 November 2008, established the Kosovo NQF. Related legal and regulatory measures are the Law on primary and secondary education, the Law on higher education, the Law on adult education and training and the Law on vocational education and training. The National Qualifications Authority established under the provisions of this Law (03/L-060) shall also regulate the awarding of qualifications in the framework with the exception of qualifications which are regulated under the provisions of the Law on Higher Education and qualifications explicitly regulated and under the provisions of other legislation.

Secondary legislation:

(a) Administrative Instruction No 28/2014 on criteria and procedures for the verification of the occupational standard;
(b) Administrative Instruction No 35/2014 on criteria and procedures for the validation and approval of national qualification and accreditation of institutions providing qualification in Kosovo;
(c) Administrative Instruction No 31/2014 for prior learning recognition;
(d) Administrative Instruction No 32/2014 on criteria and procedures for quality assurance in VET institutions internal processes.

Various laws interact with those directly linked with NQF implementation. Related legislation includes:

(a) Law on Vocational Education and Training (No 02/L-42, 23 February 2006) defines occupational standards whereas the Law on national qualifications (No 03/L-060, 7 November 2008) provides a more general definition of standards;
(b) Law No 04/L-032 on pre-university education in the republic of Kosovo (20 August 2011) deals with the level of qualifications;
(c) Law No 04/L-037 on higher education in the Republic of Kosovo (20 August 2011) dealing with levels and the accreditation of higher education programmes and institutions is carried out by the KAA, and the recognition of qualifications obtained abroad is carried out by MEST;
(d) Law No 02/L-42 on vocational education and training (23 February 2006) defines qualification standards, relating to the level of entry and several other definitions (student, diploma, etc.);
(e) Law No 02/L-24, on adult education and training (22 July 2005) defines certification as well as informal and non-formal learning.

Other laws:

(a) Law No 04/L-143, on adult education and training (2012);
(b) Law No 03/L-068, on education in the municipalities of Kosovo (2008);
(c) Law No 03/L-018, on final examination and State *matura* examination (2008);
(d) Law No 02/L-52, on pre-school education (2006);
(e) Law No 2004/37, on inspection of education in Kosovo (2004).

Governance and institutional arrangements for the NQF

The National Qualifications Authority (NQA), created in 2008, has the overall responsibility for implementing the NQF. It has a staff of six employees, and a governing board of 13 members who represent VET, GE and HE, trade unions, employers and employers' organisations, chambers of commerce and voluntary bodies.

While the NQA leads and coordinates, it shares responsibility for developing and implementing the NQF with the Ministry of Education Science and Technology (MEST), the Kosovo Accreditation Agency (KAA) for higher education (HE) and the Council for VET (CVET).

The Council for Vocational Education and Training (CVET) has statutory responsibility for proposing and approving standards for the VET system. CVET is a tripartite body (government, employers and trade unions) designed to support the development of the VET sector.

Stakeholder involvement outside the key institutions is developing but is still quite limited. However, this situation is not unique to the NQF or wider education and training; rather it reflects the position in society generally, where civic institutions are still developing.

A new actor is the Agency for Vocational Education and Training and Adult Education, which began work in spring 2014, supported by the German Government donor, GIZ.

The NQA is the authority responsible for developing and maintaining the NQF. According to the law, one of the key objectives of the NQF is to provide a basis for cooperation and mutual recognition between the NQF and the EQF. As such, the NQA is the national coordination point responsible for overseeing the referencing of the NQF to the EQF. Accordingly, the Governing Board of the NQA has made the decision to begin the process of referencing the NQF to the EQF.

The NQA has the responsibility for registering, within the framework, the VET and adult qualifications developed by providers such as VET schools or special occupational schools or academies, such as the police college. It conducts quality assurance processes relevant to the validation, assessment and certification of these qualifications to ensure they are of a sufficient standard to be included in the NQF, and is responsible for the accreditation of VET providers.

MEST oversees school qualifications and develops secondary school-level general qualifications, such as the lower secondary leaving diploma and the upper secondary *matura*.

In HE, the Kosovo Accreditation Agency oversees HE provision and accredits higher education institutions as providers. Universities generally develop their own qualifications, quality assured by the KAA.

The Council for Vocational Education and Training (CVET) intends to coordinate contributions from across the VET stakeholder community, including various ministries, but in particular the social partners. Its remit includes engaging the social partners in coordinating the development of occupational standards and initiatives to improve the quality of VET. It is the responsibility of CVET to ensure that the standards proposed meet the needs of Kosovo's labour market as well as enjoying support from all interested parties.

The Agency for Vocational Education and Training and Adult Education has, by the 2014 Administrative Instruction, extensive responsibilities in VET, including setting strategic priorities, and over curricula. Its relationship with the NQA and other actors and their respective remits needs to be clarified as the agency develops.

Roles and functions of actors and stakeholders

Social partners are involved in the qualification design and development process. They are members of the NQA governing board and of the Council for Vocational Education and Training (CVET). CVET recommends the approval of programmes and occupational standards.

They are involved in the three working groups established for the referencing process of the NQF to EQF and are acting as sectoral experts and advisors.

Nevertheless, the commitment of social partners remains limited largely to consultative actors.

The Agency for Vocational Education and Training and Adult Education has extensive responsibility as mentioned above but it is still not very proactive.

Resources and funding

The Law No 03/L-060 on qualifications covers resources and funding:

- *Article 21: financing*

  The finance necessary to fulfil the responsibilities set out in the provisions of this Law shall be provided from the Kosovo Budget.

  The NQA, in compliance with the provisions of this law, has the right, set out in section one of its framework, to obtain funding from other resources including other ministries and donors according to this law.

  Levies and payments from education and training institutions, including fees for education services, registration fees, charges for the award of certificates and diplomas, and donations, can be used to cover the cost of activities additional to its core functions. This shall be regulated by secondary regulation, issued by MEST.

- *Article 22 Budget Procedure*

  The NQA shall formulate and submit to MEST for approval an annual financial plan setting out its budget for the year. The plan shall include preliminary estimates of income and a breakdown of estimated expenditure.

Quality assurance of qualifications

All qualifications or modules proposed for validation must follow quality assurance arrangements. This includes institutional self-assessment and monitoring, including keeping candidate records to meet requirements for internal and external quality assurance of the assessment and certification processes and to provide verifiable evidence on candidates' achievements.

Kosovo has adopted a national quality assurance framework (NQAF) in VET in line with the European quality assurance reference framework for vocational education and training (EQAVET) to build a functional system of quality assurance for VET qualifications and to meet the needs of Kosovo society and European standards.

NQAF has six quality principles, each of which is defined by the following quality indicators:

(a) management responsibilities (15 criteria);
(b) resource management (9 criteria);
(c) design and development (12 criteria);
(d) learning, assessment and certification (28 criteria);
(e) self-evaluation (13 criteria);
(f) continuous improvement (10 criteria).

The process of accreditation is defined by NQA administrative instruction, including the following criteria:

(a) self-assessment reports are produced annually;
(b) quality assurance coordinators are appointed and trained;
(c) providers implement the principles and criteria of accreditation according to NQA Administrative Instruction.

The criteria for the evaluation and procedures for accreditation of higher education institutions include internal policies and procedures for quality assurance of their study programmes and awards.

Although the NQF has been introduced to strengthen the quality of education and training in Kosovo, it is not the only component of the quality system. Other important components of the quality system include:

(a) common regulation: MEST approves programmes and licenses institutions which contributes to national concepts, curricula, and vocational standards;
(b) external evaluation of vocational schools through administrative and professional inspections by the MEST Department of Inspection;
(c) quality assurance of MLSW Vocational Training Centres and mobile centres by the VET Division at MLSW;
(d) internal evaluation of schools through the recently introduced practice of self-assessment;
(e) external tests and examinations, especially the *matura* and the standardised tests after year 9;
(f) the quality assurance role of the Office for Standards and Evaluation at MEST;
(g) statistical data gathering by the Education Management Information Section (EMIS);
(h) the municipalities' role according to the Law on VET for the 'supervision and inspection of the education process in accordance with guidelines established by the MEST' and in other areas which impact on the quality of VET provision;
(i) the involvement of social partners and stakeholders via CVET.

Within this system, three kinds of quality activity can be distinguished: 'quality control', 'quality assurance' and 'quality improvement'.

Quality assuring accredited institutions within the NQF

Self-assessment by accredited institutions will demonstrate their commitment to the continuous improvement of the quality of their provision. Self-assessment reports will be produced annually and should reflect the conclusions of the continuing self-assessment process.

The self-assessment model used in Kosovo's NQF reflects the European common quality assurance framework (ECQF) model (common core quality criteria) and principles.

The legal basis for QA is provided by: Law No 03/L-060 on qualifications: Article 5 (NQF), Article 15 (Regulation of the award of qualifications), Article 17 (Responsibilities of assessment bodies); and Administrative Instruction No 32/2014 on criteria and procedures for quality assurance in the vocational education and training institutions – internal processes.

The Kosovo Accreditation Agency (KAA) – and its governing board, the National Quality Council – is the institution responsible for quality assurance in the higher education system. In addition to its main role, KAA is responsible for accrediting post-secondary VET colleges.

The National Qualification Authority (NQA) plays a major role in terms of quality assurance of VET in Kosovo. It is the institution monitoring the quality of the VET system. NQA has responsibility for: validating and approving qualifications and modules for inclusion in the framework; accrediting and monitoring the institutions which deliver qualifications and modules, and/or assess learners for these qualifications and modules and issue certificates or diplomas; carrying out external quality assurance of assessments leading to the award of these qualifications and/or modules; and considering appeals from learners in respect of disputed assessment decisions

The Ministry of Education Science and Technology (MEST) currently has direct responsibility for the quality of VET in VET schools. MEST is responsible for licensing and regulating schools, and the Inspectorate is a department of MEST.

The role of the Ministry of Labour and Social Welfare (MLSW) in the quality assurance of VET is to support and monitor the work of the vocational training centres (VTC) which are established by the Ministry.

The municipalities have a role in the supervision and inspection of the education process in accordance with guidelines established by MEST and in other areas which impact on the quality of VET provision.

The Council for Vocational Education and Training (CVET) has an important role to advise the Government on matters concerning the quality and promotion of vocational education and training in Kosovo.

CVET has both a direct and indirect responsibility for the quality of VET in Kosovo in a wide range of areas. CVET has a key role for the external evaluation of VET provision, not directly, as is the case with the Inspectorate or NQA, for example, but indirectly. It needs to be very well informed about VET to be able to request appropriate reports and data, analyse them and make appropriate recommendations to MEST or to the Government of Kosovo.

Criteria for the validation of a qualification by the NQA for inclusion in the NQF

These include ensuring:

(a) delivery, assessment and certification of the qualifications are supported by an effective quality assurance system including institutional self-assessment and monitoring;
(b) candidate records are sufficient to meet the requirements for internal and external quality assurance of the assessment and certification processes and to provide verifiable evidence of candidates' achievements.

General Education

MEST is responsible for quality assurance in general education. MEST approves programmes and licences schools that deliver national curriculum and learning standards.

The KCF is aligned with the United Nation's millennium development goals and the UNESCO *Education for all* initiative. It aims to provide equal access to quality education for all learners, regardless of their gender, ethnicity, age, social and economic background, skin colour, culture, language and beliefs. The KCF has been developed in compliance with quality standards (in terms of both content and student achievements). It complies with quality criteria such as relevance, connectivity, balance, coherence and meaningful progression of learning in compliance with the European reference framework – key competences for lifelong learning. KCF learning outcomes for general education levels are integrated into NQF level descriptors and fit within the EQF paradigm in relation to the acquisition of the key competences.

The Office for Standards and Evaluation in MEST is responsible for the evaluation of the quality of the *matura* exam and other standardised exams.

VET and the adult education and training system

The Kosovo NQF provides a basis for cooperation and mutual recognition of VET qualifications between Kosovo and other countries. Initially this is being achieved by ensuring compatibility with:

(a) the European qualifications framework for lifelong learning (EQF);
(b) EQF level descriptors;
(c) quality principles for VET attached to the EQF and relevant criteria for referencing NQFs to the EQF;
(d) the European credit system for vocational education and training (ECVET);
(e) the European credit transfer and accumulation system (ECTS);
(f) the European quality assurance reference framework, for vocational education and training (EQAVET);
(g) the Europass suite of tools for the transparency of diplomas, certificates and competences.

Kosovo has adopted a VET national quality assurance framework in line with EQAVET to build a functional system of quality assurance for VET qualifications meeting the needs of Kosovo society and European standards.

Higher education

MEST is responsible for planning the development of higher education in Kosovo. MEST is also responsible for licensing higher education institutions, whereas the KAA is the institution that conducts external quality evaluation.

According to the Law on higher education, the responsibilities of the Kosovo Accreditation Agency include: undertaking the periodic quality audit of licensed higher education providers and issuing decisions on accreditation or re-accreditation including the power to award degrees and diplomas; undertaking periodic quality assessment of courses and programmes offered by accredited higher education providers; and advising with the Ministry on the results of quality assessment.

According to this law, the KAA is obliged to publish its conclusions, recommendations and advice.

Recognising and validating non-formal and informal learning and learning pathways

The NQF, as a lifelong learning framework, should support the building of pathways between different subsectors of education and training, for example linking HE and VET. The framework has been designed to take account of modern learning and career patterns, so that barriers between subsectors are minimised and pathways opened up to facilitate learner progression.

Additionally, the re-design of qualifications using learning outcomes and the structuring of courses on modular lines should, in many cases, support progression and transfer – for example, where units or modules are the same or similar between different courses or qualifications.

Existing programmes or courses are also in some cases inflexible, being mainly designed for younger people in full-time study. Similarly, assessment methods tend to be very traditional i.e. formal written examinations, rather than comprising a range of assessment approaches, such as interview, oral exam, practical, etc. This can also have implications for issues of discrimination.

The NQF aims to support inclusiveness and the Law on national qualifications (2008) explicitly provides for the validation of non-formal and informal learning. This is defined as the process of evaluation of the knowledge and skills which an individual has previously acquired through different learning contexts. The NQA has developed a policy paper and guidelines for the validation of non-formal and informal learning. The NQA has also developed the Administrative Instruction for recognition of prior learning (RPL), which sets general principles, responsibilities and procedures for the validation of non-formal and informal learning within the NQF. The NQA will accredit providers for the validation of non-formal and informal learning.

The guidelines on RPL describe the processes for recognising prior learning that will lead to the award of NQF credits, or to advanced standing on a programme or course leading to an NQA-approved qualification. Indeed, one of the general criteria set by the NQA for assessment bodies is that they must ensure access and certification to candidates other than those following traditional courses and provide for validation of non-formal and informal learning. The NQA also has a communication strategy to promote the advantages of RPL and validation among stakeholders such as employers and awarding bodies.

Some organisations in Kosovo recognise prior learning and VET qualifications are awarded to RPL

candidates. Voluntary bodies such as the training centre APPK (Employment Promotion Agency, Kosovo) also support adults through validation processes. However, in some cases it is reported that institutions and employers consider qualifications obtained through validation routes inferior to those acquired through the traditional, linear path. The NQA is working with the ETF to support the training of assessors, mentors and coordinators.

NQF implementation

Inclusion of qualifications in a register

General Education

Qualifications in general education are awarded at the end of a learning programme by MEST. These qualifications are developed and quality assured by the pre-university education department of MEST based on national standards for the qualifications and their curriculum areas. As such they are automatically part of the NQF.

The formal education structure is based on a programme of education, most of which leads to tangible outcomes, defined in terms of nationally recognised standards.

VET and adult education and training

VET qualifications are included in the NQF through a mechanism developed and managed by NQA.

It consists of procedures for validating and approving qualifications for inclusion at defined levels of the framework, and criteria and processes for the accreditation of providers to offer these qualifications.

The validation process, specified in law, is transparent and consists of four stages. In stage one the institution seeking validation of a qualification/module makes an application which clearly states the rationale for the qualification/module. In stage two, a panel of experts appointed and supported by NQA evaluates the application. In the third stage the experts' report and recommendations are presented to the Governing Board of NQA for the final decision and in stage four, the approved qualification/modules are included in the NQF and made public.

Qualifications or modules that are proposed for validation must state the following:

(a) rationale/justification;
(b) credit value and duration;
(c) entry requirements and access;
(d) proposed level of the qualification/module in the NQF;
(e) content, outcomes and standards;
(f) assessment knowledge, skills and competences;
(g) quality assurance arrangements;
(h) progression.

Decisions on the level at which each qualification is placed in the framework are made on the basis of their match against level descriptors which relate to the descriptors in the NQF and indications of level, which describe the kind of formal and non-formal provision leading to qualifications in the NQF.

Once qualifications are validated and placed in the NQF the decision is made public on the NQA website.

Higher education

The institution responsible for the implementation of the NQF descriptors in higher education is the Kosovo Accreditation Agency. The implementation of the NQF at this level is ensured through the process of accreditation, the criteria for which are regulated by a well-established legal framework and are published on the agency's website.

The process of accreditation is carried out at the level of the higher education institution and at the level of programmes offered by the institutions. The criteria for the evaluation and the procedures for accreditation of higher education institutions are as follows:

(a) the scope and number of programmes that different types of institutions need to offer to be eligible to apply for accreditation as a specific type of higher education institution;
(b) for academic degrees, as with other institutions in the European higher education area (EHEA), the comparability of studies and overall educational outcomes with those of similar institutions in the EHEA. Availability, demonstrated through legally binding contracts, of adequately qualified staff to meet international scientific, artistic and professional standards;
(c) facilities;
(d) academic freedom in research and teaching;
(e) research taken at the institution and its contribution to teaching;
(f) internal policies and procedures for quality assurance of their study programmes and awards;
(g) admission criteria and study plans (detailed curricula) and examination regulations.

Once programmes and institutions are accredited the decision is made public on the KAA website.

Monitoring, evaluation and review of the NQF

NQA is the responsible body for development and management of the NQF.

Impact for end-users

The Kosovo NQF has not yet had a tangible impact on end-users. The NQF is technically operational (learning outcomes-based structure and descriptors are in place, modular or unitised qualifications are available, levels and descriptors are clearly defined, the QA framework is complete, and VNFIL/RPL mechanisms are being prepared). Nevertheless, the number of VET qualifications registered is rather limited. It is expected that the NQF-EQF referencing process will have a wider economic and social impact in the near future.

Referencing to regional frameworks

Kosovo has been a member of the EQF advisory group since 2015 and referenced its NQF to the EQF in 2016.

However, Kosovo is not yet a member of the Bologna process. It intends to join the European higher education area (EHEA) and is currently conducting the necessary technical measures, even if its political administrative status is still unclear.

Important lessons and future plans

Kosovo is more advanced than most countries in the Balkans in implementing its NQF.

From the political point of view, the NQF also occupies a central place in the government's education and training strategy. As a reform instrument, the impact of the NQF depends in part on its relationship with other policy measures and institutions.

A strong legislative framework is in place to support the development of the NQF.

The role of the National Qualifications Authority is central to the NQF's success.

From the technical point of view, the NQF is in line with European Union standards.

The Kosovo NQF consists of eight qualifications levels. It is a comprehensive, lifelong learning framework so its descriptors cater for all types of learning contexts and processes: general education, higher education, and VET. It also allows for the inclusion of formal, non-formal and informal learning activities and qualifications.

The level descriptors are learning outcomes-based, divided into knowledge, skills and wider competences. There are six specified types of qualification recognised in the NQF.

The quality assurance approach is well designed and supports the qualifications and NQF development. Nevertheless, there are still challenges to face in the near future related to the extension of the number of qualifications registered in the NQF, and the impact on end-users, in terms of quality and trust in qualifications awarded.

A key challenge is to reach full engagement with, and the active participation of, the various stakeholders such as departments, social partners, agencies and institutions necessary to ensure a sustained implementation of the NQF in the long term.

Key future tasks include:

(a) the addition of new qualifications to the framework: the number of VET qualifications placed in the NQF remains small (27), as does the occupational standards validated so far (48). This is a real challenge;
(b) developing and implementing VNFIL/RPL mechanisms. A group of RPL practitioners has been trained; the objective now is to move towards implementation in selected sectors and providers;
(c) promoting communication with end-users. Currently the number of qualifications registered and accessible on the NQA website is very small (27) and most are no longer valid (as mentioned above).

Kosovo successfully referenced its NQF to the EQF in autumn 2016. However, solutions to the above-mentioned challenges could be necessary to complete the referencing process to the EQF.

Abbreviations

AI	Administrative Instruction i.e. secondary legislation
APPK	Employment Promotion Agency, Kosovo
AVETAE	Agency for VET and Adult Education
CVET	Council for Vocational Education and Training
ECTS	European credit transfer and accumulation system
ECVET	European credit system for vocational education and training
ENQA	European Association of Quality Assurance in Higher Education
EQAVET	European quality assurance reference framework in vocational education and training
EQF	European qualifications framework
IPA	instrument for pre-accession (the EU's support programme for candidate and potential candidate countries)
KAA	Kosovo Accreditation Agency
KESP	Kosovo education strategic plan 2011-16
MEST	Ministry of Education, Science and Technology
MLSW	Ministry of Labour and Social Welfare
NQA	National Qualifications Authority
NQAF	national quality assurance framework
QF-EHEA	qualifications framework in the European higher education area
RPL	recognition of prior learning
SAA	Stabilisation and association agreement, between the EU and Kosovo
VNFIL	validation of non-formal and informal learning
VTCs	vocational training centres run by MLSW (see above)

Prepared by:
the European Training Foundation (ETF).

KYRGYZSTAN

Introduction and context

NQF snapshot

Kyrgyzstan adopted its national qualifications framework (NQF) by ministerial order on 17 March 2016.

Educational, social, economic and political context

Kyrgyzstan is a developing country with a population of approximately 5.7 million ([293]). People aged under 20 account for 41% of its population; those aged 20 to 29 comprise a further 20%. The economy is unable to provide adequate work for many young people, so youth unemployment is high, at 18%.

More than 600 000 Kyrgyz live abroad. Agriculture and construction are key industries, while the service sector is expanding most rapidly. Remittances, that is, money sent by Kyrgyz citizens working or living abroad back to families still living in the country, are an important source of revenue. High poverty levels are present and most entrenched in the countryside: 37% of the population was recorded living below the poverty line in 2013. Educational attainment is broadly higher in towns and cities.

The informal economy is extensive; it is estimated that three-quarters of all employment is in the informal sector.

Politically, the country reached a turning point in 2010 with the establishment of a parliamentary system of government; a new government and new president were elected.

The education and training system is poorly integrated, therefore the NQF should address the issue of building pathways. Vocational education and training (VET) remains a second-class option, though VET specialists are in more demand in the labour market than alumni of higher education institutions.

([293]) Data from the ETF Torino process report 2016-17, Kyrgyz Republic.

Policy objectives

Education and training reforms

The NQF is one element of the Education development strategy 2020; its other VET aims include improving quality, boosting labour market relevance and increasing access.

Objectives of the NQF are to: enhance transparency of qualifications; facilitate mobility of citizens to other countries; structure and integrate education and training systems in the country; enhance employability; boost lifelong learning; and improve qualification and labour market links.

International cooperation

NQF development in the country has depended on donor support, including: the EU, such as Tempus in higher education or the European Training Foundation (ETF); the Asian Development Bank (ADB); the German development agency supporting adult education (DVV); the Gustav Stresemann Institute; the Soros Foundation and others. Sectoral frameworks have been developed, for example in tourism and construction.

More broadly, the evolution of work on a qualifications framework system in the country has been strongly influenced by the European qualifications framework (EQF) and Bologna framework, demonstrated through its structure, functions and basis of learning outcomes. The order explicitly refers to these frameworks as influences.

Levels and use of learning outcomes

Scope and structure of NQF

All qualifications, VET, general and higher education are included.

Alignment to other classification systems

A National classification guide for lessons applies. It consists of 10 consolidated groups, divided into

subgroups, but focuses on occupations rather than qualifications explicitly; its levels correspond to education levels. However, it implies that qualification levels may be attained by a range of different approaches.

NQF levels

The new law specifies 10 levels, including sublevels 7a and 7b; level 9 is for post-doctoral qualifications, the old Soviet 'Dr Nauk'. Level 7a also includes former Soviet qualifications, while 7b covers master degrees, as in the EQF or the Bologna framework of higher education.

Level descriptors

The descriptors are based on learning outcomes, categorised as knowledge and understanding, abilities and skills and personal competences (independence, responsibility).

Use of learning outcomes

All new qualifications must be outcomes-based, though the order does not explicitly state that this applies to all existing qualifications.

Traditionally, qualifications have been input-based. The State education standards define how learners can reach specified levels of education and student attainment confirmed by the awarding of certificates, diplomas etc.

In the EU and other internal projects, qualifications were outcomes-based.

Definition of qualification

The order does not define 'qualification', but refers to it in the context of levels and study programmes based on cycle, credits and length of the study programme, for some levels. However, there is not yet clear differentiation between different levels of qualification.

In principle, non-formal pathways may lead to the award of a qualification.

Access, progression and credit

The NQF order includes progression as a basic principle of the framework. Credit volumes are assigned to each NQF level.

Stakeholder involvement and institutional arrangements

Legal basis of the NQF

Kyrgyzstan formally adopted its NQF by ministerial order on 17 March 2016: Order of the Ministry of Education and Science of the Kyrgyz Republic, number 308/1; and Order of the Ministry of Labour and Social Development of the Kyrgyz Republic No 87.

Governance and institutional arrangements for the NQF

Institutional lead lies with the education and labour ministries. Roles and functions are not yet defined or allocated, but actors will include the national VET Agency.

Roles and functions of actors and stakeholders

Beyond the institutions, stakeholder engagement in developing the NQF, and in its project forerunners, has been limited. Some employers are aware of and understand NQF concepts via their involvement in the various EU and other donor-driven projects.

Resources and funding

Funding for earlier NQF-related projects came from international donors but sustained State funding, or support from social partners locally, is a challenge.

Quality assurance of qualifications

The order does not refer to quality assurance, and quality measures are yet to be defined and developed for validation of qualifications and provider accreditation. Legislation is planned which will stipulate accreditation criteria for providers who wish to offer qualifications within the NQF.

However, broader education policies such as the Education development strategy 2020 will emphasise quality assurance.

Recognising and validating non-formal and informal learning and learning pathways

No system in place.

NQF implementation

Inclusion of qualifications in a register

No tools have yet been developed.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of NQF implementation have not yet been defined.

Impact for end-users

No impact yet.

Referencing to regional frameworks

None.

Important lessons and future plans

Adoption in spring 2016 of the NQF law was a step forward. Initiatives such as NQF-Quadriga under Tempus have proposed methodologies to develop an NQF. Various donor-funded projects, such as the Asian Development Bank and DVV International, with the Gustav Stresemann Institute, have contributed elements of a qualification system, including occupational standards. Further, sectoral frameworks were piloted in sectors such as mining and textiles.

The Ministry of Education and Science is now more engaged in the NQF and has developed a concept for a national qualification system, initiating work with international donors to develop the framework and the wider system.

Any independent development of an NQF is unlikely in the near future and the country will need to draw on international support and finance to take the NQF forward. Understanding of the functions and benefits of an NQF, especially among different stakeholders and the key actors, remains limited; stakeholder involvement remains weak.

Abbreviations

ADB	Asian Development Bank
DVV	German development agency supporting adult education
EQF	European qualifications system
KR	Kyrgyz Republic
NQF	national qualifications framework
MES	Ministry of Education and Science
VET	vocational education and training

Prepared by:
the European Training Foundation (ETF).

LATVIA

Introduction and context

In recent years Latvia has made remarkable progress in reducing its early school leaving rate, raising its tertiary education attainment rate, and improving basic skills attainment. It is now outperforming the EU average for all these indicators. Nevertheless, issues remain to be addressed to improve the quality of vocational education and training (VET) and higher education (European Commission, 2015).

Latvia has introduced an eight-level classification framework to increase the VET's attractiveness and foster the comparability of national qualifications. Recognised education programmes from the formal education system (primary, secondary and higher education) are linked to a Latvian qualifications framework (LQF) level and a European qualifications framework (EQF) level. Master of crafts, journeyman and qualifications acquired in non-formal and informal learning will be assigned levels and referenced to the EQF as a second phase of national qualifications framework (NQF) is introduced. The policy document *Education development guidelines for 2014-20* (2014) ([294]) set out the continued development of a national qualifications framework including the vocational education sector.

Current developments build on reforms initiated in the 1990s, particularly through the Vocational Education Law which set up a five-level structure of professional qualifications in 1999. This law was amended (April 2015) ([295]) to establish (by 1 January 2017) an eight-level LQF for vocational education diplomas and certificates to run alongside professional qualification levels. The Education Law (1998) was also amended in June 2015 (in effect from July 2015) ([296]) to include the definition of the LQF and its general characteristics; the law includes a new article which briefly characterises each level of the Latvian qualifications framework. Cabinet regulations have to be amended to define the LQF in more detail by end of 2016 ([297]), including changes to professional qualification levels to conform to amendments to the Vocational Education Law: adoption of these regulations will open discussions for extending the LQF (such as master of crafts and journeyman qualifications and qualifications acquired in non-formal and informal learning).

Policy objectives

The framework, based on learning outcomes, is an important tool for describing the education system for both international and national stakeholders, and for ensuring greater lifelong learning opportunities for all individuals according to their needs. Adult participation in lifelong learning in Latvia was 5.5% in 2014, below the European Union average of 10.7% (European Commission, 2015).

The development of a comprehensive LQF aims to:

(a) increase transparency and consistency of qualifications;
(b) develop a comprehensive NQF in line with the needs of lifelong learning;
(c) strengthen the link between the labour market and education;
(d) strengthen cooperation of those involved in the design and award of qualifications;
(e) increase public understanding of national qualifications and help build links to the EQF (AIC et al., 2012).

Levels and use of learning outcomes

There is growing emphasis on learning outcomes at policy and practice level; they are widely used in higher education and for occupational standards. The level descriptors of the eight-level framework

([294]) http://m.likumi.lv/doc.php?id=266406
([295]) VET Law (1999) with amendments of April 2015 that include reference of five VET qualification levels to LQF: http://likumi.lv/doc.php?id=20244
([296]) Education Law (1998) with amendments about LQF and learning outcomes in June 2015: http://likumi.lv/doc.php?id=50759

([297]) According to Transitional regulation (item 40) of the Education Law.

are based on learning outcomes and are defined as knowledge (knowledge and comprehension), skills (ability to apply knowledge, communication and general skills) and competence (analysis, synthesis and assessment).

Subject-based outcomes in general education have been defined in terms of knowledge, skills and attitudes. The ESF operational programme project ([298]), introduced in 2016, began the development of a competence-based general education programme. National VET legislation does not refer to learning outcomes in its text, but other general education documents use the terms *mācīšanās rezultāti or mācību rezultāti* (both meaning 'learning results'), which are the closest direct translation of learning outcomes in Latvian. The VET sector is changing to a learning-outcomes-based system as VET institutions must use occupational standards when developing new vocational education programmes or altering VET programmes which have already been licensed (Cedefop, 2016). New cabinet regulations state that professional standards should be developed to conform to Latvian qualifications framework levels ([299]). By updating and improving the quality of occupational standards, and by a greater focus on learning outcomes, VET programmes are expected to improve (MoES, 2013b, p. 13). The content of vocational education programmes is defined by the State vocational education standards that are specified by the relevant cabinet regulations. These standards outline the strategic aims of education programmes, the mandatory content of education, and the basic principles and procedure for evaluating that content.

The development of modular vocational education is a policy priority as the Cabinet of Ministers approved regulations([300]) outlining measures such as the development of occupational standards, vocational education content, teaching/learning aids and assessment methods using the learning outcomes approach and EU tools ([301]). The framework for higher education is founded on three Bologna cycles, based on learning outcomes. The Law on institutions of higher education includes the term 'learning outcomes', expressed as 'study results', and provides a brief definition of the term. The national standards for academic and professional higher education set acquisition of knowledge, skills and competences in line with EQF levels ([302]). Other documents relating to the HE sector, including the *Latvian higher education and high school development national conception 2013-20* (Higher Education Council, 2013), focus on learning outcomes. The accreditation regulation (July 2015) for HE institutions and colleges states that study programmes have to be developed consistent with defined aims and planned 'learning outcomes' (*mācīšanās rezultātiem*) ([303]).

The latest strategic document from the Ministry of Education and Science – the *Guidelines for education development 2014-20* (Latvian Ministry of Education and Science, 2013a) – provides continuity of policy planning from the guidelines of the previous planning period 2007-13 (Latvian Ministry of Education and Science, 2006) with a strong focus on learning outcomes-based principles in all educational subsystems.

([298]) Regulation No 670 of Cabinet of Ministers 24 November 2015, 'The implementation regulation of the operational programme 'Growth and employment', specific target 8.3.1. 'To develop competences based general education content', 8.3.1.1. measure 'Approbation and implementation of competences based general education content' (Latvian: *Darbības programmas "Izaugsme un nodarbinātība" 8.3.1. specifiskā atbalsta mērķa "Attīstīt kompetenču pieejā balstītu vispārējās izglītības saturu" 8.3.1.1. pasākuma "Kompetenču pieejā balstīta vispārējās izglītības satura aprobācija un ieviešana" īstenošanas noteikumi*) http://likumi.lv/ta/id/278201-darbibas-programmas-izaugsme-un-nodarbinatiba-8-3-1-specifiska-atbalsta-merka-attistit-kompetencu-pieeja-balstitu-visparejas

([299]) Regulation No 633 of Cabinet of Ministers 27 September 2016, Procedure of elaborating occupational standards, requirements of professional qualification (if there is no approved occupational standard) and sectoral qualification structure, (Latvian: *Profesijas standarta, profesionālās kvalifikācijas prasību (ja profesijai neapstiprina profesijas standartu) un nozares kvalifikāciju struktūras izstrādes kārtība)* http://likumi.lv/doc.php?id=285032

([300]) Regulations on the implementation of operational programme's growth and employment specific objective No 8.5.2 'To ensure the compliance of vocational education to the European qualifications framework' (in force since May 2016).

([301]) The project is implemented by the National Centre for Education in cooperation with Employers' Confederation of Latvia, Free Trade Union Confederation of Latvia and Cooperation Council of Farmers' Organisations. During the project it is planned to elaborate: 160 occupational standards/professional qualification requirements, 184 modular vocational education programmes, 80 teaching/learning aids, content of 210 professional qualification exams.

([302]) Regulation No 240 of Cabinet of Ministers 13 May 2014, *Regulation on State standard of academic education,* (Latvian: *Noteikumi par valsts akadēmiskās izglītības standartu*) http://likumi.lv/doc.php?id=266187 Regulation No 512 of Cabinet of Ministers 26 August 2014, *Regulation on State standard of second level professional higher education,* (Latvian: *Noteikumi par otrā līmeņa profesionālās augstākās izglītības valsts standartu*). http://likumi.lv/doc.php?id=268761

([303]) Annex 3 – Accreditation criteria (criterion 5.2.) of the accreditation rules (2015). Issued in accordance with the Law on higher education institutions the first paragraph of Article 9. http://likumi.lv/ta/id/275560-augstskolu-koledzu-un-studiju-virzienu-akreditacijas-noteikumi

Stakeholder involvement and institutional arrangements

The Ministry of Education and Science has the leading role in developing and introducing the LQF. However, the ministry delegated responsibility for coordinating the referencing of the LQF to the EQF to the Academic Information Centre (AIC).

The Academic Information Centre was designated the national coordination point (NCP) and played a key role coordinating the referencing process, preparing and updating the referencing report, and communicating and disseminating information to all stakeholders. During the first stage of the referencing process (2009-11) the implementation of the LQF was supervised by the referencing working group, which included the main education stakeholders: ministerial representatives, national agencies, employer organisations, trade unions, student organisations, and education quality assurance agencies. The working group evaluated materials and level descriptors prepared by experts and recommended the agreed level descriptors to the Cabinet of Ministers (approved in October 2010). The group was also involved in the consultation on the self-assessment report produced in 2011-12. It remains to be seen how broad the support of different stakeholders for the outcomes of the referencing process will be in the future.

The Latvian NCP also intends to carry out a study in the second half of 2016 about the progress made in developing the LQF since 2010. Several events will be held to inform all parties involved with the LQF and the EQF.

The LQF is compatible with the four levels of the QF-EHEA. Most HEI programmes, and individual courses, will have their learning outcomes defined as part of this changeover. Quality assurance is also specified at different levels in the education system: at policy, programme and institutional level. The Education Law states that all educational institutions, except those which implement only interest-related education programmes, have to be accredited. Higher education institutions receive accreditation if at least half of the study directions they offer are accredited. Study directions are accredited either for two or six years; the application has to be submitted not later than 18 months after opening a study programme corresponding to the respective study direction. The Higher Education Council (*Augstākās izglītības padome*) is responsible for quality assurance in HE institutions, but since 2015 they have been licensed and accredited by the Academic Information Centre in line with amendments to the Law on higher education institutions ([304]) and Cabinet regulations. The Latvian external higher education quality assessing agency ([305]) is an affiliate member of the European Association for Quality Assurance in Higher Education (ENQA) and has started the process for inclusion on the European quality assurance register for higher education (EQAR). Discussions are continuing about whether Latvian higher education institutions could choose to be accredited by an EQAR agency.

Recognising and validating non-formal and informal learning and learning pathways ([306])

LQF developments are closely related to opening up the qualification system to competences acquired outside the formal system. The system for validating professional competences obtained outside formal education is new, only becoming a legal requirement in February 2011. Before January 2014 this process was part of the revised national lifelong learning strategy – *Guidelines for lifelong learning 2007-13* – adopted on 23 February 2007. This policy determined all policy developments until 2014. It was replaced by *Education development guidelines for 2014-20*, valid from May 2014, which defined the main terms such as formal, non-formal and informal education and emphasised validation as one of the key constituents of lifelong learning.

Since 2011, when a national legislative framework was introduced to validate non-formal and informal learning in general education and vocational and higher education, more than 2800 people have acquired professional qualifications through professional competences assessment (European Commission et al., 2016). The State Education Quality Service is the national institution which coordinates good practice and evaluates institutions before awarding them validation status ([307]). This pilot scheme led to methodological recommendations for educational institutions and

([304]) Parliament of the Republic of Latvia (2015). Law on higher education (Augstskolu likums). LR Saeima 2.11.1995. http://likumi.lv/doc.php?id=37967

([305]) The Academic Information Centre (Latvian ENIC/NARIC, Latvian national coordination point for EQF, National Europass Centre and ReferNet) has also taken over the function of external higher education quality assurance in Latvia.

([306]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([307]) The State Education Quality Service is a project member in the ESF project *Development of sectoral qualifications system and increasing the efficiency and quality of vocational education* (2010-14).

examination centres: *Assessment of professional competences acquired through non-formal and informal education system* ([308]), published in 2015. The recommendations aid common understanding of the quality assurance principles for validating professional competences among stakeholders and provide a better understanding of their rights and responsibilities.

Regulations of the recognition of learning outcomes achieved in previous education or professional experience relating to higher education was issued in 2012, in accordance with the Law on higher education institutions ([309]). These regulations determine the procedures and criteria for the assessment and recognition of learning outcomes (for higher education) obtained through prior education or professional experience.

Higher education institutions in Latvia started using the ECTS system (together with Latvian credit points with a ratio of 1 LCP=1.5 ECTS) from the early 2000s as part of the wider introduction of the Bologna process.

NQF implementation

The framework has been formally adopted and is being implemented in two phases:

(a) in the first (2009-11), formal Latvian education qualifications were included in the LQF and linked to the EQF;
(b) in the second (2013-15), the established framework will be reviewed and complemented based on the new Vocational Education Law, Higher Education Law and the results of several existing ESF projects. For example, the ESF project *Development of sectoral qualifications system and increasing efficiency and quality of vocational education* (2010-15), has explored professions in 14 sectors by identifying relevant knowledge, skills and competences and placed them on the relevant LQF/EQF levels.

In 2016, the register of Latvian qualifications ([310]), an information system that contains data on qualifications referenced to the European and Latvian qualifications framework, has also been established, allowing the framework to become operational.

A total of 12 sectoral expert councils were established for the main economic sectors. They include representatives of sectoral employers' organisations, trade unions, the Ministry of Education and Science and other relevant ministries. Their main tasks are developing occupational standards; defining content of vocational qualifications and vocational examination requirements, enrolment of students in vocational education programmes, etc. The results of the ESF project, carried out in cooperation with employers, employees and educators, contributed to the development of 14 sectoral qualifications structures (core occupations, linked occupations and specialisations have been defined) and the design of 14 sectoral occupational maps.

There is a general need to communicate the achievements of the LQF and its link to the EQF to a wider audience and strengthen ownership of, and commitment to, the framework. The key education institution – the Academic Information Centre – has been active in organising seminars and discussions on issues related to learning outcomes at different education and qualification levels and complementing the LQF with qualifications awarded outside formal education.

Regarding the sustainability of the framework, it has been compulsory since 2013 to indicate the LQF/EQF level in diploma supplements (higher education); the Cabinet of Ministers Regulation No 202 ([311]) on the *Procedure of issuing State-recognised higher education certifying documents* has updated the content of the diploma supplements to correspond to the results of referencing the education system to the EQF, by indicating either the Latvian qualification level, or the European/Latvian qualifications framework level or the EHEA qualifications framework level. From 1 January 2017, the documents certifying vocational education and vocational qualification (certificates) should also indicate the relevant LQF

([308]) *Assessment of professional competences acquired through non-formal and informal education system*, 2015 (Latvian: *Ārpus formālās izglītības sistēmas apgūtās profesionālās kompetences novērtēšana*): http://www.ikvd.gov.lv/assets/files/pub/metodiskie/09_IKVD_RPUS_FORM_IZGL.pdf
([309]) Regulations No 36 of Cabinet of Ministers 10 January 2012. *Regulations of the recognition of learning outcomes achieved in previous education or professional experience (*Latvian: *Iepriekšējā izglītībā vai profesionālajā pieredzē sasniegtu studiju rezultātu atzīšanas noteikumi).* http://likumi.lv/doc.php?id=242653
([310]) Latvian qualifications database: https://www.latvijaskvalifikacijas.lv/en/
([311]) Regulation No 202 of the Cabinet of Ministers 16 April 2013, 'Procedure of issuing State-recognised higher education certifying documents', (Latvian: *Kārtība, kādā izsniedz valsts atzītus augstāko izglītību apliecinošus dokumentus*): http://likumi.lv/doc.php?id=256157/

Table 52 Latvian national qualifications framework (LQF)		
NQF levels	**Qualifications**	**EQF levels**
8	Doctoral diploma *(doktora diploms)*	8
7	Master diploma (*maģistra diploms*) Professional master diploma (*profesionālā maģistra diploms*) Diploma of professional higher education, diploma of higher education (*profesionālās augstākās izglītības diploms*) diploma of higher professional qualification (*augstākās profesionālās kvalifikācijas diploms*) second level professional higher education, total length of full-time studies – at least five years	7
6	Bachelor diploma *(bakalaura diploms)* Professional bachelor diploma (*profesionālā bakalaura diploms*) Diploma of professional higher education (*profesionālās augstākās izglītības diploms*) diploma of higher professional qualification (*augstākās profesionālās kvalifikācijas diploms*) second level professional higher education, length of full-time studies – at least four years	6
5	Diploma of first level professional higher education (*pirmā līmeņa profesionālās augstākās izglītības diploms*) first level professional higher (college) education, length of full-time studies – two to three years	5
4	Certificate of general secondary education (*atestāts par vispārējo vidējo izglītību*) Diploma of vocational secondary education (*diploms par profesionālo vidējo izglītību*)	4
3	Certificate of vocational education (*atestāts par arodizglītību*)	3
2	Certificate of general basic education (*apliecība par vispārējo pamatizglītību*) (*) Certificate of vocational basic education *(apliecība par profesionālo pamatizglītību)*	2
1	Certificate of general basic education (*apliecība par vispārējo pamatizglītību*) (for students in special educational programmes, for students with mental development disorders) (*) Certificate of general basic education (*apliecība par vispārējo pamatizglītību*) (for students in special educational programmes, for students with severe mental development disorders or several severe development disorders)	1

(*) To be included in legislation.

Source: Academic Information Centre and Ministry of Education and Science of the Republic of Latvia.

level. General education has not yet been discussed ([312]). Reference to LQF/EQF levels in all education documents will take place after amendments to laws and regulations during the second phase of the referencing process.

No major research has been conducted on the recruitment channels in Latvia or on the use of the NQF by the labour market. The basic communication channels are the monitoring organisations such as MoES, State Education Quality Service, organisations involved internationally in concomitant activities such as the Academic Information Centre (Latvian Enic/Naric), Europass, institutions carrying out validation procedures and institutions directly working with the main target groups like State Employment Service.

Referencing to regional frameworks

Latvia referenced its national qualifications levels to the EQF and self-certified to the qualifications framework for the European higher education area in October 2011. The current LQF and the referencing report include qualifications awarded within the formal education system. The NCP intends to conduct a study in the second half of 2016 on the progress achieved in setting up the LQF since 2010, the results of which will be used to produce a self-assessment report in 2017-18.

Important lessons and future plans

Setting up the national qualifications framework in line with the European qualifications framework and placing this issue on policy agenda has had an impact on the education system. The higher education sector is at the forefront of the changes: learning outcomes are defined in the Law of higher education institutions and research shows that most universities have completed the task of describing learning outcomes for all individual courses and programmes.
Such a process of change usually requires substantial time-frames but the transition has been rushed over the last six years. Consequently, further work will be needed to ensure that the LQF will continue to develop and improve, and to monitor the everyday use of learning outcomes at all levels of education.

The second important issue is to embed the LQF in qualifications, curricula, assessment and teaching practice, the success of which will be heavily dependent on the involvement and contribution of practitioners. They need to understand the concepts and have the tools to engage actively. The experience of setting up the first stage of the new framework shows that understanding concepts and promoting cultural change takes time. In particular, feedback loop processes need to be in place to ensure that the focus on learning outcomes and the assignment of qualifications to levels is systematically reviewed and renewed. Capacity-building on the ground seems to be the key. The views and expectations of different stakeholders need to feed back into policy development. Further work is necessary to implement policies, support teachers and include learning outcomes as part of their continuous professional development.

Further source of information

Information on the referencing process and the self-assessment report is available on the Latvian NCP website (Academic Information Centre): http://nki-latvija.lv or http://nqf-latvia.lv

Abbreviations

AIC	academic information centre
ENQA	European association for quality assurance in higher education
ESF	European Social Fund
EQAR	European quality assurance register in higher education
EQF	European qualifications framework
LQF	Latvian qualifications framework
NQF	national qualifications framework
NCP	national coordination point
VET	vocational education and training

([312]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs* [unpublished].

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Prepared by:
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LEBANON

Introduction and context

NQF snapshot

There is no national qualifications framework (NQF) adopted by law. So far, Lebanon has only defined levels and descriptors. In practice, work on the NQF is in abeyance because of the country's continuing political deadlock and the priority given to handling the presence in the country of many Syrian refugees.

Educational, social, economic and political context

Lebanon has a unique sociopolitical setting, due to the fragile institutional situation, the growing pressure of the Syrian crisis, the lack of a government (the current government is continuing activities as a caretaker, starting in March 2013) and the rapid turnover of ministers. The features of the country's confession-based political system and challenging geopolitical environment have made it difficult for governments to implement reforms, often blocked or slowed down due to changing priorities and problems in reaching consensus. The spillover effects of the Syrian conflict represent an increasing threat to Lebanese internal security and impact on all aspects of political and economic life.

Demographics in Lebanon are characterised by two factors: a young population and the inflow of Syrian displaced. The percentage of the young population (15 to 24) in relation to the labour force (15 to 64) is almost 30% and has very slightly decreased in the past five years, according to the United Nations Development Programme (UNDP). Their estimates suggest that the inflow of Syrian displaced would amount to 1.3 million in 2015. Lebanon's total population was estimated at 3.7 million in 2007 by the national statistical office (Central Administration of Statistics) ([313]).

([313]) UNDP estimate of the total population is 5.8 million in 2015. This estimation includes the Syrian refugees (UNDP, World Population Prospects, the 2015 revision).

Lebanon is a middle-income country with an open and largely service-oriented economy that has a strong commercial tradition of domestic free trade and investment policies. The service sector accounts for more than 70% of the country´s GDP and employs around 70% of the workforce. Industry amounts to one quarter of GDP and agriculture 6% (World Bank, world development indicators). SMEs remain the main form of business organisation, particularly micro and small enterprises, and there is a large informal sector in the country. Economic growth was high in recent years (up to 8% to 9% although mostly jobless) but has dropped significantly since 2011 and the forecast for the near future is not promising.

Though recent data are not available, the Lebanese labour market ([314]) is characterised by low participation of females (employment rate: 66.9 for males and 25.3 for females, activity rates: 55.6 for males and 21.7 for females), high youth unemployment (20.4% for females, 18.7% for males) and a large number of skilled Lebanese people seeking and obtaining employment abroad. The labour market and education systems have recently been heavily impacted by a high influx of foreign workers as well as the Syrian displaced and, to a lesser extent, Palestinian refugees (around 270 000 benefiting from UNRWA services) ([315]).

([314]) Labour market data refers to 2012 (Eurostat).

([315]) The number of Syrian students in the Lebanese formal education system has increased in the past five years, from 14 986 aged 6 to 17 in school year 2011/12 to 149 567 students in school year 2015/16 (World Bank, 2016) out of the 366 000 refugee school-aged children registered with UNHCR in 2015. The Ministry of Education and Higher Education (MEHE) in July 2015 introduced a new accelerated learning programme (ALP) addressing 10 000 Syrian children aged 9 to 17. However, fewer than 10% of secondary school aged Syrian children (15 to 18 years) were enrolled at secondary level, depriving most of them of the adequate preparation for active participation in society and the labour market. The additional challenge has been the arrival of Palestinian refugees from Syria (around 40 000, UNRWA 2016). This presence worsened the precarious conditions of the 'host community' of Palestine refugees residing in Lebanon, placing already scarce resources, infrastructure and services under additional strain.

Although Lebanon has the most private sector-led economy in the region and a population known for its entrepreneurial spirit (incidence of self-employment ([316]) amounts to 30% of the total) it remains extremely vulnerable to domestic and regional politics and civil unrest.

Lebanon has a relatively low-skilled ([317]) labour force, although, in the context of the region, it is one of the most skilled populations in the Southern and Eastern Mediterranean region (SEMED) ([318]). Almost 20% of adults have attained higher education in 2012, the third country of the region after Israel and Palestine, while 12% of adults have not followed any education, which is also much lower than the regional average. Males are slightly more highly skilled than females, although the difference is not as sharp as it is for participation in the labour market.

The education and training system in Lebanon is among the best-performing in the Middle East and North Africa (MENA) region. Education is traditionally highly valued. In recent years, there has been an increasing sociopolitical awareness of the importance of education and training for sustainable and cohesive socioeconomic growth. In this context, the Lebanese Government launched a National education strategy framework and a related Education sector development plan (2010-15); however this has not been followed by a new strategy covering 2016 onwards. There is currently no vision for human resource development in Lebanon.

Enrolment in vocational and technical education (VTE) has been increasing in the past decade. Almost 30% of students in upper secondary participated in vocational education in 2013, which could be explained by the opportunities in the system to move from VTE to higher education, the final objective of many of youth. The low attractiveness of the VET system could be due to the weak links to the labour market, which exacerbates the difficult transition from education to work for the young in Lebanon. One in four young people aged 15 to 24 (almost one in three young women) are not in employment, neither in education nor training (ILOSTAT, 2007), which is lower than the average in the region, but still represents an important concern.

Policy objectives

Education and training reforms

The Lebanese national qualifications framework (LNQF) should be able to classify all qualifications and certificates issued by the different sectors of the education and training system. In particular, the LQF should ensure:

(a) transparency and readability of qualifications delivered in Lebanon and their relevance for the labour market;
(b) recognition of qualifications based on well-defined competences whether acquired via formal, non-formal or informal education;
(c) mobility between different sectors of the education system;
(d) coherence with qualifications frameworks of other countries.

The NQF has a priority in the Education strategy of 2010 but it is currently not a priority area for action.

International cooperation

The NQF is one of the components of the World Bank Education reform programme, which had planned to take the work of the ETF project forward. However, due to the difficulties in the legislation approval process, the change at high policy decision-making level and the increased influx of the Syrian refugees, the project component was not implemented.

The need to bring coherence to the many and diverse qualifications offered in Lebanon remains a priority, although international cooperation is now focused on issues linked to access and education for all as a result of the need to give education to the Syrian refugees currently living in the country.

Levels and use of learning outcomes

Scope and structure of NQF

The Lebanese NQF is intended to be lifelong learning in scope, covering general, VET and higher education qualifications.

([316]) This indicator measures the share of self-employers as a proportion of total employment. Self-employers includes employers, own-account workers, members of producers' cooperatives and contributing family workers.
([317]) Educational attainment is frequently used as a proxy measure of the skills associated with a given level of education and available in the population, and to the labour force. Higher levels of educational attainment are associated with several positive individual and social outcomes (see also OECD *Education at a glance*, 2015).
([318]) Traditionally Lebanon retains high education standards with a large proportion of private education at all levels.

Table 53 Lebanese qualifications framework: level descriptors			
Levels of Lebanese qualifications framework	**Knowledge**	**Skills**	**Competence**
Learning outcomes and skills relevant to level 1	Factual knowledge applied to basic tasks in a limited field of work or study	Carrying out basic and mainly routine tasks, by applying simple instructions	Working or studying under direct and continuous supervision in a structured framework
Learning outcomes and skills relevant to level 2	Basic general technical knowledge applied to certain tasks in a limited field of work or study	Use the information needed to perform simple tasks and solve common problems using simple rules and tools	Perform, independently but under direct supervision, prescribed tasks in a field of work or study
Learning outcomes and skills relevant to level 3	Basic multidisciplinary knowledge covering a predefined set of principles, processes and technical concepts applicable to defined tasks and activities	Perform a set of coordinated tasks and solve technical problems by selecting and applying the prescribed procedures, methods, tools, materials and information, in various work or studies cases	Perform the prescribed tasks in autonomy and taking responsibility for their performance and results and reporting on them Adapt the behaviour to circumstances and context of tasks performance
Learning outcomes and skills relevant to level 4	Theoretical, technological and multidisciplinary knowledge applied to a specific area of study or work	Organise and carry out activities by applying techniques, procedures and specific instructions for activities Find or develop tailored business solutions to specific technical problems Select and mobilise the technical, human and material sources suitable for carrying out activities	Self-management/implementation of activities in autonomy within the limits of instructions defined in work or study contexts. These activities are usually predictable, but may change in the organisational, technical or technological domains. Organise and supervise the routine work of others, taking some responsibility for the evaluation and improvement of activities related to work or studies
Learning outcomes and skills relevant to level 5	Detailed and specific theoretical, methodological, technological and multidisciplinary knowledge, linked to a particular area of work in different contexts, or a field of study	Organise, plan, conduct activities and evaluate their implementation, applying the appropriate methods and instruments Design/create functional solutions to solve conceptual, methodological and/or technological problems in a specialised field Identify and mobilise technological, material and human resources necessary to the implementation of activities	Manage, lead and supervise a team. Take into consideration, assess and develop his/her performance and the others in work or study activity contexts, where changes are unpredictable
Learning outcomes and skills relevant to level 6	Advanced knowledge in a field of work or study, involving a critical understanding of theories and principles applied to a spectrum of business situations and diverse studies	Design technical, methodological and conceptual solutions and demonstrate mastery and innovation to solve complex and unpredictable problems in a specific field of work or study, using advanced skills	Ensure the implementation of activities or complex technical or professional projects, including responsibilities at decision-making level in unpredictable professional or study contexts, requiring adaptation to new technologies, methods and forms of organisation Take responsibility for individual and collective professional development

Levels of Lebanese qualifications framework	Knowledge	Skills	Competence
Learning outcomes and skills relevant to level 7	Highly specialised knowledge, some of which is at the forefront of knowledge in the field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge in a specific field and as interface between different fields	Solve problems in research and innovation, in order to develop new knowledge and new procedures by mobilising highly specialised skills Integrate knowledge from different fields and report it and results of activities to specialists and non-specialists	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches Make judgments and exercise responsibilities, considering the social and ethical aspects involved in decisions Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Learning outcomes and skills relevant to level 8	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	Address critical problems in research and/or innovation and explore new areas, expand and redefine existing knowledge or professional practice by mobilising skills and more advanced and specialised techniques, including in the topics of synthesis and evaluation	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and a sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

Source: Ministry of Education and Higher Education, 2012.

Alignment to other classification systems

The NQF is linked explicitly to the Arab occupational classification.

NQF levels

An eight-level structure is planned.

Level descriptors

The descriptors have been developed in terms of knowledge, skills and competences.

Use of learning outcomes

The NQF's descriptors are outcomes-based.

Definition of qualification

None in law yet.

Access, progression and credit

No further development in this area.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

There is no NQF adopted by law.

Governance and institutional arrangements for the NQF

At the time of the ETF-led project supporting development of an NQF, the institution coordinating the project and hosting the NQF working group was the Ministry of Education and Higher Education. The institutional arrangements proposed by the NQF working group were never officially approved, so no institution is currently leading the NQF.

Roles and functions of actors and stakeholders

The NQF working group brought together representatives from the different levels of the education sector but no other stakeholders such as employers, although officially invited. Trade unions in Lebanon do not currently have the resources and capacities to be involved in skills development-related discussions.

Resources and funding

Except for the ETF-led project funded by the Italian Ministry of Foreign Affairs there are currently no other donors financing the development of an NQF.

Quality assurance of qualifications

The Ministry of Education and Higher Education, through the Directorate for Higher Education has been working for more than 10 years on creating a quality assurance agency for higher education. However, the law to create the agency has not been approved and is currently blocked.

There is no quality assurance of NQF and qualifications and no legal framework for it. The only mechanism currently in place is the recognition of foreign diplomas through the Equivalence Commission.

Recognising and validating non-formal and informal learning and learning pathways

There is no mechanism in place for validation of non-formal and informal learning.

NQF implementation

Inclusion of qualifications in a register

No register has been developed to date.

Monitoring, evaluation and review of the NQF

None has taken place yet, given the very early stage of development of the qualifications framework.

Impact for end-users

The NQF is not functional yet.

Referencing to regional frameworks

No referencing to regional frameworks has been considered yet. The group has decided to use the Arab standard classification of occupations (ASCO), although for comparison rather than for referencing.

Important lessons and future plans

Little progress on the NQF is possible while the government remains a caretaker administration and the Syrian refugee influx continues. Beyond the donor-supported NQF project technical work and some governmental decisions on NQF principles, the NQF has not advanced beyond concepts. In reality, the NQF is moribund.

Abbreviations

ASCO	Arab standard classification of occupations
MEHE	Ministry of Education and Higher Education
NQF	national qualifications framework
SEMED	Southern and Eastern Mediterranean region
UNDP	United Nations Development Programme
UNWRA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
VET	vocational education and training
VTE	vocational and technical education

Prepared by:
the European Training Foundation (ETF).

LESOTHO

Introduction and context

The Government of Lesotho embarked on the development of a Lesotho qualifications framework (LQF) as a fulfilment of the Southern Africa Development Community (SADC) protocol on education and training. This encourages member States to work progressively towards the equivalence, harmonisation and standardisation of education and training systems. As a result, the Ministry of Education and Training (MoET) commissioned a multisectoral task force in 2001 to develop a national qualifications framework (NQF) system across the wide spectrum of training and occupations in Lesotho.

At the moment there are many providers offering a diverse range of programmes leading to qualifications at different levels, from certificate to diploma and degree. Some of these qualifications are offered by foreign institutions and/or examination bodies while others are offered by local institutions. Consequently, there is no comparability, articulation or linkage between and among courses and qualifications offered by the various bodies and institutions. As a result of these challenges, the Government of Lesotho deemed it necessary to introduce and develop the LQF.

All literacy completers receive awards through the MoET. The Lesotho Distance Teaching Centre provides certificated learning for national school qualifications. All technical colleges provide nationally recognised vocational qualifications that have parity with South Africa's NQF. All tertiary institutions are in the process of planning for bridging programmes that will support entry to tertiary programmes through non-traditional routes.

The Government of Lesotho proposed the development of an LQF in the education sector strategic plan 2005-15 (Government of Lesotho, 2005a) to ensure and improve the quality of education and training. The LQF is in its final policy draft stage through the Lesotho Qualifications Authority.

Policy objectives

The LQF:

(a) aims at supporting the nation of Lesotho in realising the full potential of its entire people by developing, monitoring and evaluating learning systems that ensure quality, coherence, comparability and recognition of education and training opportunities;
(b) will create an integrated system that brings coherence and portability between the worlds of schooling, higher education and technical and vocational education and training (TVET);
(c) provides the national economy with a skills base required for growth and poverty alleviation;
(d) facilitates access, comparability, transferability and consistency in education and training standards at identified levels;
(e) improves linkages and articulation between courses and qualifications;
(f) supports the movement towards quality attainment through criteria on referenced or standards-based education and training;
(g) allows for the recognition of a more diverse array of education and training courses and outcomes, including adult education, short courses and work-based learning;
(h) provides a basis for bringing a wide range of education and training organisations, courses and qualifications into a common standards framework;
(i) provides stronger and clearer links between courses and qualifications at regional level;
(j) contributes to the full personal, social and economic development of each learner.

Levels and use of learning outcomes

The LQF is planned to have 10 qualifications levels registered in accordance with an agreed set of definitions. Any educational qualification must be assigned to one of these levels. The qualification level is determined by the highest number of credits that are at or above the particular level at which the qualification is registered.

Table 54	Lesotho qualifications framework
Level	**Description**
10	Doctorate
9	Master degrees
8	Postgraduate diplomas and certificates, honours degrees
7	Bachelor degrees, graduate diplomas and certificates
6	National diplomas
5	National certificate, national craft certificate, trade test A, A levels
4	O levels, vocational training certificates, trade test B
3	Basic vocational training, trade test C
2	Junior certificate (JC), trade test-operatives
1	Sub-junior certificate education and training

Source: Government of Lesotho (2005b).

Stakeholder involvement and institutional arrangements

Institutions responsible for managing and coordinating adult learning at national level include:

(a) Lesotho Association for Non-formal Education, which coordinates non-governmental organisation (NGO) provision;
(b) Government Non-formal Education (NFE) Inspectorate, which monitors non-formal education provision and is the link between NGOs and government;
(c) Lesotho Distance Teaching Centre, which coordinates and manages adult learning and education (ALE) national awards and associated events at the national level;
(d) Institute for Extra-Mural Studies at the National University of Lesotho, which coordinates open and distance learning in adult education via its four regional centres. This includes diploma, degree and postgraduate qualifications in adult education, diploma and degree qualifications in business administration, diploma qualifications in media studies, and a range of short courses and community-based workshops through the Department for Non-formal and Continuing Education.

Recognising and validating non-formal and informal learning and learning pathways

The number of people engaged in non-formal education is quite significant, reaching 30% of the population in the rural mountainous regions. In Maseru alone, it is approximately 13%. The main providers are NGOs, the community, private individuals and some church organisations. MoET also offers non-formal education through the Lesotho Distance Teaching Centre and the Institute of Extra-Mural Studies, which is part of the University of Lesotho (Akojee et al., 2005, p. 35).

MoET is expected to ensure that minimum entry requirements are set in the LQF for various phases of the schooling system. These would take the form of statements of learning assumed to be in place prior to a child or young adult entering a specified phase of school learning. This practice will allow children who, for various reasons, have missed a phase of schooling to rejoin the system without prejudice, provided they have acquired the necessary learning competences.

For general academic streams in higher education the Lesotho Qualifications Authority will require the Council on Higher Education to design and develop a system for general academic programmes in higher education. The Council will also formulate statements of learning assumed to be in place; these will be attached to each qualification registered in higher education. The statements will make explicit to learners wishing to enter a programme what the legitimate academic expectations are of them.

Lesotho Skills Agency (LSA) will be required by the LQF structure to design and develop a system for recognition of current competences (RCC). It is envisaged that this system will rest upon the recognition of module-based learning standards.

Referencing to regional frameworks

All technical colleges provide nationally recognised vocational qualifications that have parity with South Africa's NQF. The Council for Higher Education will ensure the establishment of a credit recognition and transfer system that integrates with other SADC systems. Such a system will recognise credit achieved in one institution as counting towards learning in another. This will support greater mobility and portability.

Abbreviations

ALE	adult learning and education
LQF	Lesotho qualifications framework
MoET	Ministry of Education and Training
NGO	non-governmental organisation
NQF	national qualifications framework
RCC	recognition of current competences
SADC	Southern African Development Community
TVET	technical and vocational education and training

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Prepared by:
UNESCO in collaboration with national experts.

LIECHTENSTEIN

Introduction and context

In 2011, the government decided to develop an integrated national qualifications framework for lifelong learning for Liechtenstein (NQFL). From the beginning, the development of NQFL was closely coordinated with Switzerland with whom Liechtenstein has established a common VET system. Switzerland adopted and put in place a national qualifications framework (NQF) for vocational and professional qualifications (NQF VPET) ([319]) in October 2014 ([320]) and referenced it to the EQF in spring 2015 (Swiss Confederation State Secretariat for Education, Research and Innovation, 2015). Liechtenstein has adopted, within its own qualifications framework, the vocational and professional education and training (VPET) framework employed in Switzerland. VPET qualifications are classified by Switzerland and finally approved by the Liechtenstein Government (Ministry of Education, 2016).

In 2013, a qualifications framework for higher education, defined in terms of learning outcomes in line with the qualifications framework in the European higher education area, was adopted and included in higher education law ([321]); it was self-certified against the qualifications framework of the European higher education area (QF-EHEA). It constitutes an integral part of the NQFL for lifelong learning. As in Austria and Germany, general education is currently not included in the framework.

The NQFL was referenced to the EQF in October 2016 and has reached operational stage.

([319]) The German abbreviation used to refer to the Swiss national qualifications framework for vocational and professional education and training is NQR-CH-BB.

([320]) Information regarding the adoption of the framework is published on: https://www.sbfi.admin.ch/sbfi/de/home/themen/berufsbildung/nqr/europaeischer-qualifikationsrahmen.html

([321]) Government of the Principality of Liechtenstein (2013). Qualifikationsrahmen für den Hochschulbereich im Fürstentum Liechtenstein (NQFL-HS) [Qualifications framework for higher education in the Principality of Liechtenstein]. http://www.llv.li/files/sa/pdf-llv-sa-qualifikationsrahmen_fuer_den_hochschulbereich_im_fl_nqfl_hs_2013.pdf

Policy objectives

The NQFL, and certificate and qualification supplements aim at improving the transparency and comparability of qualifications from Liechtenstein and referencing them to the EQF.

More specifically, the NQFL aims to:

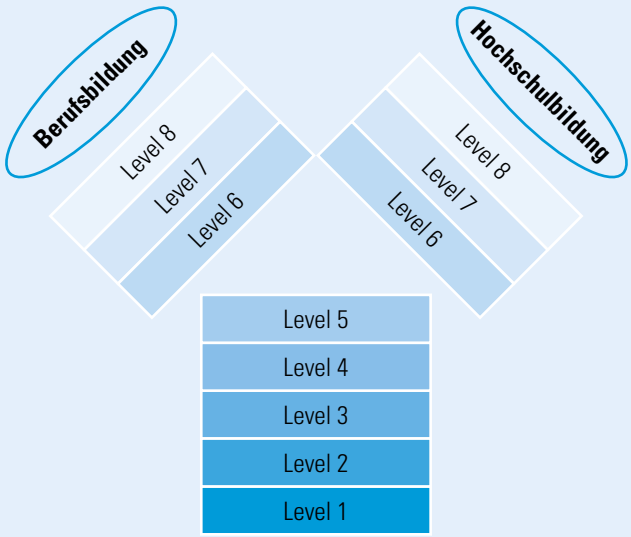
(a) describe adequately the education system, improving the transparency, the clarity and the comparability of qualifications in VET, higher VET and higher education;
(b) support, in terms of labour market needs, an employer's assessment of the skills of vocational graduates from Liechtenstein and enable similar process for graduates with qualifications from abroad;
(c) improve the employability of Liechtenstein-educated specialists and managers in the country and abroad. (Ministry of Education, 2016: 25)

In the longer term, NQF is seen as a tool to support lifelong learning through better understanding of qualifications and learning opportunities, improved access to and participation in education and training, and valuing all learning outcomes, in formal, non-formal and informal settings.

Levels and use of learning outcomes

The NQFL comprises eight levels. Competence-oriented descriptors describe requirements for each level; these are closely aligned with the EQF descriptors, but also adjusted to suit specific national features. Level descriptors are defined in terms of knowledge, skills and competences. Knowledge refers to declarative knowledge and is further subdivided into knowledge and understanding. Skills refer to the capacity to apply knowledge and solve problems: distinction is made between procedural and sensorimotor skills. Competences express application of knowledge and skills in the work context and are subdivided into professional and social competences.

Figure 13 Y-Model of NQFL



Source: Ministry of Education (2016).

An important characteristic of the NQFL is that levels 5-8 are also open to higher vocational qualifications awarded outside higher education.

All subsystems have taken important steps in implementing a learning outcomes approach, but to varying degrees. Learning outcomes already play an important accreditation role in higher education; a qualifications framework for higher education was implemented in 2013. In general education, standards were introduced in 2010 and subsequently tested for grades 3, 4, and 8. A competence-based approach is being strengthened in teaching and evaluation of general education. In line with the amended VET law in 2008 ([322]) qualifications and curricula have been revised with stronger focus on competences and equipping students with the competence to act (*Handlungskomptenz*) (Cedefop, 2016).

Stakeholder involvement and institutional arrangements

The NQFL is supervised by the Ministry of Education. The National Agency for International Educational Affairs (AIBA) ([323]) has been appointed the EQF national coordination point (NCP). AIBA is an independent institution, supervised by the Ministry of Education.

For public involvement and information, the NQFL website (*Nationaler Qualifikationsrahmen Fürstentum Liechtenstein*) was established in spring 2013, providing information and updates ([324]).

Liechtenstein started the Bologna process several years ago and this is now an integral part of the University of Liechtenstein. The NQFL builds on experience in developing the qualifications framework for higher education.

Recognising and validating non-formal and informal learning and learning pathways ([325])

The 2016 inventory on non-formal and informal learning describes validation of non-formal and informal learning in Liechtenstein as quite pragmatic due to the country's size; it follows a similar approach to that developed in Switzerland but there is no holistic approach. However, validation approaches have been developed in the initial VET and higher education, taking into account different target groups, responsibilities and methods. The Vocational Training Act determines that admission to any

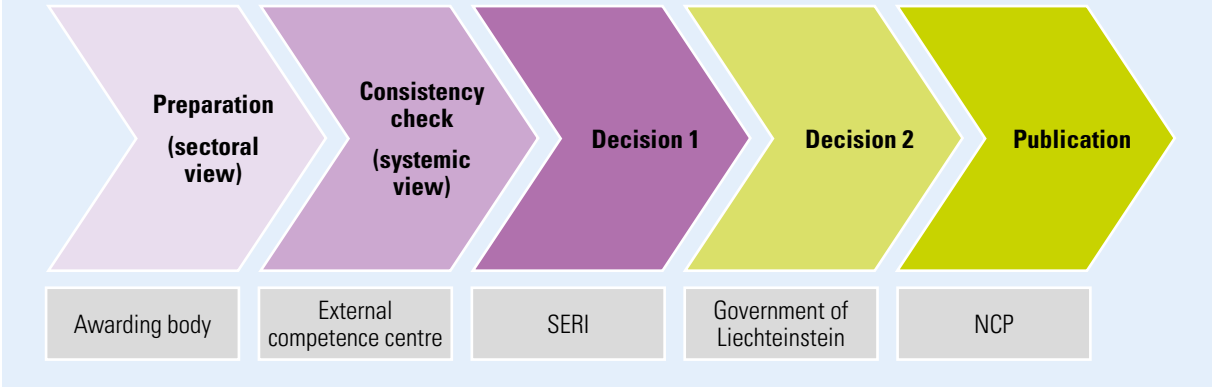
([322]) Article 6 of the Vocational Training Act: Government of the Principality of Liechtenstein (2008). Berufsbildungsgesetz [Vocational Training Act]. Liechtensteinisches Landesgesetzblatt [Liechtenstein law gazette], 412.0, No 103. http://www.nqfl.li/Portals/0/BBG.pdf

([323]) AIBA website: https://www.eeagrants-li.com/

([324]) NQFL website: *Nationaler Qualifikationsrahmen Fürstentum Liechtenstein:* http://www.nqfl.li/

([325]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

Figure 14 Main steps of the levelling process



Source: Ministry of Education, p. 29.

examination or qualification does not depend on undertaking specified educational programmes; it is also granted if applicants have at least five years' work experience.

Most development in higher education has occurred in the past five years. The Education Authority (*Schulamt*) regards development of the national qualifications framework for higher education (*Nationaler Qualifikationsrahmen Fürstentum Liechtenstein für den Hochschulbereich*) (NQFL-HS) as an opportunity for anchoring lifelong learning more within higher education, and for improving validation and recognition of prior learning achieved outside the higher education system. The legal bases for admission to higher education have been formalised. The Law on higher education regulates conditions and process of admission without a *matura* certificate ([326]) and limitation of crediting learning acquired outside the higher education system. It is possible to recognise non-formal and informal learning as contribution to achieving a qualification, up to a maximum of one sixth of the necessary workload (European credit transfer and accumulation system credit points) for the whole qualification. Standards used in VET and higher education for validation, are those of existing programmes. The validation process in VET is based on a similar process to that developed by Switzerland, following a similar series of steps. The NQFL offers opportunities to integrate further non-formal and informal learning outcomes.

NQF implementation

The NQFL for VET is regulated at ordinance level, expected to be adopted by the government in January 2017. The process of assigning each qualification to the NQF level will be carried out by Switzerland. As of July 2016, a total of 82 qualifications ([327]) have been attributed levels in Switzerland. The Liechtenstein Government will approve, in a separate procedure, those qualifications assigned by SERI. The national coordination point – AIBA – will then publish the register and necessary documents on the website. This register will consist of all VPET qualifications in alphabetical order.

Figure 15 outlines the main steps in the leveling process.

The NQF for higher education (NQFL-HE) is already operational.

Referencing to regional frameworks

The NQFL was referenced to the EQF in October 2016 (Ministry of Education, 2016).

Further sources of information

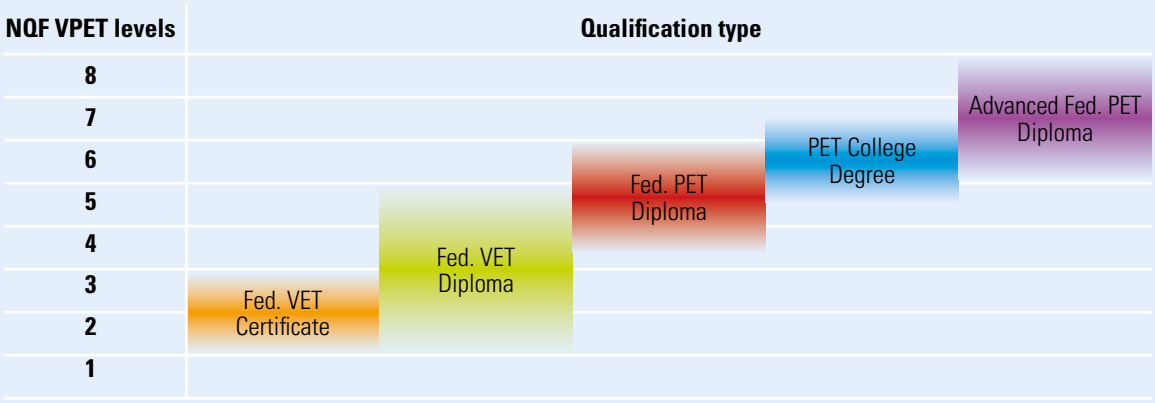
Ministry of Education: http://www.regierung.li/ministry-for-foreign-affairs-education-and-culture/links/

National Agency of International Education Affairs in Liechtenstein (AIBA): https://www.eeagrants-li.com/

([326]) Article 24 of the Higher Education Act: Government of the Principality of Liechtenstein (2005). Gesetz über das Hochschulwesen (Hochschulgesetz; HSG) [Law on higher education (Higher Education Act; HSG)]. *Liechtensteinisches Landesgesetzblatt* [Liechtenstein law gazette], 414.0, No 2. https://www.gesetze.li/lilexprod/lgsystpage2.jsp?formname=showlaw&lgblid=2005002000&gueltigdate=07032017

([327]) The list can be found at: https://www.sbfi.admin.ch/sbfi/de/home/themen/berufsbildung/nqr/das-verzeichnis-der-eingestuften-abschluesse.html

Figure 15 Levels assigned to different types of qualifications



NB:

- Federal VET certificate, two years vocational education and training at upper-secondary level.
- Federal VET diploma, three to four years vocational education and training at upper-secondary level.
- Federal PET diploma, part-time tertiary level professional education and training.
- PET college degree is a diploma from a college of professional education and training, tertiary level professional education and training (minimum two years academic study or three years part-time study with work placement).
- Advanced federal PET diploma, part-time tertiary level professional education and training.

Source: SERI, 2015.

Abbreviations

AIBA	National Agency of International Education Affairs
EQF	European qualifications framework
NQF	national qualifications framework
NQFL	*Nationaler Qualifikationsrahmen Furstentum Liechtenstein* [national qualifications framework Liechtenstein]
NQFL-HS	*Nationaler Qualifikationsrahmen Furstentum Liechtenstein für den Hochschulbereich* [national qualifications framework for higher education]
SERI	*Staatssekretariat für Bildung, Forschung und Innovation* [State Secretariat for Education, Research and Innovation]
VET	vocational education and training
VPET	vocational and professional education and training

References

Cedefop (2016). *Application of learning-outcome approaches across Europe: a comparative study.* Luxembourg: Publications Office. http://www.cedefop.europa.eu/en/publications-and-resources/publications/3074

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Liechtenstein.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

Government of the Principality of Liechtenstein (2011). *Bildungsstrategie Fürstentums Liechtenstein 2020 [Education strategy of the Principality of Liechtenstein for 2020].* Vaduz: Government of the Principality of Liechtenstein. http://www.regierung.li/fileadmin/dateien/downloads/AEusseres_Bildung_Kultur/Bildungstrategie_2020.pdf

Ministry of Education (2016). *Referencing report for the Principality of Liechtenstein* (NQFL) [unpublished].

Swiss Confederation State Secretariat for Education, Research and Innovation (2015). *Swiss EQF referencing report.* https://ec.europa.eu/ploteus/sites/eac-eqf/files/e_referencing_report_final_ch.pdf

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

LITHUANIA

Introduction and context

The Lithuanian qualifications framework (LTQF) was formally adopted through a government resolution on 4 May 2010 ([328]). The LTQF is based on eight learning outcomes levels, and covers all officially recognised qualifications in general (primary and secondary) education, vocational education and training and higher education. Two amendments to the Law on education (17 March and 24 August 2011) clarified the role and function of the framework. A joint referencing/self-certification to the European qualifications framework (EQF) and to the qualifications framework of the European higher education area (QF-EHEA) was completed in late 2011. Lithuania was one of the first countries (in 2013) to start indicating NQF and EQF levels in vocational education and training (VET) certificates and diplomas. The LTQF can be considered as operational.

Policy objectives

The development of the LTQF forms part of a (more than) decade-long effort to reform and modernise Lithuanian education and training. The national education strategy for 2003-12 stressed the need for flexible and open education structures, for better coordination between general and vocational education and training, and for stronger links to non-formal and informal learning ([329]). The LTQF supports this strategy and addresses five main objectives:

(a) the framework should play a role in better adapting qualifications to the needs of the labour market and society;
(b) it should help to improve the clarity of qualifications design to improve assessment and recognition;
(c) it should increase transparency of qualifications and assist individuals in using them;
(d) it should support national and international mobility;
(e) it should encourage lifelong learning and allow individuals to build on outcomes of non-formal and informal learning.

The Lithuanian NQF covers complete or full qualifications. However, some work has been carried out to introduce units of qualifications, defined as the combinations of the competences needed for executing certain tasks. This work has yet to be concluded. The LTQF includes qualifications awarded by formal education and training. There are currently no plans to open the framework up to qualifications offered by the private or non-formal sectors.

Levels and use of learning outcomes

The eight levels of the LTQF combine the existing structure of the Lithuanian qualifications system with the descriptor principles introduced by the EQF. Two existing level arrangements (the five vocational education levels introduced in 1997 and the three levels (cycles) of higher education introduced in 1992) directly influenced the design of the LTQF. The level descriptors are defined according to two parameters: focusing on activity characteristics and on types of competences.

While the distinction between cognitive, functional and general competences broadly reflects the EQF distinction between knowledge, skills and competence, the activity criteria can be seen as a further development and specification of the third EQF pillar, focusing on autonomy and responsibility. The combination of the two parameters allows for detailed description of each level.

The learning outcomes (competence) approach is broadly accepted and implemented in all areas of Lithuanian vocational education and training.

([328]) Government of Lithuania (2010). Resolution on approving the description of the Lithuanian qualifications. Official gazette, No 56-2761, 4 May 2010, pp. 1-8. http://www.kpmpc.lt/LTKS_EKS/LTQF_official_translation.pdf

([329]) Parliament of the Republic of Lithuania (2003). *Provisions for the national education strategy 2003-12,* No IX-17000, 4 July 2003. http://planipolis.iiep.unesco.org/en/2003/lithuania-resolution-provisions-national-education-strategy-2003-2012-no-ix-1700-4-july-2003

Table 55 Level descriptors in the Lithuanian NQF		
	Parameters	
	Characteristics of activities	**Types of competences**
Criteria	• complexity of activities • autonomy of activities • variability of activities	• functional competences • cognitive competences • general competences

VET has used a learning outcomes or competence approach for several decades, partly linked to the introduction of VET standards in the early 1990s. An effort to review and redefine VET standards is currently under way, covering qualifications for all sectors of the economy.

During 2010-15 the Centre for Development of Qualifications and Vocational Education and Training implemented the ESF-funded project *Development of qualifications and creation of the modular VET system* with the goal of developing the national system of qualifications through sector-based occupational standards and corresponding national modular VET curricula. Project follow-up will be launched at the end of 2016, aiming for the development of occupational standards for the remaining economic sectors.

The methodology for designing occupational standards has been based on a combination of competence and work-process analysis approaches. It involved an important shift from functional analysis, which was previously applied in the design of initial VET standards, to work-process analysis. One of the key advantages of this latter approach is potentially identifying and covering all qualifications required for the execution of work processes in the economic sector, as well as mapping the links and interrelationships between the qualifications inside the sector and between the sectors.

Ten sectors have been addressed so far: energy production and distribution, hotels and restaurants, construction, IT and communications, transport and storage services, woodworking and furniture production, textile and leather processing, healthcare and beauty services, agriculture, forestry, fishery and food industry, engineering industry (machinery production).

This revision of standards also covers professional qualifications at levels 6 and 7, signalling that the learning outcomes approach is being implemented in higher education as well as in traditional VET. The level descriptors of the LTQF are used as an explicit reference point for this exercise and help to improve consistency between single qualifications and across the different sectors.

The traditional university sector is also progressing in implementing the learning outcomes approach. LTQF descriptors are taken into account when designing study field descriptors and are used as reference points for the development, review and renewal of university programmes and qualifications.

Implementation of the LTQF is seen as an important part of a strategy to move towards a more consistent and comprehensive use of learning outcomes across education and training levels and types. Initiatives taken to address the use of learning outcomes in general education exemplify this. In 2015 a description of primary, lower secondary and upper secondary programmes was approved (with changes in April 2016); this defines learning outcomes for each level of general education programme in line with the EQF. It also legitimates that learning outcomes at lower secondary education level are referenced with level 3 of LTQF and learning outcomes at upper secondary education level are referenced with level 4 of LTQF.

Stakeholder involvement and institutional arrangements

Work on the NQF was initiated by the Labour Market Training Authority of Lithuania, which launched an ESF-funded project for NQF design in 2006. Following extensive technical work, a National Authority of Qualifications was established in 2008 to coordinate NQF implementation. This authority was abolished in 2009, following the election of new Parliament late 2008. The Ministry of Education and Science then took over the main responsibility for NQF development in 2009 and has retained this role since. The Qualifications and VET Development Centre (QVETDC) ([330]) has been responsible for day-to-day coordination since 2009 and was also

([330]) Qualification and VET Development Centre (QVETDC): http://www.kpmpc.lt/kpmpc/en/

appointed as national coordination point for the EQF at this point. In 2013, the Centre for Quality Assurance in Higher Education (SKVC) ([331]) was officially delegated to take part in the coordination and implementation of the LTQF, with a particular focus on universities.

The influence of labour market stakeholders has been strengthened by the involvement of the Central Professional Committee (CPC) in referencing the LTQF to the EQF. The CPC also plays a key role in LTQF implementation, notably in relation to continuing revision of vocational and occupational standards. The CPS is a tripartite committee, established under the Law on VET, signalling the need for active involvement of stakeholders outside education and training. The involvement of the CPC helps to broaden the base and overall credibility of the LTQF to labour market stakeholders. There are also established sectoral professional committees: multilateral bodies at economic sector level, mainly responsible for the assessment and quality assurance of occupational standards and qualifications.

While some progress has been made in coordinating VET and higher education, general education involvement in the LTQF is limited and needs to be strengthened.

Recognising and validating non-formal and informal learning and learning pathways ([332])

Lithuania is building a national system for validation of non-formal and informal learning. Several laws have been amended in the last few years to pave the way for this, both at national and sectoral levels. Building a system for validation is seen as a priority, with related measures included in recent policy documents: National education strategy for 2013-22 ([333]); Programme for increasing employment for 2014-20 ([334]); draft non-formal adult education development action plan ([335]). There is currently no formal strategy in place, but the laws referred above enable people to validate their learning in the VET and higher education sectors, and employment (though this last option is not yet fully developed). The conceptual model of the NQF includes the possibility of acquiring qualifications through validation of non-formal and informal learning; however, there are no concrete measures in place to support take-up. Regulations for validation and recognition of qualifications include three main elements: assessment regulations, assessment methods, and assessment and accreditation of institutions. The standards system is still incomplete with only VET standards in place, so procedures for validation are mainly developed within VET.

An accredited competence assessment institution has the right to assess competences acquired in formal and non-formal education programmes, employment activities or informally. The list of accredited competence assessment institutions is published on the website of the QVETDC ([336]). A representative from formal VET (a VET teacher) is one of the three assessors on the competence assessment panel that operates in each of the accredited institutions.

The 2010 order on recommendations on the assessment and recognition of non-formally acquired competences in higher education institutions only briefly outlines this process for higher education, leaving full responsibility for the development of validation (including methodologies and the process) to higher education institutions themselves.

NQF implementation

While the LTQF entered into an early operational stage following referencing to the EQF in 2011, there has been a continuous process aiming at developing the work. The impact of the framework is visible in three main ways. First, Lithuania was one of the first countries (together with Denmark) to start indicating NQF and EQF levels in the annexes of VET certificates and diplomas since 2016. While still limited to initial and continuing VET qualifications, this approach will be extended to

([331]) Centre for Quality Assurance in Higher Education: http://www.skvc.lt/en/

([332]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([333]) Parliament of the Republic of Lithuania (2013). *National education strategy for the period 2013-22.* No XII-745, 23 December 2013. https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.463390

([334]) Government of the Republic of Latvia (2013). *Programme for increasing employment for the period 2014-20.* No 878, 25 September, 2013. http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=456810&p_tr2=2

([335]) Draft non-formal adult education development action plan for 2014-16 *[Neformaliojo suaugusiųjų švietimo plėtros 2014-16 metų veiksmų planas].* http://www.smm.lt/web/lt/teisesaktai/teisesaktuprojektai

([336]) List of accredited competence assessment institutions (not available in English): http://www.kpmpc.lt/kpmpc/?page_id=1488

other parts of education and training (but will require changes in regulations). Second, the LTQF levels are used as a reference point and benchmark for review and renewal of qualifications. This is illustrated in the design and implementation of the occupational standards, covering both initial VET and higher, professional education and training. Third, the LTQF has been used as a reference point for developing post-secondary VET qualifications at level 5 of the NQF. The development and implementation of the LTQF demonstrated this missing link in the national education and training system and has directly influenced reform and modernisation of the system.

Referencing to regional frameworks

The Lithuanian NQF was referenced to the EQF in November 2011, with one integrated report covering both the EQF and QF-EHEA. The report outlines a one-to-one relationship between LQF and EQF levels.

Further source of information:

The Qualification and VET Development Centre has been appointed as the EQF national coordination point: http://www.kpmpc.lt/kpmpc/en/

Abbreviations

EQF	European qualifications framework
LTQF	Lithuanian qualifications framework
NQF	national qualifications framework
QF-EHEA	qualifications framework in the European higher education area
QVETDC	Qualifications and VET Development Centre
VET	vocational education and training

Table 56 The Lithuanian national qualifications framework (LTQF)

NQF levels	Qualifications types	EQF levels
8	Doctoral degree	8
7	Master degree	7
6	Bachelor degree Professional bachelor degree	6
5		5
4	Matura certificate (on completion of the secondary education programme and passing *matura* examinations) VET diploma (completion of initial and/or CVET at attainment level 3)	4
3	Vocational qualification certificate (completion of initial and/or CVET at attainment level 2)	3
2	Basic education certificate (completion of basic education programme and testing learning outcomes) (grades 5 to10)	2
1	Primary education certificate (completion of primary education programme) (grades 1 to 4) Qualification certificate (completion of CVET at attainment level 1)	1

Source: QVETDC, 2012.

References

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Lithuania.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

QVETDC (2012). *Referencing the Lithuanian qualifications framework to the European qualifications framework for lifelong learning and the qualifications framework for the European higher education area: national report 2012*. Vilnius: QVETDC. https://ec.europa.eu/ploteus/sites/eac-eqf/files/LTQF_EQF_report_ENG.pdf

Prepared by:
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LUXEMBOURG

Introduction and context

Following an initiative of the Ministry of Education, an outline of a comprehensive national qualifications framework (NQF) was presented to the Council of Ministers in early 2009. Based on an initial governmental go-ahead, detailed work continued during 2010 and 2011, resulting in an eight-level Luxembourg qualifications framework (*cadre luxembourgeois de qualifications* (CLQ)) covering all types and levels of qualifications.

The framework was referenced to the European qualifications framework (EQF) in 2012. Implementation of the CLQ has been slow during 2013-14, partly reflecting the lack of a clear legislative basis and an agreed strategy shared by all stakeholders on how to proceed. The adoption, in November 2016, of a law on recognition of professional qualifications ([337]), establishes the CLQ as the formal reference point for recognition of professional qualifications acquired outside Luxembourg. This integration into the legislative structure of Luxembourg signals official commitment to the framework and represents an important step towards full operational status.

Policy objectives

Increased transparency of qualifications is a key objective underpinning the CLQ, seen as contributing to the overall modernisation of national education and training. One element in favour of the CLQ is the geographic and labour market location of Luxembourg. Being host to a large number of workers from neighbouring countries like Belgium, Germany and France, Luxembourg sees the development of the CLQ as a way to aid comparison and recognition. The adoption of the 2016 law on recognition of professional qualifications (op. cit.) confirms this objective and establishes the CLQ as the main reference point to which foreign qualifications should be compared (see articles 68-70). When the work started in 2009, development and implementation of the EQF was originally seen as an opportunity to make explicit the existing education and training levels and the relationships between them. This was considered important not only for qualifications users (to support lifelong learning for individuals and to enable employers to see the relevance of qualifications), but also for education and training providers. The explicit levels of learning outcomes introduced by the framework are expected to function as a reference point for curriculum development and may help to improve overall consistency of education and training provision.

In a second stage, the CLQ may open up to qualifications awarded outside the existing, official system. This reflects the high number of citizens holding these 'unofficial' and non-recognised certificates and diplomas.

Levels and use of learning outcomes

Luxembourg has introduced an eight-level reference structure. While the number of levels corresponds with the EQF, the descriptors reflect the national tradition and context. At each level, descriptors are differentiated according to knowledge, skills and attitude (*connaissances, aptitudes, attitudes*). While the level of detail is higher, the relationship to the EQF can be clearly identified. This is, for example, the case for the third (attitude) column which is based on the principles of responsibility, autonomy and context, as with the EQF.

The decision to use these concepts reflects gradual development of a learning-outcomes- or competence-based approach in VET. During the 1970s and the 1980s this approach was influenced by the German tradition. Experiences related to the development of professional standards played a particularly important role, as education standards were directly deduced from these. In recent years these approaches have been further developed through extensive cooperation with a number of other European countries, notably those with a dual VET system (Austria, Denmark, Germany and

([337]) *Journal Officiel du Grand-Duché de Luxembourg*, A-N231, 18 November 2016. http://data.legilux.public.lu/file/eli-etat-leg-memorial-2016-231-fr-pdf.pdf

Switzerland). Links to France are also strong, partly influencing the way qualifications are designed and described.

Use of learning outcomes (or *competences*) in Luxembourg education and training has varied between subsectors. Recent years have brought about a change; most qualifications are today described through learning outcomes. In initial vocational education, all qualifications have been described using learning outcomes and can be accessed via the register of the Ministry of Education and Vocational Training ([338]). Higher education is organised in courses lasting one semester, each constituting assessable modules allocated credit points (European credit transfer and accumulation system). These courses are now increasingly defined and described using learning outcomes.

Stakeholder involvement and institutional arrangements

The NQF process is being coordinated by the Ministry of Education in cooperation with the Ministry of Higher Education.

Following the first discussions on the framework in the Council of Ministers, broad consultation was launched towards the end of 2010. Besides general approval of the plans for the NQF, main comments were on the legal status of the framework and on the issue of lifelong learning, including the link to non-formal and informal learning. The specific character of the Luxemburgish labour market, and the implications of this for qualifications, were given particular consideration. The high immigration rate and the large proportion of foreign workers make it necessary to pay particular attention to the coherence of the frameworks with those of neighbouring countries.

The attitude of higher education towards the NQF was originally sceptical. Stakeholders from this sector argued that EQF levels 6 to 8 should be mainly based on the Dublin descriptors of the European higher education area (EHEA). Following discussions during 2009 and early 2010, a common set of descriptors have been accepted by all stakeholders. This also provided the basis for common referencing/self-certification to the EQF and to the qualifications framework for the European higher education area (QF-EHEA) in 2012.

([338]) See http://programmes.myschool.lu

Recognising and validating non-formal and informal learning and learning pathways ([339])

Existing legislation gives individuals the right to benefit from validation of formal, non-formal and informal learning (under some conditions). This process is known as 'validation of prior experiential learning' and has been operational since 2010. Validation can lead to access to, or acquisition of, full or partial qualifications, provided that the candidate can supply evidence that the total length of prior experiential learning amounts to at least 5 000 hours over a minimum of three years and is effectively related to the targeted qualification.

Most formal qualifications that are referenced on the national qualifications framework can be acquired or accessed through validation of non-formal and informal learning. Exceptions are the secondary school leaving certificate (*Diplôme de fin d'études secondaire*s) and qualifications at levels 6 to 8, where only partial qualifications can be obtained through validation.

Any type of prior experiential learning relevant to the targeted qualification, whether it is the result of formal, non-formal or informal learning activities in the education and training sector, the labour market or the third sector, can be used to apply for validation. Across sectors, validation helps towards formal qualifications, which makes for a consistent approach that is considered to be one of the main strengths of the Luxembourgish validation system.

The legal framework on validation consists of several laws, covering secondary technical and vocational education, advanced technician diplomas and the University of Luxembourg. The lack of an overarching legal framework with general principles for validation for all sectors is considered to be one of the main weaknesses of the approach in Luxembourg but changes are expected in the coming years.

NQF implementation

Following completion of the referencing of the NQF to the EQF in mid-2012, implementation has slowed. While the CLQ can be described as having reached an early operational stage, the lack of a clear legislative basis was considered a draw-back. This weakness is now partly

([339]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

addressed through the adoption of the 2016 law on recognition, reflecting the particular challenge of Luxembourg as host to many foreign workers. The further implementation of the CLQ will, however, also require clarification of the relationship between the framework and a wider strategy on lifelong learning. This discussion is continuing and is expected to be concluded during 2017.

Referencing to regional frameworks

Luxembourg referenced its qualifications levels to the EQF and the QF-EHEA in June 2012.

Important lessons and future plans

While a solid basis for the NQF has been established in Luxembourg, implementation slowed following the referencing to the EQF in 2012. This was caused by the lack of a clear legal basis and some uncertainty among stakeholders regarding the role to be played by the CLQ at national level. The CLQ can be considered to have reached an early operational stage. The adoption of the 2016 Law on recognition clarifies the position of the CLQ at national level and provides the basis for a development towards a more advanced operational status.

Further source of information

The Ministry of National Education and Vocational Training (Ministère de l'Éducation nationale et de la Formation professionnelle) acts as national coordination point (NCP): http://www.men.public.lu

Table 57 Qualifications framework of Luxembourg (CLQ)

NQF levels	Qualifications	EQF levels
8	Doctorate (Doctorate diploma)	8
7	Master (Master diploma)	7
6	Bachelor (Bachelor diploma)	6
5	*Brevet de maitrise* (Master craftsman certificate) *Brevet de technicien supérieur* (Advanced technician diploma) *Brevet de technicien supérieur spécialise* (Specialised advanced technician diploma)	5
4	*Diplôme de fin d'études secondaires* (Secondary school leaving certificate) *Diplôme de fin d'études secondaires techniques* (Technical secondary school leaving certificate) *Diplôme de technicien* (Technician diploma)	4
3	*Diplôme d'aptitude professionnelle* (DAP) (Vocational aptitude diploma) *Certificat de réussite du cycle moyen d'enseignement secondaire technique* (Certificate attesting completion of middle cycle technical secondary education) *Certificat de réussite de 5 années d'enseignement secondaire* (Certificate attesting completion of five years secondary education)	3
2	*Certificat de capacité professionnelle* (CCP) (Vocational capability certificate)	2
1	*Certificat de réussite du cycle inferieur de l énseignement secondaire technique* (Certificate attesting completion of lower cycle, technical secondary education)	1

Source: Translated from overview provided by Journal Officiel du Grand-Duché de Luxembourg, 18 November 2016. http://data.legilux.public.lu/file/eli-etat-leg-memorial-2016-231-fr-pdf.pdf

Abbreviations

CLQ	Cadre Luxembourgeois des Qualifications – CLQ (Luxembourg qualifications framework)
EQF	European qualifications framework
LLLC	Luxembourg Lifelong Learning Centre
NQF	national qualifications framework
QF-EHEA	qualifications framework in the European higher education area
VAE	*validation des acquis de l'expérience* [validation of non-formal and informal learning]
VET	vocational education and training

References

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016. Country report Luxembourg.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

Ministry of Education and Vocational Training; Ministry of Higher Education and Research (2012). *Report on referencing the Luxembourg qualifications framework to the European qualifications framework for lifelong learning and to the qualifications framework in the European higher education area*. https://ec.europa.eu/ploteus/sites/eac-eqf/files/Referencing%20report.pdf

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

MADAGASCAR

Introduction and context

Madagascar does not have a national qualifications framework (NQF). However the National employment and vocational training policy *(Politique nationale de l'emploi et de la formation professionnelle)* provides a framework for the future development and implementation of an NQF (UNEVOC, 2015, p. 10). The Malagasy qualifications framework (MQF) *(Cadre Malgache de qualification)* was one of the objectives of the 2010 technical and vocational education and training (TVET) strategy. In February 2016, the National employment and training policy orientation Law came into force, stipulating that an NQF should be set up from the first semester of 2016 onwards.

The Employment and TVET Ministry planned a seminar on national and regional qualifications frameworks for April 2016, aimed at defining the objectives and methodology for establishing the NQF as an extension of the Lilongwe conference. The first step was to be validating a harmonised approach for the competence-based curriculum design and development process in Madagascar. However, because of changes in government the seminar has been postponed.

Policy objectives

The policy objectives are currently under discussion.

Levels and use of learning outcomes

The main measure remains the recognition of diplomas and working experience through the qualification matrix established and managed by the Ministry of Labour.

Stakeholder involvement and institutional arrangements

The key role players are the Ministries of Labour, Agriculture and Industry (which is in charge of private sector development), and, for the private sector, the Malagasy Association of Directors of Human Resources and representatives of the social partners. The main challenges are inter-ministerial dialogue and the support of professional associations. Developing a participatory approach from the start is considered a way to overcome those challenges.

Recognising and validating non-formal and informal learning and learning pathways

The NQF will allow recognition of current competence (RCC) to enable individuals to obtain qualifications through either training or recognition of prior learning (RPL).

Referencing to regional frameworks

The planned seminar on national and regional qualifications frameworks (see section "Introduction and context") will start with a debrief of the Lilongwe workshop/meeting. The working group will forge links with other countries in the Southern African Development Community (SADC) region.

Important lessons and future plans

One of the most important lessons learned is to develop a participatory approach from the start to allow the involvement of all stakeholders. Madagascar had hoped to have developed an NQF system by the first semester of 2016, but this timetable has since been extended to 2017.

Abbreviations

NQF	national qualifications framework
RCC	recognition of current competence
RPL	recognition of prior learning
SADC	Southern African Development Community
TVET	technical and vocational education and training

References

UNEVOC (2015). *World TVET database: Madagascar.* http://www.unevoc.unesco.org/wtdb/worldtvetdatabase_mdg_en.pdf

Prepared by:
UNESCO in collaboration with national experts.

MALAWI

Introduction and context

The Malawi education system is based on an 8:4:4 structure, which specifies eight years for primary education, four for secondary and four for tertiary education. Malawi does not currently have a national qualifications framework (NQF), resulting in articulation problems. Different sectors and organisations award qualifications to graduates in different ways; there is no unified system of weighing and comparing qualifications. However, the Technical, Entrepreneurial and Vocational Education and Training (TEVET) Act No 6 of 1999 led to the establishment of a TEVET Authority in July 1999 and a TVET qualifications framework (TQF) in 2004. The TEVET Authority was established as a regulating and coordinating body for all TVET providers to promote technical, entrepreneurial and vocational education and training.

Stakeholders in the TVET sector requested a review of the TQF. When the process started, it was observed that it would be guided by the development of a full NQF. Malawi is in the process of establishing a Malawi Qualifications Authority, but this will not be effective until the NQF is in place. The establishment of a National Council for Higher Education meant that there was a need also to come up with a higher education qualifications framework.

Policy objectives

The objectives of the NQF are to:

(a) improve national educational and training in order to determine the quality of education required for all students;
(b) make national education systems easier to understand through an integrated national framework for learning achievement;
(c) improve permeability of education and training by clarifying and strengthening horizontal and vertical links within existing systems;
(d) support lifelong learning by making learning pathways visible and by aiding access, participation and progression;
(e) strengthen the links and improve communication between education and training and the labour market;
(f) open up national qualification systems to qualifications awarded outside formal education and training (for example awarded by sectors);
(g) provide a reference point for quality assurance.

Levels and use of learning outcomes

Because Malawi does not yet have an NQF system, level descriptors and learning outcomes are still to be developed. This section reports on the levels in the TQF, which is in place.

The occupational competence levels go up to TQF level 4, which is seen as equivalent to a diploma. A level 1 graduate (foundation certificate holder) is described as an assistant operative, a level 2 graduate (intermediate certificate holder) as an operative, a level 3 graduate (advanced certificate holder) as an artisan, and finally a level 4 graduate (diploma holder) as a technician (Heitmann, 2012).

Table 58 Malawi's vocational education and training qualifications framework

Level	Description
8	Executive; doctoral
7	Specialist; master
6	Professional; bachelor
5	Managerial; higher diploma
4	Technician; diploma
3	Artisan; higher certificate
2	Operative; intermediate certificate
1	Assistant operative; foundation certificate

Source: Furter 2011.

According to Furter (2011), Malawi's TVET qualifications framework actually comprises eight levels as shown in Table 58.

Stakeholder involvement and institutional arrangements

The main role players in developing and implementing the Malawi NQF are the Council for Higher Education, the TEVET Authority, Department of Human Resource, Management and Training, Ministry of Education, and Ministry of Labour and Vocational Training. The Quality Assurance Division links the various stakeholders and subcommittees. Stakeholders that are closely involved in the qualifications framework include the technical qualifications committee, sector advisory committees, occupational working groups, service centres and training providers. Other stakeholders consulted on all issues of quality are the University, Malawi National Examinations Board, employers and employees.

Recognising and validating non-formal and informal learning and learning pathways

These aspects are not yet relevant to a full NQF since none exists. However the TQF also touches on these aspects, in ways briefly noted below.

Non-formal training is offered through a variety of private training providers and non-governmental organisations. Course duration and subject areas covered vary between institutions. There are also private providers of sector-specific training, such as the National Construction Industry Council and the Bankers Association of Malawi. Companies may offer training to their employees; when courses are regulated by the TEVET Authority, it refunds half of the training expenses. Larger companies have their own training centres, and others sponsor staff to attend external courses. A large part of workplace training is on-the-job. Informal training is provided mainly through traditional apprenticeships in the informal sector, whereby a trainee enters into an agreement with a master craftsperson. This type of TVET is by far the largest in terms of student numbers. Traditional apprenticeships are mostly in traditional and typically male-dominated trades, including bicycle repair, boat building, construction, mechanics, welding, woodwork and shoe repair (UNEVOC, 2012).

Referencing to regional frameworks

The aim is that the TEVET Authority, as an independent and autonomous, stakeholder-driven organisation, will continue working in partnership with both the private and public sector and member countries of the Southern African Development Community (SADC) region. This should contribute to TVET reform, helping it better meet qualitative and quantitative employer requirements. This will also meet the requirements of the SADC protocol of ensuring labour mobility in the region. The NQF system will be developed along the lines of the SADC protocol on education and training of 1997.

Important lessons and future plans

Good coordination and strong leadership have enabled the planned activities in the development of NQF to meet the schedule. A task team has been formed to champion the development of the NQF; the team is led by the Department of Inspection and Advisory Services in the Ministry of Education, Science and Technology. The bill to establish the Malawi Qualifications Authority has now been drafted and at the time of writing was ready for submission to parliament.

Abbreviations

NQF	national qualifications framework
SADC	Southern African Development Community
TEVET	technical, entrepreneurial and vocational education and training
TQF	TVET qualifications framework
TVET	technical and vocational education and training

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UNEVOC (2012). *World TVET database: Malawi*. http://www.unevoc.unesco.org/wtdb/worldtvetdatabase_mwi_en.pdf

Prepared by:
UNESCO in collaboration with national experts.

MALAYSIA

Introduction and context

Malaysia's economy has grown more than tenfold since the 1980s and the government is committed to building a knowledge-based economy, as reflected in Malaysia's national plans (NP), notably the 9th, 10th and 11th NP. In response to the 10th national plan (2010-15), the Government of Malaysia produced a corresponding National higher education strategic plan (NHESP) to make Malaysia an international hub of excellence for higher education. In pursuit of this objective, the Prime Minister called for a 'higher education revolution' which led to the establishment of a new Ministry of Higher Education in 2004 and the launch of the Malaysian Qualifications Agency (MQA) in 2007.

Following these initiatives, the Malaysian qualifications framework (MQF) was developed in stages, through exploratory exercises, a series of consultations with key stakeholders, and a national consultation that finally led to approval by the government. The MQF is designed as a unified system of qualifications offered on a national basis by all education and training institutions, including colleges, universities, vocational institutions, professional bodies and other higher education institutions in the public and private sectors, (MQA, 2010). The MQF covers all sectors and is an umbrella framework that includes all levels of qualifications (SHARE, 2015).

There is also a Malaysian occupational skills qualifications framework (MOSQF) under the remit of the Department of Skill Development, Ministry of Human Resources (SHARE, 2015).

The main challenges facing the higher education sector, as stated in the national higher education strategic plan (NHESP) are: to widen access to education and increase equity; to improve the quality of teaching and learning; to empower Institutions of higher education (IHE); to intensify internationalisation (collaboration with foreign institutes of higher education (IHEs)); to promote participation in and recognition of lifelong learning; to promote the recognition of prior learning; to promote alternative education pathways and mobility between programmes (see also Ministry of Higher Education, 2011); to overcome differences in public and private higher education (in for example nomenclature, entry requirements, credits and duration); to coordinate the various programmes offered; and to enhance the legitimacy and relevance of qualifications in society and working life (Vassu, 2012).

Policy objectives

The objectives of the MQF, specified in the Malaysian Qualifications Agency Act 2007 (MQA, 2007), are:

(a) to secure qualifications standards and reinforce policies on quality assurance;
(b) to promote accuracy and consistency of nomenclature of qualifications;
(c) to provide mechanisms for the progression or interrelation between qualifications, including non-degree and degree qualifications;
(d) to encourage collaboration between public and private sector higher education providers and skills training providers;
(e) to encourage parity of esteem among academic, professional, technical, vocational, and skills qualifications;
(f) to establish a credit system to promote credit accumulation and transfer, which is acceptable within and outside Malaysia;
(g) to provide clear and accessible public information on programmes or qualifications in higher education;
(h) to promote, where applicable, the presentation of qualifications in forms that aid their evaluation by any key stakeholders; and
(i) to detail links with qualifications from outside Malaysia.

Levels and use of learning outcomes

The MQF develops and classifies qualifications based on a set of nationally agreed and internationally benchmarked criteria. It sets out academic levels, learning outcomes, and

a credit system based on student academic load. Academic load includes all the activities the student undertakes to achieve a defined set of learning outcomes, such as lectures, tutorials, practical activities, information retrieval, research, fieldwork, and sitting examinations. The MQF criteria are accepted and used for all qualifications awarded by higher education providers (MQA, 2009).
The MQF is an eight level framework, and qualifications are placed on these levels. The levels are not described according to taxonomies; instead the qualification types are described according to the following expected capabilities of students in terms of:

(a) depth, complexity, and comprehension of knowledge;
(b) application of knowledge and skills;
(c) degree of autonomy and creativity in decision-making;
(d) communication skills;
(e) breadth and sophistication of work.

Each qualification level has its own learning outcomes based on the eight learning outcomes domains specified in the MQF:

(a) knowledge;
(b) practical skills;
(c) social skills and responsibilities;
(d) values, attitudes, and professionalism;
(e) communication, leadership, and team skills;
(f) problem solving and scientific skills;
(g) information management and lifelong learning skills;
(h) managerial and entrepreneurial skills (SHARE, 2015).

Stakeholder involvement and institutional arrangements

The MQF is administered by the Malaysian Qualifications Agency (MQA), with the involvement of the Ministry of Higher Education (MoHE), and the Ministry of Human Resources (MOHR). Other stakeholders include professional bodies as well as examination and certification bodies (Vassu, 2012).

The MQA is responsible for the accreditation of TVET and higher education qualifications and the quality assurance of qualifications. The MQA is responsible for the recognition and articulation of qualifications and for maintaining the Malaysian qualifications register (Allais, 2010).

The Department of Higher Education of the Ministry of Higher Education is responsible for the approval and licensing of higher education institutions. The Department of Skills Development in the Ministry of Human Resource (DSD, MOHR) is responsible for the approval of skills providers and accreditation of skills qualifications (SHARE, 2015).

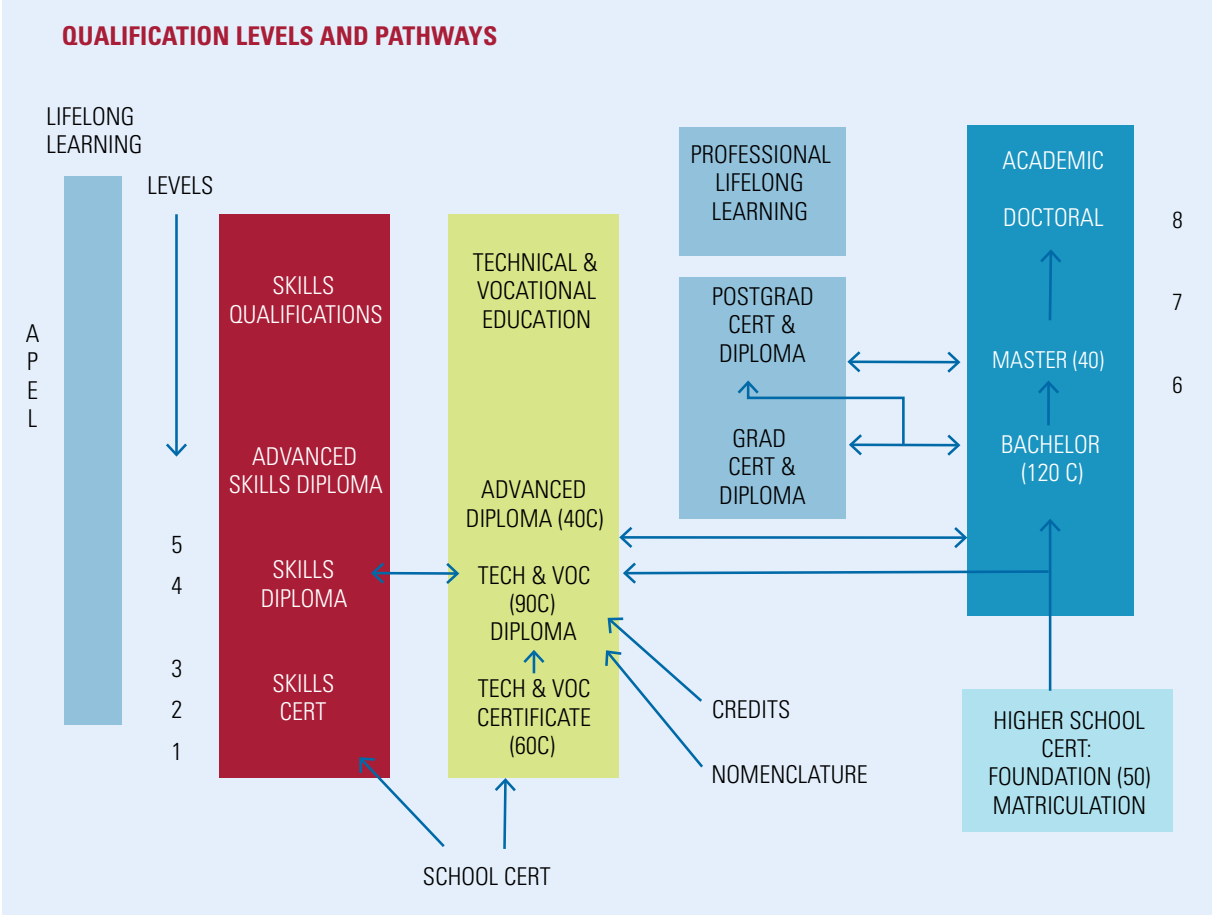
The increased mobility of learners and workers in today's education and labour market means that recognising qualifications is more important than ever. Accreditation of a programme or qualification is the main mark of quality demanded by various authorities and bodies. Although accreditation is not compulsory according to the Malaysian Qualifications Agency Act, it is made mandatory by other regulations and policies, thus ensuring compliance with the MQF. Programmes are accredited if they meet the requirements of the MQF and other associated standards and policies. They are then eligible to be registered in the Malaysian qualifications register.

Recognising and validating non-formal and informal learning and learning pathways

Launched in August 2007, the NHESP identified lifelong learning as one of its seven key goals. The National blueprint for lifelong learning has since been published (Ministry of Higher Education, 2011). The MQF is an important instrument for realising lifelong learning policy in Malaysia, which is important in the development of a knowledge-based society and economy (MQA, 2010). It is designed in particular to ease access to education for individuals and social groups who have missed education opportunities. It does this by providing flexible education pathways for all learners, systematically linking qualifications from different sectors (ibid.). A system of credit accounts and credit transfer ensures that learners are able to progress both vertically and horizontally and have their prior learning recognised, whether acquired formally, non-formally or informally.

In 2009 the MQA developed guidelines for accreditation of prior learning. This was followed in 2011 by work to develop instruments and criteria to assess prior learning, and to establish assessment centres. A number of techniques can be used to recognise an individual's prior learning. First, a portfolio of evidence is compiled relating to the learning outcomes of a subject or course. The portfolio may include reports (by referees or other relevant assessors), job descriptions, essays, artefacts and products made, designs, drawings, plans, and test results. A written description of the individual's knowledge and skills may also be submitted. This should be authored by a qualified person, such as the applicant's employer (manager

Figure 16 Malaysian qualifications framework (MQF)



Source: MQA, 2010; Vassu, 2012.

or supervisor) or client (student or customer). Finally, written or oral examinations may be conducted.

NQF implementation

The Malaysian Qualifications Agency is responsible for introducing and updating the Malaysian qualifications framework. The MQA is responsible for the accreditation of TVET and higher education qualifications. The Department of Skills Development, Ministry of Human Resource (DSD, MOHR) is responsible for the accreditation of skills qualifications (SHARE, 2015).

Referencing to regional frameworks

The MQF is not referenced to any regional qualifications framework although the framework and qualifications have recently been aligned to the New Zealand qualifications framework. The MQA now has the responsibility of referencing the MQF to the AQRF, which has been developed under the auspices of the Australian New Zealand free trade arrangement.

Important lessons and future plans

By establishing benchmarks, the MQF has improved the international comparability of Malaysian qualifications. Bringing all higher education qualifications under one framework has made it easier to address different concerns about parity of qualifications.

The MQF is an important instrument for realising lifelong learning policy in Malaysia. Thanks to its design as a unified system of qualifications offered nationally, the implementation process has been smooth. The nature of the MQF has also allowed flexibility to higher education providers (HEP) to continue to innovate within the MQF.

The MQA also understands that it is important to educate all stakeholders about the MQF and about how it ensures clarity of qualifications levels for employers, parents, recruiters for foreign institutions etc. More education must be carried out to demonstrate the benefits of the framework for promoting the mobility of students and workers.

Malaysia plans to use the MQF to harmonise qualifications further in both public and private institutions, creating a common currency for accreditation and recognition across sectors. It also plans to reference to the regional frameworks such as the ASEAN Qualifications Reference Framework (AQRF) and the MQF is currently being revised in order to ensure that the highest standards are maintained (Vassu, 2012).

Abbreviations

AQRF	ASEAN qualifications reference framework
DSD MOHR	Department of Skills Development, Ministry of Human Resource
HEPs	higher education providers
IHE	institutions of higher education
MoHE	Ministry of Higher Education
MOHR	Ministry of Human Resources
MOSQF	Malaysian occupational skills qualifications framework
MQA	Malaysian Qualifications Agency
MQF	Malaysian qualifications framework
NHESP	National higher education strategic plan
NP	national plans

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Prepared by:
UNESCO in collaboration with national experts.

MALDIVES

Introduction and context

The Maldives national qualifications framework (MNQF) was established by the Maldives Accreditation Board (MAB) in September 2001. The MAB was replaced by the Maldives Qualifications Authority (MQA) on 17 May 2010. Revision of the framework began in 2005, was completed in February 2009 (MAB, 2009) and implemented on 1 September 2011.

Two main challenges are being addressed by the MNQF:

(a) the Maldivian post-secondary education sector is growing rapidly, with an increasing number of private providers entering the sector to meet demand. This has resulted in a need to assure the quality of qualifications awarded for educational attainment (MAB, 2009);
(a) international recognition of Maldivian qualifications abroad, especially in the Asia and the Pacific region, is emerging as a major issue as more students are pursuing higher education at home and abroad. Information needs to be gathered about overseas qualifications, institutions and academic programmes, and the status of institutions needs to be clarified with respect to the recognition and credibility of qualifications.

Policy objectives

The government sees the revised MNQF as a tool to bring all recognised qualifications together under a single unified structure. The main policy objectives of the strengthened MNQF are to:

(a) establish national competence standards;
(b) assure the quality of teaching, assessment and certification;
(c) promote student and learner support and reporting;
(d) allow for a possible future interface with secondary education;
(e) allow technical and vocational education and training (TVET) graduates to progress seamlessly to advanced technical, professional and post-graduate learning;
(f) provide an internationally benchmarked suite of higher education qualifications from associate and foundation degrees through bachelor and master degrees to higher technical and professional diplomas and doctorates;
(g) allow valid international higher education qualifications to be recognised in the Maldives;
(h) promote mobility and recognition for Maldivian citizens abroad;
(i) establish a national technical and vocational qualifications system based on national competency standards, allowing flexibility in worker skills acquisition.

Levels and use of learning outcomes

The Maldives Accreditation Board assigns qualifications to a 10-level framework using the descriptors for levels 3 to 12 of the Scottish credit and qualifications framework (SCQF) (MAB, 2009).

Certificate I recognises the acquisition of a core of entry-level skills for a new worker. Certificates II, III and IV recognise increasing levels of capability and competence through to the fully qualified tradesperson. Diplomas, advanced diplomas and higher diplomas recognise technical-, managerial- and professional-level knowledge and skills.

The MNQF descriptors set out the learning outcomes at each level. They provide general understanding of each level and allow broad comparisons to be made between qualifications and learning at different levels. The learning outcomes include five categories:

(a) knowledge and understanding;
(b) practice: applied knowledge and understanding;
(c) cognitive skills;
(d) communication, ICT, and numeracy skills;
(e) autonomy, accountability and working with others.

Through benchmarking already undertaken by the multinational education and examination body Edexcel, it is possible to assign GCSE grades D–G to level 2, GCSE grades A-C to level 3, and A-levels to level 4 of the MNQF (MAB, 2009).

Table 59 Maldives national qualifications framework (MNQF)	
Level	**Qualification title**
10	Doctoral degree/ Higher professional certificate/Higher professional diploma
9	Master degree/ Advanced professional certificate/Advanced professional diploma
8	Graduate or postgraduate certificate/Graduate or Postgraduate diploma/ Bachelor degree with Honours
7	Bachelor degree professional certificate/Professional diploma
6	Professional certificate/Advanced diploma associate degree/Foundation degree
5	Diploma
4	Certificate IV
3	Certificate III
2	Certificate II
1	Certificate I

Source: Maldives Accreditation Board, 2009.

Stakeholder involvement and institutional arrangements

The official accrediting agency of the Maldives is the Maldives Accreditation Board (MAB). This board was formed by the president of the Maldives in 2000. Before formation of the MAB, qualification recognition was carried out by the Department of Public Examinations (DPE).

On 17 May 2010, the functions of the MAB were handed over to the Maldives Qualifications Authority (MQA). The regulatory board of the MQA, in its first meeting on 30 August 2010 decreed that all rules, regulations and procedures of the former MAB would be followed by the MQA until decreed otherwise by the regulatory board (MAB, 2009). The MQA's mandate is to assure the quality of post-secondary qualifications awarded for educational attainment (MQA, 2016). The process of revising the framework began in 2005. After extensive research and discussion with experts and relevant authorities, the revision was completed in February 2009. The strengthened Maldives national qualifications framework (MNQF) came into effect when the MAB formally endorsed it in September 2009. In September 2011, the MAB checked whether all qualifications submitted for approval were consistent with the new national system.

Recognising and validating non-formal and informal learning and learning pathways

Assigning levels to all MQA-approved courses and including all post-secondary qualifications under one banner, from initial certificates to advanced academic, technical and professional qualifications, supports students' progression pathways and encourages lifelong learning. All qualifications, regardless of subject area, can be recognised under the new competency-based framework. The MQA has included a full listing of all approved local programmes on its website along with associated levels.

Some students or workers may achieve only some of the competences required for a full technical and vocational qualification. Nevertheless, they are still able to receive an official record of that partial qualification (certificate of achievement): the credit system allows students to receive credit for all achievement, no matter how modest. Credits are assigned on the basis of one credit for achieving the specified learning outcomes of 10 learning hours. In higher education, this translates into 120 credits in an academic year. The assessment system allows credit accumulation and transfer, and recognition of prior learning and of competences towards qualifications, even without course attendance (MQA, 2016), since assessment can also be conducted in the workplace.

NQF implementation

Under the new strengthened MNQF, trainers can develop modular training in addition to full-time training programmes. Modular programmes offer part-time courses to suit workers so that a full qualification is achieved over time. The new framework allows for a combination of theoretical instruction and training in the workplace, with assessment results being combined towards a full award.

Where qualifications are delivered through training institutions, the MAB proposes three clusters of activities to support the new national qualifications arrangements:

(a) establishing a quality management system at the time of registration;
(b) programme accreditation;
(c) continuous monitoring and institutional quality audit (MQA, 2016).

Referencing to regional frameworks

The MQA's recognition of overseas institutions/colleges/universities is based on the following criteria:

(a) recognition of the institution/college/university in that particular country;
(b) if they are issued by a government-recognised institution in the country of origin, qualifications must also be recognised and accepted in the Maldives. The MQA's recognition of an institution/college/university does not mean that all its qualifications are recognised;
(c) they meet standards and criteria set by the MNQF.

The MQA also checks the recognition status of academic programmes and institutions for individuals planning to join a programme of study overseas.

The eight member states of South Asian Association for Regional Cooperation (SAARC) – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka – unanimously adopted the SAARC Framework for Action (SFFA) for Education 2030 at the Third Meeting of Ministers of Education/Higher Education held in Male, Maldives, in 2016. Under regional collaboration and partnerships, the ministers agreed that the objectives of this action plan are to establish a mechanism to develop and implement a regional framework for facilitating comparability and mutual recognition, validation and accreditation of tertiary education qualifications and mobility of students and faculty across the South Asian region (SAARC, 2016).

The Asia Pacific Accreditation and Certification Commission (APACC) ([340]) was set up by the Colombo Plan Staff College for Technician Education ([341]) following an agreement in 2004 by 17 countries to establish a regional body for accreditation and certification of technical and vocational education and training (TVET) institutions. The core principle of the APACC initiative is to harmonise the quality of TVET, standardise skills taught in TVET institutions in the region, and aid workforce mobility in Asia and the Pacific region ([342]).

Important lessons and future plans

With the strengthened MNQF, the Government of the Maldives hopes to have put in place a sustainable and strategic solution for national and human resource development. It is hoped that incorporation of national competency standards and of a broader and more coherent technical and vocational qualifications system will allow for considerable flexibility in worker skills acquisition.

One lesson from the MNQF is the shift to a unified qualifications system, which guarantees more international recognition of the qualifications, skills and knowledge of Maldivian citizens. The Maldives has been successful in making all qualifications consistent with the new national system: it has achieved this by requiring all existing qualifications to be submitted for approval by the Maldives Accreditation Board.

The role played by the MQA in ensuring that students, employers, education providers and the community at large easily understand the learning outcomes involved in various qualifications is significant. The MQA has also encouraged employers, parents and students to seek out only accredited programmes, alongside promoting quality assurance of teaching, assessment and certification.

Further source of information

Asia Pacific Accreditation and Certification Council (APACC). http://www.apacc4hrd.org/

([340]) http://www.apacc4hrd.org
([341]) http://www.cpsctech.org
([342]) The APACC accreditation and certification process is described in detail at: http://www.apacc4hrd.org/apacc_manual/contents/.

Abbreviations

APACC	Asia Pacific Accreditation and Certification Commission
DPE	Department of Public Examinations
ICT	information and communications technology
MAB	Maldives Accreditation Board
MNQF	Maldives national qualifications framework
MQA	Maldives Qualifications Authority
NSQF	national skills qualifications framework
SAARC	South Asian Association for Regional Cooperation
SFFA	SAARC framework for action
TVET	technical and vocational education and training

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Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with national experts.

MALTA

Introduction and context

Malta has been investing significantly in its education and training system in recent years. School education reforms aim to modernise curricula, improve teaching quality and promote digital skills. However, the early school leaving rate – even if declining – remains the second highest in the EU at 19.8% in 2015, well above the national 2020 target of 11%; the tertiary educational attainment rate for native born Maltese is still below the EU average (European Commission, 2016). In this respect, the Malta qualifications framework (MQF) is an important tool for developing lifelong learning and adult learning opportunities, given that adult participation in lifelong learning was relatively low, at 7.2% in 2015, below the EU average (10.7% in 2015).

Malta has been developing its comprehensive national qualifications framework (NQF) for lifelong learning (MQF) since June 2007. It includes qualifications and awards at all levels of formal, non-formal and informal learning. Important amendments in 2012 to the Education Act established the legal basis for the National Commission for Further and Higher Education (NCFHE), replacing the Malta Qualifications Council (MQC) and the National Commission for Higher Education (NCHE). The NCFHE is now responsible for all aspects of the MQF. Three legal notices were published: on quality assurance and licensing of further and higher education institutions and programmes ([343]); on validation of informal and non-formal learning ([344]); and on strengthening the legal basis of the MQF for lifelong learning as a regulatory framework for classification of qualifications and awards ([345]). Malta was the first country (as recognised by the Council of Europe) to reference the MQF to two European overarching frameworks, the European qualifications framework (EQF) and the qualifications framework of the European higher education area (QF-EHEA) as well as the transnational qualifications framework of the small States of the commonwealth (TQF).

The recent referencing report (NCFHE, 2016) has updated the MQF by introducing two additional levels covering learning below level 1: introductory level A and introductory level B. These new levels have been introduced to recognise any prior learning, as well as to provide a stepping stone towards level 1 and further learning and employment.

Policy objectives

The Malta qualifications framework (MQF) makes the qualifications system easier to understand and review, and more transparent at national and international levels. This framework also functions as a referencing tool for describing and comparing national and foreign qualifications to promote and address the following issues:

(a) transparency and understanding of qualifications;
(b) valuing all formal, informal and non-formal learning;
(c) consistency and coherence with European and international qualifications frameworks;
(d) parity of esteem of qualifications from different learning pathways, including vocational and professional degrees and academic study programmes;
(e) lifelong learning, access and progression and mobility;
(f) the shift towards learning outcomes-based qualifications;

([343]) Government of Malta (2012). *Education Act (CAP. 327. 433): further and higher education (licensing, accreditation and quality assurance) regulations, 2012. Legal Notice 296 of 2012, as amended by Legal Notice 150 of 2015:* http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11929&l=1

([344]) Government of Malta (2012). *Education Act (CAP. 327): validation of non-formal and informal learning regulation, 2012. Legal Notice 295 of 2012:* http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=23720&l=1

([345]) Government of Malta (2012). *Malta qualifications framework for lifelong learning. Legal Notice 294 of 2012 (Subsidiary Legislation 327.431).* http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11927

(g) a credit structure and units as qualification building blocks;
(h) the concept of mutual trust through quality assurance mechanisms running across all levels of the framework.

The MQF is seen as an important tool in promoting lifelong learning. The widespread public approval of the MQF has encouraged enrolment on study programmes and acquiring qualifications registered with the MQF. Scholarship schemes and tax rebate initiatives are linked to the qualification's MQF level rating. Eligibility criteria for recruitment to any public institution also specify the required MQF level rating (and, in some cases, also the ECTS/ECVET workload). Government policy supporting pluralism in the provision of further and higher education, together with a desire to promote internationalisation, has led to a growth in the number of registered licence holders able to offer MQF level-rated qualifications. This expansion has also generated the need for a more robust and rigorous registration process prior to issuing a license as well as quality assurance reviews for the lifetime of the licence. The growth of licence holders from 30 in 2007 to 140 in 2016 has necessitated the publication of a public register of licence holders and of approved qualifications ([346]).

Levels and use of learning outcomes

Strengthening the learning outcomes approach has become fundamental to education and training reform and has been applied across all qualifications and levels in recent years. The education strategy framework 2014-24 – *Sustaining foundations, creating alternatives, increasing employability* (Maltese Ministry of Education and Employment, 2014a) – has reinforced the intention to adopt a learning outcomes approach in all sectors of education and training linked to the MQF, and to update existing learning programmes and assessment modes.

The MQF has eight learning-outcomes-based qualification levels, plus the two additional entry levels below level 1; introductory level A and B. These two new levels have no equivalence on the EQF. Each level descriptor is defined in terms of knowledge, skills and competence and the learning outcomes achieved. The descriptors highlight specific attributes: communication, judgemental and learning skills, and the complexity, volume and level of learning expected for the particular qualification or award. Progression within the MQF is recorded in terms of:

(a) knowledge and understanding;
(b) applying knowledge and understanding;
(c) communication skills;
(d) judgemental skills;
(e) learning skills;
(f) autonomy and responsibility.

One of the tasks of the NCFHE is to introduce national standards of knowledge, skills and competences, and to ensure that these are systematically implemented, used and revised. Courses accredited by the NCFHE and those by the self-accrediting training providers (public, further and higher education institutions) will use the learning outcomes approach. The MQF provides a clear commitment to focus on the learning outcomes approach at policy level; however, it is less clear how this will be carried out in all education sectors, as reported in the Cedefop study on learning outcomes (Cedefop, 2016).

The report *A national curriculum framework for all* outlines the role of learning outcomes in general education (Maltese Ministry of Education and Employment, 2012c). The reform of the national curriculum framework has led to the development of learning outcomes for all subjects within all sectors of compulsory education. Learning outcomes will be used to benchmark and record the educational development of all Maltese students in compulsory education. The reform aims to move away from a prescriptive curriculum based on standalone subjects, towards a framework which allows for internal flexibility and promotes inclusiveness, citizenship and employability. During 2016, the government will prepare a plan to introduce the learning outcomes framework by September 2017. The Institute for Education will start to provide specific training for teachers (Maltese Ministry of Finance, 2016).

The MQF is intended to ensure that VET curricula are focused on key competences and learning outcomes based on feedback from industry. The development of occupational standards and sector skills units is a work in progress.

Malta also has a range of adult education courses accredited and level-rated on the MQF. These qualifications and awards enable adults to engage in lifelong learning and perhaps to progress to higher MQF levels.

([346]) Both registers are available at: http://ncfhe.gov.mt/en/register/Pages/register.aspx

Stakeholder involvement and institutional arrangements

A wide range of stakeholders has been involved in the development and setting up of the MQF. The MQC initiated the work, following Legal Notice 347 of 2005 ([347]) in cooperation with all stakeholders, including ministries and the NCHE. The NCFHE (under the Ministry of Education and Employment) is now the responsible authority for the MQF, and has produced the fourth referencing report (NCHE, 2016) in consultation with national stakeholders such as the Employment and Training Corporation, which is the main employment service in Malta; representatives of education and training providers; social partners; the Directorate for Quality and Standards in Education and the Directorate for Lifelong Learning. It also acts as the national coordination point for the European qualifications framework, ReferNet, and forms part of the ENIC-NARIC network.

Recognising and validating non-formal and informal learning and learning pathways ([348])

Validation of informal and non-formal learning in Malta is regulated by Subsidiary Legislation 327.432. of 2012 ([349]), which sets the principles for the process. This legislation designates the National Commission for Further and Higher Education (NCFHE) as the authority responsible for introducing a national validation system and for establishing the necessary structures.

The NCFHE is also responsible for providing the resources needed for the department for validation of informal and non-formal learning (VINFL) to function effectively and for leading the development and implementation of national occupational standards in specified areas. The validation which is currently taking place is limited to a few sectors. However, the NCFHE intends to extend the process to more sectors through the continuing development of sector skills units ([350]). Currently, legislation allows validation of informal and non-formal learning up to level 5 of the MQF, based on occupational standards developed by sector representatives. Assessment is by professionals who verify the evidence of the learning outcomes achieved. The individual needs to have support and guidance in gathering the evidence of the learning achieved, and the opportunity to appeal should s/he not accept the validation judgement.

The NCFHE is also responsible for convening meetings with key stakeholders on sector skills. The further development of sector skills units is a significant step towards establishing validation processes at sector level. Formal structures for validation in priority sectors have been developed through the creation of four sector skills units in: i) health and social care; ii) building and construction; iii) hair and beauty; iv) automotive sector; v) printing; vi) educational support; and vii) tourism and hospitality. Another unit is planned for voluntary work-related sectors. Developments are also underway in the tourism sector by the setting up of a committee comprising the Institute for Tourism Studies (ITS) and key industry players to help identify skill gaps in the ITS curricula as well as to anticipate future industry requirements. Further steps will include the development of occupational standards criteria and the appointment of an assessment board assigned to the sector skills unit.

The value and importance of validation is emphasised in several recently published national policy documents. This includes Malta's *National lifelong learning strategy 2020* (Maltese Ministry of Education and Employment, 2014b) that sets a target for setting up a transparent and sustainable system within NCFHE to validate and recognise non-formal and informal learning by the end of 2016.

NQF implementation

The MQF is operational; key documents and responsibilities for its implementation have been

([347]) Government of Malta (2012). *Subsidiary Legislation 343.26. Malta qualifications council regulations. Legal Notice 347 of 2005. Revoked by Legal Notice 325 of 2012.* http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=10141&l=1

([348]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([349]) Government of Malta (2012). Validation of non-formal and informal learning regulation. Subsidiary Legislation 327.432. Legal Notice 295 of 2012 as amended by Legal Notice 194 of 2014. http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11928&l=1

([350]) A key function of the units is to develop and propose to this committee guidelines and mechanisms for the validation of non-formal and informal learning for all skills within their respective sector. They also ensure that validation institutions are meeting the required standards set out for the validation of non-formal and informal learning. These sector skills units will identify the different jobs in their particular sector, outline the knowledge, skills and competences required to perform these jobs and map them against the NQF.

agreed among stakeholders and published ([351]). The main body responsible for the MQF is the NCFHE (the former MQC and the NCHE merged in 2010-11); it decides which qualifications and awards to include in the framework. This agency stipulates strategic policies for further and higher education, promotes and maintains the MQF, accredits and licenses all further (post-secondary) and higher education institutions and programmes, and assists training providers in designing qualifications, assessment and certification. The Directorate for Quality and Standards in Education (based at the Ministry of Education and Employment) is responsible for quality assurance and standards in compulsory education.

Qualifications and awards included in the MQF should satisfy the following conditions ([352]):

(a) be issued by nationally accredited institutions;
(b) be based on learning outcomes;
(c) be internally and externally quality assured;
(d) be based on workload composed of identified credit value;
(e) be awarded on successful completion of formal assessment procedures.

The term 'qualification' refers to substantial courses based on learning outcomes at the respective MQF level and a required minimum number of credits, whereas 'award' refers to courses which fulfil the level of learning, but not the requirement in terms of minimum credits. The terms are used to distinguish between 'full qualifications' and shorter courses at the respective level.

Following the setting up of the ESF project 1.227, *Making quality visible* ([353]), the NCFHE has established the national quality assurance framework which sets the standards for internal and external quality assurance for all further and higher education providers. The process for carrying out external audits has been finalised and guidelines have been published. External quality audits began in May 2015 at the same time as the national quality assurance framework was introduced.

The NCFHE also maintains a register of accredited further and higher education institutions, in accordance with Subsidiary Legislation 327.433 on licensing, accreditation and quality assurance ([354]). It also includes a list of accredited courses offered by licensed institutions with reference to both the MQF and the EQF. This register highlights the level of each course accredited and is updated on a weekly basis.

In respect of public education institutions, the University of Malta issued the first diploma supplements in 2006. They were awarded in 2007 to over 200 graduates and from 2010 were issued automatically and free of charge. The Malta College for Arts, Sciences and Technology and the University of Malta give NQF (and EQF) levels on certificate and diploma supplements. According to a recent study conducted by the NCFHE (still unpublished) on the use of Europass diploma supplements and Europass certificate supplements, 62% of students graduating from further education institutions receive a certificate supplement. 86% of students graduating from higher education institutions receive a diploma supplement.

An effective network to promote use of the NQF has been established with employers by the NCFHE through its qualifications recognition information centre. Both employers and individuals are invited to attend information sessions and seminars where they are given information about the Malta qualifications framework and other developments in the further and higher education sector. Other methods of informing potential users about the framework include social media and the NCFHE website, which is continuously updated, as well as dissemination of information posters and leaflets to public and private educational institutions, local councils, and other government entities. The *Jobsplus* ([355]) also uses the MQF as its main criterion for issuing work permits, as well as

([351]) See three legal notices:
(a) on quality assurance and licensing of further and higher education institutions and programmes: http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11929&l=1
(b) on validation of informal and non-formal learning: http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=23720&l=1
(c) on the legal basis of the MQF for lifelong learning: http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=23719&l=1

([352]) Government of Malta (2012). *Malta qualifications framework for lifelong learning. Legal Notice 294 of 2012 (Subsidiary Legislation 327.431).* http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11927

([353]) ESF project 1227: https://ncfhe.gov.mt/en/Pages/Projects/ESF%201.227%20Making%20Quality%20Visible/esf1227_making_quality_visible.aspx

([354]) Government of Malta (2012). *Subsidiary Legislation 327.433. Further and higher education (licensing, accreditation and quality assurance), regulations.* Legal Notice 296 of 2012, as amended by Legal Notice 150 of 2015. http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11929&l=1

([355]) Previously known as the Employment and Training Corporation.

considering a person's experience. It is envisaged, therefore, that the Malta qualifications framework will continue to be used rigorously ([356]).

Referencing to regional frameworks

In 2009, Malta was the first Member State to prepare a single, joint report which referenced the MQF to both the EQF and the qualifications framework in the European higher education area (QF-EHEA) (Malta Qualifications Council and Maltese Ministry of Education, Culture, Youth and Sport, 2009). This approach has been followed by many other countries in their own referencing process. The establishment and referencing of the MQF have led to substantial modernisation. Further editions were published in 2010, 2012 and 2016 ([357]). The last – the fourth edition – is currently in use and reflects the range of reforms that have taken place within the education system over the past few years (NCFHE, 2016).

Important lessons and future plans

Development of the MQF has served as a catalyst for education reform, addressing key challenges in education, training and the labour market. Consultation on the development of the MQF and preparation for referencing to the EQF and the QF-EHEA were interrelated processes that helped bridge the gap between stakeholders from different subsystems of education and employment. The updated referencing report (NCFHE, 2016) and the development of the national quality assurance framework for further and higher education (NCFHE, 2015b), as well as the higher education strategy (NCFHE, 2015a) which proposes further changes in the validation of informal and non-formal learning, constitute important reforms aimed at increasing lifelong learning, mobility and employability.

Despite the improvements brought about by the development and introduction of the MQF, there are still issues to be addressed. There is a need to develop a more modular concept as building blocks for qualifications to support lifelong learning and non-traditional learners. Another growing need is to develop accreditation and quality assurance parameters for digital/online learning, as well as for work-based learning. The national quality assurance framework still needs to develop further and cater better for these areas. The easier movement of students between general education and vocational streams is also very important, as well as better integration of non-formal learning within mainstream education.

Further source of information

The NCFHE is the designated national coordination point: http://ncfhe.gov.mt/en/Pages/default.aspx

Abbreviations

EQF	European qualifications framework
MQC	Malta Qualifications Council
MQF	Malta qualifications framework
NCHE	National Commission for Higher Education
NCFHE	National Commission for Further and Higher Education
NQF	national qualifications framework
QF-EHEA	qualifications framework in the European higher education area
SEC	secondary school certificate
TQF	transnational qualifications framework of the small States of the Commonwealth
VET	vocational education and training

([356]) Cedefop (2015) *Survey on the Sustainability and Visibility of NQFs* [unpublished].

([357]) See all four editions online: http://ncfhe.gov.mt/en/Pages/referencing_report.aspx

Table 60 Maltese national qualifications framework (MQF)

NQF levels	Qualifications		EQF levels
8	Doctoral degree		8
7	Master degree Postgraduate diploma Postgraduate certificate		7
6	Bachelor degree		6
5	Undergraduate diploma Undergraduate certificate	VET higher diploma foundation degree	5
4	Matriculation certificate Advanced level Intermediate level	VET diploma (iv)	4
3	General education (level 3) SEC grade 1 to 5	VET level 3 (iii)	3
2	General education (level 2) SEC grade 6-7	VET level 2 (ii)	2
1	General education (level 1) School leaving certificate	VET level 1 (i)	1
B	Introductory level B (*)		
A	Introductory level A (*)		

(*) These are not yet included in legislation.

(i) A full VET level 1 qualification should enjoy the same parity of esteem as a full secondary school certificate and profile (SSC&P) Level 1.

(ii) A full VET level 2 qualification should enjoy the same parity of esteem as 4 secondary education certificate (SEC) subjects at grade 6 and 7.

(iii) A VET level 3 qualification should enjoy the same parity of esteem as 6 secondary education certificate (SEC) subjects at grades 1 to 5.

(iv) A VET diploma should enjoy the same parity of esteem as the matriculation certificate.

Source: Adapted from NCFHE and Ministry of Education and Employment (2016). *Referencing of the Malta qualifications framework (MQF) to the European qualifications framework (EQF) and the qualifications framework of the European higher education area (QF/EHEA).*

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Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

MAURITIUS

Introduction and context

The Mauritius Qualifications Authority (MQA) was established in 2002 to take over the regulatory function of the Industrial and Vocational Training Board, within a national qualifications framework (NQF). Developed following the enactment of the Mauritius Qualifications Authority Act of 2001, the Mauritius qualifications framework (MQF) aims to give new impetus to the education and training landscape in Mauritius. The MQF belongs to the second generation of qualifications frameworks, together with countries such as Malaysia, Mexico, Namibia and Singapore; among the first-generation countries are Australia, Ireland, New Zealand, South Africa and the UK (England and Scotland). While forged within the Mauritian context, the MQF was significantly influenced by the Scottish credit and qualifications framework, the New Zealand NQF and the South African NQF (Allgoo, 2013).

One of the most significant challenges currently facing Mauritius is the need to make education and qualifications more relevant to the world of work. To do this, it is necessary to raise the status of vocational training. According to Dr Kaylash Allgoo, director of the MQA, if problems such as the skills crisis, unemployment and lack of social mobility in Mauritius are to be solved, it is vital to change the perception that vocational qualifications are for people of lesser intelligence (Allgoo, 2013).

Prior to the introduction of the MQF, there were a large number of education and training providers offering a huge variety of courses. There was no standardisation in subject area, level, duration or quality. The certificates offered by these providers often contained no information about the learning outcomes achieved in course attendance. As a result, the career pathways available to qualification holders were limited. Many were also hampered by historic regulations and bureaucracy. The system was widely seen as elitist, since only a fortunate few were able to gain entry into reputable institutions. Further, the certification system did not recognise learning, skills and knowledge acquired in informal or non-formal settings (Keevy et al., 2011, p. 57).

Lacking natural resources, Mauritius's only resource is its human capital. As in all parts of the world, rapid technological change in recent years has created a powerful demand for new skills and left the unskilled less employable. In this unforgiving labour market, the gap is widening between those who are sufficiently qualified to stay afloat and those who are not. It is essential that Mauritius gives its citizens the opportunity to gain the skills and qualifications they need to sustain themselves throughout their lives.

Policy objectives

With these challenges in mind, the MQF was established to:

(a) raise the value of vocational qualifications;
(b) integrate education and training;
(c) improve the quality of training provision and provide quality assurance;
(d) promote the mutual recognition of Mauritian and foreign qualifications;
(e) give learners a clear indication of the level of their learning and the possibilities for further progression;
(f) recognise and formally certify competences obtained outside formal education and training.

Stakeholder involvement and institutional arrangements

Following a study conducted by the Scottish Qualifications Authority in 1998, the Government of Mauritius was advised to set up an NQF to bring order to the existing 'jungle of qualifications' (Keevy et al., 2011, p. 57). At its outset, the MQA performed the dual role of regulator of the TVET sector and guardian of the MQF.

The MQA Act was amended in 2005, giving the MQA the new function of evaluating and establishing equivalences between qualifications obtained in the primary, secondary and post-secondary sectors, and those obtained in non-formal and informal settings, for example through workplace learning. The MQA also establishes

equivalences between foreign and local qualifications. It has set up 20 industrial training advisory committees comprising experts from both the public and private sectors. In the course of this work, a number of fruitful collaborations have been established to develop qualifications in particular areas. For example, the MQA has worked together with the Mauritius Institute of Health (MIH) to develop qualifications in health and social care. Such collaborations have been consolidated over the years, and sustainable relationships have been built with the stakeholders involved.

Qualifications are included in the MQF based on their potential to equip learners with the skills required to meet the demands of the economy. The industrial training advisory committees oversee the quality, relevance and international comparability of MQF qualifications, making sure that they are 'fit for purpose' and accord with industry expectations. So far the MQA has generated some 143 qualifications together with 3 710 unit standards in the following sectors: agriculture, automobiles, adult literacy, beauty and hairdressing, building construction and civil works, early childhood education and care, electrical and electronics engineering, furniture making, handicrafts, health and social care, information and communications technology, jewellery making, language, management, mechanical engineering, printing, seafood and marine industry, textiles and apparel, tourism and hospitality, and transport and logistics. MQF qualifications are offered by both public and private providers.

Only nationally recognised qualifications from accredited awarding bodies are included in the MQF. At present there are four awarding bodies: the Mauritius Institute of Training and Development, Mauritius Institute of Health (MIH), the University of Mauritius, and the University of Technology. International awarding bodies include the City and Guilds and the Association of Business Executives.

One of the functions of the MQA is to register and accredit training institutions. Currently, around 525 training providers are registered with the MQA, offering TVET programmes both with and without awards. Training institutions have to meet strict requirements regarding safety, security, finances, equipment, resources and infrastructure. The MQA has formulated a set of quality assurance standards in accordance with the MQA Act 2001, starting with the registration of training institutions and staff, and the accreditation of programmes. Institutions are registered for up to three years subject to continued compliance with conditions and regulations, in order to safeguard the interests of learners. The MQA accredits courses through a three-stage process:

(a) a self-evaluation report is prepared by the training institution based on criteria defined by the MQA;
(b) the report is validated following an on-site visit by a team appointed by the MQA;
(c) accreditation is recommended by the accreditation committee and approved by the director of the MQA.

The MQA also approves non-award courses intended to upgrade skills and employability. Approval of non-award courses not only ensures the quality of education and training offered, but also encourages lifelong learning. However, non-award courses are not registered on the MQF.

Levels and use of learning outcomes

The MQF is a 10-level framework ranging from the certificate of primary education at level 1 up to doctorates at level 10. It covers all three education sectors: primary and secondary education, technical and vocational education and training (TVET) and tertiary education. This tripartite structure allows for the integration of academic and vocational awards. Each level of the MQF is accompanied by a level descriptor which states expected learning outcomes. The focus on learning outcomes represents an important shift in attitude.

Recognising and validating non-formal and informal learning and learning pathways

A significant proportion of the Mauritian labour force built their careers through apprenticeships without having undergone any academic or formal training. Such people, who were previously shut out of the education and training system, are catered for under the MQF through recognition of prior learning (RPL) mechanisms. Under the new system, informal and non-formal learning have the same status and value as formal education, a major reform of the TVET sector.

The MQA introduced the concept of RPL into the education system with the aim to 'recognise and validate competences for the purpose of certification obtained outside the formal education and training systems'. RPL renders visible and rewards knowledge and skills, no matter what learning environment they were acquired in, allowing individuals greater mobility within the labour market. People who have dropped out of the education and training system can now re-enter it without starting again at the lowest level. They can acquire qualifications from levels 2 to 4 of the MQF through

Table 61 Mauritius' national qualifications framework			
Levels	**Primary/secondary education**	**TVET/workplace**	**Tertiary education**
10			Doctorate
9			Master Degrees e.g. MA, MSc, M.Phil. Postgraduate certificates, postgraduate diplomas
8			Bachelor with honours, conversion programmes
7			Bachelor (ordinary degree)
6		Diploma	Diploma
5	HSC/GCE 'A' level/BAC/IBAC	Certificate	Certificate
4			
3	SC/GCE 'O' level		
2			
1	Certificate of Primary Education		

Source: Allgoo, (2010).

validation of their prior learning. This boosts their self-esteem and promotes lifelong learning.

The RPL model has been widely accepted by all stakeholders. Employers have welcomed RPL since it provides them with qualified and well-motivated personnel. Since the pathways for further learning have been clearly defined, some trade unions have shown greater interest in the system. RPL candidates' knowledge and skills are assessed under the MQF by matching them with a fixed set of unit standards, which are the building blocks of qualifications. An MQF qualification comprises an average of 25 unit standards. Each unit standard is developed for a specified level, and defines the depth and breadth of the subject matter at that level. An applicant whose knowledge and skills satisfy the outcome requirements of a qualification can acquire either a full formal qualification or a record of learning through RPL.

Pilot RPL projects have been funded by the National Empowerment Foundation. Training of RPL facilitators and assessors is a continuous process with the ultimate aim of implementing RPL in all sectors. Awareness campaigns have been organised throughout the island to inform the public about the development and benefits of the MQF and RPL.

RPL reform in Mauritius would not have been possible without the vital support of the Ministry of Education and Human Resources.

Referencing to regional frameworks

Mutual recognition and harmonisation of qualifications frameworks across the globe is rapidly becoming a necessity. The MQA has signed memorandums of technical cooperation with Barbados, Botswana, Namibia, Gambia Ghana, Réunion, Seychelles, Tanzania, and Zambia. The MQA is working in close collaboration with countries in the African region through the Virtual University for Small States of the Commonwealth, an initiative of ministers of education which aims to build human resource capacity in small Commonwealth countries to stimulate an increase in the courses they offer and to facilitate the transfer of credits and qualified people across borders.

Important lessons and future plans

The process of designing and implementing the MQF has led to enhanced synergy between academia and the TVET sector, as well as between education and training, and the world of work. This is partly due to the improved visibility of the outcomes of non-formal and informal learning as a result of the MQF.

Cooperation and capacity-building are at the forefront of government plans for the future of the MQF. A significant number of international students are expected to enrol in TVET programmes in Mauritius in the near future. In preparation, the government plans to set up a control cell at the

level of the MQA and a software application for student tracking. Such a system would serve as a reporting tool which would help to further the country's ambition to become a knowledge hub and a centre for educational excellence.

In the next phase of consolidation, the MQA plans to intensify its efforts to increase public awareness of the benefits of the NQF. This will entail holding seminars and conferences across Mauritius and Rodrigues, as well as publishing press advertisements, pamphlets and brochures. Maintaining the MQF, however, remains the core priority of the MQA.

Abbreviations

MIH	Mauritius Institute of Health
MQA	Mauritius Qualifications Authority
MQF	Mauritius qualifications framework
NQF	national qualifications framework
RPL	recognition of prior learning
TVET	technical and vocational education and training

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Prepared by:
UNESCO in collaboration with national experts.

MEXICO

Introduction and context

The Mexican qualifications framework (*Marco Mexicano de Cualificaciones* (MMC)) is a comprehensive framework developed by the General Directorate of Accreditation, Authorisation and Recognition (*Dirección General de Acreditación, Incorporación y Revalidación* (DGAIR)), within the Secretariat of Public Education (SEP) (DGAIR, 2011a).

While Mexico's economic productivity has grown over the last two decades, the pace of growth today is lower than in other emerging economies. This is largely attributable to deficiencies in human capital, workforce training and education. The country was ranked 100th overall out of 148 countries, 124th in mathematics and science, 81st in information and communications technology, and 75th in the uptake of new technology in business.

Due to demographic changes and migration of many young people to the USA, gradual aging of the population has taken place. At the same time, the proportion of people who never entered school or who left school early is higher than those who are registered in initial education. Regardless of these facts, Mexican society is credentialist and places high importance on qualification levels. Raising levels of education, skills development and social engagement are therefore seen as crucial for the continued development of a strong social and economic democracy in Mexico.

Over the last decade, capacity building in higher education has been the main concern of Mexican higher education policy. The gross enrolment ratio (GER) of 19- to 23-year-olds was only 13% in 1991-92, yet reached 32.4 two decades later. In 2008, however, Mexico's enrolment was still the lowest among the larger Latin American countries - including Argentina, Brazil and Chile- and was the lowest recorded by the Organisation for Economic Cooperation and Development (OECD), where most countries are well above 50 or even 70% (as in the Nordic region).

Most of the growth in Mexican higher education has been at the *licenciatura* level (first degree, requiring four-and-a-half to five years of study); shorter vocational higher education grew at a much slower pace and represents only 1% of graduates in Mexico compared to an OECD average of 9%. In recent years, Mexico's attention has focused more on postgraduate studies.

A major priority of SEP is to increase the contribution of higher education to the development of the country and its transition to the knowledge society. Graduates currently experience a higher than average private return on their higher education studies, with smoother access to the labour market than elsewhere in Latin America and in Europe.

Policy objectives

The main objectives of the MMC are to:

(a) serve as reference for the certification process, which is the responsibility of DGAIR;
(b) recognise partial qualifications through the accumulation and transfer of credits;
(c) recognise existing qualifications in the national education system in cooperation with other national bodies and institutions;
(d) recognise learning outcomes from formal, non-formal and informal learning;
(e) support the readability and coherence of each qualification in the national education system;
(f) improve the quality, accessibility and comparability of qualifications and labour certification by explicitly classifying qualifications according to complexity of level descriptors;
(g) cover all sectors: general education, higher education, vocational and technical education and labour competences; learning in formal, non-formal and informal learning settings; plus knowledge, skills and broader social and personal competences, aptitudes and values;
(h) improve comparability between different education subsystems – formal, non-formal and informal – and between vocational education and training and labour competences.

The national system of competence standards (NSCS) is a framework for recognition and accreditation of labour competences. It is based on six strategic principles:

(a) helping employers, workers, educators and the government to work together to improve economic competitiveness and growth;
(b) involving all sector leaders in setting agendas and making decisions;
(c) encouraging employers and workers to play an active role in designing the NSCS, fostering demand for competent workers;
(d) offering recognition and certification to all who require it, including private sector and the self-employed, government workers, teachers and students;
(e) developing education curricula aligned to the NSCS;
(f) promoting new paradigms for assessment based on demonstration of competences in addition to traditional knowledge tests.

Levels and use of learning outcomes

The MMC has eight levels and is similar in design to the European qualifications framework (EQF).

Competences are evaluated through the NSCS, which, in addition to providing for technical and professional education, includes five levels dedicated to vocational qualifications.

The five labour competence level descriptors developed by the National Council for Standardisation and Certification of Labour Competences (CONOCER) are aligned with the first five levels in the MMC. CONOCER adopts a holistic approach to competences. 'Competence' may refer to any combination of the following:

(a) the knowledge and abilities required to execute a particular function in any service or manufacturing sector;
(b) social skills, including the ability to work in teams and build social networks based on relationships of trust with others;
(c) attitudes, including self-reliance and resilience, motivation to achieve projected goals, and the strength to fight for one's beliefs;
(d) intellectual competences, including the ability to generate new ideas;
(e) ethical competences, including core values and a sense of right and wrong.

Table 62 Mexican qualifications framework (MMC)

MMC levels	Reference to UNESCO ISCED levels	Reference to the levels in the MMC in general and university education
8	ISCED 8: Doctoral level education or equivalent	Doctorate
7	ISCED 7: Master level education or equivalent	Master degree (7B) Diploma of higher specialisation (7A)
6	ISCED 6: Bachelor level or equivalent	Bachelor degree
5	ISCED 5: Short-cycle tertiary education or equivalent	Professional licence (5B) Technical licence (5B) Associate professional (5A) Superior technician (5A)
4	ISCED 4: Post-secondary non-tertiary education	Superior technician
3	ISCED 3: Upper secondary education	General secondary or equivalent (3B) Vocational secondary technician (3B) Basic technician (3A) Assistant technician (3A)
2	ISCED 2: Lower secondary education	Secondary
1	ISCED 1: Primary education	Primary
0	ISCED 1: Early childhood education	Preschool (0B)

NB: ISCED is UNESCO's international standard classification of education (UIS, 2012).
Source: Mexican Qualifications Framework (MMC, 2014).

Stakeholder involvement and institutional arrangements

DGAIR is responsible for the development of the Mexican Qualifications Framework (MMC); its other related responsibilities include regulating and assessing the national system of accreditation and certification of studies, promoting the national and international mobility of students, regulating the operation of private providers of education, and allocating scholarships.

Stakeholders from all sectors (industry, education and civil society) have participated in the development of the MMC, and CONOCER has been active on issues related to the national system of competence standards (NSCS) and on equivalences with formal educational degrees. The NSCS was created by CONOCER to organise, implement and regulate the recognition and accreditation of all learning: formal, non-formal and informal. A government organisation with a three-party governance model, CONOCER provides a platform for linking education and the world of work, to make the Mexican labour force more competitive. NSCS recognition practices are agreed by all stakeholders: employers, workers, educators and the government. They are designed to ensure that Mexican society has a competent workforce, promoting economic growth, educational development and social progress. Mexico's NSCS is sustained by three institutional pillars:

(a) sector committees;
(b) mechanisms for alignment between education curricula and on-the-job training;
(c) a national structure for evaluation and certification.

Sector committees comprising employers and workers develop competence standards for the economic sector they represent. They may also adjust education curricula and recommend the creation of ad-hoc programmes. Members are high-level executives and experts from key areas (production, logistics, sales, purchasing, human resources, research and development), as well as representatives of employers' organisations, social organisations and government institutions.

Mechanisms for aligning educational curricula with on-the-job training depend on competence standards developed by the sector committees. These are formally enshrined in the national register of competence standards, which functions as a national reference for CONOCER-certified affiliates.

The national structure for evaluation and certification is a network of training, evaluation and certification providers which provides credibility to users, both within the country and internationally.

All formal basic education and most upper-medium (baccalaureate and technological) education is coordinated by the Secretariat of Public Education (SEP); however, some institutions for upper-medium education are run or recognised by autonomous universities or by the National Polytechnic Institute (IPN) ([358]). The SEP issues nationally valid formal certificates at the end of primary, secondary, upper-medium and higher education, and confers technical titles on completion of a specialisation in upper-medium technological education. On behalf of the SEP, the General Directorate of (Liberal) Professions registers and confers *títulos* (titles) on completion of bachelor's and master's degrees, and doctorates.

The Secretariats of Education, Labour and Economy, which belong to the governing board of CONOCER, have been working together for some time on improving training, evaluation and certification in the workplace. This involves identifying the sectors of the economy that are most in need of greater human capital, and using competence standards to make education curricula more relevant to the needs of these sectors.

Recognising and validating non-formal and informal learning and learning pathways

Since the 1990s, lifelong learning has played an increasingly important role in the thinking of Mexican policy-makers, with several related measures introduced. The conception and development of Agreement 286 (and the associated agreements) is a key policy response to the above challenges. It is designed to give learners access to all levels of the education system by offering an alternative pathway to that provided by the formal system. This act also allows equivalences of competence certificates with credits of formal education programmes at vocational and professional levels. The Mexican approach distinguishes between separate pathways to the same educational or qualification outcome. Informal and non-formal pathways, though outside the traditional institutional structures, are nevertheless considered significant enough to be deemed equivalent pathways to a qualification (Campero Cuenca et al., 2008).

There is a subsectoral approach to recognition of non-formal and informal learning, with different

([358]) Instituto Politécnico Nacional (IPN).

approaches in primary and secondary education, higher education and the employment sector.

The national education system covers all schools in the country, public (federal and state) and private. It consists of four main levels: basic education; upper-middle (baccalaureate and technological) education, which can be either terminal or a preparation for further study; bachelor degrees; and postgraduate degrees (including specialisations, master degrees and doctoral degrees). The system also includes training-for-work via technical diplomas. Alternative pathways for basic education for youth and adults as well as certification are the main responsibility of the National Institute for Adult Education (INEA) ([359]).

Standards for recognising the competences of employers and workers are developed by CONOCER, which also accredits assessment and certification unit standards and issues official labour competence certificates. Companies, whatever their focus, are now legally obliged to provide their employees with training and skills development based on competence standards set out in the NSCS. Assessment is based on portfolios of evidence, observation of work performance, interviews and demonstration of knowledge. Where necessary, attitudes, behaviour and personal values may also be assessed.

Assessment tools are designed to have a positive impact on the career development of both employers and employees, contributing to the success of the organisation. Trainees in some international companies in Mexico are even involved in designing their own learning processes and in recognising and validating competences gained. In most companies, however, models for assessment are still in the process of being developed.
Policies for the recognition of prior learning (RPL) are designed to provide value and credibility for employers, workers, educators and society in general. This involves:

(a) recognising competences that are relevant to a particular sector;
(b) conducting recognition and accreditation in a way that is credible for employers;
(c) providing mobility and better working conditions, including higher salaries, for employees;
(d) generating information to help align education curricula with the requirements of industrial sectors.

([359]) El Instituto Nacional para la Educación de los Adultos (INEA).

Certification of competences under the NSCS is largely driven by the need to make certain industries more economically competitive. Certification often occurs as a result of a personal decision by employers, trade unions, academic institutions or individuals within the industry concerned. In the case of voluntary work, certification is often mandatory in order to comply with the legal requirements of government institutions, government-funded civil organisations, or international institutions.
There are specific programmes for certification of competences for disabled people, non-Spanish-speaking indigenous people and social workers serving these sectors, as well as in childcare and women's protection. Low-skilled workers who lack formal education can have their labour competences evaluated and certified by a national programme managed by INEA and credited by CONOCER. The SEP is continually engaged in identifying targets for RPL in particular industries and areas of the country. Employers and trade unions play a significant role in this, both in the design of training programmes and in the evaluation and certification of workers' competences according to the NSCS framework.

NQF implementation

Implementation of the Mexican qualifications framework benefits from the comprehensive quality assurance system and the link to the Mexican Bank of Academic Credits.

Curricula in recognised national educational institutions are set by DGAIR and certificates awarded by SEP (De Anda, 2010, pp. 5-8). Outside the national education system, *constancias* (diplomas) are awarded for certain courses and for non-formal education. Following completion of certain legally required procedures, these diplomas can be recognised by SEP as equivalent to qualifications in the national system.

In October 2012, the Secretariat of Public Education introduced the Mexican bank of academic credits ([360]). This allows certificates of accredited certification centres, including those from CONOCER, to count towards formal educational programmes at upper-middle and higher levels.

Referencing to regional frameworks

Both the MQF and the NSCS aspire to create links with international qualifications frameworks

([360]) Article 8 of the Announcement published by DGAIR on the official Mexican Government diary of 4 October 2012.

in supporting labour mobility within the country, the region and eventually the wider world (García-Bullé, 2013).

In light of the internationalisation of higher education, Mexico is developing transparency tools to aid mobility and academic cooperation across regions, particularly with the European Union. Historically, the emphasis for 'good-quality' higher education has been cooperation and mobility with the USA. Proximity and the North American free trade agreements (NAFTA) play a big role in US-Mexico trade and migration relations.

Important lessons and future plans

While several of the reforms in qualifications and credit systems have been initiated by DGAIR, they can only be successfully implemented with the full support of the federal government as a whole.

The MMC has supported the work of CONOCER by setting out equivalences between labour certificates and formal educational degrees.

The recognition model of CONOCER is succeeding. More than 706,000 certificates were issued up to 2016 and there is an expected growth of 36% annually. The national competence standard system, although promoted and regulated by government, is driven by employers and workers. Social partners (employers, trade unions, and the voluntary sector) participate in the design and development of competence standards through sector committees responsible for evaluating and certifying workers in their sectors. These standards are then utilised by the education sector for curriculum adjustments and validation.

Although RPL of labour competences is promoted, regulated and financed by the federal government through CONOCER, it is driven by employers, workers' associations and academic institutions.

At a deeper level, the success of the Mexican initiative is perhaps also explained by the fact that it is fundamentally motivated by a desire to increase competitiveness to promote progress and prosperity. Operational issues of training, evaluation and certification, although critical, are seen as instruments for the pursuit of this aim and not as ends in themselves.

Further sources of information

National Council for Standardisation and Certification of Labour Competences (CONOCER): http://www.conocer.gob.mx

World Bank, population data bank: http://data.worldbank.org/indicator/SP.POP.TOTL?locations=MX&order=wbapi_data_value_2011+wbapi_data_value+wbapi_data_value-last&sort=desc

Table 63 Mexican Bank of academic credits

MQF levels	Levels	Documentation of certification (NSCS)	Credits
8	Doctorate		300 credits (3 years)
7	Master degree	Diploma of higher specialisation	60-120 credits (1-2 years)
6	Professional licence	Specialised diploma	240-300 (4-5 years)
5	Superior technician	Advanced diploma	120-180 (2-3.5 years)
4	Professional Technician	Certificate IV	136-180 (2-3 years)
3	Bachelor degree	Certificate III	91-135 (1-2 years)
2	Secondary	Certificate II	46-90 (3 years)
1	Primary	Certificate I	1-45 (6 years)

Source: DGAIR, 2011b.

Abbreviations

CONOCER	National Council for Standardisation and Certification of Labour Competences
DGAIR	General Directorate of Accreditation, Authorisation and Recognition
INEA	National Institute for Adult Education
IPN	National Polytechnic Institute
MMC	Mexican qualifications framework
NAFTA	North American free trade agreement
NSCS	national system of competence standards
RPL	recognition of prior learning
SEP	Secretariat of Public Education

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MOLDOVA

Introduction and context

NQF snapshot

Moldova adopted its national qualifications framework (NQF) in 2010. Its higher education (HE) and vocational education and training (VET) components have developed separately but the country is seeking to merge both aspects. An eight-level NQF is, therefore, being developed, based on outcomes and broader lifelong learning principles.

Moldova participates in the Bologna process in higher education and the European area for higher education.

Moldova has developed tools and approaches to create new qualifications and now needs to move towards implementation and delivery.

Educational, social, economic and political context

The World Bank classifies the Republic of Moldova as a lower-middle income country, with a population of 3.5 million. Most of the population (57.6%) lives in rural areas. The demographic trend shows continuing negative population growth of 0.2% per annum since 2000 (World Bank), which is partly caused by heavy outward migration (12.9% of the population was working abroad in 2015) ([361]).

By 2015, 888 000 Moldovans were living and working abroad, contributing 23.4% to the global national GDP (ILO, July 2016). Poverty remains high, making the country the poorest in Europe (GDP per capita in 2015 was 5 039 USD). More than half the GDP is concentrated in the capital Chisinau. Although there is economic growth, inequality is also increasing and poverty is concentrated in rural areas.
The active population continues to decrease, falling to under two-fifths of the total population. The employment rate is only 40.3% of the working age population. Unemployment is relatively low (4.9%) but the majority of people are considered inactive. These figures, however, include 25% of the working age population who live abroad as migrants, most of whom are from rural areas where 40% of the working age population has emigrated. Productivity in Moldova is among the lowest in the region, reflecting an incomplete transition from the Soviet-era command economy, informal employment and education and skills challenges.

In 2013, 29% of the employed were engaged in agriculture, 53% in services and 18% in industry and construction. One in four of the employed work in the public sector. The majority (59%) work for SMEs.

Growing emigration, combined with demographic decline, challenge the myth that the Moldovan pool of labour is plentiful, skilled and cheap. There are substantial imbalances between supply and demand in the labour market and a shortage of skilled workers. A 2014 study by the Moldovan Organisation for SME Development (ODIMM) indicated that 57% of interviewees had difficulties in finding suitable staff.

In November 2014, the European Parliament ratified the Association Agreement between the EU and the Republic of Moldova, aiming to strengthen Moldova's political association and economic integration with the EU and including a gradual implementation of a Deep and comprehensive free trade area. By signing the Association Agreement, Moldova committed itself to a complex process, which will provide a policy roadmap for the country's economic development over the longer term. Employment and education/training are two of 28 key sector policy areas which the EU and Moldova have identified for future enhanced cooperation.

In 2015 Moldova experienced political, economic and financial turmoil caused by government instability (five cabinets in the past year) and large-scale fraud in the financial sector. Three national banks collapsed at a cost of 12% of GDP.

([361]) National Bureau of Statistics of the Republic of Moldova, 2015.

The National Employment Service is constantly monitoring the labour market. The Professions Barometer for 2014 indicates skill shortages for doctors, nurses, marketing and sales managers, software and other engineers. There is also an increased demand for tailors, cooks and confectioners, waiters and bartenders, cashiers and sales assistants. Occupations for which there is oversupply are also indicated.

Vocational education still lacks appeal. The number of students enrolled in secondary vocational and secondary specialised education decreased by more than 50% during the past 20 years. During the past five years, the number of people enrolled in VET continued to fall with 20% fewer graduates today than five years ago. In 2012/13, 11.6% of young people entered secondary VET and 9.7% entered secondary specialised education.

With a decreasing population, participation in higher education has also fallen, but higher education still offers, on average, better labour market outcomes for individuals. However, the benefits over VET are decreasing and the phenomenon of over-education (people finding jobs below their level of education) is increasing.

The government is committed to reforms in education and training, starting with the adoption of the Strategy for the Development of Technical Vocational Education for 2013-20, which defines Moldova's vision and priorities for VET development from the perspective of lifelong learning. The aim, by 2020 is to make VET, more attractive, of better quality, more relevant to labour market needs, more affordable, career-oriented and flexible, and, moreover, to gain recognition of VET diplomas and the validation of non-formal and informal learning to promote mobility in Europe.

The main challenges to be addressed by the NQF can be summarised as follows:

(a) education and training need to respond better to current labour market demands, through the development of relevant outcomes-based qualifications. The present education system has very few VET national standards (53) that are quality-assured and meet the needs of the labour market;
(b) there is still a challenge in moving from a focus on setting curricula to a stronger orientation on assessing achieved learning outcomes. Standards for different subsectors of the education system, and the provision of adult learning, should be better aligned to improve movement between education and training and to facilitate lifelong learning, including validating non-formal and informal learning;
(c) the migration, and reintegration, of workers is a major concern, and the lack of transparency and transferability of skills is one of a number of factors preventing returning migrants accessing employment that matches their skills;
(d) the governance structure of VET is characterised by the concentration of policy processes and implementation functions within the Ministry of Education. Intermediary organisations have been created over several years, but have only recently been strengthened. There is scope to involve the labour market and social actors more in governance, within clearly defined roles.

Policy objectives

Education and training reforms

Dissatisfaction with the existing education and training system among the general population is one of the main reasons for the education reforms that underpin the development of the NQF in the Republic of Moldova.

A range of policy documents have been adopted recently to create a much clearer policy framework for education and training reforms and for the NQF. These include the Moldova 2020 strategy, the Strategy for the Development of Technical and Vocational Education 2013-20, the Strategy for the Development of Education 2014-20, the new Education Code 2014, the Association Agreement between the Republic of Moldova and the EU and the Association Agenda.

These policies underline the importance and need of an integrated lifelong learning approach: to develop VET and adult learning; to improve access, relevance and the quality of education; and to adapt and diversify the changes to needs identified in the labour market. The NQF is a tool for each of these policy documents.

The Moldova 2020 National Development Strategy recognises that professional training is a key dimension for sustainable development. The first of the seven development priorities is 'linking the education system to labour market demands in order to increase productivity and employment'.

According to the Strategy for the Development of Technical Vocational Education 2013-20, technical vocational education has to become: attractive, qualitative, and relevant to market demands; affordable, career-oriented and flexible; and must allow for the validation of non-formal and informal learning and for mobility throughout Europe in compliance with the provisions of the Copenhagen

Process and the Bruges Communiqué. Graduates of the technical vocational education system should have increased employment opportunities because of the key skills, attitudes and professional competences acquired. The modernisation of professional training and the improvement of mechanisms for continuous in-work training will enable people to adapt to new labour market conditions. Strategic partnerships between the education system and the labour market should be created to allow the education system to adapt quantitatively, qualitatively and structurally to labour demand. Technical and vocational education providers will provide training at level 3 and 4 of the NQF, merging secondary VET and secondary specialised education into one integrated system. VET graduates should expect enhanced job opportunities as a result of improved key skills, attitudes and professional competences. A National Quality Agency should be responsible for assessment and accreditation of providers; and curricula and trainer development should be aligned with the NQF.

The Strategy for Education 2020 stresses the importance of the quality of education, competences and lifelong learning and, particularly, the relevance of the labour market. It defines policies for better access, improved relevance, enhanced quality and a stronger focus on the efficiency of public expenditure in education and training. It goes beyond the VET strategy, providing a detailed analysis of the situation in each subsector of the education system and proposes concrete actions as solutions. It stresses that adult learning provision should be extended in line with social and economic needs, and better integrated with the initial education system. The structures and quality of education in Moldova should make it comparable with the European area for education. New policies should be tested and then improved. Solutions that have worked well elsewhere should be considered for adoption, and the role of institutions should be clarified and developed.

The Strategy for Education 2020 was adopted following the introduction of the new Education Code (2014), which provides the legal basis of the reforms, including a strong orientation towards lifelong learning that includes general, technical vocational, higher education and continuous training for adults. Learning outcomes established for eight key competences should be provided to every citizen, together with the introduction of a credit system, as well as a system for the recognition of non-formal and informal learning.

International cooperation

The Association Agreement and the Association Agenda state that Moldova and the EU shall cooperate to develop a national qualifications framework to improve the transparency and recognition of qualifications and competences.

Article 122: 'The Parties shall cooperate to promote lifelong learning and encourage cooperation and transparency at all levels of education and training, with a special focus on higher education.'

Article 123: `The cooperation shall focus, inter alia, on the following areas:
[...]
(e) establishing a national qualification framework to improve the transparency and recognition of qualifications and competences;
(f) promoting the aims set out in the Copenhagen process on enhanced European cooperation in vocational education and training.'

Levels and use of learning outcomes

Scope and structure of NQF

The NQFRM is designed to support a lifelong learning approach as an eight level framework that corresponds to the eight level descriptors defined in the European qualifications framework (EQF). The lifelong learning approach is an important facet of the EQF, as are the higher education Bologna reforms associated with the qualifications framework in the European higher education area (QF-EHEA). However, there are various interpretations of exactly what 'lifelong learning' can mean in practice.

Two different processes can be identified in Moldova. While discussion on the HE dimension of the national framework started in 2006, within the context of the Bologna commitments, the conceptualisation of a comprehensive NQF started relatively recently. Current progress towards developing an overarching NQF is driven by a desire to align to the EQF. Two approaches, therefore, are used to describe the structure of the NQF. The first is an occupationally oriented set of level descriptors based on three generalised indexes of human activity: diversity of empowerments and responsibility (general competences); complexity of activity (nature of competences); and scientific intensity of activity (knowledge). The second adopts a lifelong learning approach that can be directly referenced to the EQF but goes beyond EQF descriptors by covering not only knowledge, skills and competences, but also by including a chart describing how the given level of qualification can be attained. The existence

of two sets of level descriptors is not unique to Moldova. However, while the purpose of each set of level descriptors is explained, using two different sets does not promote an integrated approach to the NQF. From a technical point of view it seems feasible to integrate both sets of descriptors.

A draft Act was issued in September 2016 setting up the national qualifications framework of the Republic of Moldova, providing instructions for its implementation, functioning and administrative supervision in accordance with Articles 66 and 97 of the Education Code. The NQF is defined as 'a unique system at the national level or at the level of an education system, known and accepted by the international community, and through which all qualifications and other achievements in the field of vocational education can be reported to each other in a coherent way through a series of concepts: qualification, knowledge, abilities, competences, skills, study outcomes, etc.'

Alignment to other classification systems

The new classifier of occupations of the Republic of Moldova is based on both international standards (ISCO 08), identifying nomenclatures of occupations/professions and specialties for the education and training of staff through VET, and on the Education Code, which is a basis for institutionalising the reforms within the vocational training system.

The qualifications awarded by TVET institutions will be included in the National register of qualifications in professional education, developed by the Ministry of Education, in cooperation with the relevant central bodies (Education Code, Article 66).

The qualifications awarded in higher education will be included in the National register of qualifications in higher education, managed by the Ministry of Education (Education Code, Article 97).

NQF levels

The national qualification framework of Moldova has eight levels, analogous to the European qualifications framework:

(a) level 1 and 2 qualifications are awarded for general education, practical training and various forms of individual training, including workplace or education programmes for adults;
(b) level 3 is for secondary technical vocational education;
(c) level 4 is for post-secondary vocational and technical education;
(d) level 5 is for post-secondary, non-tertiary technical vocational education;
(e) levels 6, 7 and 8 are awarded for higher education qualifications: cycle I: Licence (bachelor); cycle II: master; cycle III: doctorate.

Qualification levels define the quantitative and qualitative parameters of professional skills that the graduate must have to carry out the job/profession or specialty, in accordance with the NQF. In VET institutions, qualifications can be obtained in accordance with the national qualification framework nomenclature (NQFRM) of areas of vocational training and trades/professions and the nomenclature of vocational training areas, specialties and qualifications for secondary and non-tertiary post-secondary VET.

Level descriptors

NQFRM qualification levels determine the knowledge, skills and competences a person can demonstrate on completion of learning. The description of qualification level structures in relation to study/learning outcomes is analogous to that of the European qualifications framework:

(a) knowledge is described as theoretical and/or factual;
(b) skills are described as cognitive (involving the use of logical thinking, intuitive and creative thinking), or practical (involving manual dexterity and use of methods, materials, tools and instruments);
(c) competences are described in terms of responsibility and autonomy.

Use of learning outcomes

A professional qualification is based on a standardised format that describes learning outcomes in line with labour market requirements, specified in the occupational standard. Each qualification is defined by the professional competences (knowledge and skills) and transversal skills acquired during the respective level of education.

Included in the national qualifications framework for higher education in Moldova is a matrix-table covering: skill levels, categories and types of skills, generic descriptors of skills and level descriptors for higher education qualifications.

Definition of qualification

Occupational standards form the basis of vocational qualifications and are defined as 'the process of formal validation of acquired skills in the formal, non-formal and informal education context, as a result of the standard assessment procedure'.

Qualifications – according to the reference framework of the university curriculum (2015) – represent official recognition of the value of individual learning outcomes both for the labour market and for continuous study and training through an education document (diploma, certificate, attestation), conferring the legal right to practice an occupation/profession. Each qualification is defined through the learning outcomes, expressed in terms of professional knowledge and competences achieved during the relevant period of study.

Qualification (in the draft Act of September 2016) is defined as an 'official recognition of the value of individual learning outcomes both for the labour market and for continuous education and training, through a study document (diploma, certificate) awarding the legal right to practice a profession/ trade'.

Qualification standards

The term 'qualification standard' is not used as such. According to Article 66 of the Education Code, the qualifications in technical and vocational education shall be awarded in line with the national qualifications framework, based on occupational standards for each level of VET, in line with the European qualifications framework and the skills required for the labour market.

The methodology (approved by Government Decision No 863 of 8 October 2014) states that occupational standards are the basis for the description of qualifications and the development of educational standards related to the vocational training of workers, according to labour market requirements.

An occupational standard is a description of the specific professional duties and tasks related to professions from a particular domain and the qualitative benchmarks associated with their successful performance and professional training need to be adjusted to labour market demands. The authority responsible for the qualitative development of occupational standards is the respective Sectoral Committee.

Qualifications development process

According to the Education Code, professional qualifications (VET and HE) shall be awarded in line with the NQF and developed on the basis of occupational standards. NQF is developed by the Ministry of Education, in collaboration with the relevant ministries, sectoral committees, technical vocational education institutions, economic agents and other social partners, and is approved by the government. The qualification levels shall establish the quantitative and qualitative parameters of the professional skills a graduate needs to have to work in a particular trade/ profession or specialty, in line with the NQF.

According to the methodology (for the development of occupational standards for working professions No 863 of 8 October 2014) the development of occupational standards is coordinated by the Ministry of Labour, Social Protection and Family. Ministries, and the relevant central administrative authorities, are responsible for: verifying the quality of occupational standards, developed in a given branch; approving occupational standards that have been developed; and cooperating with the sectoral committees to complete the development of occupational standards.

Currently six equivalent sectoral committees have been established in different economic sectors, each containing representatives of social partners at branch level. Each committee is responsible for developing occupational standards in its sector by: mapping relevant occupations; approving standards in stages according to agreed methodology and an integrated management process; setting up working groups to develop a clear occupational standard profile and commissions to evaluate and validate standards; and identifying financial resources.

The general process of qualification development ultimately involves a group of stakeholders with different interests. It is the responsibility of those involved to recognise these trends and to reach an agreement and consensus in the drafting process.

According to the process for developing occupational standards set out in the methodology, the standards will be developed in the following stages:

(a) development of the occupational profile;
(b) assessment and validation of the occupational profile;
(c) development of the occupational standards according to the approved format;
(d) assessment and validation of occupational standards;
(e) approving the occupational standard.

Currently the NQF has been approved for 143 qualifications in higher education and 53 professional qualifications for VET.

Access, progression and credit

Access to VET is provided for by Article 60 of the Education Code of the Republic of Moldova No 152 of 17 July 2014.

With the emphasis on lifelong learning, the permeability and progression pathways are likely to be strengthened, although improved progression routes in education are not mentioned as a specific goal. The emphasis on the eight key competences that have been identified in the Strategy for Education is seen as an implicit condition for improved mobility and progression opportunities. The upgrading and quality enhancement of the network of VET providers could certainly boost the reputation of VET and hence bring it closer in status to higher education.

In accordance with the Education Code, the modules/subjects of the VET training programmes, which are used as the basis for awarding professional qualifications, can be expressed in credits under the European credit transfer system, based on agreements between training programme providers.

In higher education the European Credit Transfer and Accumulation System (ECTS) shall be applied. The ECTS credits shall measure the student's workload in an academic course/subject during a time unit. The methodology for applying the credit transfer and accumulation system shall be approved by the Ministry of Education.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The Education Code of the Republic of Moldova No 152 of 17 July 2014 states:

(a) Article 66, paragraph 2: 'The national framework of qualifications shall be developed by the Ministry of Education, together with the relevant ministries, sector committees, vocational education institutions, businesses and other social partners, and shall be approved by the Government.'
(b) Article 97: 'The national framework of qualifications in higher education shall ensure the transparency, academic mobility and the recognition of international diplomas.'

A draft Act (September 2014) set up the national qualifications framework of the Republic of Moldova and provides the basis for its implementation, functioning and administrative supervision, and is developed according to Articles 66 and 97 of the Education Code.

In addition to the Education Code several related legislative acts are linked to the national qualification framework's implementation:

(a) Government decision No 863 of 8 October 2014 on the development of occupational standards for specific professions;
(b) Government decision No 191 of 22 April 2015, regulation on the organisation and functioning of the National Agency for Quality Assurance in Vocational Education;
(c) Order of the Ministry of Education No 1228 of 22 December 2015: approval of the Quality Management Guide in VET for ensuring the quality of VET;
(d) Order of the Ministry of Education No 550 of 10 June 2015; Official Monitor of the Republic of Moldova, 2015, No. 206-210; Article 1362, 'Framework on the organisation and functioning of post-secondary and non-tertiary post-secondary VET institutions';
(e) Order of the Ministry of Education No 840 of 21 August 2015; Official Monitor of the Republic of Moldova, 2015, No 275-280; Article 1918 'on the organisation and functioning of secondary VET institutions and technical vocational education institutions';
(f) Education Development Strategy for 2014-20.

Governance and institutional arrangements for the NQF

The NQFRM has been developed by the Ministry of Education, in collaboration with the relevant ministries, sectoral committees, VET institutions, businesses and other social partners and approved by the government.

The NQF in higher education shall be developed by the Ministry of Education in collaboration with central bodies and higher education institutions, economic units, and other social partners and shall be approved by the government.

The Ministry of Education, in cooperation with the relevant central bodies, developed the National register of qualifications for professional education in which the qualifications awarded by the technical and vocational education and training institutions shall be included.

In higher education, the government, at the Ministry of Education's request, shall approve the Nomenclature of professional training fields and specialties by mutual agreement with the relevant ministries.

The methodology for applying the credit transfer and accumulation system shall be approved by the Ministry of Education.

In higher education, the content standards and standards for competence shall be developed by the

Ministry of Education by professional training fields and shall be approved by the government.

According to the Education Code, the National Agency for Quality Assurance in Professional Education is responsible for developing a methodology for evaluating and accrediting providers of training programmes in VET and higher education. For secondary vocational education it will evaluate the curriculum, the education process and learning outcomes. The agency will establish criteria for the qualifying examination. This applies both to the summative assessment of formal education and to the validation of non-formal and informal learning. The quality assurance agency may develop into a qualifications agency, but this has not yet been decided. The Ministry of Education will maintain the National register of qualifications.

The certification of knowledge and skills acquired in non-formal education and informal contexts can be made under a regulation approved by the Ministry of Education.

The framework regulation on the work of the sectoral committee in vocational training has been approved by Decision of the National Commission for Consultation and Collective Bargaining No 4 of 28 March 2012. The Commission for Consultation and Collective Bargaining has decided that this committee will be established at the branch level as a consultative body, without legal status, on parity principles of representatives of the social partners. Not less than three members and two alternates from each will be appointed for a period of at least five years without being paid.

In 2011 a procedure and format for the development of occupational standards was established, with the full involvement of the social partners, and approved by the Prime Minister (Government Decision No 952/2011). Sector committees are in charge of drafting new and reviewing existing occupational standards. The sector committees have been established by the National Committee for Collective Bargaining and Consultation. There are currently five sector committees, covering construction, agriculture and food, transport and road infrastructure, and the recently established information and communication technologies and trade workers and non-food sectors (both within the Ministry of the Economy).

For the development of occupational standards, the sector committees established the following working groups and commissions:

(a) the working group for occupational analysis and development of occupational profiles;
(b) the working group for developing occupational standards;
(c) the occupational standards verification and validation committee charged with verifying and validating occupational standards. As a next step the National Council for Occupational Standards needs to examine and approve the occupational standards before they are adopted by a common order of the Ministry of Education and the Ministry of Labour, Social Protection and Family.

Roles and functions of actors and stakeholders

There are currently six sectoral committees with their own rules of activity and regulation framework and which operate as advisory bodies without legal status.

Article 8 of the Code of Education encourages social dialogue and partnership between education institutions and trade unions, business environments, civil society and media, and in research. The Ministry of Education plans and implements national development strategies of the education system in consultation with central government and local authorities and social partners.

Resources and funding

Resources for implementing the NQF are:

(a) the EU budget support programme (EUR 25 million);
(b) the EU project Technical assistance for the education and training in Moldova funded by the EU and implemented by a consortium led by the German company GOPA Worldwide Consultants;
(c) the State budget, where available.

Quality assurance of qualifications

All qualifications in the NQFRM must be quality assured. In practice, effective quality assurance is still being developed. VET legislation states that quality assessment shall be carried out based on the national reference and accreditation standards and methodology developed by the National Agency for Quality Assurance in Professional Education (NAQAVET) and approved by the government. It aims to improve institutional capacity, educational efficiency (including academic outcomes), and the quality of training programmes and institutional management, to achieve consistency between internal and external assessments. External assessment of the quality of technical and vocational education and training will be carried out by NAQAVET, as well as by other authorised structures.

Internal assessment of the quality of TVET shall be carried out by the institutional structures for quality assurance, based on the national reference and accreditation standards, as well as on institutional regulation.

The Education Code (17 August 2014) defines quality assurance arrangements. A specific article of the draft Act of September 2016, which set up the national qualifications framework of the Republic of Moldova, specifies the assurance quality role of the NQFRM.

The Government Decision No 191 (22 April 2015) approved the regulation on the organisation and functioning of the National Agency for Quality Assurance in Professional Education. The agency's Governing Board is composed of 15 members (president, vice president, general secretary plus 12 members). The agency is composed of:

(a) three departments: Higher Education Accreditation Department (one person); Higher Education Evaluation Department (two people); VET Department (two people);
(b) two services: the economic-financial and legal service (two people); the human resources, public relations and secretariat service (two people).

The methodology for external quality assessment, for authorising the temporary functioning and accreditation of curricula (programmes) in TVET, higher education and continuing education, and the regulation for calculating charges for rendered services in the external evaluation of the quality of study programmes in TVET, higher education and continuing education, was approved by Government Decision No 616 of 18 May 2016.

On 17 December 2015 in Brussels, the European Association for Quality Assurance in Higher Education (ENQA) accepted the National Agency for Quality Assurance in VET as an affiliate member.

Recognising and validating non-formal and informal learning and learning pathways

Recognition of non-formal and informal learning is one of the policy priorities of the Government of the Republic of Moldova. Article 123 of the Education Code provides for the certification of knowledge and skills acquired in non-formal education.

Piloting in food processing and electrical repair has been carried out.

NQF implementation

Inclusion of qualifications in a register

The Education Code states that approved qualifications shall be included in the register of qualifications. Currently, 143 qualifications in higher education and 53 professional qualifications in VET have been NQF approved. 14 qualifications in VET were developed and validated in 2016. Nevertheless, the register as such is still in development.

Monitoring, evaluation and review of the NQF

No evaluation has yet taken place.

Impact for end-users

The NQF has not yet been used as a reference system or tool by end users.

Referencing to regional frameworks

A strong motivation for the Republic of Moldova to develop an NQF is the link to the EQF and alignment with the qualifications framework of the European area for higher education.

Although Moldovan documents refer to the EQF, there is no reference to the EQF in the association agreement, despite the fact that the development of the NQF is discussed.

Important lessons and future plans

The new Education Code incorporates all the legal, institutional and technical arrangements required for the development and settlement of a NQF for lifelong learning. Other strengths include the development of the NQFRM, aligned to the European Qualifications Framework, as a unique tool establishing a training qualifications structure contributing to national and international recognition of the skills achieved in the formal national education system or through non-formal and informal learning; the creation of the National Agency for Quality Assurance in VET; and the commitment of social partners though sectoral committees.

The Association Agreement and the Association Agenda specify that Moldova and the EU shall cooperate to develop a national qualifications framework to improve the transparency and recognition of qualifications and competences.

The draft act setting up the national qualifications framework of the Republic of

Moldova has been issued. It is currently in the process of public consultation.

Achieving the development of an overarching NQF for lifelong learning (a unified framework) remains the main domestic strategy. Moldova also needs to establish legal and technical arrangements to implement systems for validation of non-formal and informal learning and to create a register of qualifications.

The State authorities also need to include and upgrade the status of the sectoral committees – currently, they operate without legal status.

The country should also map qualifications and define qualification types.

Abbreviations

ENQA	European Association of Quality Assurance in Higher Education
EQF	European qualifications framework
NAQAVET	National Agency for Quality Assurance in Professional Education
NQF	national qualifications framework
NQFRM	national qualifications framework of the Republic of Moldova
ODIMM	Moldavian Organisation for SME Development
QF-EHEA	qualifications framework in the European higher education area
VET	vocational education and training

Prepared by:
the European Training Foundation (ETF).

MONTENEGRO

Introduction and context

NQF snapshot

Montenegro's national qualifications framework was adopted by law in 2010. It is lifelong learning in scope and consists of eight qualification levels, with sublevels at levels I, IV and VII.

The framework is managed by the Montenegro Qualifications Council, in cooperation with the National Council of Education and Higher Education Council.

The Montenegrin qualifications framework (MQF) is advanced in its implementation and qualifications have been integrated into its levels. It referenced to the EQF and self-certified against the qualifications framework of the European higher education area (EHEA) in November 2014.

Educational, social, economic and political context

Montenegro has a population of 622 099 (2015), which is ageing. According to preliminary data from the Montenegrin Statistical Office (MONSTAT), GDP growth in 2015 was 3.2%. Construction and tourism are the biggest economic sectors. Short-term indicators for the first quarter of 2016 indicate weak total economic activity due to a reduction in industrial manufacturing, even though at the same time there was increased activity in construction and tourism. According to preliminary MONSTAT data, real GDP growth in the first quarter of 2016 was 1.1%.

Positive trends in the labour market are visible through increased employment, declining unemployment and small wage rises overall. The employment rate (for the age group 15 to 64) shows an increase from 50.4% in 2014 to 51.4% in 2015. The unemployment rate for the same age group decreased from 18.2% in 2014 to 17.8% in 2015. The unemployment rate of women (15 to 64) in 2015 was 17.6% (18.4% in 2014) and their employment rate was 46.9% (45.3% in 2014), which is five percentage points lower than for men.

The total NEETs rate (not in employment, education or training) of the 15 to 24 age group grew in 2015 to 19.1%

Performance related to ET2020 benchmarks and the headline indicators of Europe 2020 is variable. The country performs best against the following two indicators:

Early leavers from education and training (18 to 24): at 5.7%, Montenegro stands better than the EU-28 average of 11.4% (2015).

Attainment in tertiary education (30 to 34): at 31% in 2015, the country is close to the EU-28 average of 38.7%.

However, difficulties persist for other indicators. Adult participation in learning (25 to 64) reached 3% in 2015, against the EU average of 10.7%. Underachievement in reading, mathematics and science (measured by PISA assessment) is at 33% in all three areas.

Policy objectives

Education and training reforms

The government adopted the Vocational education development strategy in Montenegro (2015-20) in December 2014. Priorities for the next two-year period are:

(a) revision of existing and development of new educational programmes, based on learning outcomes;
(b) creating conditions for work-based learning in all sectors and enhancing its quality;
(c) ensuring that students develop vocational and key competences for life and work;
(d) improving initial and continuing teacher education;
(e) defining enrolment policy reflecting labour market needs and the demands of long-term and short-term developmental policies in Montenegro.

The foundation for introducing and developing the NQF was laid through the work carried out in setting up the NQF framework, which was adopted in law in 2010. The main reform objectives linked with the NQF are to introduce transparent learning outcomes; link education and training subsectors; facilitate the validation of non-formal learning; and to make it easier to obtain qualifications and pursue lifelong learning.

International cooperation

Montenegro submitted its application for EU membership on 15 December 2008. On 17 December 2010, Montenegro was awarded candidate status by the European Council. Formal accession negotiations between Montenegro and the EU began on 29 June 2012. The first accession chapter, Chapter 25 on science and research, was provisionally closed on 18 December 2012, while Chapter 26 on education and culture was closed on 15 April 2013.

Levels and use of learning outcomes

Scope and structure of NQF

The Montenegrin qualifications framework (MQF) has eight qualification levels, with sublevels at levels I, IV and VII. The NQF is comprehensive (all levels) and inclusive, i.e. open for qualifications acquired through formal and non-formal/informal pathways of learning. Levels and sublevels have their descriptors, each based on three categories: knowledge, skills and competences.

Each qualification included in the framework includes learning outcomes that are described through these three categories of descriptors and each higher level incorporates knowledge, skills and competences from the lower level. MQF includes three types of qualifications: education qualifications, vocational qualifications and additional qualifications.

NQF levels

NQF qualifications are placed in eight qualification levels, with sublevels at levels I, IV and VII. Sublevels at levels I, IV and VII reflect the need to facilitate the placement of non-outcomes-based qualifications attained in the education system prior to adopting the Law on MQF.

The referencing of NQF levels to the EQF established a demonstrable connection between NQF and EQF level descriptors in the following manner:

(a) NQF level 1 (1.1 and 1.2) and EQF level 1;
(b) NQF level 2 and EQF level 2;
(c) NQF level 3 and EQF level 3;
(d) NQF level 4 (4.1 and 4.2) and EQF level 4;
(e) NQF level 5 and EQF level 5;
(f) NQF level 6 and EQF level 6;
(g) NQF level 7 (7.1 and 7.2) and EQF level 7;
(h) NQF level 8 and EQF level 8.

Alignment to other classification systems

The national qualifications framework includes 15 sectors, including humanities, sciences engineering, construction, law, IT and agriculture.

Descriptors

Levels of knowledge, skills and competences progress, so that descriptors at level I, for example, represent the basic knowledge, skills and competences, while at level VII1, for example, they reflect more complex expectations in terms of depth and breadth of knowledge, skills and competences.

Knowledge is defined as a set of acquired and correlated information that is the result of learning. Skills represent the abilities to apply knowledge when solving tasks and problems and can be cognitive and manual (practical). Competence includes the ability to apply knowledge and skills that an individual demonstrates in a working or learning environment. They include autonomy and responsibility.

Use of learning outcomes

Learning outcomes are the central concept of the NQF structure. They are statements which indicate what an individual knows, understands and is able to do at the end of a learning process, regardless of the manner in which s/he learned. Qualifications are included in the NQF based on the complexity of accomplished learning outcomes, described through knowledge, skills and competences in eight levels of the qualifications framework.

The Qualifications Council has adopted the Guidelines for sectoral commissions, the Guidelines for qualifications development (levels 1 to 5), the Methodology for assigning codes to qualifications, and the Methodology for placing qualifications in the National Qualifications Framework. The National Council for Education has adopted the Methodology for modularisation and credit valuation of education programmes in vocational education. With the adoption of these documents, conditions have been created to develop qualifications in compliance with the National Qualifications Framework Act, i.e. based on the learning outcomes approach.

Table 64 Montenegrin NQF

Level	Knowledge	Skills	Competence
I_1	Basic knowledge of simple facts and notions within the field of work or discipline	Basic linguistic and mathematical literacy; development of practical skills when performing a smaller number of familiar repetitive tasks, using basic tools and materials	Work in entirely predictable and familiar repetitive situations; very low independence in performing tasks and activities; performance of tasks and activities is under direct supervision; no responsibility for the work of others
I_2	Basic general knowledge, knowledge of basic facts and notions within a discipline or field of work or a discipline allowing further systematic learning	Basic linguistic, mathematical and computer literacy; basic knowledge of natural and social sciences and basics of civic competence; performance of basic tasks planned beforehand, in familiar, seldom changing circumstances, using basic methods, tools and materials, under clear guidelines	Performance of activities and tasks in predictable and familiar situations; limited independence in performing simple, familiar tasks and activities under direct supervision; performance evaluation is done according to simple criteria; no responsibility for the work of others
II	Basic general and functional professional knowledge that can be applied in practice within a field of work or discipline	Basic functional linguistic, mathematical, computer literacy, use of basic knowledge of natural and social sciences and basics of civic literacy; performance of less demanding, previously defined tasks and activities in familiar conditions; handling machines with simple procedures and with simple tools and devices, according to detailed instructions	Performance of activities under periodic supervision, ability to cope with simple problems in situations related to a certain field or discipline; evaluation of one's own performance is done according to the basic criteria in one's own field of work, with limited responsibility for quality
III	Basic general and professional knowledge, along with knowledge of facts, principles and processes in the field of work or discipline	Cognitive and practical skills that allow handling familiar and less familiar situations; moderately demanding, less standardised and relatively clear tasks and activities, involving different materials, tools, equipment and devices in production and services	Ability to perform tasks and activities that are not always defined beforehand, with a higher degree of responsibility and independence; work is conducted in line with general instructions; plan, prepare, organise and evaluate own performance and performance of individuals and a smaller group, within the authority given in advance as well as within own scope of work
IV_1	Systematic and comprehensive general and professional knowledge in a discipline or a field of work, which include correlating facts and theoretical principles and enable further systematic learning	Application of different cognitive and practical skills, based on theoretical knowledge and principles required for problem solving and performance of different tasks in a field of work or discipline	Independence in solving tasks within a discipline or a field of work, along with predicting consequences concerning the decisions made and actions taken; responsibility for one's own work and the work of a group, as well as evaluation of performance according to the set criteria
IV_2	Specialised professional knowledge concerning processes, tools, materials and devices within the narrow field of expertise	Understanding of theoretical principles and their practical application in problem solving; performance of various, more demanding and specific tasks in partly unpredictable situations, including the use of different tools, devices and methods	Independence in handling different and specific problems within the field of expertise; preparation and organisation of one's own work and the work of others, including responsibility for their work; ability to transfer knowledge related to one's own scope of work to others; evaluation of one's own performance and performance of a group according to the general and specific criteria in the field of expertise

Level	Knowledge	Skills	Competence
V	Comprehensive systematic professional knowledge in a specific field of work, which enables critical understanding of concepts, principles, technologies and methods of work	Performance of a large number of diverse and complex tasks in new and unfamiliar situations, using different methods, techniques and procedures	Independence in decision-making in new and unfamiliar situations within the scope of work, introducing modifications and improvements in planning and organising processes affecting quality improvement of tasks and activities; responsibility for performance of a group, evaluation of one's own work, work of a group and for processes
VI	Demonstrate a wide and integrated range of theoretical and practical knowledge from the related subject or discipline, allowing the understanding and application of professional knowledge in the field of study; use knowledge based on current developments and critical reflection on a certain subject or discipline; demonstrate critical reflection on one's own creative potential and the ability to choose and apply main theories and principles, concepts and terminology within a given field; identify arguments for resolving problems within one's own field and is able to defend them	Have command of certain methods, skills, techniques/practices and materials related to a subject or a discipline, some of which are specialised or advanced; apply routine methods of enquiry and/or research; collect and interpret relevant data in their own field, using an entire range of sources; provide critical evaluation of problems and/or synthesis of ideas, concepts, information and matters; use a range of general skills, monitor and apply the development of new techniques and technologies; recognise main problems on the basis of research and by integrating knowledge from new or interdisciplinary fields, showing the ability to perform selection and apply relevant approaches and tools in order to resolve problems and complete tasks; apply knowledge of manners reflecting a professional approach to work and practice, as well as show the ability to develop ideas and arguments; possess problem solving ability; is able to form opinions on the basis of incomplete or limited information; show awareness of their own potential and motivation for upgrading their own knowledge, skills and competences	Demonstrate management ability, as well as innovative abilities in unfamiliar and unpredictable work contexts using a range of techniques; resolve problems that involve many factors in conditions in which there are no adequate sources of relevant information; is independent in taking initiative in some less demanding activities concerning implementation of a certain subject/discipline; take clear responsibility for the work and training of others and make continuous evaluation of their own work and responsibility towards work; demonstrate teamwork abilities under the leadership of other competent persons; demonstrate creativity in developing projects and initiatives; make judgements on the basis of social and ethical matters that occur during the course of work and study, requesting guidelines (instructions) where necessary

Level	Knowledge	Skills	Competence
VII_1	Demonstrate theoretical and practical experience, which represents a basis for originality in professional work and/or application of ideas; integrate a majority of main professional fields, terminology and conventions in a discipline (or a set of related subject fields, as is the case in medicine); develop highly specialised theoretical and practical knowledge within a particular subject/discipline in a range of related subject fields based on relevant scientific discoveries; demonstrate knowledge of current matters and trends in one or more subjects/disciplines and related subject fields and demonstrate awareness and understanding of main theories, principles, concepts and ability to apply them; critically consider, consolidate and expand knowledge, skills and practice in their own subject/discipline; acquired knowledge forms the basis for development and application of original ideas and solutions, as well as a good basis for further specialisation and continuation of education, with a view to progression towards higher qualification levels	Use a range of main skills, techniques, practices and/or materials related to a field/discipline (or a set of related subject fields such as those in medicine); monitor and apply new techniques and technologies; apply particular skills, practices and/or materials that are more specialised or advanced; apply a range of standards and specialised research tools and inquiry techniques and show the ability to participate in scientific research; diagnose, define and analyse complex problems in their own field, drawing conclusions and giving recommendations by using and integrating all knowledge from their own, as well as other related fields; develop original and creative answers to particular problems and questions; demonstrate the ability to make critical evaluation of their own performance and motivation for continuous improvement of their own knowledge, skills and competences; is capable of scientific research teamwork, as well as of distinctive individual contribution to work	Demonstrate the ability to work efficiently on a specific and/or multidisciplinary subject as a team member, contributing to a new manner of thinking and problem solving; work professionally under leadership, in cooperation with colleagues and qualified persons from the field of practice; take responsibility for their own work and/or responsibility for the work of others; critically review their own and other people's roles and responsibilities, show the ability to work and handle a situation in various unfamiliar and complex work conditions and fields of exploration and resolve problems within those contexts; is independent and takes initiative in tasks or activities related to work and/or research; participate in professional discussions, formulate and present arguments and solutions for main problems from the academic field and profession; deal with complex ethical and professional matters in line with the existing regulations and professional orientation

Level	Knowledge	Skills	Competence
VII_2	Demonstrate highly specialised theoretical and practical knowledge which integrates most of the major fields of a subject/ discipline, knowledge of terminology and conventions; use theoretical and practical knowledge related to the latest scientific achievements; demonstrate critical understanding of main theories, principles, concepts and matters related to a subject/ discipline in their own field and intersections of different fields; demonstrate originality and creativity in the application of one's own knowledge; have a good basis for engaging in scientific research and making further progress in science with the aim of obtaining a PhD degree	Use a wide range of skills, techniques, practices and/or materials related to a subject /discipline, including a range of specialised ones which represent the latest achievements; use information from the latest scientific discoveries; use a range of advanced and specialised general skills; is able to apply a range of standards and specialised research or equivalent tools and techniques in research; identify problem(s) on the basis of research by applying latest discoveries or practices from own field or from interdisciplinary fields; address complex issues and make conscious decisions in situations lacking complete or consistent data/information; demonstrate originality and creativity in the application of knowledge, skills, practices while working on a subject; communicate with own colleagues, colleagues of higher rank and specialists; demonstrate motivation for continuous improvement of personal scientific knowledge; is capable of explaining results and methods of projects to both a professional audience and laypersons, by using appropriate techniques	Have significant autonomy and initiative in conducting activities; demonstrate the ability to manage and introduce novelties in complex and unfamiliar working and teaching contexts; have the ability to solve problems in the absence of relevant information; take responsibility for own work as well as a significant part of responsibility for others; carry out evaluation of team performance, showing skills required for project management; possess innovation ability and ability for reasoned problem solving; demonstrate leadership skills and/or take initiative; is able to work in complex ethical and social circumstances and make decisions related to matters for which there are currently no regulations or guidelines
VIII	Demonstrate a wide range of knowledge from a particular field of research; use professional knowledge for critical analysis, evaluation and relation of complex ideas that are entirely new in a particular field; enrich or redefine existing knowledge and/or professional practice in one and/ or several overlapping fields; form or manage scientific and research teams, independently connect, interpret and present results of scientific research	Select and use appropriate methodologies; demonstrate advanced skills in collecting, managing, obtaining and analysing data in complex environments; apply highly developed informational, scientific and educational, and technological skills, as well as project management skills and expertise in scientific research; is able to interpret data and defend arguments; possess skills for high level communication with the scientific community; demonstrate expertise in dissemination and publishing of scientific results and works; possess the ability of scientific networking with colleagues within research fields; have the ability of excellent communication in one of the most common foreign languages in the international research community; lead, research, develop and manage a project; diagnose a problem and reach a solution on the basis of incomplete and limited information	Identify the field of research; demonstrate the ability to conduct research independently; solve problems by integrating complex and at times incomplete sources of knowledge in new and unfamiliar contexts; choose, plan and initiate research work in a manageable way; respect ethical principles in research; contribute to the originality of research within a given field; is able to upgrade knowledge or apply knowledge in a new context (previously not explored) or improve methodology; react to social, ethical problems that occur during work and study; demonstrate quality in management and abilities for innovation in unfamiliar, complex or unpredictable work or teaching contexts; demonstrate commitment, determination and persistence in work

Source: Report referencing the Montenegrin qualifications framework to the European qualifications framework for LLL and the QF-EHEA, November 2014.

Definition of qualification

The National Qualifications Framework Act defines three types of qualifications (groups of types of qualifications): education qualifications, vocational qualifications and additional qualifications.

An education qualification is attained on completion of a State-approved education or study programme and the attainment of the necessary qualification volume (measured by units of learning outcomes). This qualification is obtained within the formal education system and validated with a diploma. The procedures for awarding education qualifications are set by the National Qualification Framework Act in conjunction with other education acts and rulebooks.

A vocational qualification is awarded after the assessment of formally and informally attained knowledge or upon completion of a special programme of education. It may also be attained after the successful completion of part (a module) of a formal education programme that corresponds to an occupational standard. A vocational qualification is validated with a certificate. The procedures for awarding vocational qualifications are set by the National Vocational Qualifications Act and the National Qualification Framework Act.

Additional qualifications are required for undertaking a specific task or set of tasks, upon attaining basic qualifications, and are mostly demanded by employers. These qualifications do not increase the basic qualification level, but instead supplement it by indicating additional individual competences needed for progressing in the labour market, such as a professional exam for a job in education. They are validated with a certificate, confirmation or a proof, in line with the particular regulation.

Development process of qualifications

Montenegro has developed 220 occupational standards and 53 qualification standards. Currently, there are 23 occupational standards undergoing verification. There are separate methodologies for the development of occupational standards and for the development of qualification standards.

Qualification development at levels I to V encompasses the development of an occupational, educational or additional standard and of a qualification standard. The qualification standard is based on an occupational, educational or other standard. An education programme, special programme of education or other programmes are based on a qualification standard, on completion of which a learner is awarded the relevant qualification (education level, vocational or additional qualification).

The VET Centre develops occupational and qualification standards for level V qualifications, in cooperation with social partners. These standards incorporate a basic description – the profile of a qualification that includes learning outcomes – and are presented in the qualification development initiative.

For qualifications from level VI onwards, higher education institutions develop a study programme using a description: a profile of qualification that includes basic learning outcomes, defines objectives and outcomes for specific subjects or modules, and assigns credit points programmes (subjects/modules).

Access, progression and credit

Vocational education and training

Vocational education provision in Montenegro:

(a) lower vocational education (two years): completion leads to the award of a lower vocational education qualification;
(b) secondary vocational education (three or four years): completion leads to the award of a three-year or four-year secondary vocational education qualification;
(c) post-secondary vocational education (including two years of continued secondary vocational education): completion leads to the award of a higher vocational education qualification;
(d) the master craftsman's exam is also classified as vocational education.

After successful completion of two-year education, it is possible to continue studies for a third year, by taking additional programmes. A student who completes a two-year or three-year programme may continue his/her studies to a four-year programme after taking and passing additional courses. Candidates who pass the externally assessed vocational exam may enrol directly at a post-secondary vocational school. Individuals who pass the master craftsman's exam may also enrol at a post-secondary vocational school, after they take and pass additional exams (general education subjects).

An individual who graduates from a four-year vocational school, and wishes to obtain the general secondary (gymnasium) *matura* qualification is eligible to take the *matura* course. An individual who graduates from the general secondary school (gymnasium), and wishes to obtain a four-year

vocational school diploma is eligible to take the relevant vocational course.

Higher education

Since 2004, all higher education institutions in Montenegro have been required to apply the European credit transfer and accumulation system (ECTS). Student workload per study year is 60 credits. Workload per subject is indicated through a numerical value corresponding to the overall workload per study year, i.e. the 60 credits.

The Law on the MQF introduced the Montenegrin credit transfer system (MCTS), which provides for learning outcomes achieved in one context to be taken into account in another. It is based on assessment, confirmation and recognition processes, and is aligned with the ECTS and with the European credit system for vocational education and training (ECVET).

One MCTS is awarded for 25 hours of work, which is fully compatible with the ECTS. Student workload per subject/course is determined by the number of hours of lectures, seminar papers needed to master a subject: achieve a set objective, including learning outcomes.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The Montenegrin system of qualifications is determined by the Law on the Montenegrin qualifications framework (adopted in December 2010), the Rulebook on descriptors for qualification levels and sublevels ([362]), the Rulebook on procedures for developing qualifications from level I to level V ([363]), the Rulebook on procedures for developing qualifications from level VI to level VIII ([364]), as well as by a range of additional education regulations, including the National Vocational Qualifications Act.

The Law on the MQF sets out the legal basis for the establishment of a single framework covering all types and levels of qualifications. The law establishes the legal basis for new bodies to oversee the development and approval of qualifications, specifies the levels and sublevels, the types of qualification, the types of award and certification and describes the system of credit transfer.

Roles and functions of actors and stakeholders

The Ministry of Education is responsible for planning, implementing and improving education policy. It calls on the professional expertise of three advisory bodies: the Qualifications Council, the National Council for Education and the Higher Education Council to support the implementation of reform.

The Qualifications Council is responsible for the development and inclusion of qualifications in the framework and the improvement of the qualifications system. It adopts basic qualification descriptions: learning outcomes, estimates of the labour market needs and international comparability, occupational standards and qualification standards. The Council also makes decisions on aligning existing qualifications for their inclusion in the qualification framework, defines criteria for nominating the members of sectoral commissions, adopts instructions and guidelines for the work of sectoral commissions, coordinates their work and makes decisions on their proposals, adopts decisions on the establishment of sectoral commissions, decides on definitions for subsectors and fields within a qualification sector at the proposal of sectoral commissions, and promotes the qualification framework.

Members of the Council are: higher education institutions (public and private); Employment Agency of Montenegro; Ministry of Labour and Social Welfare; Chamber of Economy, representative of employers' associations, representative of trade unions, Ministry of Education, the Centre for Vocational Education, the Bureau for Educational Services, Examination Centre.

The Qualifications Council has set up sectoral commissions for each of the 15 qualification sectors. The sectoral commissions perform a range of tasks, including analysing the labour market, identifying the need for, and proposing, new qualifications and providing the specifications for new qualifications.

The National Council for Education determines the compatibility of qualification standards and education programmes and makes proposals for the adoption of publicly valid education programmes to the Ministry. The Council is responsible for: the qualification attainment process; the organisation

([362]) Rulebook on descriptors for qualification levels and sublevels. *Official Gazette of Montenegro*, 51/11.
([363]) Rulebook on procedures for developing qualifications from level I to level V. *Official Gazette of Montenegro*, 21/12.
([364]) Rulebook on procedures for developing qualifications from level VI to level VIII. *Official Gazette of Montenegro*, 21/12.

of formal education, programmes for adults, programmes for children with special educational needs, exams at the end of educational cycles, elective subjects, textbooks and teachers.

The Higher Education Council is responsible for quality assurance in higher education, notably the accreditation procedure of study programmes and the reaccreditation of higher education institutions.

Other key institutions are the Vocational Education and Training Centre, responsible for development, advisory support, and research in vocational education for young people and adults; and the Examination Centre, which conducts the external assessment of knowledge, skills and competences at the end of each primary education cycle, exams at the end of four-year secondary education, as well as assessments for the award of national vocational qualifications.

Resources and funding

Montenegro allocates resources from the State budget to assure the operation of the qualifications unit at the Ministry of Education and in 2015 a budget was allocated to support the operation of the sectoral commissions. It has also used EU funding, for example to set up qualifications databases.

Quality assurance of qualifications

The legal framework of the quality assurance model in formal education and its implementation is defined in the provisions of the General Act on Education, and in provisions within the relevant rulebooks. The quality assurance obligations and procedures of education and training institutions come into force at the time they are licensed, and thereafter via external and internal assessment.

Licensing of education and training institutions

Quality assurance at the point of entry into the education system is ensured through a procedure of licensing institutions that offer State-approved educational programmes, in compliance with the relevant rulebooks. These processes apply to public and private education institutions and they are carried out by commissions set up by the Ministry of Education.

External and internal assessment

The quality assessment of an institution has external and internal dimensions. The combination of findings from both processes helps institutions have an in-depth understanding of the quality of their provision and procedures – essential for plans and decisions for improvement.

External quality assessment, in accordance with the relevant secondary education, is carried out at least once in four years, and is based on a methodology for the quality assessment of education that incorporates seven key indicators with 49 sub-indicators. External quality assessment is conducted by the Bureau for Educational Services (BES) in general education or the BES and the VET Centre in VET schools. The quality assessment report will suggest measures for improving the quality of delivery of the school's provision. Based on the report's recommendations, the institution will draft a quality improvement plan, which is submitted to the Bureau for Educational Services (BES) or to the VET Centre and Ministry of Education.

Internal evaluation has been carried out in VET schools since 2011. This model incorporates key quantitative and qualitative indicators relevant to the quality of the schools' teaching and learning and for student achievement. IVET quantitative self-evaluation indicators are aligned with the equivalent EQAVET indicators.

Up to the level of higher education, external assessment of student achievements at the end of each cycle or level of education is conducted by the Examination Centre of Montenegro ([365]). The graduation examination *(matura)* is taken externally, upon completion of the fourth year of general secondary school (gymnasium), in two compulsory subjects (the Montenegrin language or mother tongue and literature, and mathematics or a first foreign language) and two elective subjects, with defined graduation standards. Students who have taken vocational examinations and who want to continue their education in higher education institutions, must take an external examination in the Montenegrin language or mother tongue and literature, and mathematics or the first foreign language, depending on the vocational school's profile. The vocational part of the exam, typically for a qualification profile, is organised by the school, but the examination itself is prepared externally.

Recognising and validating non-formal and informal learning and learning pathways

Adult learners may also obtain a national vocational qualification, which is verified with a certificate, in accordance with the National Vocational Qualifications Act. To achieve a national vocational qualification, knowledge, skills, and

([365]) General Act on Education, Article 41b.

competences must be assessed and verified by the Examination Centre, regardless of the method of their attainment, after which a publicly recognised certificate is issued.

The National Vocational Qualifications Act enables individuals to obtain a nationally recognised vocational qualification through initial assessment of their previously acquired knowledge, followed by a subsequent assessment after they complete a programme of education, or when they complete a part or a module of a programme, if that part is based on an occupational standard. Occupational standards link formal education and non-formal and informal learning, for qualification levels I to V.

NQF implementation

Inclusion of qualifications in a register

The qualifications database currently includes 53 qualifications (certificates and diplomas) with containing at least a complete description of codes, learning outcomes, credit structures, progression to related qualifications, and assessment methods ([366]).

Monitoring, evaluation and review of the NQF

Montenegro monitors and reports on progress and issues to be solved as regards NQF implementation through the reporting procedures linked with the Riga objectives.

Impact for end-users

Learners are using the qualifications in the framework and some candidates have obtained certificates via validation of non-formal learning.

Referencing to regional frameworks

Montenegro participates as a full member in the EQF process; it is a member of the EQF advisory group, the EU group which guides the EQF's implementation, and referenced the MQF to the EQF in November 2014. Montenegro is a full member of the Bologna process and its self-certification report (QF EHEA) was presented in November 2014, in a joint report with EQF referencing ([367]).

Important lessons and future plans

Montenegro's development of its NQF has been influenced and supported by its EU accession goals, and indeed EU financial support, itself part of the accession preparation.

The MQF's sectoral commissions are functioning and are critical for achieving genuine implementation.

In its regular reporting on the Riga objectives (2015) Montenegro stressed the need to improve the matching of skills and qualifications demanded by the economy, and the qualifications available and provided by the education and training system. More and better involvement of the world of work (businesses, sectors, workers) in designing and awarding qualifications is one of the proposed solutions for this structural issue.

Continuing teacher professional development, enabling teachers to improve the application of the learning outcomes approach in various learning contexts (classroom, laboratories, workshops, work-context), is also required.

Abbreviations

BES	Bureau for Education Services
CEV	Centre for Vocational Education
ECTS	the European credit transfer and accumulation system
ECVET	the European credit system for vocational education and training
EQF	European qualifications framework
EQAVET	European quality assurance reference framework in vocational education and training
HEC	Higher Education Council
MCTS	Montenegrin credit transfer system
MONSTAT	Statistical Office of Montenegro
MQC	Montenegrin Qualification Council
MQF	Montenegrin qualifications framework
NEETs	young people not in employment, education or training

Prepared by:
the European Training Foundation (ETF).

([366]) Complete details are available at: www.cko.edu.me
([367]) https://ec.europa.eu/ploteus/documentation

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Introduction and context

NQF snapshot

No national qualifications framework (NQF) legal acts have been approved to date, but work is under way to establish the appropriate NQF legal basis. The inaugural meeting of the National NQF Commission held on 23 May 2016 under the leadership of the Prime Minister took three fundamental decisions: approving the NQF governance scheme; the roadmap 2016-17 for NQF development; and the NQF concept and structure. Unlike other countries, the Moroccan NQF level descriptors are composed of six categories.

Morocco is at the initial stage of NQF development.

Educational, social, economic and political context

Education and training and social context

The Moroccan Government and society are aware of the important social and economic challenges to be addressed through better education and training for all. In this context the country has developed and started implementation of a number of strategic and policy plans to improve participation, quality, governance and innovation of the whole system of education and training (Vision 2030); to strengthen the performance and outcomes of vocational education and training (VET) (National strategy VET 2021); progressed the draft of the new Framework law on education; and established and made operational the new Agency for Accreditation and Evaluation of Higher Education. The vision set out in the VET strategy 2021 is 'Quality VET for all and throughout life, to support development, valorisation of human capital and competitiveness'. ([368])

Morocco has maintained a high ratio of education budget to GDP (between 5.5% in 2000 and 7.7% in 2013) over the past decade ([369]). Gross enrolment rates in all levels of education improved significantly, but the persistence of high school drop-out rates (between 3.2% (ISCED 1) and 11% (ISCED 3) ([370]) remain a serious challenge in terms of social inclusion, preparedness for lifelong learning and competitiveness of the labour force.

The share of the working age population with low educational attainment remains high, despite progress. Official statistics (2013) classify 59.8% of the population over 15 years in the category 'without diploma', with a clear gender bias. Holders of higher education qualifications represent 12.8% of the population 15 and over, while 27.4% have medium level diplomas. Tertiary educational attainment (age group 25 to 34) was 9.8% in 2013. These indicators show a marked difference compared with EU-28 figures. The literacy of the population improved substantially, though the illiteracy rate is still high (2012) ([371]): 25% (men) and 48% (women) ([372]).

Enrolment in initial vocational education and training (IVET) continued to increase in 2015, particularly in the public sector: this was led by the key operator, the Office for Vocational Training and Promotion of Work (*Office pour la formation professionnelle et promotion du travail,* OFPPT). Growth in VET graduates has been stronger in qualifications of higher level (equivalent to EQF level 5), which reached 59% of total in 2013. Over half of graduates are concentrated in three sectors: management and commerce; metallurgy-mechanics; and construction.

The objective to increase the share of apprenticeships has not been met. Stakeholders and the government will have to put in place more effective measures to expand apprenticeships and their quality and relevance.

([368]) Ministère de l'Education Nationale et de la Formation Professionnelle (MENFP) (2015). *Stratégie Nationale de la Formation Professionnelle 2021* [unpublished].

([369]) ETF (2015), *Le Processus de Turin 2014*, p. 45.

([370]) Ministry of National Education (2012).

([371]) Ministry of Labour and Professional Integration (2015). *Bilan social 2014*, p.9.

([372]) Illiteracy rates in 1960 were 96% (women) and 78% (men). MEAS, 2015.

Aiming to improve the link of upper secondary school with vocational training, enhance permeability and curb early school leaving, the VET department, in a joint initiative with the employers' confederation (*Confédération Générale des Entreprises du Maroc* – CGEM), the MENFP, and several large companies, launched the Professional Baccalaureate in the academic year 2014-15. This pilot focuses on industrial maintenance, mechanical industry, aeronautical industry and management of agricultural land in five cities.

Morocco's population was approximately 34.4 million in 2015. In the past decade the demographic growth rate has decreased (to 1.3% annually); the population is estimated to reach 37.5 million in 2020. The shape of the age pyramid changed, with a growing share of the population over 60 and contraction of the share of the group below 15. This demographic transition translates into lowering pressure on the capacity of the school system, on one side, and strongly growing labour supply from the other. The age structure of the population is young; the working age population has grown steadily and doubled in three decades. In 2015, 26.6% population is young (15 to 24), 51% are women and 60.4% is urban ([373]).

Morocco is historically a country where emigration plays an important socioeconomic role. Official data show that 3 million Moroccans are resident abroad, primarily in the EU (Spain, France and Italy), but the real figure is thought to be higher (around 4.5 million).

Economic context

The economic performance of Morocco improved in the past decade, with GDP growth averaging 4.5% and, in 2015, recovering previous levels (4.5%) after two years of slowdown. The services and agriculture sectors have increased their share in GDP (to 56% and 16% respectively in 2014), unlike industry where the share continues to fall (28%, 2014). This trend reflects problems in the competitiveness of Moroccan companies and weak resilience to the effects of the Euro crisis. Morocco's ranking in the global competitiveness index slightly worsened to 73rd in 2011 and 72nd in 2014.

Despite government policies, economic growth has not translated into commensurate creation of decent jobs and the rate of employment growth is low. Job creation has grown mainly in the services sector and, to a lesser extent, in agriculture. But in construction and manufacturing (including crafts) the trend is negative and has resulted in net job losses. In 2014 almost 80% of the employed are concentrated in services and agriculture.

The share of wage employment has grown, including in rural areas. In 2014, 1.1 million persons were underemployed, an underemployment rate of 10.3% ([374]). This phenomenon is stronger in the construction sector, but is also in agriculture and fisheries, services and crafts. The most recent national statistics (2015) ([375]) confirm the growing trend of underemployment. In 2014 the employed population totalled 10 646 persons, of which 45% were wage employed.

Activity and employment rates (population 15 and over) continued to shrink. The activity rate declined from 51.5% in 2005 to 47.4% in 2015. The rate shows a substantial gender disparity (71.5% for men; 24.8% for women, 2015), which places Morocco among the lowest performers in the MENA region as far as female activity is concerned. The young (15 to 34) are 47.3% of the active population but the active youth population has been declining by an average of 0.3% annually (2000-12); the most affected are young women and the youngest group. Low activity affects urban Morocco more severely than rural. Factors explaining these trends are: discouragement of women and the young; expansion of schooling years for the young; growing share of women in household activity ([376]).

The employment rate continued to decline and was 41.2% in 2015 (15 to 64), marked by a strong gender difference (62.4% for men against 24.8% for women). Some of the features of employment highlighted by official sources – HCP ([377]) – that will continue to be strategic issues for policies are:

(a) 62% of the employed have no qualification (diploma); 38% hold a middle or higher level qualification. Agriculture has the highest concentration of the employed without diploma;
(b) female employment rate is 22.6% (13.9% in rural areas and 36.2% in urban);

([373]) Ministry of Employment and Social Affairs (2015). *Bilan social 2014*, p.8.

([374]) Ministry of Labour and Professional Integration (2015). *Bilan social 2014*, p. 22.

([375]) HCP (2015). *Note d'information du HCP au sujet de la situation du marché du travail au deuxième trimestre de l'année 2015.* http://www.hcp.ma/La-Situation-du-marche-du-travail-au-deuxieme-trimestre-de-l-annee-2015_a1585.html

([376]) Ministry of Labour and Professional Integration (2015). *Bilan social 2014*, pp.15-16.

([377]) HCP. *Note d'information du Haut Commissariat au Plan au sujet de la situation du marché du travail en 2014*, pp. 4-5. http://www.hcp.ma/La-Situation-du-marche-du-travail-en-2014_a1503.html

(c) the underemployment rate is 10.3%, with large sectoral discrepancies: 17% in construction; 10% in agriculture and fisheries; 9.4% in services; 8% in industry and crafts;
(d) 62.6% of employees have no regular labour contract. This rate is highest in agriculture and fisheries (91.6%);
(e) unpaid employment is 22.5% nationally (41.6% in rural areas);
(f) 79.5% of the employed have no medical insurance. Considering only the wage employed, this indicator is 58.2% nationally;
(g) 1.6% of the wage employed (2.1% in urban areas) have participated in training paid by the employer in the past 12 months;
(h) 3% of the employed are affiliated to a trade union (5% in rural areas). Even among the wage employed this rate is slow (6% nationally and 7% in urban zones).

The unemployment rate for 15 and over had stabilised at around 8.9% in 2011, but increased to 9.7% in 2015. It is much higher in urban areas (14.8%) than in rural (4.2%) ([378]). The unemployment rate of the age group 15 to 24 grew from 19.3% to 20.8% between 2013 and 2015. In 2014 the highest unemployment rates were among holders of higher education diplomas (20.9%) ([379]).

The NEET rate (15 to 24) was 27.9% in 2015, with marked gender difference (11.4% for men, 45.1% for women) ([380]).

Policy objectives

Education and training reforms

Stakeholders have high expectations of the NQF as a catalyst for change, as expressed in the NQF reference document:

(a) to strengthen the responsiveness of education and training programmes and qualifications to skill needs of the economy;
(b) to generalise the use of learning outcomes, which should reflect the knowledge, skills and competences required by the labour market;
(c) to serve as a 'label' of quality for qualifications allocated in the NQF;
(d) to improve permeability between different subsectors and encourage citizens' lifelong learning.

In this context, the limitations of the NQF may be a challenge for some stakeholders. The NQF contributes to improving transparency and linkages between subsectors and levels – for better individual mobility lifelong and life-wide. But the NQF alone cannot solve systemic problems related with dead-ends and limited permeability between levels/qualifications from different subsystems. Stakeholders/institutions need to define and use appropriate strategic and legal mechanisms, and pertinent technical, solutions to improve pathways and assure that learning outcomes can be validated, certified and used in career, personal and professional development. The National VET strategy (2021) includes measures geared towards improvement of permeability between levels and subsystems. One such measure is the creation in 2014 of new programmes integrating general and vocational curriculum, such as the *bac professionnel.*

International cooperation

The EU-Morocco cooperation framework is an international factor for development of the NQF and the country takes account of the EQF. A first visit of the NQF Moroccan delegation, composed of all focal points and the representative from the Prime Minister's office, to a meeting of the AG EQF took place in May 2015 (observer status).

The *Statut avancé* (advanced status) of cooperation with the EU signed in 2008 opens up prospects for deep and comprehensive approximation. Different chapters of the *Statut avancé* point to approximation in areas related to higher education and the qualifications system and framework: strengthening of cooperation in qualifications, in particular to support transparency and recognition; negotiation of mutual recognition of qualifications to aid the mobility of service providers and investors; and negotiation of mutual recognition of *licences professionnelles* (vocational bachelor) in the transport trade, particularly sea and air transport. Chapter 4 (human dimension) dedicates a whole section to the approximation of Moroccan higher education to VET to the European area, and to approximation of the qualification system to the EQF.

Although not a member of the Bologna process, Morocco is reforming its higher education sector taking account of developments in the EHEA, implementing the three-cycle structure. It cooperates with projects funded by the EU and in 2014 established the national independent quality assurance body for higher education (*Agence*

([378]) HCP. *La situation du marché du travail en 2014*. http://www.hcp.ma/La-Situation-du-marche-du-travail-en-2014_a1503.html
([379]) HCP. *Note d'information du Haut Commissariat au Plan au sujet de la situation du marché du travail en 2014*, pp. 6-7. http://www.hcp.ma/La-Situation-du-marche-du-travail-en-2014_a1503.html
([380]) HCP. Labour force survey. Cited in the ETF's *Torino process Morocco 2016-17.*

Nationale d'Evaluation et Assurance Qualité de l'Enseignement Supérieur et de la Recherche Scientifique du Maroc).

Current and planned EU programmes (sector reform contracts) include indicators and complementary assistance (twinning) targeting NQF implementation.

EU-Morocco agreements include:

(a) Association agreement signed in 1996 (entry into force in 2000): Euro-Mediterranean agreement establishing an association between the European Communities and their Member States, on the one side, and the Kingdom of Morocco ([381]);
(b) *Statut avancé*: September 2008 ([382]). The *Statut avancé* text mentions (p.12) the possibility of approximation with the EQF, in the long-term, as a result of the modernisation of the education and training system, and enhanced transparency of qualifications;
(c) alignment of the Moroccan higher education and research and vocational training systems with the European space for higher education and scientific research and vocational training.

This will contribute to the modernisation of the education and training systems and to the evolution of acquired qualifications. In the long term, this will permit comparison with the European qualifications framework' ([383]).

Levels and use of learning outcomes

The description below is based on the NQF reference document, validated on 23 February 2013 at an interministerial conference, and updated in October 2015. The NQF Commission, chaired by the Prime Minister, on 23 May 2016 approved the structure of the NQF and the level descriptors.

Scope and structure of NQF

In the reference document, the NQF is defined as:

'An instrument for regulation of qualifications based on objective characteristics of quality, in view of their recognition by the labour market. It is an instrument for referencing of qualifications, whose quality is in line with a quality assurance system that takes account of learning outcomes, prescribed by the labour market following a prospective analysis.'

The objectives of the NQF are:

(a) promoting the quality of all programmes/courses across education and training;
(b) coherence between qualification subsystems;
(c) transparency and quality of all certifications;
(d) link of qualifications to the labour market;
(e) comparability of qualifications between countries, to aid mobility;
(f) lifelong learning.

The NQF is a comprehensive framework, encompassing public and private qualifications in all subsystems (national education, VET and higher education).

Qualifications acquired outside the formal system are not currently being considered in the NQF.

This NQF definition appears to restrict the framework to labour market needs and objectives. Other policy and legislative documents currently in development have broadened the scope and basis of the NQF to include also the needs of societal development.

Alignment to other classification systems

The NQF is the national instrument for structuring and classification of qualifications but it is not yet operational.

Other relevant classifications in place are:

(a) *Haut Commissariat au Plan (HCP): Nomenclature nationale des diplômes* (June 2000) ([384]);
(b) REM/REC (*Répertoire des Emplois-métiers,* Repertories of occupations/*Référentiel Emplois-compétences,* Referential jobs and competences).

The *nomenclature* developed by the HCP (national statistical entity) structures all diplomas in 10 large groups, with subdivisions by large group to four-digit disaggregation. The large groups are:

(a) diplomas and certificates of fundamental education;
(b) diplomas of secondary education;
(c) higher diplomas delivered by faculties;
(d) higher diplomas delivered by *Grandes Écoles* and higher institutes;
(e) diplomas of technician and medium-level personnel;

([381]) http://ec.europa.eu/world/agreements/downloadFile.do?fullText=yes&treatyTransId=692
([382]) http://eeas.europa.eu/delegations/morocco/documents/eu_morocco/feuillederoute-sa_fr.pdf
([383]) Translated by the ETF.
([384]) Available at: http://www.hcp.ma/file/103334

(f) diplomas of higher technicians;
(g) diplomas of professional qualification;
(h) certificates of professional specialisation;
(i) certificates of professional initiation;
(j) persons without diplomas, undeclared diplomas.

Important foundations for the NQF are the repertories of occupations (*Répertoire des emplois-métiers*, REM) and the associated referential (standards) of occupational competences (*Référentiel emplois-compétences*, REC), designed by sectors/branches (such as textile, tourism, and IT). REM and REC are developed by the VET department in cooperation with the sectoral federations/professionals and the relevant sector ministries (industry, tourism and others), and other partners. REM and REC are based on the principle of learning outcomes. REM describes key functions and activities by occupation, as well as key required competences. REC provides a fine and detailed description of tasks, skills and competences.

Together, REM and REC are management tools for the occupations (by sector) to reinforce coherence between learning outcomes (expressing enterprises' needs) and VET programmes from different provider categories. As such, REM and REC can contribute to the quality of training and qualification outcomes. They are also good foundations to establish mechanisms for validation of non-formal and informal learning, and elements of career information and guidance. REM and REC have been developed for 13 sectors ([385]), totalling 246 fiches and 288 fiches respectively.

NQF levels

The Moroccan NQF is composed of eight levels with no sublevels. The level structure of the NQF signals vertical progression, based on relevant criteria (level descriptors) defined by the principle of learning outcomes.

Since 2015, the National Agency for the Struggle Against Illiteracy has proposed to add a level, capturing the quality-assured certificate of functional literacy. This is obtained by numerous candidates at completion of programmes and in assessment carried out under the auspices of the agency.

([385]) Sectors: REM-REC before 2009: tourism/hotels; textile/clothing; ICT; building and public works; industrial maintenance and automotive repair; leather industry. REM-REC developed in 2009-12: offshoring; aeronautic industry; trade and distribution (Rawal plan); automotive equipment; renewable energy and energy efficiency; electronics; security and cash transportation.

Level descriptors

The level descriptors are learning-outcomes-based, formulated in six categories: knowledge; skills; complexity; autonomy/responsibility; adaptability; and communication skills.

The descriptors, as with the framework overall, are inspired by the EQF, in higher education by the framework of qualification of the European higher education area, and generally by lessons learned from different countries, particularly in Europe.

In developing the categories, stakeholders took account of certain strategic areas which will require greater attention in education and training in the future, such as communication skills.

Use of learning outcomes

The NQF reference document explicitly places the concept of learning outcomes at the heart of defining level descriptors, allowing indication of vertical progression, comparison of qualifications and their referencing of qualifications to levels. Application of learning outcomes reflecting relevance to labour market needs is considered the fundamental element of NQF quality assurance.

The learning outcomes approach is well established in the APC (competence-based approach) in VET, and is applied throughout all main elements of the APC cycle of qualifications development and implementation. Schematically the APC cycle can be depicted as in Figure 1. The initial design of learning outcomes for the qualification is undertaken at the stage of the Analysis of work situation (Occupational standard): these are specific descriptors (abilities cognitive and motor, complexity, communication and others). Deeper and finer definition of the learning outcomes corresponding to tasks and operations is done at the stage of elaboration of the Standard of competences. These are multidimensional learning outcomes (knowledge, skills, attitudes and perception), used throughout the training programme and assessment guide.

Definition of qualification

The definition of 'qualification' in the NQF reference document is identical to the definition given in the EQF recommendation (2008): 'qualification' means a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

Access, progression and credit

Credit systems are not yet in place in Moroccan education and training. Higher education reforms started in early 2000 led to generalisation of the three-cycle structure (LMD), but the introduction of ECTS and diploma supplement is only now in preparation.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

Currently only one legal act directly related to the NQF has been enacted, the *Circulaire* of the Prime Minister of June 2014, establishing the National NQF Commission.

Approval by the National NQF Commission of the structure and level descriptors, the governance scheme and the roadmap for NQF development (2016-17) will be followed by publication of the approved report of the cited meeting in official channels. Implementation will require legal acts and decisions, notably concerning the establishment of the permanent secretariat, the executive committee and the NQF regulations/bylaws and procedures.

The NQF has been mentioned in two important approved strategic documents:

(a) Strategic vision for reform 2015-13 (education and training) ([386]);
(b) National VET strategy ([387]).

The Strategic vision 2015-30 mentions the NQF in the following terms ([388]): 'Establish a national system of certification enabling the organisation and classification of certificates and diplomas, on the basis of a reference structure that will be defined by the departments in charge of education, training and scientific research. Such a framework will guarantee transparency and clarity, and also comparability of diplomas on the basis of a national qualifications guide; it will improve the instruments for assessment of learning outcomes from education and training and enhance their credibility and effectiveness. It will likewise ascertain the national and international mobility of graduates.'

([386]) *Pour une école de l'équité, de la qualité et de la promotion: vision stratégique de la réforme 2015-2030*. http://www.csefrs.ma/pdf/Vision_VF_Fr.pdf
([387]) *Stratégie nationale de la formation professionnelle 2021*. http://dfp.gov.ma/images/pdfdocs/2016/Strate%CC%81gie%20Formation%20FR.pdf
([388]) *Strategic vision 2015-30*, p. 45.

The same document also stipulates: 'Establish a system of validation of skills and competences from professional experience to the benefit of workers/personnel with experience, with the aim to allow their access to opportunities of lifelong learning.'

Under the fifth strategic axis – 'Enhance the value of the professional pathways through a better articulation of the components of the education and training system' (p. 38 of the main document) – the National VET strategy 2021 mentions the NQF.

The draft Framework law on education mentions the establishment of the NQF under an autonomous commission, as one of the measures for global reform of the mechanisms of assessment, examination and certification. The NQF is defined in broader terms, which take account of the needs both of the labour market and societal development.

Governance and institutional arrangements for the NQF

In the current period of gradual institution building, two institutions are operational: the National Commission and the first format of the future executive committee (called: *Comité de pilotage* = steering committee).

The governance scheme is based on the principle of complementarity and coordination between two levels, strategic and operational:

(a) political strategy (higher decision-making): NQF Commission;
(b) operational strategy: two instances;
(c) executive committee (organisational level): based on rotating chairmanship and composed of the secretaries general of education and training (national education, VET and higher education), the employers' confederation (*Confédération générale des entreprises du Maroc* – CGEM);
(d) permanent secretary (technical level): hosted by the services of Prime Minister, has administrative autonomy, a budget and trained staff. Not yet established.

According to the *Circulaire* (June 2014), the National NQF Commission has the following missions:

(a) follow-up the NQF implementation, its update, evaluation of the award mechanisms, and validation of levelling decisions;
(b) link the various components of the education and training system and employment, in view of implementation of the NQF, and recommend reforms and improvements based on evidence gathered through the implementation of the NQF;

Table 65 NQF structure and level descriptors in Morocco

Level	Knowledge	Expertise	Complexity	Autonomy/ Accountability	Adaptability	Communication
1 (mid-primary + CFP)	Basic knowledge (discovering concepts, interpreting words and illustrations).	Performing simple and repetitive tasks.	Applying instructions related to a limited area or field of activities.	Performing tasks under supervision with no room to manoeuvre.	Inserting oneself into a working or learning environment and adapting to changes of basic tasks.	Communicating in elementary forms (verbal, iconic) in one's native tongue and in the language of study. Listening attentively. Understanding simple and detailed instructions.
2 (Primary + S)	Elementary knowledge (discovering concepts, basic techniques applied to the natural, social and cultural environment).	Performing a sequence of tasks using basic techniques.	Applying basic techniques repetitively.	Performing tasks under supervision with limited room for manoeuvre.	Adapting to changes in operating procedures and environmental conditions related to learning or working contexts.	Communicating in basic verbal and non-verbal forms, in the language of study or if appropriate using a professional language. Communicating in elementary forms of speech in a foreign language. Basic active listening. Understanding instructions.
3 (CE9 + Q)	General multidisciplinary knowledge covering principles, processes and concepts.	Performing a variety of tasks, organising their sequence and using basic techniques.	Applying the required procedures using cognitive and practical skills.	Working in partial autonomy, being accountable for certain actions and their results. Without supervision, choosing one's educational and/or professional career path. Reporting using standardised formats.	Adopting behaviour that is appropriate to teamwork, to changes of environment and to interactive situations in learning or working contexts.	Using with ease the different types of speech used in the language of study and work. Communicating in forms of speech appropriate to the context in a foreign language. Communicating appropriately using electronic means. Active listening.

Level	Knowledge	Expertise	Complexity	Autonomy/ Accountability	Adaptability	Communication
4 (Bac+T)	Multidisciplinary theoretical and practical knowledge related to a field of application.	Performing specific tasks that may involve personal choices. Applying techniques related to the organisation and operational management of an activity.	Carrying out activities by selecting suitable procedures and using human resources and/or the appropriate material resources.	Performing tasks with a degree of autonomy and accountability within the limit of general instructions. Making sure the work is properly executed. Leading a team. Inquiring about and selecting one's study and/ or professional career path. Reporting in a way that is appropriate to the situation.	Adopting behaviour that is appropriate to technical or technological organisational changes in learning or working environments.	Mastering different types of speech usage in the language of study and of work and in a first foreign language. Communicating in forms of speech appropriate to the context in a second foreign language. Mastering the use of electronic communication media (practical and content). Leading meetings. Active listening.
5	Specialised theoretical and practical knowledge.	Exploiting and applying one's knowledge in a sector of activity. Planning, organising, conducting and assessing an activity. Taking part in supervised research projects.	Identifying and using data, selecting and/or adapting methods and tools to create responses to clearly defined problems or situations related to one's activity.	Exercising accountability for the proper execution (deadlines, resources, results) of one's activity with a degree of autonomy. Ensuring the implementation of procedures and contributing to their improvement. Showing initiative. Managing and leading a team in accordance with the instructions of one's management chain. Identifying one's own training needs and choosing one's study and/or work career path with a degree of autonomy.	Intervening in a changing environment subject to internal and external factors that can give rise to personal and/ or professional changes or changes in training of different degrees of significance.	Communicating verbally and in writing in a clear and detailed manner giving well-argued opinions, with an adequate level of language. Communicating in appropriate forms of speech in a second foreign language. Using information and communication systems. Conducting and leading meetings.

Level	Knowledge	Expertise	Complexity	Autonomy/ Accountability	Adaptability	Communication
6	in-depth theoretical and applied knowledge of a high level, related to a field of study or work and to connected fields.	Exploiting and using knowledge and skills within the framework of a training or work-related activity (related to the field of study and connected fields). Managing complex technical or professional activities or projects. Mastering information and communication technologies. Taking part in supervised research projects.	Analysing, summarising and exploiting information from different sources. Developing the arguments and mastering the methods, techniques and tools to resolve problems related to one's field of activity.	Planning, managing, organising and assessing the achievement of predefined results. Supervising and coordinating the work of a number of different teams. Identifying one's own training needs and choosing one's study and/ or work career path.	Adapting to strategic changes. Suggesting, innovating and incorporating the changes made within the company and implementing them. Assuming responsibilities at decision-making level in unforeseeable professional or study-related contexts.	Sharing information and ideas with specialists and non-specialists in a clear and detailed manner, giving well-reasoned opinions, at a good level in several languages.
7	Theoretical and applied knowledge highly specialised at the interface between several areas of activity.	Developing action plans to implement strategic approaches within a professional and/or research-related framework. Mastering methodological tools and critical processes. Developing or implementing ideas in an original way, usually in a professional and/or research-based environment.	Managing unpredictable and complex professional or study-based environments that require new strategic approaches. Resolving problems and developing innovative solutions by analysing information taken from a variety of sources.	Contributing to professional knowledge and practices to improve the strategic performance of the structure. Translating strategic approaches into action plans and ensuring that they are achieved. Motivating and uniting the teams. Having the self-training skills required for a continuous improvement approach.	Adapting to changes in strategy and quickly implementing measures to bring about these changes. Developing innovative solutions adapted to new or unforeseeable problems or changes. Mobilising the teams around change initiatives.	Expressing oneself fluently and in a well-structured manner on professional and academic subjects at an adequate level in several languages. Preparing detailed reports.

Level	Knowledge	Expertise	Complexity	Autonomy/ Accountability	Adaptability	Communication
8	Theoretical and/or applied knowledge including a mastery of methodological tools that are highly specialised and cutting edge, in a field of activity or at the interface of a number of fields.	Devising, implementing and adapting an important scientific research process. Preparing a strategic development plan. Managing a structure.	Conducting original research or taking original approaches that extend the frontier of knowledge by developing a substantial body of work. Anticipating changes and translating them into research and development programmes.	Contributing to a knowledge-based society. Translating and overall development policy into strategy. Critical analysis, evaluation and summary of new and complex ideas. Taking necessary decisions on the basis of results expected/ achieved.	Finding appropriate innovative solutions, alternatives and/or approaches for unforeseeable or new problems or changes.	Able to communicate with peers, the academic community and with society in general in their areas of expertise at a very good level in several languages.

Source: National NQF Commission, 23.5.2016.

Figure 17 Competence-based approach

(c) ensure cooperation and links with NQF of other countries.

The main planned missions of the NQF governance instances can be summarised as follows:

(a) National NQF Commission:
  (i) monitoring NQF implementation, endorsement of levelling decisions and registration of qualifications from public and private providers (certifying bodies) in the NQF;
  (ii) formulation of strategic orientations for improving the systems of education, training and employment;
  (iii) approval of decisions regarding alignment with other countries' qualifications frameworks, and long-term preparation of a correspondence/link with the EQF;
  (iv) approval of the annual/multiannual action plan;

(b) executive committee:
  (i) coordination between the permanent secretariat and the National NQF Commission;
  (ii) validation of processes of allocation/levelling of qualifications and their registration;
  (iii) validation of the proposals of levelling of qualifications and their registration in the NQF register;
  (iv) establishment of working groups and planning activities;
  (v) validation of the annual/multiannual action plan;

(c) permanent secretariat: in charge of the NQF operational activities:
  (i) coordination and preparation of the meetings of the executive committee and the working groups;
  (ii) elaboration and implementation of the levelling processes and registration of qualifications;
  (iii) proposals to update/improve the National register of qualifications (NQF);
  (iv) elaboration and implementation of the communication plan and the annual/multiannual action plan;
  (v) opinion on the opportunity to create new qualifications.

Roles and functions of actors and stakeholders

NQF focal points include nominated representatives from the two ministries, CGEM, and Higher Council for Education Training and Scientific Research. Working groups/technical groups can be formed ad-hoc or permanently to support focal point work.

Stakeholder consultation is via the steering committee and the focal points organising/hosting workshops and events to consult and inform stakeholders groups.

CGEM has strong outreach to all professional and branch associations and representatives and takes care of their involvement, at national and regional levels.

The development of the CNC – concepts, structure and governance scheme – are the result of several years of analysis, consultation and final approval, on 23 May 2016, of the three key documents: the structure of the NQF and its level descriptors; the governance scheme; and the roadmap for NQF implementation for 2016-17. In 2015, the decision was taken to transform the temporary secretariat into a permanent secretariat, to be hosted by the services of the Prime Minister and act as the operational entity of the NQF. The legal basis of this secretariat is not yet developed/approved, which is slowing the pace of NQF implementation.

Resources and funding

Financial resources for NQF functions and bodies are the State budget allocated to the ministries and departments involved, and a budget for the future permanent secretariat hosted by the services of the Prime Minister.

International partners contributing directly to develop the NQF and its instruments are the EU and the ETF.

Quality assurance of qualifications

VET programmes and related qualifications are approved by a legal decision, which allows the award of officially recognised diplomas and certificates. Activities of private sector VET institutions are regulated by a specific law and abide by a strict set of external quality assurance requirements and procedures.

Quality assurance of VET qualifications is consistent within the APC segment, through rigorous methodology and practice for qualifications development, based on learning outcomes, identified with involvement of labour market actors. Learner assessment is carried out using the Assessment Guide; it covers the learning outcomes defined in the standard of competences and uses criterion assessment (pass or not).

In higher education, the introduction of the principle of quality assurance was based on three main measures stipulated by the Law 01.00:

(a) accreditation of the programme/qualification (*filière de formation*);
(b) evaluation system (of education and training, research and higher education institutions (HEIs));
(c) creation of the institutions in charge of evaluation and regulation (the National Higher Education Coordination Commission in 2003; the Coordination Commission of Private Higher Education in 2005; the National Evaluation Instance in 2006; and the Coordination Council of the Higher Education Institutions not related to Universities, in 2008).

Procedures and practice of accreditation are fully generalised to all cycles, programmes and HEIs. The accreditation system is mandatory for programmes leading to qualifications of public HEIs, and is optional for those of private HEIs. Accreditation is for a fixed period.

The principle of evaluation of institutions is another lever for higher education reform and is characterised by:

(a) global nature, regularity and ex-post approach;
(b) mandatory self-evaluation for all HEIs (public and private);
(c) obligation to disclose the results of evaluation to the elected bodies at national and regional levels;
(d) obligation to inform the public on the evaluation results;
(e) audits and evaluations by specialised and independent institutions.

An integrated quality assurance framework covering all forms and types of VET and institutions is yet to be created. A number of legal texts regulate parts of the VET system:

(a) Law 12.00: on apprenticeship;
(b) Law 13.00: on private VET.

Authorisation to open VET institutions follows differentiated principles and procedures, due to incoherence in the legal basis, problems in the application of the rules, and other factors such as low capacity of certain institutions to analyse applications promptly.

Law 01.00 for higher education: main principles and their application presented above.

The main quality assurance bodies relevant in NQF implementation are not yet explicitly defined, though a strong role is anticipated for:

(a) in VET: department of VET (under the Ministry of National Education and VET);
(b) in higher education: the new Agency for Evaluation and Quality Assurance of Higher Education.

A strong point of the NQF concept in Morocco is its focus on quality of qualifications and stakeholder expectation that the allocation of qualifications in the NQF shall reflect quality based on objective criteria, such as learning outcomes and compatibility with the principles and structure of the NQF.

To reach expected transparency in allocating qualifications to the NQF a number of issues and challenges regarding NQF and qualifications QA need to be addressed:

(a) the clarity of mission and interactions of future NQF governance structures, which impact on the effectiveness of NQF operations;
(b) the consistent application of the learning outcomes principle, from design of the qualification, to provision and assessment of learners' achievements;
(c) publication of the future register of NQF qualifications;
(d) publication of information for users on qualifications content and results of graduate tracking studies and other analyses of graduate employability.

Recognising and validating non-formal and informal learning and learning pathways

One of the expected results and benefits of NQF implementation is the support to validation of non-formal and informal learning, but no system or mechanism is yet formally in place for use by learners.

NQF implementation

Inclusion of qualifications in a register

The NQF is still in development.

The approved Roadmap 2016-17 is structured in five main components, each with a list of key activities and milestones:

(a) governance: establishment of the legal basis and installation of the Permanent Secretary;
(b) support to launch operations of the permanent secretariat;
(c) organisation and strengthening of the permanent Secretariat;
(d) allocation of qualifications for NQF and registration;
(e) register of qualifications.

In line with component 4 of the roadmap, in 2016-17 the ETF is supporting NQF stakeholders in preparing the methodology package and procedures to carry out transparent allocation of qualifications in the NQF. The first phase of this pilot project is focused on qualifications in two pilot sectors (construction and automobile), and developed:

(a) the draft complete Procedures and methodology for allocation of qualifications to NQF;
(b) two Inventories of qualifications relevant for the two pilot sectors, one covering VET qualifications and the other higher education qualifications.

Following validation by NQF stakeholders, the procedure and methodology will be tested on a sample of qualifications selected from the two inventories. The second project phase will analyse lessons from the first, expand the levelling to new sectors, build the capacity of the permanent secretariat and create a first simple integrated database of qualifications.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of NQF implementation have not yet been defined.

Impact for end-users

No impact yet on end users.

Referencing to regional frameworks

The roadmap for implementation of the advanced status of EU-Morocco relations, dated 2008, includes the objective to foster approximation of the Moroccan NQF with the EQF. The format of such approximation is not defined. A first visit of a Moroccan delegation – with observer status – to a meeting of the EQF advisory group took place in May 2015.

Important lessons and future plans

Success factors to date have included:

(a) highly advantageous policy momentum: VET strategy, Vision 2030, draft framework law on education;
(b) NQF focal points: continuity, mutual trust. Commitment of actors from the business community;
(c) APC: main officially endorsed approach to develop/implement/assess and award VET qualifications is centred on learning outcomes;
(d) reforms of higher education and start of operations by the National Agency for Evaluation and Quality Assurance of Higher Education (2017);
(e) support of international partners (EU, ETF and bilateral cooperation);
(f) *Statut avancé* EU-Morocco: emphasis on modernisation of education and training, transparency of qualifications and, eventually, approximation with EQF.

Governance of the NQF is not free from misunderstandings between partner institutions. It is expected that the upcoming publication of new legal acts related to the establishment of the executive committee and the permanent secretary will clear the situation and prompt more effective development of the regulatory framework and of NQF instruments, and start of operations.

Abbreviations

APC	*approche par compétence* (competence-based approach)
CGEM	*Confédération Générale des Entreprises du Maroc* (employers' confederation)
ECTS	European credit transfer and accumulation system
EQF	European qualifications framework
HCP	Haut Commissariat au Plan
HIE	higher education institution
IVET	initial vocational education and training
MEAS	Ministry of Employment and Social Affairs
MENA	Middle East and North Africa region
MENFP	*Ministère de l'Éducation Nationale et de la Formation Professionnelle* (Ministry of National Education and VET)
NQF	national qualifications framework
OFPPT	*Office de la Formation Professionnelle et de la Promotion du Travail* (Office for Vocational Training and Promotion of Work)
REC	*Référentiel Emplois-compétences* (referential (standards) of occupational competences)
REM	*Répertoire des Emplois-métiers* (repertory of occupations)

Prepared by:
the European Training Foundation (ETF) in collaboration with national experts.

MOZAMBIQUE

Introduction and context

Formal education in Mozambique includes pre-school, primary, secondary, technical and professional, special, higher and adult education, and teacher training. In 2008, the integrated programme of vocational education reform (*Programa Integrado de Reforma da Educação Profissional*, PIREP) released a report which provided information for the design of the national professional qualifications framework (Quadro Nacional de Qualificacões Profissionais, QNQP) in Mozambique. Through PIREP, the QNQP has been developed with a focus on recognition and registration of, and the relationships between, various technical and vocational qualifications that may be obtained through courses administered by PIREP and the National Institute of Employment and Vocational Training (INEFP), which falls under the Ministry of Labour. The work to develop a national framework for higher education qualifications should be incorporated into the QNQP in order to establish a coherent national framework without gaps (PIREP, 2008).

The Government of Mozambique worked to transform its national technical and vocational education and training (TVET) system, known locally as the *Reforma da educação profissional* (REP), and through PIREP has developed a national vocational qualifications framework (NVQF). The focus of the NVQF is on recognition of qualifications in the technical and vocational sector, registration of qualifications, and promoting relationship between various qualifications that can be attained through the new PIREP-designed *Technicos Medio* (mid-level technical) and INEFP courses. Existing and new vocational qualifications are progressively mapped onto the NVQF, which also shows indicative relationships with qualifications from other Southern African Development Community (SADC) member States. There are possibilities for the NVQF to have a wider application in the future (PIREP, 2008, p. 4).

Policy objectives

The main aims and functions of the QNQP are to:

(a) provide a map for learners, employers, organisations, training institutions and the public using TVET qualifications;
(b) show equivalences between TVET and general qualifications;
(c) provide indicative placements on the framework for Mozambican public TVET qualifications and especially those developed for the PIREP pilot courses in *Tecnicos Medio* (mid-level technical);
(d) provide a basis for accumulation and transfer of credit into and between qualifications;
(e) provide a framework which will identify the need for and assist future national initiatives that involve the development of TVET qualifications;
(f) provide integration with the work of SADC to develop a regional framework.

Levels and use of learning outcomes

The architecture of the national qualifications framework classification system consists of levels and strands of qualifications. The QNQP has a single strand of qualifications because of the focus on TVET qualifications. Each level represents different degrees of complexity. There are five levels of professional qualifications; the first three and part of the fourth will be certified by tests designed using competence standards. The other part of level 4 and all of level 5 will be out of the competence area of the current *Reforma da educação profissional* (REP) system.

Recognising and validating non-formal and informal learning and learning pathways

A PIREP report recommended that recognition of prior learning be disclosed and proposed in registration procedures and re-entry into professional education courses. As such, the application of these principles, as appropriate to the context of Mozambique, forms part of the implementation of QNQP. The system covers non-

formal, formal and informal education, all different types of training providers (state, private and combined) and all different training modalities for work (face-to-face, at a distance, initial, in-service and retraining), in all specialties. The curricula will be modular, making it possible, within certain limits, for learners to pass from one system to another by means of module accreditation and certification. The modules will be developed strictly according to competence standards.

Referencing to regional frameworks

As a result of Mozambique not having a full NQF system, there has been no referencing of its framework to the regional framework. However, the PIREP report indicates that Mozambican qualifications will be mapped with the regional qualifications framework (RQF) and the NQFs of other SADC member States.

Abbreviations

NQF	national qualifications framework
NVQF	national vocational qualifications framework
PIREP	integrated programme of vocational education reform (*Programa Integrado de Reforma da Educação Profissional*)
QNQP	national professional qualifications framework (*Quadro Nacional de Qualificações Profissionais*)
REP	vocational education reform (*Reforma da educação profissional*)
SADC	Southern African Development Community
TVET	technical and vocational education and training

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Prepared by:
UNESCO in collaboration with national experts.

NAMIBIA

Introduction and context

Introduced in 2006, the Namibian qualifications framework (NQF) is comprehensive and inclusive, spanning all certification levels from school to university and including all forms of learning: formal, non-formal and informal. The NQF is intended to be a register of all official qualifications in Namibia, as well as being a crucial tool for promoting lifelong learning. Inequality in the education system inherited from the colonial regime was one of many major challenges confronting the new government that came to power in Namibia in 1990. Following independence, large-scale education reforms were undertaken with the aim of correcting the imbalances of the past and creating an inclusive, fair and learner-centred education system for the future.

The policy directive *Towards education for all: a development brief for education, culture and training* (Republic of Namibia, 1992) has been adopted. This directive highlighted the four development goals of access, equality, quality and democracy, and gave special importance to lifelong learning as an organising principle of Namibia's education sector. Other reforms included the Presidential Commission on Education, Culture and Training of 1999 (Republic of Namibia, 1999) and the *Education and training sector improvement programme* (ETSIP) of 2005 (Republic of Namibia, 2007). A key continuing challenge for Namibian education and training is the perception that learning attained via the conventional, formal route is superior to that attained in informal or non-formal settings, for example open and distance learning, workplace-based learning, and learning acquired through general life experiences. The government and concerned stakeholders are committed to changing this perception, and have developed a national recognition of prior learning (RPL) policy for this purpose.

Policy objectives

The NQF aims to:

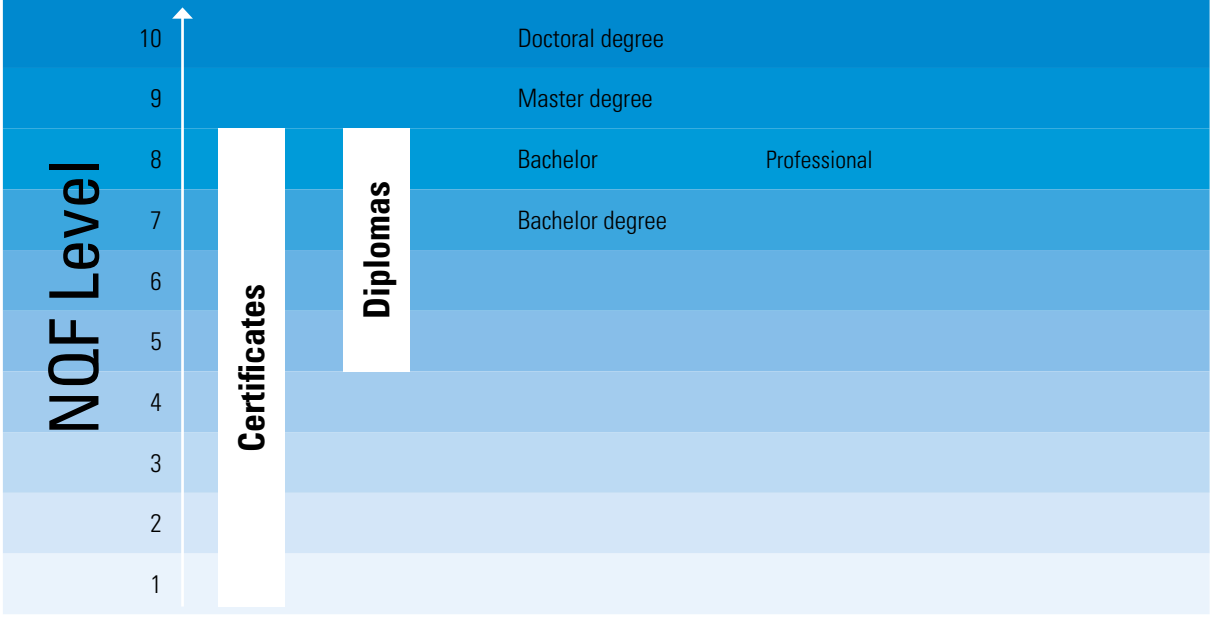
(a) introduce unity and consistency to the Namibian qualifications system by bringing all qualifications together under one umbrella;
(b) support horizontal and vertical mobility throughout the education and training system;
(c) promote the consistent use of qualification titles;
(d) provide clear information about the knowledge and skills that can be expected of a qualification holder or an RPL learner, making it easier for both learners and employers to understand the similarities and differences between qualifications;
(e) harmonise different education and training sectors and improve their alignment with the world of work;
(f) provide assurance of the quality of education, training and assessment in Namibia;
(g) enhance the reputation of Namibia's education and training system in the regional, continental and international communities (Namibia Qualifications Authority, 2011).

Stakeholder involvement and institutional arrangements

The Namibia Qualifications Authority (NQA) was established as a statutory body through Act 29 of 1996. Its purpose is to oversee the development and implementation of the NQF. The NQA networks with other organisations to keep abreast of current trends and developments in education and training at local, regional and international levels. It makes formal agreements with stakeholders on setting standards, accrediting education and training institutions and their courses, and facilitating student mobility and credit transfer. One agreement between the NQA and the Namibia Training Authority (NTA) mandates the latter to coordinate the setting of competence standards and associated national curriculum modules and assessment criteria for vocational trades up to NQF level 5. These are made available as packages to training providers.

While the NQA has the mandate to accredit vocational training providers, the NTA is responsible for their registration. The NQA has signed an agreement with the National Council for Higher Education (NCHE) mandating the latter to register private higher education institutions. Recognised higher education programmes are those that are

Figure 18 National qualifications framework, Namibia



Source: Namibia Qualifications Authority: http://www.namqa.org/framework/

accredited by the NQA and other statutory bodies such as the Ministry of Education or examination boards. The NQA maintains close working relationships with the awarding bodies. These include the Directorate for National Examinations and Assessment, the National Institute for Educational Development, the University of Namibia, the Polytechnic of Namibia, and the Namibian College for Open Learning (NAMCOL). Two statutory bodies, the Namibia Tourism Board and the Roads Authority of Namibia, have developed unit standards for registration on the NQF.

Levels and use of learning outcomes

The NQF comprises 10 levels, covering secondary, vocational and higher education. Each level is defined by a level descriptor. Accredited institutions register all the qualifications they award on the NQF. To qualify for registration, the learning outcomes required for successful completion of a qualification must be clearly stated. Some learning outcomes are expressed as unit standards which can be awarded independently of the whole qualification. This allows learners to receive recognition for their learning achievements, even if these fall short of the requirements for the award of a full qualification.

Recognising and validating non-formal and informal learning and learning pathways

In 2009 the NQA and NTA were assigned the responsibility of overseeing the development of a national policy on RPL. An RPL steering committee, with representatives from different sectors, was constituted to work on the draft policy. Following consultation, approval was granted by the Minister for Education. The Namibia National RPL Policy was approved in March 2015. In the technical and vocational education and training (TVET) sector, RPL has been piloted in three fields, in which candidates were assessed and awarded qualifications. Registered education and training providers are required to develop institution-specific policies for RPL which must be aligned to the national policy. Once this policy is implemented, RPL candidates will be able to earn credit for unit standards or full NQF qualifications.

Two separate policies on RPL are currently in operation. One was developed by the NTA for TVET institutions, the other by NAMCOL. NAMCOL's policy defines RPL as 'the process of identifying, matching, assessing and accrediting the knowledge, skills and experience that candidates have gained through formal, informal or non-formal learning' (NAMCOL, 2008). NAMCOL's RPL policy is currently being applied to broaden access to the college's post-secondary programmes at certificate and diploma levels. RPL applicants to NAMCOL enter into an agreement

with the college before undergoing a series of assessments designed to allow them to display their competences. The process involves pre- and post-assessment interviews, portfolio development and proficiency tests. At the end, candidates are given written feedback on the outcome of their assessment. Apart from a few institutional initiatives on RPL, as exemplified by NAMCOL, there very little horizontal or vertical movement of learners between the different education and training subsystems. One reason is that these subsystems still function in silos, with insufficient coordination leading to duplication of the programmes on offer. Another reason is that the founding acts of publicly funded educational institutions empower the latter to award their own qualifications, weakening NQF efforts to unify the system.

Training bodies have been slow to register their qualifications on the NQF, creating a further obstacle to mobility. To address this, the NQA issued a directive that all qualifications must be registered on the framework by 2015. However, at the time of this research many qualifications were still being reformatted to fit NQF requirements; as a result, most are not registered. NQA has received many applications for NQF registration of qualifications from the training providers, but a few pre-NQF qualifications still await registration, and some will never be registered as they are being phased out. From 2006 to 2013 a total of 266 qualifications were registered on the NQF, and from 2014 to 2015 192 qualifications were registered.

Referencing to regional frameworks

The NQA represents Namibia on the Southern African Development Community (SADC) technical committee on certification and accreditation, which oversees progress towards a regional qualifications framework (RQF) for the SADC.

The NQA has signed formal memoranda of understanding with quality assurance bodies in the region, with the aims of strengthening information sharing about providers and their courses, building and sharing staff expertise in quality assurance, and supporting research on matters of shared interest. Formal agreements currently exist with the Botswana Training Authority, the Tertiary Education Council of Botswana, the South African Qualifications Authority (SAQA), the National Council for Higher Education (South Africa), the Ministry of Education and Training in Swaziland, the Roads Authority of Namibia, and the Mauritius Qualifications Authority.

Important lessons and future plans

Namibia has been at the forefront of NQF development in SADC countries. It aims at facilitating assessment, certification and quality assurance as well as learner mobility across education and training systems. This has had implications for the development of post-primary education in Africa. Post-primary education and diversified secondary education are increasingly perceived to include skills development and TVET, which form elements of a coherent system of education and training that includes both theoretical and applied learning. However, while the NQF covers the whole spectrum of general education and vocational training activities, there is still work to be done to create a linked system with common structures for transferability between education and training, and vice versa. Namibia has worked on automating its evaluation of qualifications process (which has now been achieved). The NQF regulations have been under review since 2013 (with the intention of better meeting stakeholder needs), and the process is yet to be completed.

Abbreviations

NAMCOL	Namibia College for Open Learning
NCHE	National Council for Higher Education
NQA	Namibia Qualifications Authority
NQF	national qualifications framework
NTA	Namibia Training Authority
SADC	Southern African Development Community
TVET	technical and vocational education and training

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Prepared by:
UNESCO in collaboration with national experts.

NEPAL

Introduction and context

Nepal is a landlocked country located between China and India. It is inhabited by people of diverse social, cultural, ethnic and religious backgrounds, although Hindus, which comprise over 80% of its 29 million-plus population, make up the majority.

The Nepalese national vocational qualifications framework (NVQF) is in the process of being developed by the Council for Technical and Vocational Education and Training (CTVET) on the basis of the existing National Skills Testing Board (NSTB) certification system. It is hoped that the NSTB will evolve into an autonomous organisation – the National Vocational Qualification Authority (NVQA) – which will operate alongside the NVQF.

Nepal's technical and vocational education and training (TVET) system is in urgent need of reform to tackle the many development challenges the country currently faces. Lack of skills development activities are considered to be at the root of the country's poverty and unemployment problems, and large numbers of Nepalese are migrating abroad because of the severe lack of employment opportunities within the country. Most young people leave school before grade 10. Opportunities for horizontal mobility between general education and TVET are limited. Despite rapid growth since 1951, there are still not enough institutions for technical higher education (Tulhadar, 2011); this is reflected in the fact that only 3% of young Nepalese currently receive formal technical education.

At present, 20% of Nepalese children do not complete primary school (Department of Education, 2015). Nepal's 13th three-year plan projected that, by 2016, the net enrolment rates in primary, lower secondary (grades 1-8) and secondary schools (grades 9-12) would reach 100%, 90% and 40% respectively. This goal remains remote, however: only 56.1% of students complete lower secondary education and approximately 13.1% complete secondary education with a school leaving certificate (SLC).

Employment-oriented skills training in Nepal is equally in need of overhaul. There is no overarching system to govern and fund such training, meaning that courses tend to be short term and donor driven, with little return on investment. There is no functioning system for recognition of skills gained in informal and non-formal settings. A further challenge is recognition of foreign qualifications, which is not currently governed by a legal framework. Nepalese who have studied abroad often encounter difficulties when they return home and find that the qualifications they have gained are not recognised.

The Nepalese economy has not performed well in last decade. The average growth rate of gross domestic product (GDP) is around 4%, and one in four Nepalese lives in poverty. The gross national income (GNI) per capita for fiscal year 2072/73 (2015/16) was US $760. More than 60% of the population are currently dependent on agriculture for their livelihood; however, a transformation has been seen in the last decade, with the contribution of agriculture and industry declining and the service sector on the rise. Although the officially measured unemployment rate is negligible (2.1%), time-related underemployment is much higher at almost 46% (CBS, 2011).

Overseas migration for employment has become a prominent feature of the Nepalese economy and society over the past two decades. Approximately 1.9 million Nepalese work overseas, excluding India; about 5% are women. In 2011, at least another 800,000 (undocumented) Nepalese workers worked in the private sector in India and about 250,000 in India's public sector. The highest remittances were from India (21%), followed by Malaysia (19%), Saudi Arabia (15%), Qatar (14%), and the United Kingdom (2%); other countries account for 29% combined.

Policy objectives

In alignment with the TVET reform agenda, the NVQF aims to:

(a) create a skilled workforce that is recognised both in Nepal and overseas;
(b) provide a structured system of vocational qualifications that opens up pathways and possibilities for the individual learner.

Levels and use of learning outcomes

Nepal has a five-level certification system, from elementary level to levels 1 to 4.

(a) Skill level - elementary
  (i) successful completion of 140 hours vocational training in relevant occupation/ trade.

(b) Skills test level 1
  (i) literate with knowledge and skills in the relevant occupation and a minimum of one year'sw work experience in a related occupation/trade, or
  (ii) successful completion of one month (160 hours) of vocational training in a relevant occupation/trade, or
  (iii) six months' work experience in the relevant occupation/trade having basic knowledge and skills in a related field.

(c) Skills test level 2
  (i) literate with knowledge and skills in the relevant occupation and a minimum of three years' work experience in a relevant occupation/trade, or
  (ii) one year's training (minimum 600 hours of theory and 800 hours practical) in a relevant occupation/trade, or
  (iii) one year's work experience after completion of the Skills test level 1 in a relevant occupation/trade.

(d) Skills test level 3
  (i) literate with knowledge and skills in the relevant occupation and a minimum of five years' work experience in a relevant occupation/trade, or
  (ii) two years' work experience and one year's training in a relevant occupation/ trade, or
  (iii) one year's work experience after completion of the Skills test level 2 in a relevant occupation/trade.

(e) Skills test level 4 (specifically for ophthalmic assistants)
  (i) three years' experience and one year's training after completion of the level 3 ophthalmic assistant skills test, or
  (ii) certificate in health science (ophthalmology) or equivalent with three years' experience and one year's training.

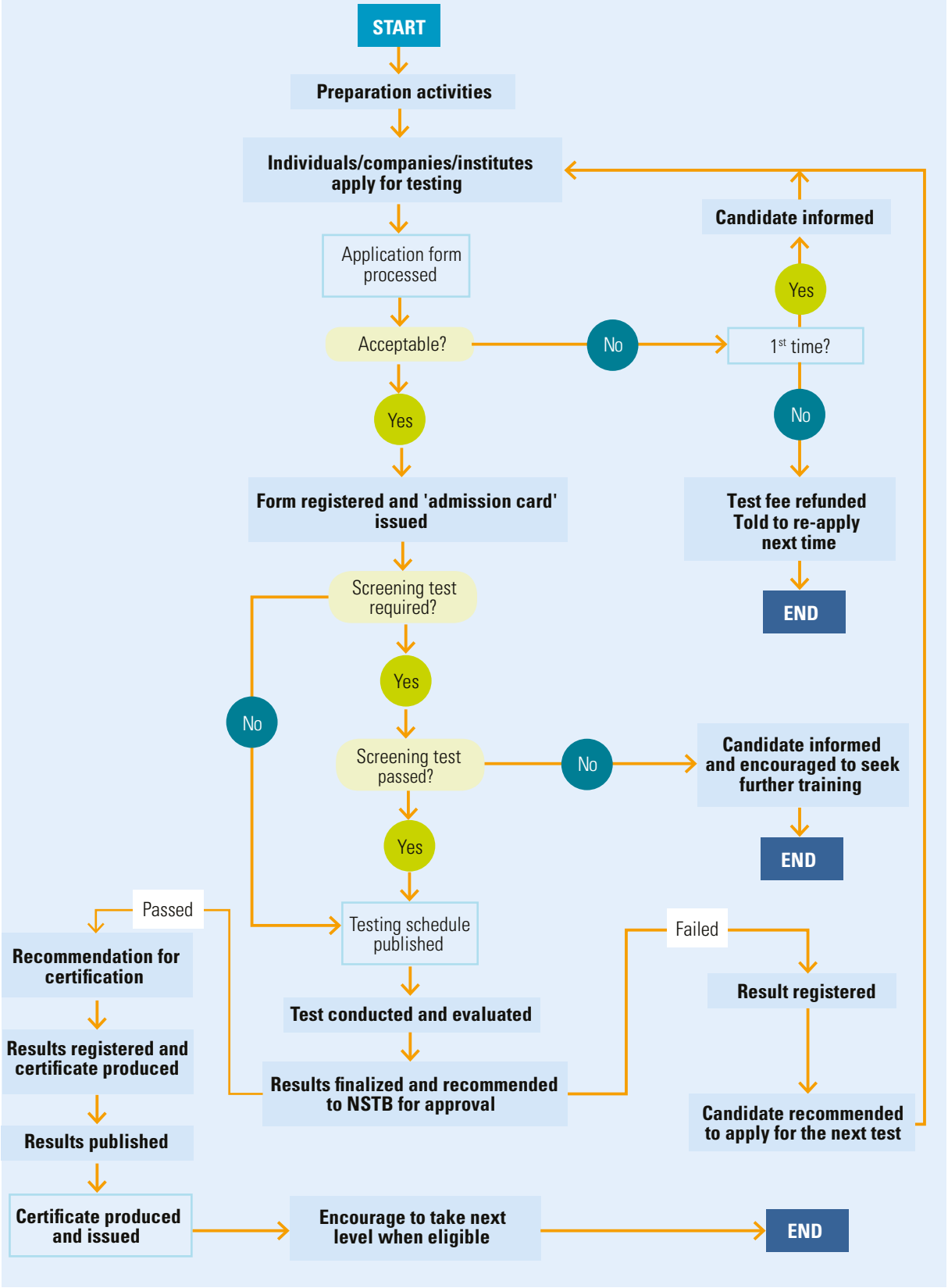
Stakeholder involvement and institutional arrangements

The National Skills Testing Board (NSTB) certification system was initiated in 1983 by an autonomous body called the Skills Testing Authority (STA). The STA introduced systems for the classification of occupations and the testing and certification of skills in accordance with the guidelines of the Asian and Pacific Skill Development Programme/International Labour Organisation (APSDEP/ILO). When CTVET was formed in 1989, the STA was replaced by the NSTB and placed under the jurisdiction of the CTEVT, which is the apex body for TVET in the country.

Representatives are from government organisations, the public sector, craftspeople, trade unions, industrialists and employers form the NSTB. Half of its 16 members are from the public sector and half from the private sector. Under the NSTB, various subject committees are working to develop national occupational skills standards/ profiles and regulate skill-testing activities; as of April 2016, profiles for 276 different occupations have been developed. The NSTB has so far tested 294 203 craftspeople and certified 231 905. Skills tests are performance-based and require candidates to demonstrate mastery of occupational skills standards for their chosen trade to obtain a national skills certificate. An occupational skills standard is a written specification of the practical skills, knowledge and experience demonstrated by an individual in a particular occupation.

In 2013 the Swiss Agency for Development and Cooperation (SDC) and CTEVT signed a memorandum of understanding (MoU) in which they pledged to work together to support the development of sector skill committees (SSC) as well as the NVQF. An SSC is an informal body comprising representatives from government, employers, training institutions and federations in the industrial sector concerned. To date, one SSC has been formed in the construction sector.

Figure 19 Nepal's skills testing procedures



Source: CTEVT, 2013.

Recognising and validating non-formal and informal learning and learning pathways

Skills tests conducted under the NSTB recognise prior formal and non-formal learning, competences and work experience. Skill tests are designed with three target groups in mind:

(a) graduates from pre-employment vocational training programmes who need help in making the transition from training to work;
(b) experienced workers (employed or unemployed) who lack official certification;
(c) workers who have completed an in-service training programme and are seeking an upgrade or additional certificate.

Figure 18 illustrates the skills testing process.

One of the NVQF's main goals is to provide education opportunities for young people who lack access to institution-based TVET provision. TVET leading to diplomas and certificates is currently available only in institutions (which include technical schools and training centres, affiliated technical colleges and institutes and the so-called 'annex schools'). However, plans are under way to make the TVET pathway more attractive to young people by embracing all forms of training: formal, non-formal and informal.

There are many good reasons for attempting to attract more young people to TVET. Numerous studies have shown that TVET graduates are more likely than graduates of academic programmes to find employment. TVET is also an effective pathway to jobs in the international market. Foreign employment surveys have shown that skilled workers such as plumbers, carpenters, civil engineers and mechanics earn significantly higher wages than unskilled workers. A plumber in a Middle Eastern country is likely to earn a monthly salary of about INR 60,000, whereas the same worker would earn only about INR 15,000 per month in Nepal. Countries such as the United States, Canada, Australia, the UK and other European nations offer attractive incentives such as residence and work permits for foreign workers with technical and vocational skills. Promoting international worker mobility is, therefore, an important priority for the NVQF.

Particular emphasis is placed on supporting school-to-work transition for school leavers and the pathway from general education to TVET for early school leavers. The NSTB certification system is intended to help these transitions run smoothly. Table 66 shows the entry and exit points from general education to TVET. The two most critical points are after completion of primary education and after completion of lower secondary education.

This structure allows qualifications at each level to be acquired in either a linear or a modular fashion ([389]). Training may be delivered in a variety of ways, including long-term residential courses, modular short courses, and flexible morning, evening or weekend classes. Providers may offer any possible combination of centre-based and work-based learning, including on-the-job training, internships and apprenticeships in public and private enterprises, outreach programmes, and real-life projects.

([389]) Candidates may choose either to sit one, all-encompassing test or to accumulate credit points by completing individual modules.

Table 66 Nepal entry and exit points from general education system to TVET

Education level	School completion rate of the enrolled	National Skills Testing Board (NSTB) certificate system	Skills training; livelihood training
Tertiary		4	Skills training Livelihood training
Higher secondary		3	Skills training
Secondary	45%	2	Skills training
Lower secondary	65%	1	Skills training
Primary	90%	Basic level	Non-formal education Adult literacy

Source: SDC, 2013.

Reforms to TVET under the NVQF will also cover non-formal education and adult literacy programmes, which play an important role in improving individuals' work performance and employability and promoting lifelong learning.

NQF implementation

Implementation of the national vocational qualifications framework (NVQF) will be developed together with the unified national qualifications framework (NQF). With the support of the SDC, the CTEVT will put the national vocational qualification system (NVQS) into effect. This will enable women and men, including those belonging to disadvantaged groups, to:

(a) gain access to employment and self-employment;
(b) perform at higher productivity levels;
(c) earn higher incomes;
(d) improve their livelihoods and resilience.

It is hoped that this will lead to a reduction in poverty and will promote inclusive growth.

The NVQS project will be implemented in three phases. In the first (2015-19), activities planned to strengthen participation by TVET stakeholders include policy dialogue and formulation and upgrading of the National Skill Testing Board (NSTB). Stakeholders will then be able to use the sector-specific vocational qualifications framework (VQF) and lay the foundations for the emerging NVQS.

In the second phase (2019-23), the NSTB will become the National Vocational Qualification Authority (NVQA).

In the third and final phase (2023-25), it is expected that qualifications offered by NVQA will be recognised for higher level education and training, both in Nepal and abroad.

Referencing to regional frameworks

The eight member states of the South Asian Association for Regional Cooperation (SAARC) – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka – finalised the SAARC framework for action (SFFA) for education 2030 leading to its adoption at the third meeting of Ministers of Education/Higher Education held in Male, Maldives, in 2016. Under regional collaboration and partnerships, it was agreed that the objective of this action plan is to develop an expert group to review the frameworks/ procedures followed in different SAARC countries for recognition, validation and accreditation of outcomes of formal, non-formal and informal learning (SAARC, 2016).

As a member of the World Trade Organisation (WTO), Nepal strives to produce a competent and qualified workforce comparable with those of other countries in Asia and the Pacific region and beyond.

Important lessons and future plans

The CTEVT is confident that NSTB certificates will become increasingly popular and widely recognised in both domestic and foreign labour markets.

In the long run, the CTVET plans to link the NVQF to a more comprehensive overarching NQF that will encompass all sectors of education, not just TVET. This broader NQF will create greater coherence between TVET and general education, helping adapt Nepalese qualifications to the changing needs of today's global economy.

Further source of information

CTVET (Council for Technical Education and Vocational Training). National Skills Testing Board: http://nstb.org.np/skilltesting.php?page=Skill%20Test%20flow%20chart

Abbreviations

APSDEP	Asian and Pacific Skill Development Programme
CTVET	Council for Technical and Vocational Education and Training
GDP	gross domestic product
ILO	International Labour Organisation
MoU	memorandum of understanding
NSTB	National Skills Testing Board
NVQA	National Vocational Qualification Authority
NVQF	Nepalese national vocational qualifications framework
NVQS	national vocational qualification system
SAARC	South Asian Association for Regional Cooperation
SFFA	SAARC framework for action
SLC	school leaving certificate
SSC	sector skill committee
STA	Skills Testing Authority
SDC	Swiss Agency for Development and Cooperation
TVET	technical and vocational education and training
WTO	World Trade Organisation

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Prepared by:
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NETHERLANDS

Introduction and context

The Dutch Government gave its support to setting up a comprehensive qualifications framework for the Netherlands (NLQF) in September 2011. This framework was referenced to the European qualifications framework (EQF) in October 2011. The NLQF builds on and integrates the qualifications framework for higher education which was self-certified to the European higher education area in 2009.

The eight-level framework covers two main groups of qualifications. First, those regulated by the Ministry of Education, the Ministry of Economic Affairs and the Ministry of Health and Welfare. Second, qualifications awarded outside public regulation and developed by stakeholders (mainly) in the labour market. Since 2012, some progress has been made in addressing this latter group and 30 qualifications are currently (December 2016) levelled to the NLQF ([390]).

This emphasis on the double character of the national qualifications system – where private and public providers interact and supplement each other – is an important defining feature of the NLQF. The Ministry of Education is currently working on a legal proposal aiming at including national qualifications framework (NQF) and EQF levels in national qualifications and certification documents (date of adoption to be confirmed). The NLQF has been operational since 2012.

Policy objectives

Development of the NLQF started in January 2009. Work progressed rapidly and became operational in 2012. The NLQF rests on two pillars. The first is qualifications regulated by the public sector (the Ministry of Education, Culture and Science, the Ministry of Economic Affairs, Agriculture and Innovation and the Ministry of Healthcare, Welfare and Sports). The second pillar includes 'other qualifications', notably those awarded by the private sector outside the formal system and related to the labour market. These often have a strong 'qualifying' power in the labour market and their inclusion in the NLQF is expected to increase their visibility and further strengthen their value. The inclusion and classification of these qualifications take place at the request of the bodies responsible for awarding the diplomas and certificates; this is generally also the body which provides the learning programme leading to the qualification.

The NLQF (van der Sanden et al.; 2012), resting on these two pillars, aims at:

(a) enabling people of all ages and in different situations to identify their level of education and training to find an appropriate education and training programme where they can use their abilities efficiently;
(b) enabling employers and individuals to understand the levels of existing national qualifications and international qualifications (through the EQF) and how they relate to each other;
(c) showing how different qualifications contribute to improving workers' skills in the labour market.

The main objectives are:

(a) increase transparency within Dutch education;
(b) increase understanding of qualifications within Europe;
(c) increase qualification level comparability;
(d) stimulate seeing learning outcomes as building blocks of qualifications;
(e) promote lifelong learning;
(f) increase the transparency of learning routes;
(g) increase understanding of qualifications levels across the labour market;
(h) aid communication between stakeholders in education and employment.

It is clearly stated that the NLQF has no role in reforming Dutch education and training, in regulating transfer and access, or in entitlements to qualifications and degrees. The framework is understood as a systematic arrangement of

([390]) Register of qualifications awarded outside public regulation and levelled to the NLQF: http://www.nlqf.nl/register

existing qualifications aiming at transparency and increased comparability. Whether the NQF will move from being a purely descriptive mechanism to an instrument supporting further development of Dutch education and training remains to be seen. Involving the private sector can be seen as moving beyond a purely descriptive role.

Levels and use of learning outcomes

The NLQF operates with one entry level (lower than EQF 1) and eight qualifications levels. All levels are defined on the basis of learning outcomes. The following key-principles are emphasised:

(a) levels do not refer to, and are not defined by, education sectors;
(b) NLQF levels are not referenced to degrees or titles (meaning, for example, that a qualification at level 6 does not automatically belong to higher education and the achievement of this qualification does not give automatic entitlement to a bachelor degree);
(c) all NLQF levels are open to all qualifications of all education sectors.

The learning outcomes approach used to describe the nine levels is based on the following elements.

Table 66 demonstrates the influence of the EQF descriptors, but differs in some important respects. As in several other countries, making context explicit has been seen as important. The subdomains introduced for skills can be seen as a way specifying the descriptors and making them more relevant to the Dutch context. They can also be seen as reflecting Dutch experiences in applying learning outcomes, for example in VET (upper secondary vocational education (*middelbaar beroepsonderwijs*) (MBO) in recent years.

The learning outcomes, competence-oriented approach is broadly accepted and implemented in Dutch education and training. The Dutch referencing report to the EQF (van der Sanden et al., 2012) details a strong tradition of 'objectives-led' governance of education and training, an approach which has proved conducive to a competence-based approach. Vocational education and training (VET) is probably most advanced in competence orientation; following extensive reform, a new VET competence-based structure has been developed and implemented. The same tendencies can be observed in general and higher education,

Table 67 Level descriptor in the Dutch national qualifications framework (NLQF)

NLQF descriptors				
Context				
The context descriptions of the levels are used along with the described knowledge to determine the grade of difficulty of the skills.				
Knowledge				
Knowledge is the totality of facts, principles, theories and ways of working related to an occupation or a knowledge domain.				
Skills				
Cognitive abilities (logical, intuitive and creative thinking) and practical abilities (psychomotor skills in applying methods, materials, tools and instruments) applied within a given context.				
Applying knowledge Reproduce, analyse, integrate, evaluate, combine and apply knowledge in an occupation or a knowledge domain.	**Problem-solving skills** Recognise or identify and solve problems.	**Learning and development skills** Personal development, autonomously or under supervision.	**Information skills** Obtain, collect, process, combine, analyse and assess information.	**Communication skills** Communicate based on conventions relevant to the context.
Responsibility and independence The proven ability to collaborate with others and to take responsibility for own work or study results or of others.				

Source: Dutch referencing report, 2012 (van der Sanden, 2012).

although less systematically. The introduction of the qualifications framework for higher education has contributed to the overall shift to learning outcomes, as has the involvement of single institutions in the so-called 'tuning project'.

The strong position of the learning outcomes approach is reflected in widespread use of validation of non-formal and informal learning in the Netherlands. The NLQF is expected to strengthen the role of validation and turn it into an integrated part of the qualifications system.

Stakeholder involvement and institutional arrangements

The Ministry of Education, Culture and Science coordinates the development and implementation of the NLQF. The day-to-day running of the framework has been delegated to a NLQF secretariat which also operates as EQF national coordination point. In 2015 and 2016 the secretariat employed 2.7 full-time employees.

Unlike many other countries, initial development of the framework included only limited stakeholders input alongside the three ministries directly involved. An expert committee (the *Leintsje-committee*), consisting of four professors recruited for their expertise in education and training matters, produced a first outline of the framework. While consultation was eventually carried out, the original NLQF proposal was not the result of wide stakeholder involvement and engagement.

The priority given to the 'opening up' the NLQF to the private sector has partly responded to this initial weakness. Systematic work has been carried out since 2012 informing potential stakeholders of the potential inherent in the framework. While progress has been slow, 31 qualifications have been levelled and included in the framework since start of work in 2012.

The NLQF builds on the qualifications framework for higher education developed (from 2005) in the context of the Bologna process. This culminated in the NQF for higher education in the Netherlands, which was verified by an independent external committee of peers in February 2009. The accreditation organisation for the Netherlands and the Flemish community of Belgium guarantees implementation through the accreditation process, which is obligatory across formally recognised higher education.

Recognising and validating non-formal and informal learning and learning pathways ([391])

A new Dutch national policy on validation of non-formal and informal learning was presented in early 2014. The policy aimed to broaden validation opportunities for Dutch citizens. The outcome of this reorientation is closely linked to making validation of prior learning (VPL) ([392]) a successful tool in both learning and employment. Another objective is to share ownership of the validation method and its instruments, such as the use of portfolio, assessment and validation tools. These two validation paths are described as follows.

In the labour market route, VPL is aimed at career guidance for adults on the labour market. Prior individual learning outcomes are validated against sector/industry standards or formal qualifications. A learning programme – not necessarily a qualification-oriented programme – is designed to support intra- or inter-sector employability. VPL tools include the e-portfolio, portfolio-training, the *ervaringsprofiel*, and competence tests. If a formal VPL procedure is followed, the result can also be an ervaringscertificaat.

In the education route, individual learning and competences are validated against a national qualification. The goal for the learner is to validate his or her competences to obtain a formal qualification. VPL tools include intake-assessment, e-portfolio, competence tests, and ECVET methods. An *ervaringscertificaat* can be part of someone's learning outcomes but is no longer essential for obtaining exemptions or a partial/full qualification. This dual pathway means there is no longer an exclusive role for the *ervaringscertificate* and awarding bodies for qualifications (in general exam committees of VET schools or universities) can also use the other mentioned VPL instruments.

NQF implementation

The NLQF is a fully operational NQF. While the NLQF secretariat operates with a limited staff and budget (approximately EUR 500 000 in 2015), the visibility of the NLQF is slowly increasing, also among stakeholders outside formal education and training.

([391]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([392]) In Dutch: Erkenning van Verworven Competenties (EVC).

The criteria and procedures detailed in Box 1 illustrate the main principles now developed for the inclusion of 'other qualifications' into the NLQF.

In 2014, the Ministry of Education initiated revision of existing legal texts underpinning Dutch education and training to make sure that the role of the NLQF is reflected. This revision, while currently delayed, will also address the inclusion of NLQF and EQF levels in certificates and qualifications. It is currently not clear when this revision will be finalised. While this process will not prevent the NQF from carrying out its current work, it will ultimately strengthen the legal position of the framework.

Referencing to regional frameworks

The Netherlands referenced its NQF to the EQF in October 2011 (van der Sanden et al., 2012).

The process drew attention to the proposal of referencing the academically oriented secondary education (pre-university secondary education (*vvoorbereidend wetenschappelijk onderwijs*) (VWO)) to level 5 of the EQF. Following feedback from the EQF advisory group, the Netherlands accepted that this particular qualification should be referenced to level 4 of the EQF, but introduced a differentiation within the NQF, designating the VWO qualification as 4+ (in reality introducing a sublevel).

Important lessons and future plans

The Dutch NQF has now reached operational stage, notably by opening up to 'other qualifications' in the private sector. Future success will largely depend on whether the framework will be seen as relevant to stakeholders outside the limited circle of formal, public education and training. Stakeholders close to the process see the need to develop a comprehensive communication strategy in the coming period to ensure that as many as possible are involved in the further development and implementation of the framework. The responsible ministry must ensure that the role of the NLQF is clearly defined in planned revision of the existing legal basis.

Further sources of information

The referencing document of the Dutch national qualifications framework to the European qualifications framework (van der Sanden et al., 2012): https://ec.europa.eu/ploteus/sites/eac-eqf/files/EQF_Referencing_Netherlands_022012.pdf

The NLQF secretariat, national coordination point for EQF: http://www.ncpnlqf.nl

Box 1 The opening up of the NLQF: criteria and procedures

The NLQF – represented by the national coordination point – has since 2012 promoted the possibility to have a qualification included in, and levelled to, the framework. This is being presented as an opportunity for providers to achieve better overall visibility, to strengthen comparability with other qualifications at national and European levels, to be able to apply the learning outcomes approach, and to strengthen links to the labour market.

If a provider such as a private company wants to submit a qualification for inclusion, it must undergo accreditation (or in Dutch 'validation'). Issues such as legal status, property rights, the continuity of the organisation and the existence of quality assurance arrangements are checked. A list of approved quality assurance systems is included in the guidance material: if the provider does not use such systems, an on-site visit is organised.

When an organisation has been accredited (for five years) it can submit qualifications for inclusion and levelling. The organisation will indicate the level it sees as most appropriate, providing the starting point for the assessment on which a final decision will be made. When asking for inclusion, the organisation must indicate the learning outcomes in accordance with the main elements of the NLQF level descriptors (see Table 67), the workload (no qualifications of fewer than 400 hours nominal workload will be considered), the assessment approaches to be applied, and the link to relevant occupational profile.

While the national coordination point is responsible for organising the process, committees of independent, external experts assess the applications and give their advice to the NCP board, which eventually makes the final decision on inclusion. The board includes all the major stakeholders involved in the NLQF, including ministries and social partners.

Organisations must pay to use the system. Accreditation is between EUR 1 000 and EUR 7 500, depending on whether an approved quality assurance system is in place. Submitting one qualification for inclusion is set at EUR 2 500.

Table 68 Dutch national qualifications framework (NLQF)

NLQF levels	Formal qualifications	Other qualifications (*)	EQF levels
8	Doctorate/medical specialist *(Doctoraat/Medisch specialist) Ontwerper*		8
7	Master		7
6	Bachelor	Psychosocial counsellor (OPC) • Stressmanagement • Coaching counselling • *Conflictbemiddeling* Professional • *Operatie-assistent* • *Dialyseverpleegkundige* • *Relatiemanager Bedrijven* ABN AMRO • Certified leader excellent level • *Middelbare Defensie Vorming* • *Officier Korps Zeedienst* • *Officier Koninklijke Marechaussee onderbouw*	6
5	Higher professional education *(Hoger beroepsonderwijs)* (HBO)/ associate degree	• Consultant payroll Services & benefits (CPB) • Trainer-coach 5 • *Opleider 5* • Hotel service management • *Operationeel Technicus Energie Productietechniek*	5
4+	VWO *(vvoorbereidend wetenschappelijk onderwijs)* Vavo-vwo		4
4	MBO-4 General secondary education for adults *(Voortgezet algemeen volwassenenonderwijs)* (Vavo) Higher general secondary education *(Hoger algemeen voortgezet onderwijs)* (Havo)	• International flight attendent • Airport service agent • Senior medewerker (marechaussee) • Interieor designer - EHCB • Trainer-coach 4 • *Branchediploma Medisch Pedicure* • *Branchediploma Allround Schoonheidsspecialist* • *Applicatie opleiding Levensmiddelentechnologie*	4
3	MBO-3	Hondentoiletteren Algemeen Opsporingsambtenaar Zwemonderwijzer Trainer-coach 3 *Branchediploma Pedicure* *Branchediploma Schoonheidsspecialist*	3
2	MBO-2 Vmbo kb/bl/bb (**) Vavo - Vmbo tl Pre-vocational secondary education, theoretical pathway *(Voorbereidend middelbaar beroepsonderwijs, theoretische leerweg)* Basic education 3 *(Basiseducatie 3)*	*Marechausseebeveiliger*	2

NLQF levels	Formal qualifications	Other qualifications (*)	EQF levels
1	MBO-1 Vmbo bb Basic education 2 *(Basiseducatie 2)*		1
Entry level	Basic education 1 *(Basiseducatie 1)*		Entry level

(*) These are single qualifications included in the NLQF as of December 2016. They have been awarded by organisations outside the public, formal education and training system but, following quality control, attributed levels in the framework. The 'size' of these qualifications varies, but a minimum of 400 hours of nominal study time is required for a qualification to be considered for inclusion.

(**) Kb-advanced VET pathway, gl-combined VET and theoretical pathway, bb-basic VET pathway.

Source: Adapted from Dutch referencing report 2012 additional information from http://www.nlqf.nl/nlqf-niveaus and http://www.nlqf.nl/register

Abbreviations

EQF	European qualifications framework	NQF	national qualifications framework
EVC	*Erkenning van Verworven Competenties* [validation of prior learning]	Vavo	*Voortgezet algemeen volwassenenonderwijs* [general secondary education for adults]
Havo	*Hoger algemeen voortgezet onderwijs* [higher general secondary education]	Vmbo	*Voorbereidend middelbaar beroepsonderwijs* [lower secondary general and pre-vocational education]
HBO	*Hoger beroepsonderwijs* [higher professional education]	VET	vocational education and training
MBO	*middelbaar beroepsonderwijs* [upper secondary vocational education]	VWO	*Voorbereidend wetenschappelijk onderwijs* [pre-university secondary education]
NLQF	qualifications framework for the Netherlands		

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Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

NEW ZEALAND

Introduction and context

The New Zealand qualifications framework (NZQF) is the definitive source for information on New Zealand's quality-assured qualifications, covering senior secondary school and tertiary education. The NZQF is based on outcomes and sets out 10 level descriptors based on knowledge, skills and application (of knowledge and skills). It provides information on the knowledge and experience holders of qualifications can be expected to have, and the education and employment pathways related to a qualification.

The NZQF was established in 2010. It replaced the previous qualifications system that consisted of the national qualifications framework, which was introduced in 1991, and the New Zealand register of quality assured qualifications, which commenced in 2001.

The establishment of the NZQF followed a targeted review of the qualifications system during 2008-09. The review identified a need to make qualifications better understood by learners, employers and industry, reduce the number of qualifications, and ensure that qualifications were designed to meet the needs of employers and industry.

Policy objectives

The NZQF is designed to optimise recognition of educational achievement and its contribution to New Zealand's economic, social and cultural success. It plays a significant role in ensuring that New Zealand qualifications are valued as credible and robust, both nationally and internationally. The core functions of the NZQF are to:

(a) convey the skills, knowledge and attributes of a graduate and provide high-quality education pathways;
(b) ensure qualifications meet the needs of learners, employers, industry and the community;
(c) assure the quality and international comparability of New Zealand qualifications;
(d) contribute to Māori success in education by recognising and advancing *mātauranga* Māori ([393]).

The NZQF is fundamental to New Zealand's tertiary education system. Government funding for tertiary education providers is only available for qualifications that are quality assured and on the NZQF. This principle also applies to learners who wish to access student loans and allowances, and student visas in the case of international students.

Qualifications on the NZQF are based on the principles of need and outcomes, with those at levels 1 to 6 also requiring flexibility and collaboration. This approach is intended to provide a simple structure for qualifications and programmes.

Need: the relevance and value of a qualification is based on its relationship to the workforce and the skills required of individuals, groups of learners, employers, industry and communities. Where appropriate, a qualification explicitly acknowledges the cultural and social aspirations of Māori, Pasifika and/or other communities.

Outcomes: clear outcomes make the purpose of a qualification transparent, enable comparisons with other qualifications (both nationally and internationally) and increase the portability of the qualification internationally. They also make explicit what graduates can 'do, be and know' on completion of a qualification, and indicate pathways to further education, employment and/or a contribution to their community.

Flexibility: qualifications can be achieved in different settings including the workplace and education institutions. Having programmes of study and industry training leading to a qualification allows learners to achieve it in ways most suited to their education, work or cultural needs and aspirations. This may include credentialing learning obtained formally or informally towards the qualification.

([393]) Māori are the indigenous peoples of New Zealand. *Mātauranga* Māori refers to distinct knowledge related to the Māori worldview and experience.

Collaboration: qualifications are developed collaboratively with a wide range of stakeholders in an environment of mutual trust and accountability. The relationships between these parties are based on effective communication and collaboration. Parties can rely on the integrity of the processes used and the information provided.

Levels and use of learning outcomes

The 10 levels of the NZQF demonstrate increasing complexity of learning outcomes (level 10 is the most complex) across the domains of knowledge, skills and application (of knowledge and skills):

(a) knowledge refers to what a graduate knows and understands. It is described as a progression from 'basic general knowledge' through to knowledge which is 'factual', 'operational', 'theoretical', 'technical', 'specialised' and 'frontier' knowledge. Complexity of knowledge is described together with breadth and/or depth in the field of study or work;
(b) skills refers to what a graduate can do. Integration, independence and creativity are important in describing skills progression and reflect the degree of familiarity of the task/problem. Skills are described in terms of the type, range and complexity of processes, problems and solutions;
(c) outcome descriptors under application (of knowledge and skills) are expressed in terms of self-management and leadership in a profession or responsibility for the performance of others, the context of which may range from highly structured to dynamic. The learner is progressively more autonomous and more accountable, more responsible for interacting and collaborating with, managing and leading others, within progressively less transparent, more dynamic contexts;
(d) qualifications and outcome statements: all qualifications listed on the NZQF have an outcome statement that describes the knowledge, skills and attributes of a graduate. The outcome statement is used by prospective employers and other tertiary education providers, and for comparing qualifications. Different learners will achieve the outcomes in different ways, so the outcome statement indicates the minimum achievement expected by a graduate of a qualification.

Each outcome statement includes a/an:

(a) graduate profile, which describes what a qualification holder must be able to do, be and know. In developing the graduate profile, the qualification developer should consider the full range of capabilities and competences required;
(b) education pathway identifying other qualifications that a graduate could enrol in after completing this qualification. Where qualifications are standalone, and do not prepare graduates for further study, the outcome statement should make this clear;
(c) employment pathway determining the areas in which a graduate may be qualified to work or contribute to their community.

Table 69 Levels of the New Zealand qualifications framework (NZQF)

Level	Naming sequence
10	Doctoral degree
9	Master degree
8	Postgraduate diplomas and certifications Bachelor honours degree
7	Bachelor degree Graduate diplomas and certificates
6 5	Diplomas
4 3 2 1	Certificates

Source: NZQA, 2013.

Stakeholder involvement and institutional arrangements

The NZQF is established under section 248 of the Education Act 1989 ('the Act'). It was first brought in as a single unified framework on 1 July 2010 under the former section 253 (1)(c) of the Act and was fully introduced into the Act in the August 2011 legislative amendment (the new section 248).

The New Zealand Qualifications Authority (NZQA) is responsible for the NZQF and the overarching statutory rules for the quality assurance of qualifications and the tertiary education organisations (TEOs) that provide them (section 253 of the Act).

There are two quality assurance agencies with responsibilities for separate parts of the tertiary education sector (section 159AD of the Act). NZQA is responsible for the non-university tertiary education sector, while Universities New Zealand fulfils this function for the university.

New Zealand Qualifications Authority and the quality assurance of non-university TEOs

NZQA operates an integrated quality assurance system in which all the components support each other. The system includes registration of private training establishments (PTEs), approval of qualifications across the 10 levels of the NZQF, and training schemes. It also includes assuring the consistency of graduate outcomes of New Zealand qualifications at levels 1 to 6, moderation of assessment standards set by NZQA, monitoring degree programmes, conducting external evaluation and review, and risk management.

NZQA's external evaluation and review (EER) is used to make evidence-based conclusions about the quality and performance of a TEO by addressing achievement, outcomes and key contributing processes. Immediately prior to an EER, NZQA requires compliance declarations and gathers information on the TEO from other parts of the quality assurance system. NZQA evaluates the TEO's educational performance and capability in self-assessment on-site and reports a level of confidence on both aspects. The EER report is published on NZQA's website.

TEOs are responsible for using self-assessment to maintain and improve their own quality and the outcomes they achieve for learners and employers. Self-assessment focuses on identifying, responding to and meeting learner and stakeholder needs, evaluating the effectiveness of organisational processes and practices, and using the understanding gained to make improvements to outcomes and learner achievement.

Quality assurance of universities

Universities New Zealand is the statutory body with primary responsibility for quality assurance matters in the university sector. It has delegated authority for university programme approval, accreditation, approving university qualifications for listing on the NZQF, training scheme approval, and ancillary powers under section 253A of the Act.

There are two bodies overseeing the quality assurance of universities: the Committee on University Academic Programmes (CUAP) and the Academic Quality Agency for New Zealand Universities (AQA):

(a) The Committee on University Academic Programmes (CUAP)

CUAP is responsible for setting up and applying qualification and regulation approval, accreditation and programme moderation procedures across the university system. This includes running programme approval and moderation procedures, advice and comment on academic developments, and encouraging universities to develop courses of study that will allow transfer of learners between programmes and institutions.

Universities must submit any proposals to offer new qualifications or to make substantial changes to existing qualifications to CUAP. University qualifications must meet the published criteria set by NZQA; these apply to all qualifications offered by TEOs and are set after consulting with Universities New Zealand and others in the tertiary sector.

(b) The Academic Quality Agency for New Zealand Universities (AQA)

AQA operates independently from the universities and conducts an independent external review every five years. It monitors national and international requirements and good practice in higher education quality assurance.

AQA supports universities to achieve excellence in research and teaching through a regular audit of the institution and by promoting quality enhancement practices across the sector. AQA analyses trends from audits and consults stakeholders before finalising the focus(es) of the next audit cycle framework.

Recognising and validating non-formal and informal learning and learning pathways

Section 253(1) (k) of the Act states that NZQA may prescribe the details for credits, cross credits, recognition of prior learning, and moderation. NZQA currently performs this function through its Approval and accreditation rules 2013.

Education organisations in New Zealand are required to have their own administrative and practical arrangements in place for recognition of prior learning (RPL) and credit recognition and transfer (CRT). To assist education providers in meeting this requirement, NZQA has established the following operational principles for CRT:

(a) qualifications, courses and programmes should be designed in a way that promotes and aids CRT;
(b) decisions should prioritise the benefits to learners and support effective learning pathways;
(c) transparent decision-making processes for CRT are more likely to motivate learners to continue their education;
(d) policies and procedures should support CRT to operate across cultural and national borders;
(e) credit awarded as a result of RPL or current competence is equal in value to credit awarded through other forms of assessment. Once awarded, credit should be portable by the learner from one qualification to another.

NQF implementation

The New Zealand qualifications framework listing and operational rules 2012 set out the general listing requirements for qualifications at levels 1 to 10 on the NZQF. Sections 248(2) and 253 of the Act mandate NZQA to make rules associated with listing requirements.

NZQA lists qualifications at levels 7 to 10 on the NZQF after it approves the programme leading to the qualification; it then accredits a provider to deliver it. This applies to programmes and qualifications for the tertiary sector and is distinct from the process for qualifications at levels 1 to 6 in the non-university sector.

Within the non-university sector, there are additional listing requirements for qualifications at levels 1 to 6, including a two-stage approval process to list a qualification: approval to develop and approval to list a qualification.

There are several approaches qualification developers use when deciding the level of a qualification on the NZQF. The first is to compare the descriptors of the qualification with the level descriptors on the NZQF. Another is to assess at what level the qualification needs to sit on the NZQF and develop the qualification based on the learning outcomes of that level.

Industry, employers and the community are involved in developing qualifications, to ensure the qualification is relevant and fit for purpose.

NZQA and the Ministry of Education are directly involved in developing some qualifications. NZQA develops qualifications for Māori, Pasifika ([394]) and for generic skills that are not the responsibility of an industry training organisation (ITO). The Ministry of Education develops the national certificates of educational achievement (NCEA) for senior secondary school. Other government agencies may participate in or initiate the development of qualifications to meet particular government policy objectives.

Referencing to regional frameworks

NZQA has completed several projects with other jurisdictions that compare the NZQF to another qualifications framework: the European qualifications framework (2015), the Australian qualifications framework (2015), and the Irish national framework of qualifications (2010). NZQA is currently working on a similar project with Hong Kong. In 2016, NZQA and the Malaysian Qualifications Agency published a report on the comparability of New Zealand and Malaysia's Bachelor, Master and Doctoral Degrees.

Important lessons and future plans

NZQA has learned that reviewing and developing a new qualification requires all parties, including ITOs and education providers, to work collaboratively to identify and understand industry, community and cultural needs. NZQA provides a wide range of guidance and help to qualification developers and others to prevent the duplication of qualifications and ensure they are fit for purpose.

([394]) Pasifika are New Zealanders who identify with or feel they belong to one or more Pacific Island ethnicities. The seven largest ethnicities in New Zealand are Cook Island Māori, Fijian, Niuean, Samoan, Tokelauan, Tongan and Tuvaluan peoples. Refer to http://www.nzqa.govt.nz/audience-pages/pasifika/

Abbreviations

AQA	Academic Quality Agency for New Zealand Universities
CRT	credit recognition and transfer
CUAP	Committee on University Academic Programmes
EER	external evaluation and review
ITO	industry training organisation
NCEA	national certificates of educational achievement
NZQA	New Zealand Qualifications Authority
NZQF	New Zealand qualifications framework
PTE	private training establishment
RPL	recognition of prior learning
TEO	tertiary education organisation

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Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with the New Zealand Qualifications Authority.

NORWAY

Introduction and context

Norwegian national qualifications framework (NQF) developments were triggered by the 2008 European qualifications framework (EQF) recommendation and its inclusion in the Treaty of the European Economic Area (EEA) in March 2009 (EEA Joint Committee, 2009). Following extensive preparatory work involving main stakeholders, a comprehensive Norwegian national qualifications framework (*Nasjonalt kvalifikasjonsrammeverk for livslang læring* (NKR)) was adopted by government decision in December 2011 ([395]).

The NKR consists of seven levels and covers qualifications from general, vocational and higher education. The question of opening up to non-formal qualifications (for example, awarded by the private sector) has been extensively discussed. A committee of stakeholder representatives discussed the topic during 2014-15 but a clear solution has yet to be agreed.

The NKR was referenced to the EQF in June 2014. The Norwegian Agency for Quality Assurance in Education (NOKUT) has been appointed as national coordination point for the EQF.

A Government decree (*Forskrift*) defining the overall position of the NKR in relation to different areas of education and training is currently being prepared by the Ministry of Education and will, depending on consultation proposal and adoption by the Parliament, come into force in 2017. Given the adoption of the above, the NKR has reached operational status.

Policy objectives

The NKR aims at describing the existing national education and training system in a transparent way to make it more understandable, at national and international levels. Focusing on improving transparency of qualifications, the NKR is not seen as a tool for reform. The framework should increase mobility, contribute to more flexible learning pathways and promote lifelong learning. The objectives below are listed in the background document to the 2011 Government decision:

(a) focus on learning rather than teaching and instruction;
(b) focus on learning outcomes rather than learning inputs;
(c) make it easier for individuals to plan learning progression;
(d) describe differences in learning outcomes requirements between different levels;
(e) support lifelong learning;
(f) make qualifications more easily understandable to the labour market and to society in general;
(g) clarify to individuals what kind of general knowledge, skills and competences they have acquired;
(h) aid recognition of qualifications across national borders;
(i) ensure that competences are better utilised, by each citizen and by society in general.

The NKR is expected to strengthen the (already extensive) use of learning outcomes in Norwegian education and training. The level descriptors play a key role in clarifying the similarities and differences between qualifications and their relationships. The framework is seen as a point of reference for the development of individual qualifications. The new decree (see above), emphasises this point and is supposed to '…make it possible for the learning outcomes of individual qualifications to be based on the learning outcomes descriptors existing at a particular level' ([396]).

([395]) The Norwegian qualifications framework for lifelong learning; adopted by the Ministry of Education and Research on 15 December 2011, updated in April 2014: http://www.nokut.no/Documents/NOKUT/Artikkelbibliotek/Norsk_utdanning/NKR/20140606_Norwegian_Qualifications_Framework.pdf

([396]) Translated by the author from the consultation document on draft regulations on NQF and the referencing to the EQF (8.7.2016): https://www.regjeringen.no/no/dokumenter/horing–forskrift-om-nasjonalt-kvalifikasjonsrammeverk-for-livslang-laring-og-om-henvisningen-til-det-europeiske-kvalifikasjonsrammeverket-for-livslang-laring/id2476646/

For the moment, the NKR only covers qualifications established through national legislation and awarded by publicly recognised and accredited education and training institutions. A working group, including stakeholders from education and training and the labour market, was set up in late 2013 to consider possible procedures for including certificates awarded outside the traditional, formal education and training sector. The group was not able to agree on a single approach to be pursued but presented two partly opposing models ([397]). While one model refers to the NKR as primarily linked to the existing formal education and training system, the other suggests opening up to the non-formal sector where the framework forms part of a broader 'national competence strategy'. The lack of progress in this area is partly linked to different views on whether there is a need in the labour market and society for such an opening up, including an acceptance of the inclusion of part-qualifications into the framework. The disagreement reflects different views on how to ensure the transparency and quality of qualifications covered by the framework and whether 'external' qualifications should be judged using the same or different criteria as existing formal qualifications.

concepts knowledge (*kunnskap*), skills (*ferdighet*) and general competence (*generell kompetanse*). This approach was already adopted for the higher education framework and is broadly accepted among stakeholders. While the EQF influence is admitted, the main difference lies in the term 'general competence' which refers to the kind of transversal, overarching competences of the learning objectives adopted for upper secondary education: ability to apply knowledge and skills in different situations by demonstrating ability to cooperate, by showing responsibility and ability to reflect, and ability in critical thinking. Using the term 'competence' in isolation would, according to the proposal, lead to confusion.

The three descriptor elements are further specified as follows:

Table 70 Level descriptors in the Norwegian qualifications framework

Knowledge	Skills	General competence
Types and complexity: is it theoretical or practical knowledge, within a subject or a profession? How complex and comprehensive?	Types: is it cognitive, practical, creative or communicative?	Challenges regarding change: in which areas of education and work? How predictable and changeable situations.
Understanding: ability to contextualise knowledge.	Problem-solving: how complex are the tasks to be addressed at a particular level?	Cooperation and responsibility: extent to which candidate takes responsibility for own and others' work.
	Communication: with whom, at what level of complexity, by which means?	Learning: extent to which candidate takes responsibility for own learning and competence development?

Source: Norwegian Ministry of Education and Research, 2012

Levels and use of learning outcomes

The NKR adopted in December 2011 introduces a framework of seven levels, reflecting the structure of existing formal education and training in Norway. Levels are described through the

There is broad consensus in Norway on the relevance of the learning outcomes approach. *Kunnskapsløftet*, a wide-ranging reform started in 2004 and implemented in 2006, has been of particular significance and implied comprehensive redefinition and rewriting of curricula objectives at all levels of basic education and training: primary, secondary and upper secondary compulsory education and training, years 1 to 13. Finding its main expression in a national core-curriculum, addressing all levels of education and training, the learning outcomes approach has started to influence assessment and evaluation forms, particularly in VET. An important reason for using learning outcomes is to encourage curriculum consistency at national level. While adaptation is possible at local level, national consistency is important for reasons of quality and also to support validation of non-formal and informal learning.

Adopting the qualifications framework for higher education has also triggered extensive revision of

([397]) Placement of qualifications from non-formal education in the national qualifications framework. Report form the working group, 2015: https://www.regjeringen.no/contentassets/5d48c0acb6554abc862807a9743e8d99/nkrrapport.pdf

study programmes in higher education, aiming to introduce and apply the learning outcomes principle in all institutions and programmes. Post-secondary education and training (*fagskole*) have only recently started to apply the learning outcomes principle in descriptions of their programmes. This has largely been triggered by the development of level descriptors in the NKR (level 5). The priority given in Norway over many years to validating non-formal and informal learning has also increased awareness of the potential of the learning outcomes approach.

Stakeholder involvement and institutional arrangements

The development and implementation of the NKR have been based on broad stakeholder involvement. All main education and training stakeholders, as well as representatives from the labour market parties, have been involved at all levels through the entire process. Stakeholders have generally been engaged in, and committed to, the process, although sometimes expressing different opinions on the role, profile and future direction of the NKR.

While representatives of the different parts of the formal education and training system (including students) have been fully involved in development and implementation, awareness of the framework among individual institutions is still limited. A longer term objective (supported by the proposal for a new decree) is to promote the framework as a reference tool for developing and reviewing programmes and qualifications. As stated by NOKUT, the national quality assurance agency, the descriptors provide a starting and reference point for pedagogical and methodological developments ([398]).

The involvement of labour market stakeholders in developing the NQR has been significant and is closely linked to discussion on opening up to the non-formal sector. Norwegian social partners generally see the NQR (and the EQF process) as important and as a way to strengthen the dialogue between education and training and the labour market. Some representatives of trade unions and employers ([399]), however, express frustration regarding the failure to agree on opening up to 'external' qualifications and criticise the Ministry of Education for not fully exploiting the potential of the framework. These stakeholders see the framework as a key tool in a broader national competence strategy where the interaction between education and training and the labour market is seen as a key issue.

While the Ministry of Education is responsible for the overall development and implementation of the framework, NOKUT, the national agency for quality assurance in education and training, acts as national secretariat for the NKR as well as taking on the role of national coordination point (NCP) for the EQF. NOKUT currently employs (the equivalent of) 1.5 full-time staff to support NQF/EQF related work. NOKUT is also responsible for the main web presentation of the NKR ([400]). While highly informative regarding the structure and content of the NKR, it is only partly designed to address end-users, be these learners or employers. It is not, for example possible to move from the general descriptors of the framework into the specific qualifications and their learning outcomes. The role of the NKR as a map of, and entrance point to, Norwegian qualifications is this not fully exploited.

Recognising and validating non-formal and informal learning and learning pathways ([401])

There are laws and regulations on validation of non-formal and informal learning for each level of education and training covered by the NKR. Validation arrangements are based on shared basic principles across all sectors. One of these principles is that the validation process should be voluntary and of benefit to the individual. Nevertheless, while participation in validation is voluntary, the legal framework guarantees the rights of individuals to undertake it.

Validation is one of several competence policies in a continuing process of setting up a national strategy. This may result in increased attention to validation of prior learning as an important element in adult competence development. Validation, known in Norwegian as *realkompetansevurdering*, is clearly defined in the education sector, where it is used as a specific term in laws, regulations and guidelines. In the validation system of the education sector in Norway, prior learning includes formal, non-formal and informal learning, even though formal learning is not assessed in the assessment

([398]) NOKUT 2016: http://www.nokut.no/no/fakta/kvalifikasjonsrammeverk-og-laringsutbytte/

([399]) Interviews on October 2016 with Benedikte Sterner, Norwegian Trade Union Confederation (LO), and Tormod Skjerve, National Employer's Conderation (Virke).

([400]) NOKUT: http://www.nokut.no/en/Facts-and-statistics/The-Norwegian-Educational-System/The-Norwegian-qualifications-framework/

([401]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

phase. In Norway, formal learning is viewed as a part of a person's total competences and included in the term prior learning.

Validation is regulated by national laws in the education sectors. National regulations and guidelines set up general frames for local provision of validation in the counties or in the higher education institutions. Responsibility for local provision in primary, lower and upper secondary education is decentralised to county education administrations. Other national regulations and guidelines apply to post-secondary VET colleges and institutions in higher education, where each learning institution has more autonomy in defining validation procedures.

The Norwegian validation system is established in the formal education sector, so learning at the workplace (or third sector) is validated with reference to the learning outcomes requirements adopted for this sector. As validation is regulated by law, it is a visible part of national strategies and arrangements.

Outcomes of validation of prior learning in Norway are formally recognised as equal to other formal documentation of learning; certification from validation is issued from the same institutions as certificates acquired through formal learning. In post-secondary VET and higher education, each institution provides validation procedures based on the learning outcomes of the relevant study programme. Each institution is autonomous and so there are no general procedures for validation of competence at NQF/EQF levels 5 and above.

NQF implementation

Adoption of the proposal for a framework decree will mean that the NKR has, reached full operational stage; this is rapid progress given that the first development phase, from 2006 to 2009, was fragmented. The process consisted of a series of different initiatives (in higher education, vocational education and training and tertiary VET) going on in parallel and with limited coordination. This improved from 2009 onwards when the Ministry of Education, reflecting input from stakeholders, stated an intention to work towards a comprehensive framework for lifelong learning and to merge existing strands of work into a single approach. Clarifications leading to referencing of the NKR to the EQF in June 2014 concluded this first stage and made it possible for the NKR to move into an operational stage. While the (originally) planned opening up of the framework to 'external' qualifications has been partly put on hold, the core framework as referenced to the EQF in 2014 is generally referred to as a permanent and fully

Table 71 The Norwegian qualifications framework (NKR)

NQF levels	Qualifications		EQF levels
8	PhD degree		8
7	Master degree		7
6	Partial bachelor (short higher education)	Bachelor (Bologna first cycle)	6
5	5.1 Certificate of completed post-secondary VET 1 (*Fagskole*)	5.2 Certificate of completed post-secondary VET (*Fagskole*) 2	5
4	4A Certificate of completed general upper secondary education	4B Certificate of completed vocational upper secondary education (*Fagbrev*)	4
3	Certificate of partially completed upper secondary education and training (*Kompetansebevis*)		3
2	Certificate of primary and lower secondary education		2
1	Not part of the NQF. No qualifications included.		1

Source: NOKUT, 2012.

integrated part of the Norwegian education and training system. Further implementation of the framework will require that individual institutions become more aware of it and that it starts being used as a reference point for development and review of qualifications. It also requires that agreement is reached on the role of the framework in a broader national competence strategy linking education and training and the labour market.

The 2011 Government decision on the introduction of the NKR (Norwegian Ministry of Education and Research, 2011) stated that evaluation of the framework should take place after six years (in 2017). Some stakeholders have questioned the wisdom of adopting a framework decree prior to this evaluation, potentially excluding further deepening or broadening of the framework.

Referencing to regional frameworks

Norway referenced to the EQF in June 2014 (combined with the self-certification to the QF-EHEA).

While the EQF advisory group considered the link between the NKR and the EQF to be transparent, some questions were raised regarding the levelling of qualifications at levels 5 and 6, particularly the relationship between the certificate for post-secondary VET (level 5.2) and the partial bachelor (level 6).

Further sources of information

NOKUT (Norwegian Agency for Quality Assurance in Education) is the national coordination point: http://www.nokut.no/no/Fakta/Det-norske-utdanningssystemet/Nasjonalt-kvalifikasjonsrammeverk-for-livslang-laring/

The referencing of the Norwegian qualifications framework for lifelong learning to the EQF and self-certification to the qualifications framework of the European higher education area: http://www.nokut.no/Documents/NOKUT/Artikkelbibliotek/Norsk_utdanning/N KR/The_referencing_report.pdf

University of Oslo (2012). *Referencing Norwegian qualifications framework (NKR) levels to the European qualifications framework (EQF). Extension of the technical report to the Norwegian referencing group* [unpublished].

Norwegian Ministry of Education and Research: https://www.regjeringen.no/no/tema/utdanning/voksnes_laering_og_kompetanse/artikler/nasjonalt-kvalifikasjonsrammeverk/id601327/ (not available in English).

Abbreviations

EEA	European economic area
EQF	European qualifications framework
EU	European Union
NKR	*Nasjonalt kvalifikasjonsrammeverk for livslang læring* [national qualification for lifelong learning]
NOKUT	Nasjonalt kompetansesenter for utenlandsk utdanning [Norwegian Agency for Quality Assurance in Education]
NQF	national qualifications framework
QF-EHEA	qualifications frameworks in the European higher education area
VET	vocational education and training
Vox	Norwegian Agency for Lifelong Learning

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European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Norway.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

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Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

PAKISTAN

Introduction and context

The Pakistan National skills strategy (NSS) 2009-13 prioritised paradigm-shifting reforms in Pakistan's technical vocational education and training (TVET) to ensure alignment with skills demand, increase access and improve quality. The development and implementation of a Pakistan national qualifications framework (NQF) form part of the NSS reform. The NQF aims to bring together all national qualifications under one coherent system (NAVTEC, 2009) ([402]).

Developments, some supported by donor assistance, have occurred at national and provincial levels. The TVET reform support programme (TRSP) assists reform of the national system and is currently being implemented in Pakistan by the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ GmbH) (German Agency for International Cooperation and Development) (GIZ, 2013, 2016) in cooperation with the National Vocational and Technical Training Commission (NAVTTC, previously known as NAVTEC) and provincial technical education and vocational training authorities (TEVTAs). Other TVET providers, including the Punjab Vocational Training Council (PVTC), Punjab Skill Development Fund (PSDF), a large number of private institutes, trade testing boards (TTBs) and boards of technical education (BTEs), are also involved.

The project is jointly funded by the European Union, the Embassy of the Kingdom of the Netherlands, the Federal Republic of Germany and the Royal Norwegian Embassy. As the national qualifications framework (NQF) is a part of the TVET reform support programme, it focuses on the TVET sector, and is called the national vocational qualifications framework (NVQF).

([402]) Other policy documents have also supported the development of an NQF in Pakistan in the past: the Draft national education policy (April 2008) proposed the development of an overarching NQF, encompassing all qualifications in the country, both academic and vocational/technical.

The first draft of the framework was prepared in December 2012. After a series of consultations with major stakeholders from public and private sectors, the NVQF was approved for piloting in December 2014. The draft was further reviewed following feedback from major implementing partners including TEVTAs, TTBs, BTEs and PVTC, as well as special contributions from private-sector representatives. In March 2015, the Federal Minister for Education and Technical Training launched the first-ever Pakistan national vocational qualifications framework (NVQF) (NAVTTC, 2015).

The NVQF provides policies and guidelines to ensure the quality of skills development in technical and vocational education and training (TVET). It sets out possible pathways for entry, progress and achievement of a qualification including credit accumulation, equivalences and transfer from one qualification to another. It is designed to aid both horizontal and vertical progress of learners within TVET. It provides the basis for improving quality, accessibility and recognition of qualifications at national and international levels. The NVQF is an overarching document supported by 11 operational manuals in which details of implementation guidelines are given. A distinguishing feature of this document is that it covers the prerequisites of standardisation and promotion of qualifications from a local perspective, specifically with reference to establishing equivalences within the informal sector. However, the notion of equivalence is presently restricted to the TVET sector only. In the next phase of the TVET reform support programme (which runs from January 2017 for five years), TVET qualifications will be extended to general education as well.

Policy objectives

The purpose of the NVQF is to:

(a) improve the quality of TVET by determining clear qualification levels and by creating transparency for employers concerning applicants qualifications;
(b) improve the alignment between qualifications, training programmes and skill demand;

(c) establish a structured national framework for vocational and technical learning achievements based on defined levels and characteristics;
(d) standardise the system of defining the characteristics and value of qualifications and the relationships between qualifications;
(e) promote population upskilling and aid horizontal and vertical movement within the skills development system through pathways for progression and credit accumulation and transfer;
(f) aid recognition of prior learning (RPL) to provide a mechanism that allows individuals to gain recognition for the skills already acquired;
(g) contribute to international recognition of Pakistani qualifications by improving the credibility, portability and recognition of NVQF qualifications nationally and internationally;
(h) establish validity and reliability through a comprehensive and coherent quality assurance system that assures the quality of qualifications, training and assessment programmes and certification;
(i) support new ways of standardising technical and vocational training.

Levels and use of learning outcomes

The NVQF provides a distinct pathway for TVET within the overall national qualifications structure. It contains eight levels plus a 'zero' level (prevocational) designed to meet the TVET entry needs of the majority of the population with little or no schooling. Levels 1 to 4 are certificate levels and level 5 is the diploma level; levels 6 to 8 are higher education. Each level of the qualifications framework is defined by a set of approved level descriptors. These form the broad outcomes expected of achievers and the level of complexity of skills and knowledge at that level. They are used as guidelines for qualifications developers and for the design of competence standards, assessment and training programmes, course curricula, and teaching and learning materials. The pathways and equivalences developed between TVET and general education enable horizontal and vertical movement between these sectors. The NVQF integrates five interacting systems which, if properly coordinated, ensure the achievement of the NVQF aims: the qualifications development system; the assessment delivery system; the training delivery system; the national skills certification system; and the national quality assurance system.

Stakeholder involvement and institutional arrangements

The National Vocational and Technical Training Commission (NAVTTC) is the main authority working with provincial technical and vocational training authorities (TEVTAs) to develop and implement the NVQF. The NAVTTC was created following the Act XV of 2011 by the President of Pakistan on 25 June 2011. The Act empowers the NAVTTC to 'provide for an autonomous organisation for regulation, coordination, and policy direction for vocational and technical training and for matters ancillary thereto or connected therewith'. Many functions of the NAVTTC involve labour market information (LMI), for example with regard to vocational career guidance and counselling, development or modification of occupational standards, and assessment of the quality and labour market relevance of TVET training, based on information on school-to-work transitions.

The NQF/TVET is based on the European qualifications framework (EQF), and was developed in consultation with public and private stakeholders. It defines levels, level descriptors and rules for equivalences, and makes allowances for credit transfer, assessment, and recognition of prior learning (RPL).

The GIZ-TVET reform support programme has contributed substantially to NVQF development. The NVQF forms the foundation for competency-based standards, curricula, teaching learning materials and assessment packages. Together with the NAVTTC, the GIZ-TVET programme has set out guidelines for the development of curricula, including a standardised national template. Most stakeholder groups were involved in the design phase, the major steps being:

(a) industry practitioners participate in Developing a curriculum (DACUM) workshops; they define job tasks and duties, required equipment, and other features of a job;
(b) private sector practitioners and TVET teachers are involved in subsequent standards development;
(c) based on the defined tasks, duties and standards, national curricula are developed for different NVQF levels;
(d) industry experts are tasked with endorsing the new curricula or suggesting revisions before they are forwarded to and approved by the National Curricula Review Committee (NCRC). The NCRC is a standing committee consisting of representatives from NAVTTC and the TEVTAs as well as selected TVET experts. Special validation workshops are performed for industrial endorsement. Final approval is given by the NAVTTC;

(e) competency-based training (CBT) curricula were developed in 75 trades, including beauty and personal care, hospitality, IT, agriculture, commerce, renewable energy and the service sectors; more than 30% of these are suitable for women;
(f) TVET institutes are currently being identified to introduce CBT programmes;
(g) to date, over 130 institutes have introduced CBT programmes across Pakistan;
(h) the infrastructure for 105 TVET institutes has so far been developed by TRSP.

The capacity of the following stakeholders has been developed:

(a) 126 CBT assessors were certified as of July 2016;
(b) there are now more than 250 qualified principals and managers of TVET institutes;
(c) over 1,000 TVET teachers have been trained across Pakistan;
(d) NAVTTC has accredited six awarding bodies to conduct assessments of NVQF qualifications;
(e) more than 1 000 TVET institutes have also been accredited by NAVTTC;
(f) an estimated target of around 15,000 CBT learners are expected by the end of 2016;
(g) the Federation of Pakistan Chambers of Commerce and Industry (FPCCI) is participating in technical and vocational qualification development. In consultation with its affiliated chambers and trades associations, the FPCCI prepares recommendations for skills development according to current industry requirements.

Recognising and validating non-formal and informal learning and learning pathways

CBT assessment against defined NVQF standards is done regardless of the pathway (formal, non-formal or informal) an individual takes. NVQF assessment includes a diverse range of methods that clarify a candidate's skills, knowledge and attitudes. These methods may be demonstrations, simulations, presentations, assignments, projects, creations, tests or examinations. It is the assessment of an individual's performance against defined competency standards which is important: individuals are not compared against other individuals, nor do they receive scaled grades but are recognised as competent or not-yet-competent.

Competency-based assessment is not limited to the formal pathway. There are several pathways that individuals may take to be assessed against the defined national NVQF competency standard:

(a) participating in a training course at an accredited training institute;
(b) participating in workplace training;
(c) workplace assessment;
(d) direct assessment through RPL or recognition of current competences (RCC).

Each pathway leads to the same end point of assessment against the defined national competency standards for NVQF qualifications.

Registered apprenticeship training is conducted in around 610 establishments, including in many state-owned utilities such as railways and airlines. Registered apprenticeship training is highly competitive, the entry requirement effectively being the secondary school certificate (vocational) even though training is at trade level. Apprenticeship schemes are based on guidelines in the Apprenticeship Training Ordinance of 1962, which is now under review. The Germany-Pakistan training initiative (GPATI) has developed a workable approach to cooperative training in which theory is taught at two private training institutes and on-the-job training is provided by 10 German and three Pakistani companies.

There are several short-term (three months to one year) courses conducted by vocational institutes, for which entry requirement is a Class 8 pass. These lead to the grade of skilled worker, but are recognised only at provincial level (through TEVTA), not at federal level. It is envisaged that these courses will be accommodated in the NVQF at entry level. Non-formal learning initiatives such as these (including the distance learning programmes offered at open universities and through the Islamic education system, or via competence testing in the workplace) currently run parallel to the mainstream system. To incorporate these diverse learning initiatives into the NVQF will be a challenge.

CBT certification is done by the qualification awarding bodies (QABs) accredited by NAVTTC. They are mandated by NAVTTC to award national certificates through CBT assessment. So far, six QABs, including all four provincial TTBs, the Punjab Board of Technical Education (PBTE) and PVTC, have been accredited by NAVTTC. QABs issue two types of certificate: certificates of qualification are issued when an individual is declared as competent at a particular NVQF level and a certificate of achievement is issued when an individual partially completes a particular NVQF qualification as competent.

NQF implementation

The Government of Pakistan has developed NVQF operational manuals as guidelines for TVET stakeholders for the smooth implementation of NVQF qualifications in Pakistan. These manuals are as follows:

(a) NVQF operational manual No 1: developing, registering and reviewing NVQF qualifications;
(b) NVQF operational manual No 2: assessment of NVQF qualifications;
(c) NVQF operational manual No 3: developing NVQF curricula;
(d) NVQF operational manual No 4: developing NVQF teaching learning material;
(e) NVQF operational manual No 5: moderation of NVQF assessment;
(f) NVQF operational manual No 6: RPL and RCC;
(g) NVQF operational manual No 7: accreditation of qualification awarding bodies;
(h) NVQF operational manual No 8: equivalences and international linkages of NVQF qualifications;
(i) NVQF operational manual No 9: monitoring and evaluation of CBT;
(j) NVQF operational manual No 10: database management of NVQF qualifications;
(k) NVQF operational manual No 11: management of NVQF qualification;
(l) a national skill information system (NSIS) is being maintained by NAVTTC at its headquarters for the management of all kinds of data related to the TVET sector that includes both supply and demand sides.

Referencing to regional frameworks

The eight Member States of the South Asian Association for Regional Cooperation (SAARC), which includes Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka, finalised the SAARC framework for action (SFFA) for education 2030, leading to its adoption at the third meeting of Ministers of Education/Higher Education held in Male, Maldives in 2016. Through regional collaboration and partnerships, the ministers agreed to develop a regional quality assurance framework for vocational/skills education, and support mutual recognition of qualifications and student mobility (SAARC, 2016)

Important lessons and future plans

A number of challenges will need to be addressed, such as implementation of credit transfer and credit accumulation systems and determining equivalences of various NVQF qualifications with general and higher education.

There is a plan to create a special section in NAVTTC dedicated to work on the international comparability of the Pakistani NVQF. It is proposed to establish an inter-qualification awarding bodies committee of chairpersons (IQABCC) at NAVTTC headquarters for handling equivalency applications on a case-to-case basis.

An additional 60 CBT NVQF qualifications will be developed in the next phase of TRSP; however, there is a need for more donors to join and for the Government of Pakistan and all provincial governments to allocate funds for such a purpose. The World Bank Group has started implementing 30 CBT NVQF qualifications in the Punjab province that were developed by the TRSP. The UK Department for International Development (DFID) is committed to establishing NVQF qualifications in more than 120 institutes in Punjab in collaboration with the Pakistan skills development programme.

The World Bank plans to develop a single skills-testing authority under the name Punjab Skill Authority (PSA) through the merger of PBTE, TTB Punjab and PVTC along with other small certificate providers in both public and private sectors.

The Prime Minister's youth skills development programme (PMYSDP) has also introduced eight NVQF qualifications across Pakistan under supervision of NAVTTC, while Shaheen Training Institutes, operated by the Pakistan Air Force in Khyber Pakhtunkhawa province, have implemented various NVQF qualifications in 12 institutes. In addition to these developments in the private sector, TVET providers are also cooperating in implementing NVQF qualifications. In the light of these initiatives, it will be a challenge to manage the NVQF qualifications and review them at specific intervals.

Because the calibre of qualifications is central to the implementation of the NVQF, monitoring and evaluation and management of NVQF will have to be an important responsibility of both federal and provincial governments.

Abbreviations

BTEs	boards of technical education
CBT	competency-based training
DACUM	development of a curriculum
EQF	European qualifications framework
FPCCI	Federation of Pakistan Chambers of Commerce and Industry
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation and Development)
GPATI	Germany-Pakistan training initiative
IQABCC	inter-qualification awarding bodies committee of chairpersons
NAVTTC	National Vocational and Technical Training Commission
NCRC	national curricula review committee
NQF	national qualifications framework
NSIS	national skill information system
NSS	national skills strategy
NVQF	national vocational qualifications framework
PBTE	Punjab Board of Technical Education
PMYSDP	Prime Minister's youth skills development programme
PSA	Punjab Skill Authority
PSDF	Punjab skill development fund
PVTC	Punjab Vocational Training Council
QABs	qualification awarding bodies
RCC	recognition of current competences
RPL	recognition of prior learning
TEVTAs	technical education and vocational training authorities
TRSP	TVET reform support programme
TTB	trade testing board
TVET	technical and vocational education and training

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Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with national experts.

PALESTINE

Introduction and context

NQF snapshot

No law has been adopted yet.

Palestine is developing an eight-level national qualifications framework (NQF), based on learning outcomes and covering all education and training sectors. The framework is still under development; no qualifications are placed in its levels.

There is no regional qualifications framework but compatibility with neighbouring countries' systems and frameworks is a criterion in development of the Palestinian framework.

Educational, social, economic and political context

Palestine has a population of approximately 4.6 million ([403]). The relative size of the youth population (age group 15 to 24) is 70.8% ranking among the highest in the region, putting enormous pressure on current social services (schools, health and housing) and future employment needs. Considering that the absorption capacity of the Palestinian labour market has not increased in the past 10 years, this rapid population growth has led to high unemployment, exceeding 25%. Given the limited possibilities offered by the labour market, the main destination for the new workforce has been the public sector, but the current severe fiscal crisis has pushed policy-makers to limit employment in this sector.

More than half of Palestinians live abroad. The need to look for job opportunities outside their own country is one of the reasons for the importance that students attach to attending and completing university.

The Palestinian economy is dominated by small and micro enterprises. According to the definition used by the Palestinian Central Bureau of Statistics, 90.5% of companies are micro (below four employees) and 8.38% are small (below 20 employees). The structure of the Palestinian labour market, and the inability of the formal sector to absorb employees, have led to an expansion of the informal sector.

Policy objectives

Education and training reforms

The main challenges that the NQF should address are fragmentation of education system governance, lack of coordination among public and private providers, and the limited relevance of existing qualifications to the labour market.

The draft national consultation paper for development of the NQF identifies the following problems and obstacles to be addressed:

(a) no clear identification of educational outcomes for individuals and employers (no clear signals);
(b) fragmented qualifications systems in all sectors (general education, higher education and vocational education and training, non-formal and informal learning);
(c) no unified governance of education systems;
(d) imbalance of academic and vocational programs (no balance in enrolment rates between academic, vocational education and vocational training streams) regarding the labour market needs;
(e) no valuation and encouragement for lifelong learning, adult education and continuing education (no recognition of non-formal and informal learning);
(f) no comprehensive and efficient accreditation system;
(g) no links between education systems and the Arab occupational classification (AOC);
(h) no facilitation of labour mobility by existing education systems;
(i) no articulation between and within the different education subsystems.

The planned NQF should provide a strategic, comprehensive and integrated national framework for all learning achievement, on lifelong learning

([403]) Data from the ETF Torino process report 2016-17, Palestine.

principles. It should encompass all qualifications within the Palestinian national education system, across every field of education, and should address the requirements of education systems/providers, individual learners and labour market systems/employers.

The NQF aims at:

(a) supporting the formulation of learning outcomes in terms of qualifications according to Palestinian occupational classification (POC) standards, subsequent to adaptation from Arab occupational classification (AOC) standards;
(b) improving understanding of qualifications and levels of qualifications and giving a clear picture of the relevance of educational outcomes to individuals and employers;
(c) organising and facilitating horizontal and vertical articulation across education and training by establishing credit transfer between qualifications;
(d) aiding access to education and training opportunities, and mobility and progression within education, training and career paths to improve learner, labour and career mobility; making progression routes easier and creating bridges within education systems;
(e) ensuring that qualifications are relevant to perceived social and economic needs by linking the education system with the labour market through the adapted POC, and by increasing the value and enrolment rates in vocational education streams;
(f) raising education and training quality by ensuring that all standards are defined by agreed learning outcomes and applied consistently; ensuring that education and training providers meet specified quality standards;
(g) making it easier to match Palestinian NQF levels with those of other countries, securing not only local recognition but also regional and international recognition for national qualifications.

International cooperation

The Palestinian ministries running the NQF have worked closely with the German development agency active in Palestine (GIZ) and with the Belgian agency for technical cooperation (BTC), as the two principal VET development agencies. GIZ has conducted much of the technical work.

Levels and use of learning outcomes

Scope and structure of NQF

The national consultation paper envisages an eight-level national qualifications framework for Palestine. These levels are referenced to the Arab occupational classification (AOC), existing general education and higher education levels and technical vocational education and training (TVET) levels. The NQF will describe each level through descriptors covering a range of technical and social competences. These will be formulated and agreed together with stakeholders between 2016 and 2017.

Alignment to other classification systems

The planned NQF is linked to the Arab occupations classification (AOC) system, which includes the skills' arrangement as below:

(a) semi-skilled;
(b) skilled;
(c) craftsperson;
(d) technician;
(e) specialist.

NQF levels

Palestine plans an eight-level framework.

Level descriptors

The draft descriptors, as well as incorporating the familiar knowledge, skills and competences trinity, cover a range of technical and social competences: examples are range of work, maintenance of information, and flexibility. These will be further refined and then agreed with stakeholders between 2016 and 2017.

Use of outcomes

Learning outcomes are the conceptual basis of the qualifications framework and future qualifications. The intention is that they act as a tool to match education provision to the framework and as a reference of relevance of learners to the labour market.

Table 72 Palestine NQF level descriptors and domains				
	Level 1	**Level 2**	**Level 3**	**Level 4**
Knowledge	Has basic knowledge and understanding of facts.	Has basic knowledge and understanding of facts and procedures. Interprets information.	Has basic knowledge and understanding of facts and procedures Is able to explain. Selects, interprets and evaluates information.	Has a wide range of knowledge and understanding. Is able to explain proficiently. Analyses and evaluates information.
Skills & tasks	Carries out well-defined, simple and routine (sub) tasks. Use of standard tools and materials	Carries out simple and routine tasks. Is able to address simple problems. Selects and applies tools and materials.	Carries out several tasks at the same time. Is able to address well defined, but non-routine problems, related to tasks.	Combines tasks, which are related to each other. Is able to address well-defined and complex problems of integrated tasks.
Range of work	Activities covering a narrow part of work (task or subtask).	Activities covering one or more tasks.	Activities covering more tasks, within the profession.	Activities covering a wider range of tasks, within the sector.
Maintenance of information	Records personally generated information.	Keeps track of data generated by others.	Maintaining one or more information systems.	Adapting/designing information systems to meet the specifications of others.
Responsibility	Works under supervision.	Works under supervision.	Fully responsible for own tasks. Prepares and completes whole tasks.	Responsible for the full cycle of several tasks, including own reflection. Limited reflection of work done by others.
Autonomy	After clear explanation and instructions.	After explanation. Practises and shows autonomy.	Carries out tasks autonomously (after explanation). Shows initiative.	Carries out tasks autonomously. Shows initiative and initiates own ideas.
Flexibility	Steady context. Changes only under supervision.	Context with limited changes. Changes after instructions.	Adjust standard procedures in limited changing contexts, within field of tasks.	Adjust procedures, methods and tools in changing contexts related to the tasks.
Public range	Only he/she and colleagues.	Only he/she and colleagues.	Colleagues and customers.	Colleagues, customers, people in the sector.

	Level 5	Level 6	Level 7	Level 8
Knowledge	Has a wide range of knowledge and understanding. Applies knowledge in different contexts. Able to report on information.	Has detailed knowledge and understanding. Transfers to different contexts. Forms arguments. Reports on complex information.	Combines facts and methods of different disciplines and working fields. Criticises and forms arguments. Is able to conceptualise.	Criticises and forms arguments, conceptualises information with the focus to develop new theories, concepts and models for the sector.
Skills & tasks	Combines and integrates tasks. Plans and coordinates tasks. Is able to address complex problems.	Combines different tasks. Plans, coordinates and evaluates tasks. Defines new procedures.	Coordinates and has an overview of the nature and consequences of own tasks and those of others. Comes with new ideas.	Understands and deals with the complexity and diversity of tasks in the sector. Develops research, development, and strategic activities.
Range of work	Activities covering a full cycle of integrated tasks within the sector. Can work in a specialised field.	Activities covering a full cycle of tasks, related to an entire project.	Integrates different disciplines of the sector (also outside own profession).	Works in a context with the complete scope of activities (and consequences) of the sector in mind.
Maintenance of information	Design and development of major information systems to meet the specifications of others.	Management and development of information systems across the organisation.	Implementing and managing the development of information systems	Corporate responsibility for the provision of information systems for the organisation.
Responsibility	Responsible for the coordination of a full cycle of tasks, including reflection of tasks done by others.	Responsible for the coordination or management of a whole team or project.	Responsible for one or more projects, teams or the company.	Responsible for strategy, vision and coordination of programmes and companies.
Autonomy	Carries out tasks autonomously. Shows initiative. Brings in new ideas and concepts.	Thinks and acts independently. Shows entrepreneurial spirit.	Thinks and acts independently. Proactive. Comes first with new ideas.	Autonomous in thinking, acting and decision-making. Acts proactive.
Flexibility	Manages problems in continuously changing contexts.	Manages problems in dynamic environment. Initiates changes and innovation.	Manages problems in hard to predict environments. Designs changes.	Manages problems in unpredictable environments. Focus on innovation.
Public range	Customers, specialists in the sector.	Customers, specialists.	All people in the company, all regional contacts.	National contacts, governments.

Source: Ministry of Education and Higher Education and the Ministry of Labour.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

No law yet.

Governance and institutional arrangements for the NQF

The Ministry of Education and Higher Education and the Ministry of Labour currently oversee NQF development.

This development is the result of a series of reforms taking place in the TVET sector. It did not start as an individual project, but as part of the wider reforms to the institutional framework which binds together all the different processes (including Palestinian occupational classification, curriculum development process), developed in the framework of the TVET strategy.

Consultation with stakeholders on current reforms has been extensive. A wide range of actors (several ministries in charge of TVET provision, social partners, public and private education providers, learners/students and their parents, employment offices, awarding bodies and quality assurance agencies) have been actively involved in the formulation of the first proposal for an NQF in Palestine. This consultation took place in 2012 through a series of workshops with the different sectors of the education system and with the social partners.

The institutional setting for the development and management of the NQF has changed over the years in relation to changes in the TVET governance model. Currently the NQF is not operational and no institution is formally tasked to oversee its functioning. The Higher Council for TVET has overall responsibility for defining policies in the TVET sector and will play a crucial role in the definition and approval of future NQF institutional settings.

A technical working group, which includes all key TVET stakeholders, has been created to follow up NQF developments.

Roles and functions of actors and stakeholders

Representatives of the labour market and private sector participated in the preparation of the NQF. A participatory approach was also present in preparing the technical needs assessment and analysis of 40 professions under the Belgian Technical Cooperation project, with direct participation and involvement of experts from companies and the labour market. Labour market representatives participated in the verification process, reviewing the curriculum and providing professional feedback.

They also participated directly in defining the work tasks and required competences for each profession, under the competence-based, complex task approach for curricula development and learning situations methodologies. There is a consensus that employer representatives should be involved in implementing and participating in practical exams in TVET institutions.

Resources and funding

Limited. There is considerable reliance on EU and other donor support.

Quality assurance of qualifications

The Palestinian Cabinet has set up an Accreditation and Quality Assurance Commission (AQAC) for the purposes of accrediting the technical education institutions (TEIs) and their programmes. These apply to all community and technical (post-secondary) colleges. This mandate does not apply to other TVET institutions (vocational schools and vocational training centres).

No procedures have yet been agreed to level or place qualifications in the framework.

Recognising and validating non-formal and informal learning and learning pathways

Improving horizontal and vertical progression routes, and establishing effective mechanisms for recognition of prior learning, are two of the main objectives in developing the NQF. Appropriate operational mechanisms will be developed following the national consultation but priority is given to establishing the framework and mechanisms to reference qualifications to it. Validation of prior learning will be tackled at a later stage.

NQF implementation

Inclusion of qualifications in a register

There is no register or national database of qualifications yet.

Monitoring, evaluation and review of the NQF

As the framework is still being developed, no review has taken place.

Impact for end-users

No impact yet, as the QF is not in implementation.

Referencing to regional frameworks

No reference to existing regional frameworks has been considered for the moment. However, the readability of Palestinian qualifications among the neighbouring countries is one of the priorities identified in the national consultation paper. Specific attention will be given to the issue of regional and international recognition in the framework of the consultation process.

Important lessons and future plans

Following the national consultation conducted in 2012, the Ministry of Labour and the Ministry of Education have approved the NQF concept. The decision has not yet been brought to the cabinet. In the meantime, TVET stakeholders are working on further technical documents necessary for operationalisation of the framework. In 2016, a pilot exercise was conducted to reference existing qualifications in the fashion design sector to the framework. Based on this exercise, TVET actors are currently developing a methodology to reference qualifications to the framework.

Abbreviations

AOC	Arab occupations classification
AQAC	Accreditation and Quality Assurance Commission
BTC	Belgian Technical Cooperation (active donor in Palestine)
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit* (German development agency active in Palestine)
NQF	national qualifications framework
POC	Palestinian occupational classification
TEIs	technical education institutions
TVET	technical and vocational education and training

Prepared by:
the European Training Foundation (ETF).

PHILIPPINES

Introduction and context

In October 2012, President Benigno S. Aquino III signed Executive Order 83, s.2012, establishing the Philippine qualifications framework (PQF). This executive order was promulgated in the midst of far-reaching reforms of the country's three-part education system, which is composed of basic education, technical-vocational education and higher education.

The PQF is a quality-assured national instrument for the development, recognition and award of qualifications based on standards of knowledge, skills and values that learners absorb in a variety of ways. It is learning outcomes/competence-based, market-oriented and assessment-based.

Designed in 1998 and established in 2012, the PQF evolved from the Philippine technical and vocational qualifications framework (PTQF) into a nationwide unified framework for harmonising basic, technical/vocational and higher education within a lifelong learning framework. Moreover, the achievement of educational outcomes at each level and the establishment of pathways and equivalencies in the PQF aim to address the mismatch between training and education on the one hand and the needs of the Philippine economy on the other.

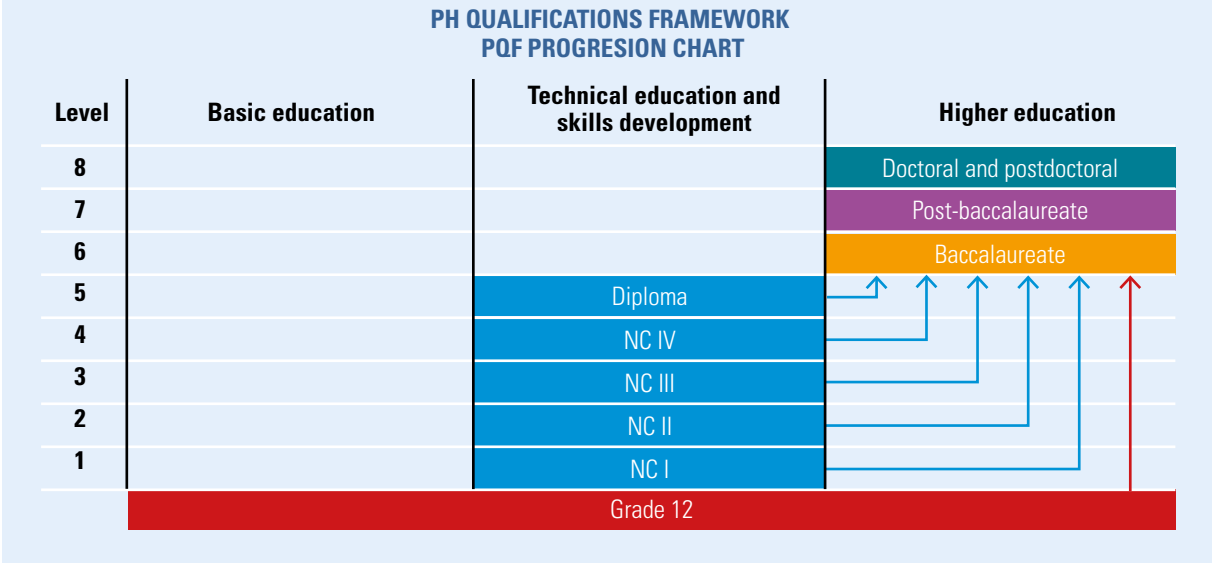
Policy objectives

The executive order (EO 83, s.2012, pp. 1-2) ([404]) outlines the following objectives of the PQF:

(a) to adopt national standards and levels of education outcomes;
(b) to support the development and maintenance of pathways and equivalencies, which provide access to qualifications and help people move easily between the different education and training sectors, and between these sectors and the labour market; and

([404]) http://www.officialgazette.gov.ph/2012/10/01/executive-order-no-83-s-2012/

Figure 20 Structure of the Philippines qualifications framework (PQF)



NB: NC = national certificate.
Source: Rey, Cariño and Rabago, 2009.

(c) to align the PQF with international qualifications frameworks to support the national and international mobility of workers through increased recognition of the value and comparability of Philippine qualifications (SHARE, 2015).

Levels and use of learning outcomes

The PQF is an eight-level framework with senior high school as its foundation. It has subframeworks in separate subsystems of the education and training system. For example, the Technical Education and Skills Development Authority (TESDA) subsystem covers national certificates (NC) 1 to 5, corresponding to the first five levels of the framework, while the Commission on Higher Education Subsystem (CHED) covers baccalaureate, postgraduate diploma, master, and doctorate, which correspond to levels 6 to 8. The two subsystems come together in the provision of diploma programmes at level 5 (see Figure 19). Based on learning outcomes, the PQF levels are defined according to three domains: knowledge, skills, and values; application; and, degree of independence.

All PQF levels are regulated by a quality assurance system that includes established qualifications standards, programme accreditation and assessment criteria. At elementary and secondary levels, programme accreditation is carried out by the Department of Education (DepEd) under the permit and recognition system. TESDA manages all post-secondary technical-vocational education and training (TVET), and has introduced a unified registration and accreditation system for TVET programmes as well as an accreditation system for institutions. TESDA's quality-assured system for issuing qualifications is covered by the Philippine TVET competency assessment and certification system (PTCACS). However, CHED establishes policies, standards and guidelines for higher education institutions and programmes, grants them operating permits, and monitors compliance with education standards with the assistance of recognised external accreditation agencies. As part of its quality assurance, CHED has identified centres of excellence and centres of development in various disciplines in public and private institutions throughout the Philippines. Graduates of 43 of the country's professional programmes must pass the Professional Regulation Commission licensure examinations before being allowed to practise (Isaac, 2011).

The Philippine education system is currently introducing a policy shift to a learning-outcomes-based model within a lifelong learning framework. This policy shift occurred earlier in basic and technical/vocational education than in higher education, which only initiated the change in 2012. The refinement of quality assurance mechanisms for the PQF, and the establishment of pathways and equivalencies and of a qualifications register to ensure the international alignment of qualifications, are areas of work currently under development.

Stakeholder Involvement and institutional arrangements

The PQF is regulated by a National Coordinating Council (NCC), chaired by the Secretary of the Department of Education (DepEd), composed of: the Technical Education and Skills Development Authority (TESDA); the Commission on Higher Education (CHED); the Department of Labour and Employment (DOLE); and the Professional Regulation Commission (PRC) (Sec. 2, EO No 83, s.2012).

The NCC performs the following functions:

(a) sets up technical working groups to determine the detail and the implementation of the PQF;
(b) coordinates the qualification levels with all levels of education;
(c) aligns education standards and learning outcomes to the level descriptors contained in the PQF;
(d) develops and recognises pathways and equivalences;
(e) discusses and agrees the elements of the PQF including, but not limited to, their principles, key features, definitions or terminologies, structure and governance arrangements;
(f) reviews and updates the PQF;
(g) provides information and guidelines on the implementation of the PQF;
(h) establishes a quality assurance mechanism;
(i) maintains the national registry of qualified human resources;
(j) ensures the international alignment of the PQF with the qualifications frameworks of other countries;
(k) represents the country in international forums or negotiations on qualification agreements/ arrangements;
(l) provides regular feedback on PQF development to the Office of the President with respect to the implementation of the Order;
(m) performs any other functions that may be related to the implementation of the PQF. (Sections7 &8, IRR of EO No 83,s.2012).

In line with its first function, the NCC has established four technical working groups (TWGs) with different roles in relation to the PQF:

(a) the DepEd has the task of developing information, education and communication (IEC) materials to promote the PQF. It also formulates guidelines, circulars and policy documents for the approval of the NCC;
(b) TESDA is the lead agency in the provision of information to employers, trainers and trainees on education and training opportunities; and in the licensure, assessment and certification services for professional and skilled qualifications. As such, it is responsible for the maintenance and update of the database of professional and skilled qualifications in the qualification register;
(c) CHED is the lead agency for establishing equivalency pathways for education transfer and/or progression between education levels to correspond to PQF levels. It is also responsible for developing a national system of credit transfer, and supporting, together with TESDA, the enhancement and adoption of the Ladderised Education Programme consistent with the PQF. In addition, CHED is codifying the PQF quality standards system and procedures;
(d) the PRC is entrusted with the task of conducting studies to compare and benchmark the PQF with other countries and regional/international frameworks. It liaises with professional organisations for the mutual recognition of qualifications.

Together, these organisations are committed to developing a coherent, internationally benchmarked framework covering basic education, TVET and higher education, as well as wider lifelong learning.

Recognising and validating non-formal and informal learning and learning pathways

Lifelong learning is an important principle of education and training in the Philippines. It stresses the appropriate balance of general and traditional schooling and competence-based training.

Formal, non-formal and informal learning represents an important means of acquiring skills for many Filipinos. TESDA's quality-assured competency assessment and certification under the Philippine TVET competency assessment and certification system (PTCACS) consists of a five-level national certificate (NC) system for certifying knowledge, skills and aptitudes acquired through formal, non-formal and informal learning. The NC levels are aligned to the descriptors for PQF levels I-V. The national certificate (for full qualification) or certificate of competency (for a cluster of competences) is issued to individuals who pass the national assessment, where competency assessment tools (CATs) are based on TESDA Board training regulations/qualifications. The training regulations (TRs) provide details of qualifications and define minimum requirements, competence and training standards, trainers' qualifications, facilities, supplies and materials, tools, and equipment. Qualification names are based on the functional characteristics of the work being done (SHARE, 2015).

The acquisition of a qualification by an individual is based on his learning a set of competences rather than the completion of a fixed period of study. The PQF allows an individual to enter the system at any stage and for whatever purpose or motivation, such as employment, improved productivity, income enhancement or further education. It also allows recognition of prior learning (RPL) and current competences (RCCs) regardless of where the skills were acquired.

As a matter of policy, individuals who believe they have the competences required by a particular qualification may present themselves for competency assessment without formal training. If the individual passes the competency assessment, he or she is issued a national certificate and/or certificate of competency. There is a process for evaluating the complexity and scope of a qualification such as indicated in the level descriptors for knowledge, skills, and independence identified in the PQF, and the nominal duration of training that would lead to the acquisition of the competences associated with particular qualifications. The certificate obtained will serve to reassure industry of the quality of their future employees.

The PQF supports the continuing education and training of TVET trainers. TESDA has the Philippine TVET trainers qualifications framework (PTTQF), which consists of four levels corresponding to the different roles assumed by trainers. These are training, methodology (TM) Level I: trainer/assessor; TM Level II: training designer/developer; TM Level III: training mentor; and TM Level IV: master trainer. (TESDA, 2011)

The PQF also supports post-TVET bridging programmes. These programmes provide an efficient way for students to earn credits towards higher education, enhancing their employability. They are designed to furnish students with the skills, knowledge and attitudes required by their current or desired job or course of study (Isaac, 2011).

To address the issue of recognising prior learning, the Philippines has developed an alternative learning system (ALS) in basic education that awards the

same qualifications and credits as the formal system. Assessment in this system is based on portfolios, interviews and/or written examinations.

Alternative learning programmes exist within all subsectors of the education and training system. For basic education, there is the Philippine education placement test for basic education level. For higher education, CHED has an expanded tertiary education equivalence and accreditation programme (ETEEAP) for a limited number of academic programmes (54) that recognise prior learning and experience. However, while there are policies, standards and guidelines governing credit transfer in ETEEAP and there are processes for evaluating the complexity and scope of a qualification to be awarded, the refinement of the programme prior to the planned expansion beyond the current limited number of programmes (SHARE 2015) is a work in progress.

NQF implementation

The PQF was established through Executive Order No 83, s.2012 ([405]). While Senate Bill No 211 entitled Institutionalising the PQF and legislating the establishment of the PQF-National Coordinating Council (PQF-NCC) was filed in June 2016 and is still going through the legislative process at the time of writing this report, it is important to note that the PQF and its governance structure – including the PQF-NCC – are already embedded in Republic Act 10647 entitled 'An Act strengthening the ladderised interface between technical-vocational education and training and higher education', otherwise known as the 'Ladderised Education Act of 2014'([406]).

The carrying out of the PQF and the strengthening of its links to the labour market is the role of five agencies.

DepEd ensures that graduates of the newly created Senior high school programme possess functional knowledge across a range of learning areas and technical skills in chosen career tracks – i.e. with advanced competences in communication; scientific, critical and creative thinking and the use of technology, with an understanding of right and wrong and of one's history and cultural heritage; with deep respect for self, others and their culture, and the environment as well as with the competence to apply their functional knowledge and technical skills and values to academic and real-life situations through sound reasoning, informed decision-making, and the judicious use of resources. Senior High School thus serves as a foundation for further technical and/or academic qualifications.

TESDA disseminates the training regulations (TRs) that define competence and training standards, trainers' qualifications, facilities, tools, and equipment; assesses competences and issues national certificates and/or certificates of competency that reassure employers and the public at large that those certified by the agency possess the necessary qualifications for specific jobs.

CHED issues policies, standards and guidelines for qualifications in particular academic programmes; names qualifications in non-traditional fields that are usually multidisciplinary in character together with the autonomous higher education institutions – i.e. those evaluated to meet high standards of quality and have programme centres of excellence – which enjoy greater freedom to name the qualifications of new multidisciplinary fields or sub-disciplines without CHED approval; and quality assures the programmes or institutions that lead to or provide for the acquisition of qualifications (SHARE 2015).

Apart from DepEd, TESDA and CHED, which are directly responsible for the country's education and training, the Professional Regulations Commission (PRC) and the Department of Labour and Employment (DOLE) are the other two government agencies responsible, respectively, for the implementation and/or application of the PQF in the labour market and in the work place.

Mandated to regulate and supervise the practice of the professions, in partnership with the 43 professional regulatory boards (PRBs), in health, business, education, social sciences, engineering and technology as well as to administer licensure examinations to aspiring professionals, the PRC oversees continuing programmes of study for professionals, the qualifications from which are linked to the PQF levels associated with higher education. Moreover, the Commission is responsible for the international alignment of professional qualifications covered by its Boards and is actively engaged in comparing and ensuring the eventual portability of professional qualifications covered by mutual recognition agreements.

While it is not directly involved in education and training related to formal qualifications, the Department of Labour and Employment – as the national government agency mandated to formulate policies, set up programmes and serve as the policy-coordinating arm of the executive branch for labour and employment – is tasked with helping

([405]) http://www.officialgazette.gov.ph/2012/10/01/executive-order-no-83-s-2012/
([406]) Official Gazette of the Republic of Philippines: http://www.officialgazette.gov.ph/

address the current mismatch between the skills/competences and qualifications levels required to perform competently in a particular job in a specific industry – for example, awarding a certificate at level 4 or 5 for a job requiring the competences of an engineering technician or technologist respectively. It also plays a part in determining the formal credentials that are taken into account when making employment decisions, particularly considering the Filipino public's penchant for a college degree (level 6 engineering degree instead of levels 4 or 5).

Oversight for the setting up of the PQF, including the formulation of policies and strategic direction, is the responsibility of the PQF-NCC in collaboration with the previously cited five working groups led by one of the member agencies: qualifications register (TESDA); pathways and equivalences (CHED); quality assurance (CHED), international alignment (PRC); and information and guidelines (DepEd).

To ensure the efficient and effective implementation of the PQF, DepEd, TESDA and CHED have created, from its current staff, a permanent technical secretariat with the remit to contract the services of technical experts on relevant areas of concern such as equivalencies, accreditation, curriculum development and educational measurement.

Referencing to regional frameworks

The Philippines is a signatory to regional agreements such as the ASEAN framework agreement on services (AFAS), other ASEAN free trade agreements (AFTA), and ASEAN mutual recognition agreements (AMRA).

For regional qualifications frameworks, the Philippines chaired the task force on the AQRF. It guided the AQRF from its conceptualisation to its drafting and finally to its endorsement by the ASEAN Ministers of Finance, Education and Labour and its acceptance as an ASEAN document. The Philippines also served as chair of the interim committee that laid the groundwork for establishing the AQRF referencing committee at its first meeting in February 2017.

Among the ASEAN Member States, the Philippines has confirmed its intention to begin the process of referencing to the AQRF before the end of 2018.

Important lessons and future plans

In the short to medium term, the PQF-NCC has resolved to prioritise: legislation of the PQF beyond embedding it as an existing law on ladderisation; enhancement/finalisation of national standards and their accessibility in the public domain; coordination of quality assurance across education sectors; establishment of pathways and equivalences and finalisation of the Philippine credit transfer system; substantiation of the qualifications register; and alignment of the qualifications in the PQF with international qualifications frameworks.

Abbreviations

AFAS	ASEAN framework agreement on services
AMRA	ASEAN mutual recognition agreements
ASEAN	Association of Southeast Asian Nations
CATs	competence assessment tools
CHED	Commission on Higher Education Subsystem
DepEd	Department of Education
DOLE	Department of Labour and Employment
ETEEAP	CHED's expanded tertiary education equivalency and accreditation programme
IEC	information, education and communication
NC	national certificate
NCC	National Coordinating Council
PQF	Philippines qualifications framework
PQF-NCC	Philippines qualifications framework's National Coordinating Council
PRB	professional regulatory boards
PRC	Professional Regulation Commission
PTCACS	Philippine TVET competence assessment and certification system
PTQF	Philippine technical and vocational qualifications framework
PTTQF	Philippine TVET trainers qualifications framework
RCC	recognition current competences
RPL	recognition of prior learning
TESDA	Technical Education and Skills Development Authority
TRs	training regulations
TVET	technical and vocational education and training
TWGs	technical working groups

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TESDA (2011) *TESDA circular.* http://www.tesda.gov.ph/uploads/File/IGofCompetencyAssessmentandCertofTVETTrainersItoII.pdf

Prepared by:
UNESCO in collaboration with national experts.

POLAND

Introduction and context

The Polish qualifications framework (PQF) forms an integrated part of the Polish qualification system. It was formally adopted by the Parliament on 22 December 2015 ([407]) and came into force in January 2016. Consisting of a number of different elements (the most important being the qualifications framework, the qualifications register and arrangements for validation of non-formal and informal learning) the aim of the new system is to promote lifelong learning and support education, training and learning more directly, responding to the needs of the labour market and society at large.

The qualifications framework consists of eight learning outcome-based levels applicable to all Polish qualifications, covering general education, vocational education and training (VET) and higher education. The framework and the register are open to the private and non-formal sectors as long as the qualifications in question meet agreed quality criteria. The new PQF builds on and integrates the work on a qualifications framework for higher education linked to the Bologna process.

The PQF was referenced to the European qualifications framework (EQF) in May 2013 (Educational Research Institute, 2013). It can be considered to have reached (an early) operational stage.

Policy objectives

Work on the qualifications framework is an integral part of broad reform and modernisation of the Polish qualifications system, addressing all levels and all subsystems. An important part of this reform, initiated in 2010, is an overall shift to learning outcomes. This requires redesign of all programmes, standards and curricula in general, vocational and higher education and training. The framework, through its focus on learning outcomes, is seen as an important instrument for strengthening the transparency and overall consistency of education and training, which is considered by some to be fragmented and difficult to navigate. While participation in initial education is high, participation in lifelong learning is low compared to other European countries: less than 5% of 25 to 64 year-olds report having taken part in lifelong learning, compared to the European Union average of 9%.

The direction chosen for the PQF has relevance in a wider European setting. First, the framework is seen as a tool for reform and change; its role goes beyond merely describing existing qualifications. Second, the qualifications framework does not operate alone but is seen as one of several elements in a wider policy strategy. The impact of qualifications frameworks depends on their integration into a wider policy strategy. Third, while the framework introduces a coherent set of national levels and descriptors, it also identifies the need for additional learning outcomes descriptors to be used by subsystems and sectors, allowing for a more detailed fit-for-purpose approach.

Levels and use of learning outcomes

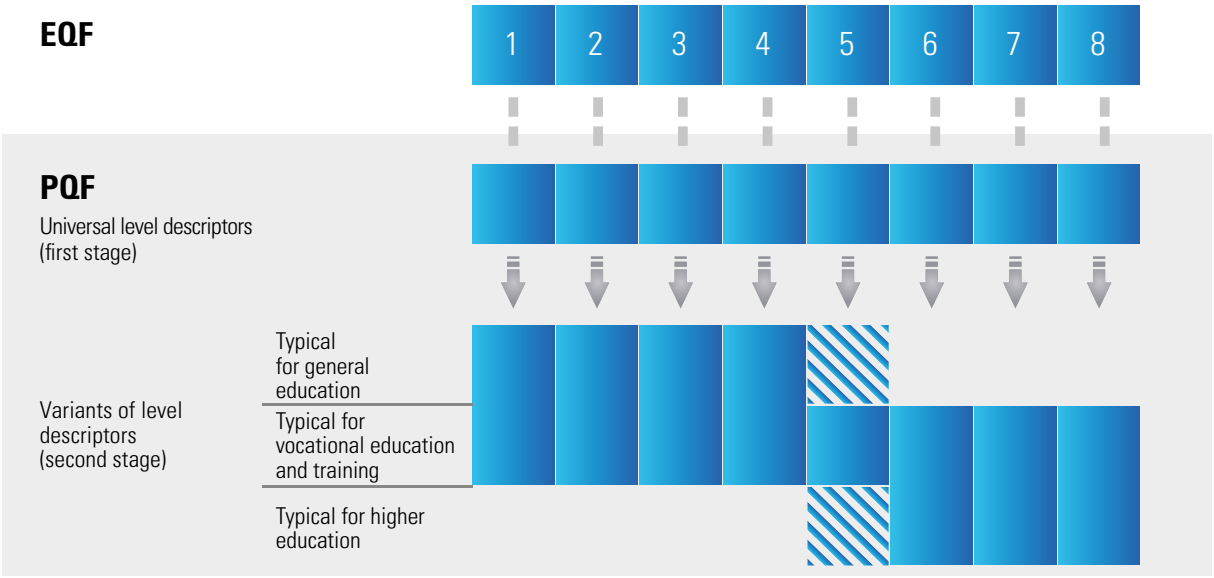
The PQF introduces descriptors for different purposes:

(a) universal descriptors forming the basis for the comprehensive PQF;
(b) descriptors for education and training sub-frameworks, such as general, vocational and higher education;
(c) descriptors for sector frameworks or for subject areas.

The PQF thus includes three main sets of level descriptors, operating according to different degrees of generality. The universal PQF is the most generic (first stage). The second set addresses the main subsystems of education and training: higher education, vocational education, general education. The last of these can be further developed through a third set of descriptors (not indicated in Figure 20),

([407]) Ustawa z dnia 22 grudnia 2015r o Zintegrowanym Systemie Kwalifikacji [Act of 22 December 2015 on the integrated qualifications system]: http://www.infor.pl/akt-prawny/DZU.2016.008.0000064,ustawa-o-zintegrowanym-systemie-kwalifikacji.html

Figure 21 The structure of level descriptors in PQF



Source: Educational Research Institute, 2017.

for example oriented towards specific fields of higher education (subject areas) or for VET in different economic sectors. The basic principles behind this are illustrated in Figure 20.

While the coexistence of several qualifications sub-frameworks is common in most European countries, the PQF takes a step further and tries to express how these can be made explicit within an overarching conceptual (learning outcomes) approach. This means that when, for example, the financial sector wants to establish a specialised sectoral qualifications framework, it should use learning outcomes descriptors clearly connected to the level descriptors operating at other levels of generality (including EQF). While moving beyond the general, national level descriptors, the PQF is better able to link to current reform of standards and curriculum development and eventually to learning and assessment.

To what extent this approach will be able to promote communication between the different levels and subsystems can only be tested by an operational framework. The challenge is to avoid a fragmented approach where sectors operate in isolation and – in a worst case scenario – increase, rather than reduce, obstacles between institutions and sectors.

Originally the PQF was envisaged as a seven-level framework, closely resembling existing qualifications and degrees in the Polish system; it was later decided to introduce a new level 5 in the framework. While still empty, this will allow for a more appropriate placing of 'short cycle' academic qualifications as well as advanced vocational qualifications, possibly including the master craftsman (*Meister*).

The first stage (universal) learning outcomes descriptors developed for the PQF refer to the following key learning domains.

Figure 22 First stage generic descriptors (universal)

Knowledge	Scope Depth of knowledge
Skills	Problem-solving and applying knowledge in practice Learning Communication
Social competence	Identity Cooperation Responsibility

Source: Adapted from Educational Research Institute (2017).

These descriptors are based on an agreement between stakeholders in general, vocational and higher education and are the common reference point for developments at sector (second stage) and subsector (third stage) levels.

Progress has been made in defining level descriptors for the different education and training subsystems (Educational Research Institute, 2017). The basic distinction between knowledge, skills and social competence is used for the second stage (subsystem) level descriptors, but differs in terms of specificity. For example, the main descriptive categories of the level descriptors for VET are specified as follows:

(a) knowledge:
    (i) theories/principles;
    (ii) phenomena and processes;
    (iii) organising work;
    (iv) tools and materials;
(b) skills:
    (i) information;
    (ii) organising work;
    (iii) tools and materials;
    (iv) learning and professional development;
(c) social competence:
    (i) following rules;
    (ii) cooperation;
    (iii) responsibility.

For general education (levels 1 to 4), the same three dimensions are grouped as follows:

(a) knowledge:
    (i) language and communication;
    (ii) mathematics and natural sciences;
    (iii) social functioning;
(b) skills:
    (i) language and communication;
    (ii) mathematics and natural sciences;
    (iii) social functioning;
    (iv) learning;
(c) social competence:
    (i) language and communication;
    (ii) health and the environment;
    (iii) social functioning.

Level descriptors for the third generic degree have yet to be developed. It is possible, however, to see the work of the 'tuning-project' as relevant for defining learning outcomes in particular subject-areas of higher education.

Progress can be observed in the overall shift to learning outcomes in Polish education and training. Core curricula, formulated in terms of learning outcomes, have recently been introduced for all the main parts of education and training. The core curriculum for general education has been gradually implemented since the 2009/10 school year to be fully in place as of the 2014/15 school year. These learning outcomes also form the basis for assessment. The core curriculum for vocational education is being implemented from the 2012/13 school year, being finalised by 2015/16. Also in this case the core curriculum forms the basis for assessment criteria. As of the 2012/13 academic year, the NQF for higher education applies, generally defining learning outcomes in eight areas of learning. Curricula for specific fields addressed by higher education institutions at the first and second cycles will have to be described in terms of learning outcomes, as well as showing how they can be assessed. For third cycle studies (doctoral), regulations from the Ministry of Science and Higher Education describe the expected learning outcomes (Cedefop, 2016).

Stakeholder involvement and institutional arrangements

In 2010 the Prime Minister appointed two bodies to take responsibility for overall reform of the Polish qualification system, including development and implementation of the PQF and the national register of qualifications.

An intra-ministerial taskforce for lifelong learning strategy was set up to provide overall coordination. Representatives of the Ministries of National Education, Research and Higher Education, Economy, Labour and Social Policy, and Health took part. This taskforce was led by the Ministry of National Education.

A PQF steering committee, reporting to the intra-ministerial taskforce was set up, involving Ministries of National Education, Research and Higher Education, Economy, Labour and Social Policy, Health, Culture and Defence. This committee was coordinated by the Ministry of Research and Higher Education. The Educational Research Institute and the Polish national coordination point provided technical and conceptual support to the work of this committee. All projects supporting the development and implementation of the PQF have been monitored and coordinated by the committee.

Unlike many other countries, the above bodies have not directly included representatives of social partners or civil society. Seen from the outside and compared to other countries, Polish developments can be described as a combination of top-down and research driven. However, two broad consultations have been carried out since 2011 and a many meetings (more than 200) have been organised across the country addressing a wide range of stakeholders.

Recognising and validating non-formal and informal learning and learning pathways ([408])

An important element of the new qualification system is the introduction of a more consistent approach to validation of learning outcomes achieved outside formal education and training. The aim is to increase the flexibility of the education and training system and make it possible to acquire qualifications in different settings and throughout life. The PQF provides a reference point for this approach, signalling that qualifications at all levels can be acquired not only through formal education and training but also through non-formal and informal learning.

The new law introduces a formal definition of validation and specifies the requirements for bodies carrying out validation and certification, the rules for obtaining the permit to carry out certification, the principles for quality assurance in validation and certification, and the rules for monitoring processes. The law seeks to increase the quality and coherence of existing arrangements, notably for vocational education and training and for higher education. The main driver, common for all sectors, is to improve the response of education to labour market needs, particularly in the context of ever-changing demand for skills. It also aims to empower adults by encouraging them to confirm learning obtained at work and throughout life. This latter is particularly important given the relatively low adult learning participation in in Poland (compared to the EU average). Currently, the quality of validation arrangements gives rise to concern. While some validation arrangements are high quality, others fail to provide credible documentation and evidence, undermining trust in certificates. The new law seeks to increase the comparability of arrangements and assure overall quality of and trust in validation.

NQF implementation

Institutional arrangements

Formal adoption of the framework in 2015 clarified how the coordination of the qualifications system (including the framework) was to be carried out. While the Ministry of Education is responsible for overall coordination, an advisory stakeholder council was set up in September 2016, based on the rules of the Law on the integrated qualification system. This council includes representatives of the National Chamber of Commerce, representatives of employer organisations and trade union representatives. The task of the council is to give advice on operation and to monitor implementation, ensuring coherence of the solutions chosen.

The Educational Research Institute has played a key role in preparing the technical and conceptual basis of the framework. The 2015 law signals that the institute will also play a role in future implementation of the qualifications system and framework, supporting the ministry in drafting detailed technical and organisational solutions.

The Bureau for Academic Recognition and International Exchange ([409]) has been appointed as national coordination point for the EQF.

Opening up the framework to the non-formal sector

The December 2015 law ([410]) opens up to the inclusion of non-formal qualifications and introduces necessary procedures ([411]). These criteria and procedures, addressing relevant national and/or international awarding bodies, focus on:

(a) why the qualification is needed and for whom;
(b) how the qualification is linked to similar qualifications;
(c) which are the target groups for the qualification;
(d) conditions for validation;
(e) typical use of the qualification;
(f) entitlements following from the qualification;
(g) learning outcomes required for the qualification, including sets of individual learning outcomes.

Operational stage

Based on the above, the qualifications framework has now reached an early operational stage. This judgement is based on the following factors:

(a) a formal, legal basis has been established, clarifying basic governance arrangements and the relationship between stakeholders.
(b) institutions responsible for the day-to-day coordination of work have been appointed and are actively working on framework implementation.

([408]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([409]) Bureau for Academic Recognition and International Exchange: http://buwiwm.edu.pl/eng/index.htm

([410]) Law 22 December 2015, Articles 9.1, 15,1 and 38.1.

([411]) Educational Research Institute (2016). *How to describe market qualifications for the Polish qualifications system: a guidebook*. Warsaw: Educational Research Institute. http://www.kwalifikacje.edu.pl/en/publications/1148-how-to-describe-market-qualifications-for-the-polish-qualifications-system

(c) the qualification register is now being put in place and gradually extended.
(d) criteria and guidelines for the inclusion and levelling of non-formal qualifications have been developed and published.
(e) all formal qualifications are being updated using the learning outcomes approach.

Much work still remains for the PQF to reach a full or advanced operational level. A strong base has been established – technically, conceptually and legally – providing a good point of departure for future developments.

Referencing to regional frameworks

The PQF was referenced to the EQF in 2013. A joint self-certification to the QF-EHEA took place at the same time. An update on the referencing report was presented in December 2016, focusing on important developments in recent years: establishing an integrated register, fine-tuning the governance structure, and qualifications.

Important lessons and future plans

The PQF developments reflect on a broader international context as they represent an effort to combine the introduction of a comprehensive national framework with the parallel development of sector and subsector frameworks. While the coexistence of frameworks at different levels and for different purposes can be found in many countries, the Polish approach tries to introduce conceptual coherence, allowing for synergies between frameworks at different levels and in different sectors. Practical implementation of the PQF in the coming period should be followed closely as it may provide a model for other countries struggling to find ways to bridge and connect education and training sectors and subsectors. Whether this complex model will work in practice, and how it can promote consistent use of learning outcomes across levels and subsystems and sectors, must be monitored in the coming period. The progress made in introducing the learning outcomes approach in the different subsectors of education and training provides a good basis for future developments.

The PQF has now reached an early operational stage and is well placed, technically, conceptually and legally, to continue to develop and become a fully integrated and visible part of the overall Polish

Table 73 Polish national qualifications framework (PQF)

NQF levels	Qualifications included in the PQF (indicatory)	EQF levels
8	Diploma certifying the academic degree of *Doktor* in specific discipline	8
7	Diploma certifying the title of *Magister* Diploma certifying the title of *Magister Inzynier* Diploma certifying a title equivalent to *Magister* or *Inzynier*	7
6	First cycle vocational title Diploma certifying the title of *Licencjat* Diploma certifying the title of *Inzynier* Diploma certifying a title equivalent to *Licencjat* or *Inzynier*	6
5		5
4	Matura certificate Vocational certificate Vocational diploma	4
3	Vocational certificate Vocational diploma	3
2	Certificate of completing lower secondary school	2
1	Certificate of completing primary school	1

Source: Educational Research Institute (2013).

education, training and qualifications system. This will require the extensive work carried out since 2010 to be followed up by sufficient political and stakeholder commitment and resources.

Further developments of the integrated qualifications system in Poland include:

(a) support to external quality assurance bodies;
(b) developing sectoral qualifications frameworks;
(c) monitoring the development of the integrated qualifications system;
(d) dissemination.

Further sources of information:

The Bureau for Academic Recognition and International Exchange acts as the national coordination point: http://buwiwm.edu.pl/eng/index.htm

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Abbreviations

EQF	European qualifications framework
NQF	national qualifications framework
PQF	Polish qualifications framework
QF-EHEA	qualifications framework in the European higher education area
VET	vocational education and training

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PORTUGAL

Introduction and context

The Portuguese education and training system has undergone a number of major reforms, starting in 2007 with the *Agenda for the reform of Vocational Training*. This led to the development of a national qualifications system, whose main aim was to promote widespread attainment of secondary education as a minimum level of qualification. Enrolment in vocational education and training has increased, while the early school leaving rate and tertiary education attainment have improved, although they have not yet reached the EU average ([412]).

Development of the national qualifications system has been underpinned by several instruments aiming to help achieve its objectives: a new institutional model, new opportunities centres ([413]) (with a role in coordinating adult education and training), the national qualifications catalogue (a strategic management instrument for non-higher national qualifications), and the national qualifications framework (NQF) (ANQ, 2011).

The comprehensive Portuguese qualifications framework (*Quadro Nacional de Qualificações*) (QNQ) is a single reference for classifying all qualifications awarded in the Portuguese education and training system. Established by Decree Law No 396/2007 ([414]), the framework was published in 2009 ([415]) and came into force in October 2010. It includes eight levels, with level descriptors defined in terms of learning outcomes. Higher education qualifications were included in the more detailed framework for higher education qualifications (FHEQ-Portugal), which is part of the comprehensive national qualifications framework. The NQF was linked to the European qualifications framework (EQF) in 2011 and has been gradually implemented.

Policy objectives

The NQF is seen as 'both a central anchoring device and a mechanism that drives forward the process of reform' (ANQ (2011). Development of the national qualifications system and of the NQF forms part of a broader education and training reform programme initiated in 2007 ([416]), the *New opportunities initiative and the Agenda for the reform of vocational training*. These reforms aimed to raise low qualification levels of the whole population (youngsters and adults) ([417]). Specific objectives to which the development of the national qualifications system and framework is expected to contribute include:

(a) integration between general and vocational education and training offers, based on the principle of double certification, expected to lead to both secondary education attainment and increased employability;
(b) developing mechanisms for the certification and recognition of informal and non-formal learning, allowing flexible training pathways aimed at increasing participation in lifelong learning; the mechanism for the recognition, validation and certification of competences (RVCC) was strengthened and more people have benefitted from the process;
(c) organising education and training pathways into short modular units that can be certified independently, aimed at increasing adult learner participation and qualification levels;

([412]) The early school leaving rate was 17.4% in 2014, compared to the EU average of 11.1%, while the rate of tertiary education attainment was 31.3% compared to the EU average of 37.9% (European Commission, 2015).
([413]) Since 2013, the new opportunities centres have been replaced by the centres for qualification and vocational education (CQEP) and since 2016 CQEP have been replaced by *Qualifica Centers*.
([414]) Decree-Law No 396/2007 on the National Qualification System. http://www.dges.mctes.pt/NR/rdonlyres/90DBE647-5CB6-4846-B88F-101180D9E425/5042/DL396_2007.pdf
([415]) Ministerial Order No 782/2009 on the NQF. http://www.catalogo.anqep.gov.pt/boDocumentos/getDocumentos/163
([416]) Decree Law No 396/2007.
([417]) There have been programmes and investments in qualifications over the past two decades and progress has been made; however, numbers of early school leavers (aged 18 to 24) – although having decreased sharply in past years – are still high (17.4% in 2014) and the working population (aged 24 to 64) having at least upper secondary education was 45.1% in 2015 (Eurostat data).

(d) developing an oversight framework and quality control mechanisms, aimed at integrating education and training subsystems; this took the form of the National Agency for Qualifications (now the National Agency for Qualifications and VET (ANQEP)) ([418]), which coordinates the implementation of education and vocational training policies for both young people and adults, and manages the system for the recognition, validation and certification of competences;
(e) promoting the relevance, certification and recognition of the education and training offer in line with the needs of the labour market; the national qualifications catalogue and the sector qualification councils are among the solutions linked to this objective;
(f) strengthening integration between academic and double certification pathways through permeability mechanisms and coordination.

The development of the NQF was seen as a response to the need to integrate and coordinate qualifications from the different education and training subsystems (general education, vocational training and higher education) into a single classification framework. It is also expected to aid recognition of non-formal and informal learning, to improve the legibility, transparency and comparability of qualifications, and to support double certification. The NQF is also seen as a crucial element in creating the conditions for a focus on learning outcomes.

In addition to its national reform role, the NQF aims at improving comparability and transparency of Portuguese qualifications and their understanding abroad by linking them to the EQF. The comprehensive approach to the EQF was seen as an inspiration for the development of the NQF, which adopted the eight-level structure and the level descriptors of the European framework.

In parallel to the NQF, a framework for higher education was established and used as a tool to support reforms and developments ([419]). The main aims were to set up clear learning standards and identify progression routes through levels of learning (MCTES, 2010).

([418]) Under the Ministry of Labour, Solidarity and Social Security and the Ministry of Education.
([419]) The current rate of tertiary attainment at 31.3% (2014) is still below the European Union average (37.9%), but Portugal has made significant progress in recent years. (European Commission, 2015).

Levels and use of learning outcomes

The NQF is a comprehensive framework, including all qualifications from the different education and training subsystems, regardless of means of access (basic, secondary and higher education, vocational training and the processes of recognition, validation and certification of competences obtained through non-formal or informal learning). An eight-level reference structure was adopted, following the principles and categories of the EQF.

Level descriptors are defined in terms of knowledge, skills (cognitive or practical) and attitude. As the term 'competence' was already used as an overarching concept within the national qualifications system (defined as 'recognised capacity to mobilise knowledge, skills and attitudes in contexts of work, professional development, education and personal development'), the choice was made to use 'attitude' for the third category of descriptors in the NQF. This is defined as 'the ability to carry out tasks and solve problems of lesser or greater degrees of complexity and involving various levels of autonomy and responsibility', and is divided into subdomains responsibility and autonomy ([420]).

The learning outcome approach plays an important role in reforming Portuguese education and training and was an underlying principle in the development of the national qualifications catalogue. It is seen as a more adequate response to competence needs in the labour market and of critical importance to recognition of qualifications and understanding their value. The NQF has been a driving force behind incorporation of the learning outcomes approach into the education and training system.

However, although learning outcomes are formally present in the NQF, the approach has not yet been internalised by the different education and training subsystems, and there has not been a thorough national debate to support understanding and appropriation of the concept. There is a diversity of approaches and concepts and the level of implementation varies across subsystems (Cedefop, 2016a). Fine-tuning learning outcomes in qualifications design with the NQF level descriptors is a challenging task and is work in progress: it includes upgrading not only the national qualifications catalogue, but also general education qualifications.

In general education, the *National curriculum of essential competences* for basic education was a national reference document for planning learning activities at both school and class levels until 2011.

([420]) Ministerial Order No 782/2009.

After revision of the curriculum structure for basic and secondary education (considered too general and abstract) and to improve education quality, new programmes and curriculum outcome targets (*metas curriculares*) were defined for several subjects of basic and secondary education. This followed public consultation. These curriculum outcome targets are focused on knowledge and essential skills students need to master in different school years and cycles. They provide a fundamental and clear reference for teaching, presenting in detail the purpose of the subjects, the content to be acquired and skills and general capabilities to be developed. Entry into force of the curriculum outcome targets and programmes began in 2013/14 and they have been introduced gradually, according to predefined and approved timetables.

In VET, reforms concentrate on the learning outcomes dimension of developing qualifications standards and curriculum development. The qualifications obtained in VET subsystems are organised by standards included in the national qualifications catalogue; each qualification is organised in terms of units. Adjusting qualifications to the level descriptors is work in progress, with about 50% of qualifications having been updated and learning outcomes adjusted to the level descriptors. A new methodology for designing and describing VET qualifications, based on learning outcomes, was prepared and validated and is already being implemented. This methodology applies to levels 2, 4 and 5 of the NQF.

Higher education institutions are responsible for implementing the framework and implementing learning outcomes within their study programmes, so the process differs from one institution to another. According to a recent Cedefop study (Cedefop, 2016a), the accreditation agency A3ES for the higher education sector does not emphasise the importance of learning outcomes in the accreditation process.

Stakeholder involvement and institutional arrangements

Initial work on the NQF was carried out by the Ministry of Labour and Social Solidarity, with support from the Ministry of Education. In 2007, Decree Law No 396/2007 was adopted as the legal basis for developing the Portuguese qualifications system and framework. An agreement was signed between the government and the social partners on key elements: tools and regulatory systems to support development and implementation of the national qualifications systems and framework.

Work during the referencing process was coordinated by a steering committee chaired by the National Agency for Qualifications (ANQ) and comprising bodies involved in the regulation of qualifications and quality assurance in education and training ([421]). There was also a technical working group led by ANQ and composed of staff drawn from the bodies represented in the steering committee. Other stakeholders were involved or consulted in the process ([422]).

The NQF is currently under the responsibility of three ministries – the Ministry of Education, the Ministry of Labour, Solidarity and Social Security, and the Ministry of Science, Technology and Higher Education. NQF coordination is now shared between the National Agency for Qualifications and VET (ANQEP, previously ANQ) ([423]), and the General Directorate for Higher Education (DGES), involved in qualifications at levels 5 to 8 ([424]). ANQEP has been nominated to host the national coordination point for the European qualifications framework (EQF NCP), the leading structure for NQF implementation ([425]). Depending on the issue, the EQF NCP collaborates horizontally with other relevant bodies (such as the Institute for Employment and Vocational Training (IEFP) and the General Directorate for Employment and Labour Relations (DGERT)), working flexibly and through consultation ([426]). The body consulted on the general education qualifications is the General Directorate for Education (DGE). The current governance structure

([421]) The General Directorate for Higher Education (DGES); the former General Directorate for Curriculum Innovation and Development (DGIDC); the General Directorate for Employment and Labour Relations (DGERT); and the Agency for the Accreditation and Assessment of Higher Education (A3ES) were also part of the steering committee.

([422]) Other stakeholders involved in the referencing process were the central coordination unit of the Employment and Vocational Training Observatory; the oversight committee for the *New opportunities* initiative and the national qualification system; other public bodies, education and training providers, practitioners and experts (ANQ, 2011).

([423]) http://www.anqep.gov.pt/default.aspx

([424]) DGES is under the Ministry of Science, Technology and Higher Education and is involved in the coordination of the NQF for qualifications at levels 5 to 8.

([425]) The responsibilities of the EQF NCP include: referencing the national qualification levels to the EQF and ensuring transparency of methodology used; providing access to information and guidance on how national qualifications are referenced to the EQF; encouraging participation of all interested entities (higher education and vocational training and education establishments, social partners, sectors and experts).

([426]) Scheduled meetings may occur, depending on the circumstances and needs. For example, several meetings were recently held between the ANQEP, the IEFP and the DGERT to elaborate a proposal to review the NQF concerning level 5.

does not foresee any human resources dedicated exclusively to the EQF NCP, and the staff working on the NQF are also involved in other technical departments and services of ANQEP and DGES. This arrangement allows for flexibility and for synergies to develop, though the disadvantage is that it may lead to less commitment from the relevant parties ([427]).

ANQEP is also supported by 16 sector qualifications councils involved in defining qualifications and competences, as well as in including new qualifications in the national qualifications catalogue and updating existing ones. The councils are composed of social partners, training providers from the national qualifications system, entities responsible for regulating professions; public structures that oversee business sectors; technology and innovation centres, and companies.

The authorities currently responsible for quality assurance of qualifications are ANQEP, the General Directorate for Higher Education (DGES), the General Directorate for Education (DGE), the General Directorate for Employment and Labour Relations (DGERT), and the Agency for the Accreditation and Assessment of Higher Education (A3ES).

Recognising and validating non-formal and informal learning and learning pathways ([428])

Several public policies and initiatives have been developed for validating non-formal and informal learning in Portugal. In 2001, a comprehensive national system for the recognition, validation and certification of competences (RVCC) was introduced in general and vocational education. Its main goal is to increase the levels of school education and of vocational qualification in the country, mainly among those of working age. During 2012-13, major changes were introduced into the system. In early 2014, 450 new opportunities centres, in charge of validation and recognition of competences (for people over 18), were replaced by a new network of centres for qualification and vocational training (*Centros para a Qualificação e o Ensino Profissional*, CQEP). These, in turn, were replaced in 2016 by *Qualifica Centres*: there are currently around 300 such centres carrying out RVCC, and their activity is managed by ANQEP. The new network assumes similar functions as the previous new opportunities centres, but also targets young people (age 15 or over), provides guidance, counselling and validation activities to low-skilled

Table 74 Portuguese national qualifications framework (QNQ)

NQF levels	Qualifications	EQF levels
8	Doctoral degree (*Doutoramento*)	8
7	Master degree (*Mestrado*)	7
6	Bachelor degree (*Licenciatura*)	6
5	Diploma in technological specialisation (*Diploma de Especialização Tecnológica*)	5
4	Secondary education and professional certification (*Ensino secundário obtido por percursos de dupla certificação*) Secondary education and professional internship; minimum six months (*Ensino secundário vocacionado para prosseguimento de estudos de nível superior acrescido de estágio profissional — mínimo de seis meses*)	4
3	Secondary education (*Ensino secundário vocacionado para prosseguimento de estudos de nível superior*)	3
2	Third cycle of basic education (*3º ciclo do ensino básico obtido no ensino regular*) Third cycle of basic education and professional certification (*3º ciclo do ensino básico obtido por percursos de dupla certificação*)	2
1	Second cycle of basic education (*2º ciclo do ensino básico*)	1

Source: ANQ, 2016.

([427]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

([428]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

adults, and guides/orients young people completing nine years of basic education.

The RVCC system is incorporated in the national qualifications system and framework. It integrates two main processes:

(a) education RVCC process, aimed at obtaining a school leaving qualification (levels 1, 2 and 3 of the NQF/EQF);
(b) professional RVCC process, aimed at obtaining a vocational qualification (offers a school and professional certification,; levels 2 and 4 of the NQF/EQF).

Learners can acquire basic or upper secondary level education certificates and vocational qualifications from levels 1 to 4 in the NQF that have the same value as those awarded in formal education and training. RVCC processes are based on national standards for education and training (such as key competences standards and training reference framework) and integrated into the national catalogue of qualifications.

At higher education level (levels 5 to 8 of the NQF/EQF), validation is generally linked to the credit system and module-based structure of courses and degrees. Students can obtain ECTS credits through validation that can be used for granting exemptions from part of a course in the first, second or third cycles of Bologna degrees. These credits are portable across higher education institutions in Portugal. The new legislation ([429]) sets a limit for validation processes up to one third of the total number of ECTS credits relevant for a particular course. General rules for validation apply to all higher education institutions, complemented by specific validation procedures established by each institution.

NQF implementation

Three main steps were taken to put the national qualifications system and framework into practice.

First, a new institutional model was developed to support setting up the national qualifications system and framework. The ANQ – now the National Agency for Qualifications and VET (ANQEP), under the Ministry of Labour, Solidarity and Social Security and the Ministry of Education – was established in 2007 to coordinate implementation of education and training policies for young people and adults, and to develop the system for recognition, validation and certification of competences (RVCC). The National Council for Vocational Training was set up as a tripartite body responsible for approving profiles and the referential system for training. In higher education, the Agency for Assessment and Accreditation of Higher Education (A3ES) was set up in 2007. These two entities have important quality assurance functions.

Second, a national qualifications catalogue was created in 2007 as a strategic management tool for non-higher national qualifications and a central reference tool for VET provision. This defines an occupational profile for each qualification, with a training standard (that awards a double certification) and a recognition, validation and certification of competences standard; the catalogue is permanently updated by ANQEP, in a process supported by 16 sector qualifications councils.

Third, the system for recognising non-formal and informal learning (RVCC) was further integrated into the NQF. The RVCC refers to the qualification standards in the national qualifications catalogue, both to 'school-based competences' (four, six, nine or 12 years of school) and 'professional competences'. The key competences standards for adult education and training for basic and secondary level are structured into key competence areas, covering different subject contents at these specific education levels.

The NQF has now reached an operational stage (Cedefop, 2016b), and is already considered a permanent feature of the national qualifications system ([430]). The legal framework is in place, qualifications have been assigned to levels, and quality assurance arrangements have been implemented. All VET is already organised around the NQF: databases ([431]) are organised considering the NQF structure and access to financial support also takes the framework into consideration. Education and training stakeholders are involved in implementing the NQF. The framework is becoming increasingly visible to learners, parents, employers and employees, training providers and guidance experts, but visibility could be further improved. Information on the NQF is provided through education providers and awarding bodies, the relevant ministries, the *Qualifica Centres* (the former centres for qualification and vocational education), as well as the EQF NCP.

([429]) Decree Law No 115/2013.

([430]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

([431]) The national qualifications catalogue: http://www.catalogo.anqep.gov.pt/Qualificacoes

In general education, diploma and certificate templates follow an identical layout for primary, lower and upper secondary education, and NQF/EQF levels are expected to be indicated in certificates and diplomas once this is approved by the Ministry of Education. In VET, and for qualifications acquired through validation of non-formal and informal learning, the NQF level is indicated in the national catalogue of qualifications and in all certificates and diplomas. EQF levels are indicated only on some qualifications, but this could be extended once the existing ANQEP proposal is approved. The NQF is less visible in higher education, where institutions can autonomously approve models for their diplomas. Some may indicate the qualification level, but that is not usually the case: it is mandatory to indicate the qualification level only in the diploma supplement.

There is still a need to discuss and raise awareness of key new concepts, such as learning outcomes, among different stakeholders, and to disseminate information to a wide spectrum of stakeholders, especially in the labour market, where the NQF is not well-known. The inclusion of NQF/EQF levels on all certificates and diplomas at all levels of education and training could increase awareness of the framework among end-users.

Referencing to regional frameworks

Portugal referenced its national qualifications levels to the EQF and self-certified to the qualifications framework of the European higher education area (QF-EHEA) in 2011. The process started in 2009 and the results were presented in two separate reports: the *Report on the referencing of the national qualifications framework* to the European qualifications framework addressed qualifications at levels 1 to 5 of the NQF, and the *Report on the referencing of the framework for higher education qualifications in Portugal* (FHEQ-Portugal) addressed levels 5 to 8.

Important lessons and future plans

Portugal took the decision to adopt the eight EQF levels and the EQF level descriptors in setting up the comprehensive NQF. This makes it possible to:

(a) integrate levels of education and a four-level structure for vocational training;
(b) define double certification at levels 1, 2, 4 and 5.

Important work has been done by developing the NQF users' guide, a support for NQF users aimed to make it easier to evaluate the match between national qualifications and the NQF levels and to guide the inclusion of new qualifications in the NQF ([432]). An ebook *NQF: interpretation guide* was also published by ANQEP ([433]). This aims to: support design of qualifications based on learning outcomes, guide inclusion of new qualifications in the NQF; contribute to more effective appropriation of the NQF by users; and encourage participation of VET actors for systematic and proactive use of descriptors of the NQF in their planning and design of provision.

Further work on qualifications standards, based on explicit learning outcomes, will support coherence and fine-tune the relationship between qualifications and qualification levels. This work is still in progress but gained momentum with the creation of a new methodology for designing and describing VET qualifications based on learning outcomes; the methodology is in the implementation phase ([434]). The learning outcomes approach could be further strengthened by providing adequate training to teachers and trainers ([435]) to assist them in designing curricula and assessment methods based on learning outcomes, and by developing a common understanding of learning outcomes among different education and training subsystems and stakeholders (Cedefop, 2016a).

There is a need to disseminate outcomes of the referencing and self-certification process to a wide spectrum of stakeholders, especially improving acceptance and use of the NQF by the labour market. In this context, the relationship between the higher education framework and other parts of the NQF (levels 1 to 5) needs to be made explicit, especially for level 5 programmes where different ministries are involved. Managing the coexistence of two types of training leading to level 5 qualifications (one corresponding to higher education studies (TeSP) ([436]) and the other corresponding to post-secondary non-tertiary

([432]) Understanding NQF: users support guide. A summary is included in the *Referencing report of the NQF to the EQF* (ANQ, 2011).
([433]) http://www.ctesp.anqep.gov.pt/PDF/Guia_interpretativo.pdf
([434]) http://www.erasmusmais.pt/erasmusmais/images/erasmusmais/outras-iniciativas/ECVET/guiametodologicoRA.pdf
([435]) ANQEP organised a pilot training course for VET teachers and trainers (around 60 people, June-July 2016). Based on this experience, it intends to disseminate this training to other groups across the country.
([436]) TeSP are short-cycle higher technical courses launched during the 2014/15 academic year. Aiming to promote links between higher education and the business sector, they have a strong technical and vocational component, including on-the-job training.

studies (CET)) has been a challenge ([437]).One of the issues tackled in the near future may be review of the NQF concerning level 5.

A strategy is being prepared, in articulation with the General Directorate for Education (DGE), for including explicit reference to the EQF level in national certificates, diplomas and Europass documents. Proposals are currently awaiting approval from the relevant ministries.

Further source of information

The National Agency for Qualifications and VET (ANQEP) is the national coordination point for the EQF in Portugal. Information is available on the ANQEP website, especially on European tools: http://www.anqep.gov.pt/default.aspx

([437]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

Abbreviations

ANQ	Agência Nacional para a Qualificação [National Agency for Qualifications]
ANQEP	Agência Nacional para a Qualificação e o Ensino Profissional [National Agency for Qualification and Vocational Education and Training]
ECTS	European credit transfer system
EQF	European qualifications framework
FHEQ	Framework of higher education qualifications
MCTES	Ministério da Ciência, Tecnologia e Ensino Superior [Ministry of Science, Technology and Higher Education]
NQF	national qualifications frameworks
QNQ	Quadro Nacional de Qualificações [Portuguese qualifications framework]
RVCC	system for recognising non-formal and informal learning
VET	vocational education and training

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REPUBLIC OF KOREA

Introduction and context

The Korean qualifications framework (KQF) offers a basis for a common understanding of quality, allows for access, mobility, and progression, and recognises learning acquired in different settings: formal, non-formal and informal. The KQF is an overarching framework that improves alignment and coherence between general education, vocational education and training (VET) and private vocational qualifications.

In 2007, the amended Framework Act on Qualifications introduced the KQF. Section 6 (qualifications framework) states that the government shall establish the qualifications framework based on national competency standards (NCS) and that the qualifications framework refers to levels of qualifications so that VET and qualifications can be mutually connected (KRIVET, 2013).

Based on this amendment, the Ministry of Employment and Labour (MOEL 2010a, 2010b) made efforts to reform the KQF through the development of NCS and the introduction of qualifications based on learning outcomes. These new measures are designed to strengthen links between industry, technical and vocational education and training (TVET) and the qualifications system, helping to raise the status and significance of TVET (Seung Il Na, 2012).

One of the challenges the KQF seeks to address is the significant imbalance between vocational and academic qualifications in terms of student numbers. The primary reason for this imbalance is that Korean society places a very high value on academic qualifications, which the Korean education system separates sharply from vocational qualifications. Vocational education is considered a second-class option in the Republic of Korea (Seung Il Na, 2012).

Despite such a highly educated youth population, the country is facing several challenges:

(a) it has one of the highest youth unemployment rates among the OECD member states (Park, 2011);
(b) the schism between the labour market and higher education creates societal instability;
(c) the links between industry and the higher education sector are weak in terms of the level of workforce training (Woo, 2010);
(d) the skills mismatch ironically forces young people to seek more education, while employers have to invest more in on-the-job training for new recruits;
(e) academic degrees are currently not linked to national qualifications standards;
(f) the academic learning culture of higher education does not promote the full appreciation and value of recognising non-formal and informal outcomes through assessment of prior learning.

A further challenge relates to the nature of the TVET system in the country. Since TVET has traditionally focused on high-school level, post-secondary TVET and lifelong learning have been neglected in TVET policies. As the country enters a knowledge-based economy and skills requirements continue to rise, TVET in schools and in post-secondary and higher education institutions needs to respond appropriately to the change.

The government is taking a number of measures to dispel the negative perception of TVET and to improve its quality. First, it is trying to open pathways to higher education for vocational education graduates. Vocational high school students are being given the option of taking academic subjects so that they can later apply for admission to universities. In some schools, academic and vocational students share as much as 75% of a common curriculum. Second, a new type of high school, modelled on the German dual-education system and known as a Meister ([438]) High School, was launched in 2008 to provide education geared towards industrial and business demands (Seung Il Na, 2012).

A further concern is the variety in the vocational qualifications system in types of vocational qualifications, awarding authorities, and certification

([438]) The German term for master craftsperson.

procedures (KRIVET, 2001). There are three major types of qualification in South Korea:

(a) national technical qualifications (NTQ) focusing on manufacturing, services and business; testing is administered by Human Resource Development (HRD) Korea (a public organisation handling 557 vocational qualifications), and by the Korea Chambers of Commerce and Industry (KCI) (a private organisation, covering 18 certification items);
(b) national professional qualifications (NPQ) including 120 vocations, such as lawyer, accountant and patent expert; here, assessment and testing is administered by individual testing agencies, designated by each ministry;
(c) authorised private vocational qualifications, including in-house vocational qualifications administered by employers to recognise the skills of employees based on certain testing and evaluation criteria.

These qualifications are authorised by the State (MoEL) or NTQA. Other private qualifications (PQ) not authorised by the State include areas such as computers, language skills, sports and health, leisure and recreation activities, social welfare, and counselling (Framework Act on Qualifications, 2011; KRIVET, 2013).

The lack of coherence among the vocational qualifications continues since they are issued by various government authorities. Further, the criteria for the vocational qualifications are too complicated and disconnected to allow comparisons with each other. It is also difficult to grasp exactly how qualifications cope with demand from an industry and there is lack of incentive to obtain further competence through acquiring a qualification.

Because of this lack of coherence, the quality, relevance and credibility of qualifications became an issue. In 2002 the country began to introduce a competency-based approach in its curricula and methods of teaching as well as developing occupational standards. This was also in response to the criticism levelled at TVET in the 1990s, which claimed that it was not reflecting the skill requirements of a new economy.

Quality is not the only issue in the education and training system. Demographic challenges such as low birth rates are calling for accessibility to higher education and VET for as many learners as possible, particularly for adult learners.

Policy objectives

The aims of the KQF are to:

(a) build ladders of occupation and education progression, so that dental mechanics can become dentists and legal and accounting clerks can become lawyers and accountants (Jeong-Yoon, 2012);
(b) make learning and assessment activities more like real work and less like school;
(c) strengthen the competitiveness of companies and the nation by recognising informal learning;
(d) link the identification, assessment and recognition of an individual's knowledge and skills (KRIVET, 2013);
(e) raise the perceived value of informal and non-formal learning by improving quality according to the criteria and standards in the KQF and NCS;
(f) improve coordination among ministries responsible for TVET policy;
(g) align qualifications obtained in high schools and junior colleges with national technical qualifications and underlying standards (OECD, 2009, p. 1);
(h) promote individuals' continuing engagement with lifelong learning.

Levels and use of learning outcomes

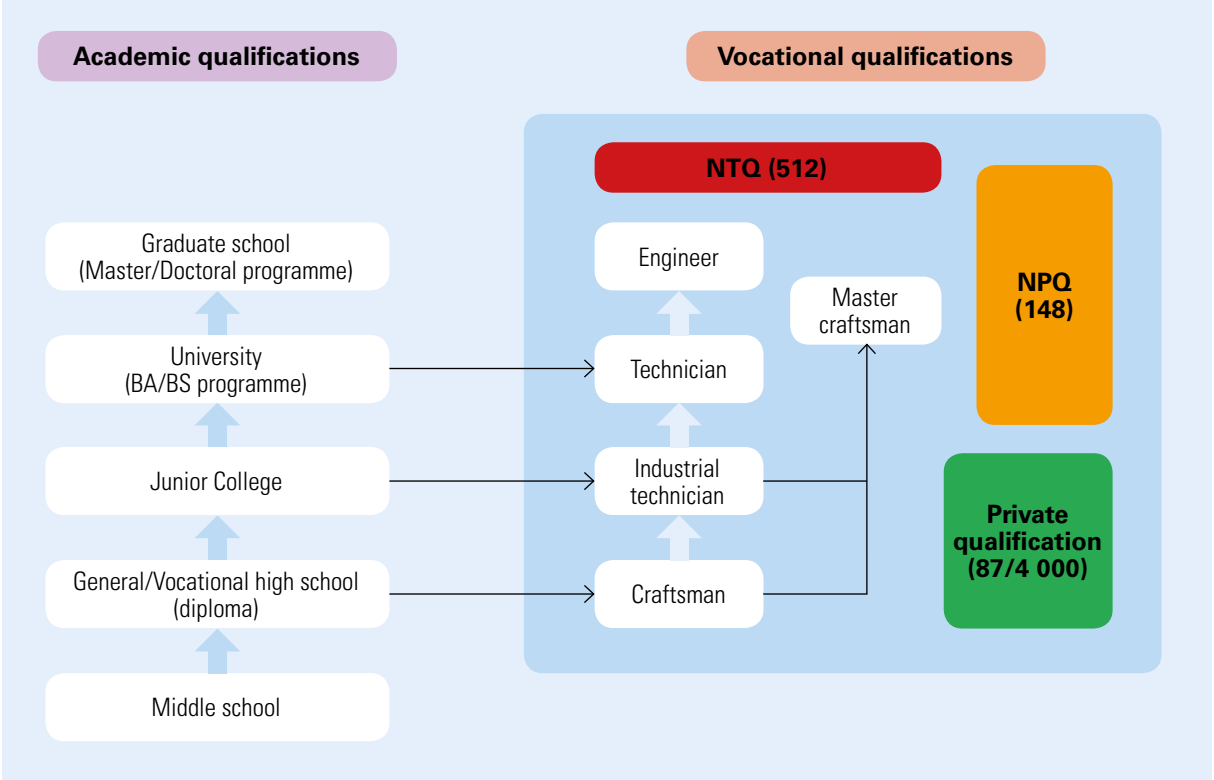
The KQF has eight levels and comprises the national competence-based standards (NCS). According to the Framework Act of Qualifications Article 2, the NCS is a comprehensive concept including knowledge, skills and attitudes necessary to perform a job. The NCS has been developed using the following procedures (KRIVET, 2013):

(a) determination of industry sectors and organisation of an expert pool;
(b) analysis of a sector's characteristics based on information from the labour market;
(c) analysis of competency structure in terms of descriptions of skill types and levels;
(d) analysis of jobs based on developing a curriculum (DACUM) programmes, competency-based training (CBT) and functional analysis (FA);
(e) designing competence units with objectives, tasks and application;
(f) standardisation of competences to create performance criteria;
(g) evaluation of basic competences;
(h) determination of competency levels;
(i) allocation of code within the qualifications framework, the training classification framework and the Korean employment classification of occupations (KECO);
(j) verification of competency standards to decide whether occupational standards represent the relevant sector well.

Until 2006, Human Resource Development (HRD) Korea had directly developed the NCS by organising a field expert pool. In 2007, however, it commissioned the Sectoral Human Resource Development Council and related groups to develop them in some sectors.

Since 2003, the KQF has passed through a series of transitions via fundamental research and continuous evaluation by experts in industry, ensuring that skill levels and learning levels of qualifications become equivalent (Table 75).

Figure 23 Academic qualifications and vocational qualifications in the Korean qualifications system



Source: KRIVET, 2013.

Table 75 Equivalences between general education and qualifications in Korea

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
Recognised skills in job	low →							high
Equivalence with academic learning	Under-high school	High school	High school +1 year	Assistant degree (high school +2 years)	Assistant degree + 1 year	Bachelor	Master	Doctor
National skill certificate level	KVQ1	KVQ2	KVQ3	KVQ4	KVQ5	KVQ6	KVQ7	KVQ8

Source: KRIVET, 2013.

Stakeholder involvement and institutional arrangements

The KQF has evolved over a long period. In 1973, the vocational qualification system was introduced by the Ministry of Employment and Labour (MOEL) based on the National Technical Qualification Act (NTQA). Prior to the NTQA, vocational qualifications were administered by individual ministries or stipulated by legislation for specific purposes. In 1997, the Ministry of Education, Science and Technology (MoEST) established the Framework Act on Qualifications, which aimed to systemise the management and operation of the qualifications system and to promote the development of lifelong learning.

The KQF was initiated by MoEST in consultation with other departments including MoEL and the Ministry of Trade and Industry.

Korea has been developing an articulation system between its traditional higher education system and vocational training and qualifications systems, such as the Korean skills standards (KSS), the national occupation system (NOS) and the Korean qualifications framework (KQF). NOS has been developed and operated by MOEL and the KSS by the Ministry of Education (MOE).

KSS and NOS were integrated into the NCS in December 2010 by the Office for Policy Coordination. These efforts are designed to link various VET and vocational qualifications systems and to aid the development of the competence-based VET system. The merger also aimed to reinforce an overall coordinating function and to conduct effective qualifications-related policy.

The Korean Research Institute for Vocational Education and Training (KRIVET) has promoted the Korean qualifications framework (KQF) by setting out an integrated system of levels common to academic and vocational qualifications; its Office of Research in Qualification conducts research related to:

(a) policies on the qualification system and its administration;
(b) the development and operation of Korean skills standards;
(c) the establishment and operation of the national qualification system;
(d) job analysis;
(e) the operation of the Centre for Private Qualifications;
(f) other qualification system-related tasks.

Recognising and validating non-formal and informal learning and learning pathways

Korea's mechanisms for the recognition and accreditation of prior and/or non-formal learning have developed in tandem with KQF and NCS. Efforts are being made to reorganise the national qualifications system in such a way as to allow learners to accumulate credits towards a qualification and a college degree via the academic credit bank system (ACBS).

About 500 education and training institutions participate in the ACBS. The Ministry of Education develops the basic accreditation plan and issues final approval by sending a certificate of accreditation to each institution, while NILE implements the plan, screens the documents and develops a final evaluation report for the Ministry of Education (Baik, 2013). The ACBS documents and recognises outcomes from various non-formal learning activities by granting credits and conferring degrees when specific numbers of credits are accumulated. At present, six sources of credits are recognised by the ACBS:

(a) credits transferred from formal higher education institutions;
(b) credits obtained by taking part-time courses at formal higher education institutions;
(c) credits transferred from non-formal education and training courses accredited by NILE;
(d) credits recognised for 'important intangible cultural properties' (the ACBS accredits master and apprenticeship programmes in the context of artistic activities regarded as traditional and cultural heritage);
(e) credits recognised for national vocational qualifications (above the level of industrial technician);
(f) credits transferred from the bachelor degree examination for self-education (BDES): This system makes it possible to obtain an academic degree without attending a regular college or university by passing an examination conducted by NILE.

The first two of these six recognised sources of credits relate to universities and are mostly accepted for an academic degree regardless of when they were awarded. Most ACBS accreditation, however, concerns non-formal education and training institutions. The number of credits obtained by acquiring national skills qualifications or by passing examinations depends on the level of difficulty of the exam.

The work of the ACBS is supplemented by the lifelong learning account system (LLAS), designed to validate all types of learning by promoting the recognition and certification of both academic and vocational qualifications. The LLAS allows individuals to accumulate lifelong learning experiences and to 'invest' these experiences in moving up the career ladder.

NQF implementation

Ever since the merger of KSS and NOS into the national competence-based standards (NCS), MoEL and its affiliates have been responsible for operating the NCS (KRIVET, 2009). MoEL is responsible for refining vocational qualifications, and improving the practicability of vocational certificates and upgrading the system for producing work-oriented tests. MOEL also oversees the application of NCS in the labour market (KRIVET, 2009).

However, work to develop the NCS is undertaken mainly by the Human Resource Development Council (HRDC), which must then be approved by the Korean Government, with research being conducted by KRIVET. Nine government ministries are responsible for developing NCS in 20 industry categories, including agriculture and forestry, textiles, chemicals, machinery, electronics, environment, financial services, healthcare, culture, tourism, food processing and human services. Sector councils (SC) help improve connections between education and training and industry, while the Ministry of Education harmonises qualifications across the different sectors in consultation with stakeholders. Between 2002 and 2012, standards were developed for 85 fields and 331 jobs. Standards are planned to be developed for 212 fields and 826 jobs.

The distinction between 'fields' and 'jobs' is important. For example, the medical field has four subdivisions (here, 'jobs') in the Korean NCS: clinical medicine, nursing, basic medicine and medical specialisms that support clinical medicine, such as clinical pathology and image medical sciences. It is expected that these standards will be widely used to structure TVET curriculum development

Referencing to regional frameworks

The Republic of Korea seeks to align its own qualifications framework with those under development in other countries of the Asia-Pacific Economic Cooperation (APEC) forum. This will allow for mutual recognition of qualifications across the region, supporting education and labour mobility.

Important lessons and future plans

The KQF and the NCS still need to be better understood across the full range of agencies and sector authorities involved in education, training and employment. Universities tend to guard their autonomy and only accept frameworks that reflect their existing practices; this attitude needs to change if the KQF and NCS are to bring about its full intended benefits.

Links to the KQF and NCS will make the ACBS and LLAS more reliable and convenient, not only for learners but also for employers and educators (Baik, 2013). ACBS could support an NCS-based curriculum across the education and training institutions it accredits. Credits from NCS-based education and training programmes might be a new way to link ACBS and TVET; in doing so, the ACBS might gain more leverage concerning the traditional HE and other systems.

Questions on international and regional issues that are currently being asked in connection with the KQF are:

(a) is the potential of labour mobility explored enough to cover the social and economic costs of the KQF?
(b) is there the same level of industrial development across countries to allow for workforce exchange?
(c) are NQFs communicating the same language on basic labour force skills across countries?
(d) are workers' basic skills compatible with the education and training system?

At the national level, the issues to be tackled include establishing equivalences between academic and vocational programmes, and developing tools to accredit informal or non-formal learning and experiences.

The Korean Government has commissioned multiple research into the KQF. For example, the National Research Council on Economics, Humanities and Social Sciences (NRC) is looking into interagency cooperation on qualifications. Other research is on quality improvement of private qualification, promoting international compatibility of qualifications through the free trade agreement (FTA), and the current status of NPQs. Two projects have been commissioned by MoEST dealing with national competency standards and private qualifications.

Further source of information

World Bank. Country overview: Korea: http://www.worldbank.org/en/country/korea

Abbreviations

ACBS	academic credit bank system
BDES	bachelor degree examination for self-education
CBT	competency-based training
DACUM	developing a curriculum
FTA	free trade agreement
HRD	human resource development
HRDC	Human Resource Development Council
KCI	Korea Chamber of Commerce and Industry
KECO	Korean employment classification of occupations
KQF	Korean qualifications framework
KRIVET	Korean Research Institute for Vocational Education and Training
KSS	Korean skills standards
LLAS	lifelong learning account system
MOE	Ministry of Education
MoEL	Ministry of Employment and Labour
MoEST	Ministry of Education, Science and Technology
NILE	National Institute for Lifelong Education
NCS	national competency standards
NOS	national occupation system
NPQ	national professional qualifications
NRC	National Research Council
NTQ	national technical qualifications
NTQA	National technical qualification Act
PQ	private qualifications
SC	sector councils
TVET	technical and vocational education and training
VET	vocational education and training

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ROMANIA

Introduction and context

Reform of the Romanian education system is underpinned by legislation, mainly the National Education Law, with subsequent amendments ([439]). Promoting a broad lifelong learning perspective, the law also emphasises the importance of validation and implementation of learning outcomes. The country faces several education and training challenges: although the rate of tertiary education attainment has risen in recent years, it remains the second lowest in the EU (25.0% in 2014), and the early school leaving rate remains well above the EU average (18.1% in 2014) (European Commission, 2015).

In 2013, Romania adopted a learning outcomes-based national qualifications framework (NQF) for lifelong learning – the Romanian national qualifications framework (ROQF) – by Government Decision No 918/2013 ([440]). This aims to bring together nationally recognised qualifications from initial and continuing vocational education and training (CVET), apprenticeship, general and higher education, and to help integrate the validation of non-formal learning into the national qualifications system.

The framework builds on reforms in vocational education and training (VET) and development of competence-based qualifications since the 1990s. Parallel work was carried out in higher education, steered by the National Agency for Qualifications in Higher Education and Partnership with the Economic and Social Environment (NAQHEPESE). A national qualifications framework for higher education (QFHE), in line with the Bologna process and the European qualifications framework (EQF), has been implemented. Self-certification was completed in 2011.

One of the main challenges of recent years was to link the development processes, structures and stakeholders from VET and higher education, and to improve links with the labour market. An important step was taken in June 2011 when the National Council for Adults' Vocational Training and the National Agency for Qualifications in Higher Education and Partnership with the Economic and Social Environment were merged into one single body – the National Qualifications Authority (NQA) – responsible for developing and implementing a comprehensive NQF.

Policy objectives

Apart from its transparency function, the ROQF is seen as a tool to support national reforms and modernisation of education and training. It opens up the possibility to address several issues, such as coherence and progression in the education system, use of validation, adult participation, and transitions between work and education. Romania faces a challenge in raising the quality of education and skills shortage remains a problem for the country. There is also a reported lack of coherence in the qualification system and a lack of progression opportunities between initial VET, CVET and higher education. There is a lack of validation of non-formal and informal learning within formal education, needed to support entry and mobility within education. Adult participation in lifelong learning is low – 1.5% in 2014 (European Commission, 2015) – and the country has set the objective to increase this to 10% by 2020. Qualifications should respond better to labour market needs and there is a requirement for greater transparency of learning outcomes and labour force mobility. National qualifications also need to be understood abroad and linked to the EQF, to promote mobility of learners and workers between European countries.

Development of a comprehensive NQF addresses the following strategic objectives:

(a) integration and coordination of national qualification subsystems;
(b) improving transparency;

([439]) National Education Law No 1/2011. http://www.edu.ro/index.php/legaldocs/14847

([440]) Government Decision No 918/2013 regarding the approval of the NQF, modified by Government Decision 567/2015. http://www.isjcta.ro/wp-content/uploads/2013/06/H.G.918_2013.pdf http://cnred.edu.ro/pdf/HG-567-2015.pdf

(c) making access to lifelong learning easier for all;
(d) ensuring progress;
(e) improving qualification quality in line with the needs of the labour market and broader society;
(f) developing recognition of the vocational qualifications system;
(g) increasing awareness of the importance of indicating the EQF qualification level on all certificates, diplomas and Europass supplements.

Levels and use of learning outcomes

There is commitment to, and visible preoccupation with, strengthening the learning outcomes approach as part of the national reform programme. The ROQF comprises eight qualification levels that can be acquired in education and training and by validation of learning outcomes from non-formal and informal learning arenas. National level descriptors are identical to EQF level descriptors. They are described in terms of learning outcomes and defined in three categories: knowledge (theoretical and/or factual); skills, split into cognitive skills (use of logical, intuitive and creative thinking) and practical skills (manual dexterity and use of methods, materials, tools and instruments); and competence (scope of responsibility and autonomy).

Changes in national policies are mainly generated by the European legislative framework, also influenced in recent years by workforce migration and student mobility. Low results in the programme for international student assessment (PISA) (OECD, 2014) resulted in pressure for a more comprehensive understanding, among practitioners in general education and teacher training (initial and continuous), of learning outcomes and use of knowledge and skills in real-life situations.

As reported for a Cedefop study on the subject (Cedefop, 2016), the learning outcomes concept is not widely shared. There are many different interpretations due to various linguistic and pedagogic concepts. For a successful shift to learning outcomes, an integrated approach to curriculum, assessment or examination, and teacher training would be required; these connections are not yet sufficiently coherent in the Romanian system.

The VET sector is at the forefront of the use of the learning outcomes approach, responding directly to social and economic needs. Initial VET qualifications are described in terms of training standards, which are based on occupational standards and which specify the units of learning outcomes. Vocational training standards have been developed in collaboration with the social partners and approved by the Ministry of Education and Scientific Research. New curricula have been designed. Occupational standards are also used in CVET and are based on elements of competence to be proved at the workplace. The standards are approved by the National Qualifications Authority, after consultation with sectoral committees. The new occupational standards include a curriculum unique to each occupation listed in the classification of occupations.

There are two factors in adult education which keep the implementation of the learning outcomes approach at an early stage: very low participation of adults in lifelong learning (1.5% in 2014) and a diversified institutional landscape with different types of institutions, programmes and organisational arrangements.

Within higher education, qualifications are linked to the credit structure of the European credit transfer system (ECTS), which is compulsory for all higher education institutions in Romania. Use of a competence-based model is part of higher education reform. However, further efforts should be made to ensure better definition of certain competences for the study programmes to aid differentiation between bachelor and master degrees. There is a challenge in using competence-based models in designing curricula, learning resources and assessment tools (Cedefop, 2016).

It is yet to be clarified how – and how far – learning outcomes are to be implemented in the different education segments.

Stakeholder involvement and institutional arrangements

The involvement of stakeholders in the development of the national qualifications framework is underpinned by law ([441]). The main body responsible for developing and implementing the comprehensive ROQF, and also the national coordination point (NCP) for EQF, is the National Qualifications Authority, NQA (*Autoritatea Nationala pentru Calificari*, ANC). This was established in June 2011, under the coordination of the Ministry of Education and Scientific Research. NQA brings together two institutions: the National Council for Adults' Vocational Training, in charge of CVET qualifications, and the National Agency for Qualifications in Higher Education and Partnership with the Economic and Social Environment, responsible for higher education qualifications. The bodies responsible for general education and initial VET in Romania are, respectively, the Ministry of Education and Scientific Research and the National

([441]) Article 340 (4) of the National Education Law No 1/2011.

Centre for Technical and Vocational Education and Training Development.

Quality assurance in Romanian education and training is coordinated through the Romanian Agency for Quality Assurance in Higher Education, and the Romanian Agency for Quality Assurance in Higher Pre-University Education. These are responsible for accreditation of education providers and programmes in higher education and, respectively, in general education and initial VET. The NQA is responsible for quality assurance in adult training (CVET). The National Group for Quality Assurance is an additional informal structure that ensures the coordination of quality assurance in all education and training subsystems.

Positive aspects in Romania are the clear governance structure for the development of the NQF, the strong role of NQA as initiator of legislation, and good human resource capacity. There are 20 employees working part time in 2015 on activities supporting the development and dissemination of the NQF, and 16 experts (part-time) foreseen for 2016 for dissemination and other implementation activities. However, the downside of the current governance arrangement is that approval and implementation of legislative proposals is a slow process.

This NQA has the following competences in relation to the development of the NQF:

(a) proposes elements of national policies and strategies, and drafts legislation on the NQF;
(b) develops, implements and updates the NQF;
(c) develops and updates methodologies for NQF implementation;
(d) develops instruments needed for monitoring, evaluation and control of the NQF;
(e) quality assurance in implementing the NQF;
(f) is responsible for the national qualifications register;
(g) ensures compatibility of the national qualifications system with other existing qualifications systems at European and international levels.

The NQA Council has an advisory role and is composed of 33 members, including representatives of several ministries, institutions of pre-university and higher education, students, social partners and sectoral committees ([442]). Other stakeholders are also expected to contribute to future NQF development. Consultative meetings and discussion sessions are being held with higher education institutions, training providers, authorising county commissions and sectoral committees, which is seen as a way of ensuring the sustainability of the framework ([443]).

Recognising and validating non-formal and informal learning and learning pathways ([444])

The National Law of Education No 1/2011 ([445]) reaffirms the role of validation in lifelong learning policies in Romania, and defines validation as 'the process of assessment and certification of informal and non-formal learning'. The chapter on lifelong learning creates the legal framework for developing community lifelong learning centres; these have a specific role in increasing access to non-formal and informal learning and to validation of learning outcomes from non-formal and informal learning, through second chance programmes and certification of skills and competences. The creation of these centres, however, is still under discussion. The methodology for their establishment has been proposed for public debate, but has not yet been approved.

The *National strategy for lifelong learning* (2015-20), adopted by the government in 2015 ([446]), provides a foundation for developing validation mechanisms and addressing issues related to financial incentives, information, counselling and access to validation, especially for disadvantaged groups. It is based on three strategic pillars: access and incentives for participation; quality and relevance; and partnerships for better information. The establishment of a dedicated structure responsible for validation within the NQA, the National Centre for Accreditation, and the current work on the national qualifications register are also expected to impact favourably on the development of validation services in the future.

Vocational skills acquired in non-formal and informal learning can be evaluated in professional competences assessment centres, authorised and monitored by the National Qualifications Authority. The qualifications awarded are stipulated in the existing national classifications, and can be acquired either by training or by skills assessment. According to interviews carried out in 2016 (European Commission et al., 2016), the number of accredited

([442]) Sectoral committees are social dialogue structures in 23 sectors, with a role in the development, update and validation of qualifications and training standards.

([443]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs*.

([444]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([445]) National Education Law No 1/2011. http://www.edu.ro/index.php/legaldocs/14847

([446]) Government Decision 418/2015.

assessment centres and beneficiaries that gained certificates following validation processes decreased in 2014 and 2015 compared to 2010-13, and the national coverage of assessment centres remains a challenge.

Sectoral committees are also involved in defining validation procedures and tools and a growing number of non-governmental organisations are interested in mobility and non-formal learning projects linked to Youthpass and Europass.

An issue that remains to be clarified is the relationship (if any) between the proposed community lifelong learning centres and the existing professional competences assessment centres, and whether they will fulfil similar or distinct functions.

The National Education Law also provides regulations on using lifelong learning portfolios in pre-university education, with their evidence of learning outcomes acquired in formal, non-formal and informal contexts. This practice has been taken up in some schools, but is not yet common.

The legislative basis for the ROQF states that qualifications obtained through non-formal and informal education will be included in the framework, using ROQF level descriptors. The methodology currently allows obtaining qualifications through validation of non-formal and informal learning up to level 3 ([447]). However, in the ROQF, validation is still linked only with occupational standards that relate to CVET qualifications. According to NQA, the current non-formal system in Romania operates parallel to the formal system, and the bridge between the two is still under development. It is not possible to obtain formal qualifications (full or partial) through validation of non-formal and informal learning. The validation system is mainly for adults and people who do not tend to go back to the formal system, though this is still an open discussion.

NQF implementation

The ROQF was adopted by Government Decision No 918/2013 ([448]) for the approval of the national qualifications framework, and includes higher education qualifications, those obtained through general education, vocational and technical education, and through adult continuing education. The ROQF for lifelong learning includes the framework for higher education adopted in 2011. In 2014 a ministerial order ([449]) entered into force regulating equivalence between the five qualification levels available prior to 2013 and the eight levels of the ROQF. An amendment to the 2013 government decision for the approval of the NQF was published in July 2015 ([450]). Its aim is to clarify correspondence between the NQF/EQF levels, the issued qualifications and the type of education and training programmes that lead to qualifications at each level, as well as the access requirements for each NQF level.

The ROQF, as proposed for referencing, is a classification framework. Its reforming role in supporting development and revision of qualifications and quality assurance arrangements is acknowledged.

The framework is at an early operational stage, and the related legislation is in the process of being amended and supplemented. The criteria and procedures for inclusion of qualifications into the ROQF and the methodologies for assigning qualifications to levels need to be further clarified. The question is how open or closed the framework will be in the future; what actual role will it play in supporting lifelong learning, access, progression and participation (especially of adults)? Will it become a tool for recognition of lifelong learning achievements?

Given its envisaged role in responding to changing labour market needs, in supporting national qualification system transparency and quality, and the recognition of qualifications needed to encourage mobility, the ROQF may become a permanent feature of the national qualifications system in the future ([451]).

The framework is made visible to potential stakeholders through meetings and workshops organised by the National Qualifications Authority, as well as promotional materials and social media. In 2015, NQF implementation activities were undertaken in the project *Financial support for the EQF NCP in Romania* ([452]), funded by the European

([447]) According to Government Decision 918/2013 for the approval of the national qualifications framework, amended by Government Decision 567/2015.

([448]) Government Decision No 918/2013 regarding the approval of the NQF. http://www.isjcta.ro/wp-content/uploads/2013/06/H.G.918_2013.pdf

([449]) Order of the Ministry of Education No 3973/2014.

([450]) Government Decision No 567/2015 amending Government Decision No 918/2013 regarding the approval of the NQF. http://cnred.edu.ro/pdf/HG-567-2015.pdf

([451]) Cedefop (2015) *Survey on the Sustainability and Visibility of NQFs*.

([452]) ReferNet article in Romanian: http://www.refernet.ro/index.php?option=com_content&view=article&id=106:sprijinirea-cadrului-naional-al-calificrilor-pentru-invarea-pe-tot-parcursul-vieii-i-corelarea-acestuia-cu-cadrul-european-al-calificrilor&catid=37:informatii-diverse&Itemid=55&lang=ro

Commission. One of the main outcomes of the project was the draft of a comprehensive national qualifications register ([453]), building on the national register of higher education qualifications ([454]) and the national register of vocational qualifications.

Referencing to regional frameworks

The first referencing report (Romanian Ministry of Education; NQA, 2014) was presented to the EQF advisory group in June 2014. The draft referencing report is expected to be presented in December 2017. Steps are being taken to regulate the issuing of certificates and diplomas that indicate NQF levels. EQF levels are expected to be indicated on qualifications once the referencing process is completed.

Important lessons and future plans

It is essential to have good cooperation between different stakeholders and structures. Merging the National Council for Adult Training and the Agency for Qualifications in Higher Education into a single body – the National Qualifications Authority – responsible for the development and implementation of a comprehensive NQF is an important step in supporting more coherent approaches.

Increasing participation in adult learning remains a challenge. Recent amendments to legislation on adult training establish certified adult training as part of the national education and training system. Legislation also requires permanent community lifelong learning centres to be established by local authorities, in partnership with education providers. These centres are expected to play a key role in implementing lifelong learning initiatives at local level, focusing on education and training, information and dissemination and personal development. Activities foreseen include second chance programmes and validation. Establishing these centres is expected to help increase participation rates for underrepresented groups. However, the methodology and the exact role of these centres has not yet been established, and it is yet to be clarified whether there is a relationship between the proposed community lifelong learning centres and the existing professional competences assessment centres, and to what extent they fulfil similar functions.

Validation and recognition of non-formal and informal learning was an important driver of NQF development in Romania and progress has been made over recent years. Further clarifying how validation of non-formal and informal learning relates to the acquisition of formal qualifications would be of value.

The National Qualifications Authority will complete the referencing and an updated document is expected to be submitted to the EQF advisory group in 2017. More information would be needed to see how existing qualifications were placed in the framework and how the best fit between qualifications and framework levels was reached. It is still to be clarified how qualifications will be placed in the framework in the future. The country is also in the process of revising methodologies for accreditation of qualifications, and the rules and guidelines for education providers and accreditation bodies, with a view to strengthening the quality of CVET qualifications ([455]).

The need to respond to changing labour market demands and to encourage mobility are seen as opportunities for the future implementation and promotion of the ROQF. However, information on concrete future plans and strategies for implementation of the framework is scarce.

Further source of information

The National Qualifications Authority (NQA) is the EQF NCP: http://www.anc.edu.ro/

Abbreviations

CVET	continuing vocational education and training
EQF	European qualifications framework
EQF-NCP	national coordination point for EQF
NAQHEPESE	National Agency for Qualifications in Higher Education and Partnership with the Economic and Social Environment
NRPQ	national register of vocational qualifications
NQA (ANC)	National Qualifications Authority (Autoritatea Nationala pentru Calificari)
NQF	national qualifications framework
NRQHE	national register of qualifications in higher education
OECD	Organisation for Economic Cooperation and Development
ROQF	Romanian national qualifications framework
VET	vocational education and training

([453]) http://www.anc.edu.ro/?page_id=146
([454]) http://www.anc.edu.ro/?page_id=610
([455]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs.*

Table 76 Romanian national qualifications framework (ROQF)		
ROQF levels	**Types of qualification**	**EQF levels**
8	Doctoral degree (Diploma de doctor) (third cycle of higher education) Certificate for postdoctoral studies (*Atestat de studii postdoctorale*) (postdoctoral studies)	8
7	Master degree (*Diploma de master*) and diploma supplement (second cycle of higher education) Bachelor degree/Architect diploma (*Diploma de licenta/Diploma de architect*) and diploma supplement (first and second cycle combined higher education study programmes)	7
6	Bachelor degree/Engineering diploma/Urbanism diploma (*Diploma de licenta/Diploma de inginer/Diploma de urbanist*) and diploma supplement (first cycle of higher education) Certificate of professional* competence (*Certificat de atestare a competentelor profesionale*) (postgraduate studies) Graduation certificate (*Certificat de absolvire*) (postgraduate studies)	6
5	Short-cycle higher education certificate (*Diploma de absolvire/calificare*) and certificate supplement (short cycle higher education) Post-secondary certificate (*Certificat de calificare*) and descriptive supplement (post-secondary non-higher tertiary education)	5
4	Upper secondary school leaving certificate (*Diploma de Bacalaureat*) (general, technological or vocational education, four years of study) VET certificate level 4 (*Certificat de calificare*) and descriptive supplement (technological/vocational high-school) VET certificate level 4/Qualification/Graduation certificate (*Certificat de calificare/absolvire*) and descriptive supplement (authorised training provider/training programme) VET certificate level 4/Qualification certificate (*Certificat de calificare*) and descriptive supplement (authorised training provider/apprenticeship programmes in the workplace)	4
3	VET/TVET certificate level 3/Qualification certificate (*Certificat de calificare*) and descriptive supplement (authorised training provider/apprenticeship programmes in the workplace) VET/TVET certificate level 3/Qualification certificate/Certificate of professional* competence (*Certificat de calificare/Certificat de competente profesionale*) and descriptive supplement (accredited training centre) VET/TVET certificate level 3/Certificate of professional* competence (*Certificat de competente profesionale*) (authorised assessment centre) VET/TVET certificate level 3/Qualification/Graduation certificate (*Certificat de calificare/absolvire*) and descriptive supplement (authorised training provider/training programme) VET certificate level 3/Qualification certificate (*Certificat de calificare*) and descriptive supplement (education unit/technological/vocational high school) VET certificate level 3/Qualification certificate (*Certificat de calificare*) and descriptive supplement (education unit/vocational training programme organised in dual system) VET certificate level 3/Qualification certificate (*Certificat de calificare*) and descriptive supplement (education unit/professional* education lasting at least three years)	3

ROQF levels	Types of qualification	EQF levels
2	VET certificate level 2/Qualification certificate (*Certificat de calificare*) and descriptive supplement (authorised training provider/apprenticeship programmes in the workplace) VET certificate level 2/Qualification certificate/Certificate of professional* competence (*Certificat de calificare/Certificat de competente profesionale*) and descriptive supplement (accredited training centre) VET certificate level 2/Certificate of professional* competence (*Certificat de competente profesionale*) (authorised assessment centre) VET certificate level 2/Qualification/Graduation certificate (*Certificat de calificare/absolvire*) and descriptive supplement (authorised training provider/training programme)	2
1	Certificate of professional* competence (*Certificat de competente profesionale*) (authorised assessment centre) Graduation certificate (*Certificat de absolvire*) and descriptive supplement (authorised training provider/ training programme) Graduation diploma (*Diploma de absolvire*) (basic education unit)	1

(*) The term `professional' denotes vocational and technological training aimed for the labour market.
Source: National Qualifications Authority, 2016.

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Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

RUSSIA

Introduction and context

NQF snapshot

There is no separate law or decree on a national qualifications framework (NQF), but the Federal Law of 3 December 2012 N 236-ФЗ, set out definitions of qualifications and occupational standards in the labour code and in the Law on Technical Regulation.

Educational, social, economic and political context

Russia has a population of circa 144 million ([456]). Population ageing is a major challenge for employers and society. In 2013, its working age element was calculated at 68 million, or 60% of the total. This is predicted to fall as low as 56% by 2030. Motivated by these demographic pressures, Russian governments seek to intensify productivity through better training and maximising technology. Migration is also increasing.

In January 2014, Russia's unemployment level was 5.6%. The rate of youth unemployment is higher, as is the case in most EU Member States. Young graduates have problems finding jobs; the unemployment rate for 15 to 20 year-olds in early 2014 was 14%.

According to the new Law on Education in the Russian Federation, vocational education and training (VET) refers to the sector of secondary VET, which trains both skilled workers (initial VET programmes) and middle-level specialists (secondary VET programmes). Secondary VET covers programmes leading to two qualification levels (equivalent to EQF levels 3 and 4, comparable).

Public VET sector comprises 4 444 public VET institutions and 212 public universities, which manage secondary VET programmes comparable to level 4 of the EQF. There are 2.8 million students.

Private VET includes 256 VET institutions (circa 1 million students), and 16 departments at higher education institutions (330 000 students).

In higher education, nearly 5.6 million students study at 969 universities. About 87% of secondary school graduates opt for higher education. As in many countries, VET still suffers from negative stereotyping, as parents drive their children to compete for places in higher education; the result is too many HE graduates and a shortage of VET-qualified people. Mismatches trouble especially IT, and other modern sectors face shortages when recruiting skilled personnel. According to estimates, by 2020 Russia could need 25 million highly productive professionals to fill new jobs.

Policy objectives

Education and training reforms

Given globalisation, rapid technological change and the country's negative demographic trends, there is an urgent need to put in place a comprehensive system of continuing upskilling and recognition and validation of skills acquired outside formal education and training. The NQF is intended, with other measures, to address these challenges.

In particular, it should:

(a) identify changing skills and qualifications requirements and respond to them;
(b) develop an up-to-date classification of labour market occupations (the respective register has been approved by the Labour Ministry) and of qualifications, the latter to be based on learning outcomes;
(c) ensure transparency of qualifications for all target groups: students, education policy-makers, education establishments, the workforce and employers;
(d) ensure permeability between/greater equality of educational subsystems (such as vocational and academic education);
(e) serve as a basis for the validation of competences and qualifications, both of formal and non-formal education.

([456]) Data from the ETF Torino process report 2016-17, Russia.

International cooperation

The country's NQF is influenced by the EQF and by the Bologna process, of which it is a member.

Levels and use of learning outcomes

Scope and structure of NQF

The regulation on an NQF has been approved by the Federal Labour Ministry under the title The levels of qualifications to use in developing occupational standards. The NQF, comprising qualifications levels for developing occupational standards, was approved by Order of the Ministry of Labour and Social Protection No 148n dated 12 April 2013.

Alignment to other classification systems

Through Tempus projects and at the initiative of the sector qualifications councils, regional and sectoral qualifications frameworks have been developed in a range of industries, including food, environment, land management, IT and management. Examples include a regional qualifications system for the Chelyabinsk region and SQFs in the railroads sector and welding.

More sectoral qualifications frameworks are in the making, including in the commerce, hospitality and tourism sectors, developed by sector employers and VET colleges working together.

Opportunities for recognition of non-formal learning have acquired legitimisation in the form of a law.

Russia joined the Bologna process in 2003 and reforms in higher education have been progressing since then. The adopted three-cycle structure of qualifications is in line with the Dublin descriptors.

NQF levels

The NQF is a nine-level structure (the ninth level covers postdoctoral qualifications) and descriptors are similar to those of the European qualifications framework.

Level descriptors

The framework is based on the following descriptors: responsibility (which correlates with the competences column of the EQF), skills and knowledge.

While this system shares some characteristics of an NQF, it differs from prevailing conceptions in several ways: it has been developed without strong stakeholder participation and has not undergone open public review processes. Understanding of the nature and meaning of levels is not yet fully clear, as secondary straddles levels 5 and 6.

The descriptors include the parameters 'ways of attaining the level of qualification' and 'duration of formal education programmes', which limit attainment of qualifications to formal education pathways, contradictory to a lifelong learning philosophy. Even if provision is made to recognise practical experience, it contradicts the other parameters in the descriptors.

Use of learning outcomes

New qualifications are generally outcomes-based as they are derived from competences. However, this is not an explicit legal requirement.

Definition of qualification

Definitions appear in these regulations:

The labour code: 'Qualification of worker is the level of his-her knowledge, skills and work experience'.

The Federal Law on Education in the Russian Federation (signed 29 December 2012, # 273- ФЗ: 'The level of knowledge, skills and competency, characterising readiness to perform a certain type of occupational activity'.

Access, progression and credit

Access to qualifications is stipulated in the constitution and the Law on Education in the Russian Federation as access to education. Access to qualifications can be acquired via compulsory vocational education programmes of secondary education (qualifications of workers and qualifications of the middle-level specialists) and programmes of higher education. Progression from level to level is traditionally consecutive. Progression to a higher level is allowed only if the lower level qualification has been achieved and is confirmed by a respective document, such as an appropriate certificate or diploma.

Article 10 of Federal Law N273-FZ on education in the Russian Federation dated 29 December 2012, allows candidates who have acquired skills non-formally, or who have completed a non-accredited study programme, to sit intermediate and final State exams at an education institution that has public accreditation, so that they can progress to higher levels of qualification.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

There is no separate NQF law or decree but the Federal Law of 3 December 2012, N 236-ФЗ, set out definitions of qualifications and occupational standards in the labour code and in the Law on Technical Regulation.

Legislation on establishing the National Council for Qualifications (Presidential Decree No 249 of 16 April 2014) and the Law on Independent Assessment of Qualifications are also relevant.

Governance and institutional arrangements for the NQF

Overall responsibility for coordinating Russia's NQF development, including supervision of the development of occupational standards, lies with the National Qualifications Council, which was established as an autonomous agency in April 2014. Another actor in this area is the National Agency for Qualifications Development that currently acts on behalf of the National Qualifications Council.

Agencies, ministries and official bodies engaged in NQF development are the National Qualifications Council, sector qualifications councils, the Ministry of Labour, the Ministry of Education, employer associations and professional bodies.

In 2012, the development of occupational standards was entrusted to the Ministry of Labour and Social Protection. The Ministry approved the template for occupational standards development, a methodology for filling out the template, and a structure of qualifications (description of qualifications linked to educational attainment).

Under the Law on Independent Assessment of Qualifications, a system of assessment centres is being established, affiliated by the sector qualifications councils. Its activities will be coordinated and supervised by the National Qualifications Council and partly – as delegated by the latter – by the National Qualifications Development Agency.

Roles and functions of actors and stakeholders

The initial impetus to establish the NQF came from the Russian Union of Industrialists and Entrepreneurs, which established the National Qualifications Development Agency (NARK) in 2007.

The National Council for Occupational Qualifications was established by Presidential Decree. It is a consultative and coordinating body set up to support development of a system of occupational qualifications. The establishment of this umbrella high-level body is intended to contribute to overcoming the fragmentation of earlier efforts and will inject a systemic character to the development of up-to-date qualifications in Russia. The Council has approved five working groups: on the development of sector qualifications (a prototype of sector skills councils), on occupational standards development; on application of occupational standards in the system of education and training; on independent assessment of qualifications; and on analysis of best practices.

These developments have contributed to progress in occupational standards, new qualifications, and SQFs. This will ultimately result in the development of a fully fledged NQF and the national system of qualifications, embracing institutional (sector qualifications councils/sector bodies), methodological (occupational standards), quality and assurance (sector bodies that coordinate assessment, validation and recognition of qualifications) mechanisms.

Parallel to the above, methodology has been developed to aid linking occupational standards, qualifications standards and education and training standards.

Resources and funding

The National Qualifications Council and the sector qualifications councils are self-funded; the system of independent assessment of qualifications is supported by federal grants in its initial stage but is to be self-funded later.

Quality assurance of qualifications

Quality in education is defined by the Law on Education. Providers and other actors must comply with the Federal State education standards (FSES). Measures include licensing, accreditation and final assessment of exam candidates. The Federal Service for Supervision in Education monitors compliance with procedures.

In VET, industry, employers and sectoral associations accredit programmes in terms of their labour market relevance. The aim is to establish if VET programmes are linked to occupational requirements, including occupational standards.

Russia is not part of any wider international quality assurance body.

No specific quality assurance mechanisms for the NQF and for qualifications have been introduced, apart from independent assessment of qualifications and competences, and standard federal procedures of licensing and accreditation.

Recognising and validating non-formal and informal learning and learning pathways

Paragraph 7, Article 10 of Federal Law N273-FZ on education in the Russian Federation, dated 29 December 2012, states that those who complete a study programme in the format of self-education or family education, or who have completed a study programme that lacked State accreditation, have the right to sit intermediate and final State exams at an education institution that has public accreditation, and so to progress along the chosen learning path.

People can now have their competences and qualifications assessed and validated. This has been made possible by the Law on Independent Assessment of Qualifications approved by the State Duma on 22 June 2016.

However there is still a gap between education qualifications, confirmed by the appropriate diploma/certificate, and occupational qualifications based on standards of scale and content. It is expected that validated skills and competences will have a meaning for employers, as independent assessment is in the hands of the sector qualifications councils.

NQF implementation

Inclusion of qualifications in a register

The national register and database are under development.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of NQF implementation have not yet been defined.

Impact for end-users

Laws are in place, but the NQF is not fully implemented. There is no qualifications database yet, and qualifications are not yet awarded with an NQF stamp.

Referencing to regional frameworks

Russia is a member of the Bologna process in higher education, joining in 2003 and so bound to implement the qualifications framework for the European higher education area.

Important lessons and future plans

The NQF has been propelled forward by employers to a greater extent than most countries' NQFs, which are usually State-directed. Development of occupational standards is prolific.

While Russia enjoys the advantage of advanced industry and big employers who can engage with education and training actors, learning outcomes approaches to defining qualifications and curricula need to be accelerated.

The National Qualifications Council has coordinated development of occupational standards in all major occupational areas (over 820 approved to date), which provide the basis for qualifications standards and qualifications, activities of sector skills councils (26 to date), and of the independent system of assessing competences and qualifications.

Greater interaction between the world of work and education and training has resulted in growing awareness of the need to diversify qualifications; applied bachelor qualifications and technological master qualifications have been introduced in higher education.

Abbreviations

FSES	Federal State education standards
NARK	National Qualifications Development Agency
NQC	National Qualifications Council
NQF	national qualifications framework
SQFs	sectoral qualifications frameworks

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RWANDA

Introduction and context

Rwanda currently has two qualifications subframeworks: the Rwandan qualifications framework for higher education (RQFHE, also called the Rwandan national qualifications framework) and the national technical and vocational education and training qualifications framework (NTQF).

Historically, higher education in Rwanda was provided for only a few students at undergraduate level. There was little investment in quality, research, innovation and knowledge transfer. The present government acknowledges the importance of investing in teaching, learning and research to improve the quality and relevance of undergraduate and continuing education (Ministry of Education, 2008).

Rwanda's technical and vocational education and training (TVET) sector is struggling with the interrelated issues of skills mismatch and limited job growth. Over 42% of young people are unemployed, underemployed or engaging in subsistence agriculture. Several programmes have been developed to address youth unemployment, but since they are not systematically interlinked, these initiatives are failing to reach as many young people as they might (OECD, 2012). Policy frameworks for skills development, job creation and gender equality rarely translate into tangible impacts.

Policy objectives

The RQFHE aims to:

(a) enable international benchmarking of standards;
(b) ensure that education programmes are developed and delivered in conformity with the framework and its quality assurance system (Rwandan national qualifications framework, 2007, p. 3);
(c) make the Rwandan higher education sector more internationally credible and competitive;
(d) widen participation in and access to education in Rwanda;
(e) align Rwandan qualifications more closely with the world of work;
(f) support research, innovation and knowledge transfer.

In alignment with the policy of the TVET subsector as a whole, the NTQF aims to:

(a) promote the establishment of a knowledge-based economy for the purposes of sustainable development in Rwanda;
(b) establish mechanisms for the recognition of formal, non-formal and informal learning;
(c) widen access to TVET;
(d) support the professional development of Rwandan workers by furnishing them with skills and knowledge which are relevant to the labour market.

Levels and use of learning outcomes

The RQFHE has seven levels, with learning outcomes at each level described in terms of five dimensions: knowledge and understanding; applied knowledge and understanding; cognitive skills; communication, ICT and numeracy skills; and autonomy, responsibility and working with others. The level descriptors provide a clear understanding of the learning outcomes expected at each level. All subject groups are required to produce benchmark statements to define their learning outcomes. Programme teams are expected to specify learning outcomes across all five dimensions for each given programme. These are subject to approval by the Higher Education Council before the programme is delivered.

Two factors determine the level of a qualification within the RQFHE: the difficulty of the learning outcomes and the volume of credit that can be achieved (Table 77).

Requirements for the award of qualifications from higher education institutions are in line with the draft Rwandan national qualifications framework for higher education produced by the National Council for Higher Education.

Table 77 Example of higher education, level 1 (Certificate of higher education) in Rwanda

Knowledge and understanding	Practice: applied knowledge and understanding	Cognitive skills	Communication, ICT and numeracy skills	Autonomy, responsibility and working with others
Demonstrate: • broad knowledge of the main principles of the subject • awareness that knowledge is constantly evolving • understanding of the difference between knowledge supported by data and proof and knowledge that is discursive and conceptual without the support of evidence	Use some of the basic and routine techniques and/or materials associated with the subject. Practice these techniques in routine and non-routine situations.	Present and evaluate arguments, information and ideas which are routine to the subject. Use a range of approaches to address predefined and/or routine problems in familiar contexts.	Use a range of routine skills associated with the discipline, for example: • convey complex ideas in a well-structured and coherent form • use a range of forms of communication effectively in both familiar and new contexts • use standard ICT applications to obtain and process a variety of information and data • use a range of numerical and graphical skills.	Be able to work with little or no supervision. Be able to work with others to achieve defined objectives. Take responsibility for own work. Be able to take a leadership role in group work.

Source: Rwandan national qualifications framework, 2007.

At the core of the RQFHE is a credit accumulation and modular scheme (CAMS), which is benchmarked to internationally recognised standards. This is illustrated by Table 78.

Stakeholder involvement and institutional arrangements

The RQFHE is the responsibility of the Higher Education Council (HEC). The function of the HEC is to carry out institutional quality audits and subject reviews, and to monitor and report on the performance of the higher education sector against national targets.

The NTQF is governed by the TVET authority, established to promote skills development in the national workforce in order to enhance Rwandan workers' competitiveness and employability (Ministry of Education, 2008). The TVET authority is governed by a council whose membership reflects its wide range of stakeholders and beneficiaries in both the public and private sectors. The council's chairs include representatives from relevant ministries, the private sector federation and its chambers, employers and employees, NGOs, TVET providers, farmers, professional associations, faith-based organisations and all public institutions which deal with human resource development. The proportion of employers in the council is critical for its success (Ministry of Education, 2008, pp. 16-17).

The TVET authority defines levels and standards for the NTQF and indicates learning outcomes at each level, specifying what a learner is able to do as a result of the learning process. It also defines the level descriptors which detail the competences (knowledge, skills and attitudes) a person has acquired and/or is able to demonstrate after completion of a learning programme in order to be considered qualified at a given level in a given field. 'Competence' refers to the ability to apply the complete set of skills, knowledge and attitudes (learning outcomes) in a defined context, for example in the performance of a specific occupation.

Recognising and validating non-formal and informal learning and learning pathways

The NTQF aims, as far as possible, to incorporate existing TVET activities into its qualification programmes. Enrolment in TVET courses is expected to be fairly evenly balanced between commerce and science subjects due to the large number of female students opting for accountancy and secretarial/administrative courses (Ministry of Education, 2008).

Horizontal and vertical mobility, both within the TVET sector and between TVET and general education, is considered essential for responding to technological progress and professionalising the workforce. Mobility is made possible by the creation of equivalences between different streams. The rules on equivalences are set by the TVET Authority on behalf

of the NTQF. Entry and exit pathways at all levels and programmes give TVET graduates the option of progressing to higher education commensurate with their abilities and the opportunities present in the labour market (Ministry of Education, 2008, p. 14). Bridging courses are envisaged to smooth the progress of students moving from one stream to another and ensure that they are not at a disadvantage as they enter the new stream.

NQF implementation

The government remains focused on maintaining high standards and continuing to develop collaborative working relationships between public higher education institutions and the private sector (Ministry of Education, 2008). The National Examination and Certification Framework, a legal authority, offers examinations and certification for all qualification levels.

The labour market information system (LMIS) provides information on the needs of employers to help shape curriculum development; a business incubation (entrepreneurship development) facility will provide support services to up-and-coming entrepreneurs with lower vocational skills.

Referencing to regional frameworks

The leaders and citizens of East African countries are committed to constructing a powerful and

Table 78 Rwandan QFHE credit accumulation and modular scheme (CAMS)

Award	Level	Credit	Year (undergraduate full time)
Certificate of HE	1	120 level 1	1
Diploma in HE	2	240: 120 level 1 + 120 level 2	2
Advanced diploma in HE	3	300: 120 level 1 + 120 level 2 + 60 level 3	3 Semester 1
Bachelor degree	4	360: 120 level 1 + 120 level 2 + 60 level 3 + 60 level 4	3 Semester 2
Bachelor degree with honours	5	480: 120 level 1 + 120 level 2 + 60 level 3 + 60 level 4 + 120 level 5	4
Postgraduate certificate	6	Minimum 60 at level 6	
Postgraduate diploma	6	Minimum 120 at level 6	
Master (following an integrated programme from undergraduate to master level study)	6	Minimum 600, with a minimum of 120 at level 6	
MA/MSs (name of programme)	6	180 with a minimum of 140 at level 6	
MA/MSc by learning contract	6	180 with a minimum of 140 at level 6	
Master by research	6	Not credit rated (research degree)	
MPhil /MLitt (named subject)	6	240 credits with a minimum of 200 at level 6	
Prof M	6	360 at level 6	
MPhil (subject not named)	6	Not credit rated (research degree)	
PhD	7	Not credit rated (research degree)	
Prof D	7	Minimum 540 with a minimum of 420 at level 7	

Source: Rwandan national qualifications framework, 2007.

sustainable East African economic and political bloc (EAC, 2011). This commitment is reflected in Rwanda's membership of regional organisations such as the East African Community (EAC), a regional intergovernmental organisation which also includes the Republics of Kenya, Uganda, Tanzania and Burundi. Negotiations are also underway to create an East African Monetary Union and an East African Federation.

The Inter-University Council for East Africa (IUCEA), in collaboration with EAC and the East African Business Council, has developed the EAC regional higher education qualifications framework (RHEQF) (IUCEA, 2014). This will act as a translation device to make NQFs more readable across the region and international frontiers, as well as promoting worker and learner mobility between countries.

Important lessons and future plans

Significant progress has been made since 1994 in establishing a sound base for higher education in Rwanda. TVET has been recognised as a national priority and the quality and accessibility of TVET programmes have been improved accordingly (Ministry of Education, 2008, p. 11).

Further source of information

EAC (East African Community): http://www.eac.int/about-eac.html

Abbreviations

CAMS	credit accumulation and modular scheme
EAC	East African Community
HEC	Higher Education Council
IUCEA	Inter-University Council for East Africa
LMIS	labour market information system
NTQF	national TVET qualifications framework
RHEQF	EAC regional higher education qualifications framework
RQFHE	Rwandan qualifications framework for higher education
TVET	technical and vocational education and training

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Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with national experts.

SAUDI ARABIA

Introduction and context

The Saudi Arabia qualifications framework (SAQF) was developed to contribute to the reform of education in the Kingdom of Saudi Arabia (KSA) and to standardise the recognition of all national registered qualifications within the country.

It is now in its last phase of development, which will be finalised in 2017. Upon completion, it will be submitted to the Council of Ministers for approval. It will be introduced into the education and training system in 2018, and will represent a single comprehensive and national system for registering qualifications in Saudi Arabia, encompassing higher education, technical and vocational education and training, and general education.

The development of the Saudi Arabia qualifications framework will contribute to the paradigm shift for the education and training system of the Kingdom of Saudi Arabia, and has been designed as an important instrument to contribute to the broader socioeconomic needs of the Kingdom aligned to the National transformation plan 2020 and the wider *KSA vision 2030* (KSA, 2016a).

The *National vision 2030* will drive the diversification of the economy, rather than being self-reliant on the oil industry. Achievement of such an economic transformation requires deliberate planning and careful implementation of a development programme with clearly defined objectives: 'We will also redouble efforts to ensure that the outcomes of our education system are in line with market needs' (KSA, 2016b).

The availability of a qualified, highly efficient and productive national workforce is an essential condition for achieving sustainable development and progress. Human resource indicators in the Kingdom already point to remarkable progress during the last two decades through expansion of education and training capacities in all regions. Nevertheless, reform is now required to make it more relevant to a more diversified economy and to increase the contribution of the national work force.

The SAQF is designed to promote confidence, value and validity to all qualifications available throughout the Kingdom. It has been developed as a response to the needs of the different sectors of education, training, and employers (public and private). It is also part of the context of shaping the education and training qualifications system encompassing all kinds of learning. The SAQF promotes mechanisms for the recognition of all types of learning and supports progression between the technical, vocational, academic, and training sectors.

Policy objectives

The main objectives of the Saudi Arabia qualifications framework are to:

(a) support raising the quality of Saudi qualifications for all citizens;
(b) standardise the qualification design and development process in the education and training sector;
(c) set national levels for qualifications to enable classification and placement, using level descriptors based upon learning outcomes defined by knowledge, skills, and competences;
(d) use national levels to classify similar qualifications through standardised regulations to facilitate practical application;
(e) build an integrated national framework for all education and training qualifications within the Kingdom;
(f) set unified standards for the registration of Saudi Awarding Bodies that ensures quality and comprehensiveness of the qualification design;
(g) articulate a common language to ensure transparency and comprehension;
(h) enable comparison of different types of education and training qualifications in the Kingdom, aligning them with each other to ensure consistency and accuracy;
(i) align the Saudi qualifications framework with other international frameworks;
(j) develop flexible education, training and employment progression routes by facilitating enrolment, progression, and transferability.

Table 79 Alignment of qualifications to the Saudi Arabia qualifications framework (SAQF) architecture

	Level	General education	Technical, vocational and educational training (including occupational learning)	Higher education	Professional training
Post-secondary levels	10			PhD	Professional development
	9		Technical master degree	Master degree	
	8			Higher diploma	
	7		Technical bachelor degree	Bachelor degree	
	6		Diploma	Diploma / Associate degree	
	5		Associate diploma	Associate diploma / Higher education certificate	
	4		Certificate 4		
General education	3	General education certificate	Certificate 3		
	2	Intermediate education certificate	Certificate 2		
	1	Elementary education certificate	Certificate 1		

Source: Education Evaluation Commission, 2017.

Levels and use of learning outcomes

Table 79 illustrates how existing qualification types are aligned to the SAQF architecture (EEC, 2017).

All qualifications within the SAQF have a level assigned to them, which represents the level of achievement. There are 10 levels of achievement, from level 1 (lowest) to level 10 (highest). The 10 SAQF levels provide an indication of the complexity of qualifications and their components. Each level has its own generic 'level descriptor'. The level descriptors reflect the increase in learning demand through the domains of knowledge, skill, and competence required to demonstrate achievement. The level of a qualification is informed by the SAQF level descriptors and, where appropriate, national occupational and skills standards (NOSS) or other sector and professional benchmarks.

Saudi Arabia qualifications framework level descriptors are designed to act as a generic guide and tool for:

(a) writing learning outcomes and associated performance criteria for qualifications and their components;
(b) setting a qualification at an appropriate level on the SAQF, alongside purpose statements, learning outcomes and performance criteria;
(c) making comparisons across qualifications.

The Saudi Arabia qualifications framework contributes, as a tool, to the needs of the labour market by encouraging the development of qualifications that validate relevant learning outcomes suitable for the qualification.

Stakeholder involvement and institutional arrangements

The Saudi Arabia qualifications framework is a national project and is being developed with support and input from multiple stakeholders across the education and training landscape and with engagement from employers. Its creation

was approved by resolution of the Council of Ministers, and entrusted to the Education Evaluation Commission as the authority to develop, set up and supervise the national qualifications framework in the Kingdom with stakeholder collaboration.

The Education Evaluation Commission is part of a transformative executive mechanism that aims to raise the quality of education and training to competitive world-class levels. The two key objectives of the Education Evaluation Commission (EEC, 2017) are to:

(a) improve the quality and efficiency of education;
(b) support the national economy and its development by improving education outcomes.

The SAQF will improve the extent to which all stakeholders are informed about national qualifications and their comparability. This transparency of qualifications improves the relationship between education, training, employers and the labour market, whilst supporting opportunities for individuals to move between SAQF levels and education and training sectors in support of lifelong learning.

The SAQF was developed through engagement with 70 different organisations from across the public and private sector and with support from 160 different individual stakeholders. The process has so far involved the organisation of more than 246 meetings, workshops, focus groups, and seminars, and has included input from 25 local experts and 20 international NQF technical experts.

Recognising and validating non-formal and informal learning and learning pathways

The Saudi Arabia qualifications framework will unify all school, workplace, community, training providers, colleges, and university qualifications into a single system. The SAQF is designed to clarify entry and exit points and routes for progression within, and across, all sectors. It is also designed to provide transparent opportunity for credit transfer between sectors.

The scope and range of the Saudi Arabia qualifications framework encompasses the three main public education sectors:

(a) general education;
(b) vocational education and training (including employer training schemes);
(c) higher education.

Over time, the SAQF will extend recognition to different types of formal, non-formal and informal learning, which will underpin the notion of lifelong learning and support the development of recognition of prior learning from many different contexts.

NQF implementation ([457])

The development of the SAQF has been undertaken in the following three key project phases:

(a) phase 1: inception: encompassing extensive research and situation analysis of the current education and training landscape resulting in a comprehensive baseline study;
(b) phase 2: design and development: the contextual creation of all the tools, standards, systems and processes required to construct a national qualifications framework;
(c) phase 3: planning for implementation: the strategic operational plan in association with the SAQF governance.

The SAQF is now in its last phase of development, which will be finalised in 2017. Upon completion, it will be submitted to the Council of Ministers for approval and will be introduced into the education and training system in 2018.

Referencing to regional frameworks

The Saudi Arabia qualifications framework has been designed with consideration of other regional frameworks within the region and internationally (EEC, 2016).

The priorities for referencing the SAQF will be based on regional recognition and the flow of migrant workers against the needs of the labour market to align the creditability of foreign qualifications that will support the Kingdom's key socioeconomic drivers.

Important lessons and future plans

The Saudi Arabia qualifications framework will become a significant tool of the education and training system that will support the Kingdom's labour market and socioeconomic needs. Therefore, its successful integration cannot be achieved in a vacuum. As an education reform mechanism, the SAQF will support and be aligned

([457]) Key criteria and indicators for the stages of NQF implementation to be further elaborated.

to other government policies, practices and projects within the Kingdom, which requires full stakeholder involvement and engagement.

Further source of information

Education Evaluation Commission: www.eec.gov.sa

Abbreviations

EEC	Education Evaluation Commission
KSA	Kingdom of Saudi Arabia
SAQF	Saudi Arabia qualifications framework
NOSS	national occupational and skills standards
NQF	national qualifications framework

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Prepared by:
UNESCO in collaboration with national experts.

SERBIA

Introduction and context

NQF snapshot

Two separate laws currently govern the national qualifications framework (NQF) in Serbia. The Law on Foundation of Education System regulates NQF levels I to V (pre-university education). NQF levels belonging to the higher education, levels VI to VIII are regulated by the Law on Higher Education.

A new Law on the National Qualifications Framework is planned to regulate implementation and further development of the comprehensive national qualifications framework in Serbia (NQFS).

Educational, social, economic and political context

Serbia's aging population decreased from 7.64 million in 2002 to 7.11 million in 2015 ([458]), largely due to the low fertility rate (1.43 children per woman in 2013) but also due to the loss of educated young people to countries offering better employment prospects. By 2014 the proportion of the population under the age of 15 had dropped to 14.3% while the proportion 65 or older was 18.0%, resulting in a high old-age dependency ratio. There is a pattern of internal migration from rural areas to urban centres such as Belgrade but growing sectors such as ICT are already reporting difficulty recruiting skilled workers and the number of young people entering the labour market is decreasing.

Similar to other countries in the region, Serbia has a service-oriented economy; this contributes 60% of GDP whereas a quarter is generated by industry. About 10% of GDP comes from agriculture but the employment structure (agriculture employs one in five people) suggests a typically subsistence-type situation. Seriously affected by the financial crisis, Serbia's economy is slowly gaining momentum, with GDP growing by 0.7% in 2015 and a forecast 2.5% and 2.8% in 2016 and 2017. Most of the workforce is employed in services (53% in 2015) and this proportion remained stable over the past five years.

Approximately 75% of upper secondary students in Serbia were enrolled in VET in 2014. As in other countries with high VET enrolment, VET may be a successful option to overcome early school leaving. However, the proportion of young people aged 15 to 24 who are neither in employment nor in education and training (NEETs), remained relatively high (20% in 2015), decreasing slightly from 2010. This suggests problems in the employability of VET graduates and the existence of skills imbalances. A 2016 ILO study on school-to-work-transition in Serbia found that the unemployment rate for the young (15 to 29) with only primary-level education is significantly higher than that for those with a tertiary-level degree (40.7% and 32.9%, respectively). The unemployment rate of secondary-level graduates is the lowest, though still high, at 29.9%.

Policy objectives

Education and training reforms

The NQF and active labour market policies are the focus of the Serbia's human capital reform measures. The *2016 Strategic Planning Document for Human Resources and Social Development* identifies five objectives for IPA support, with a goal to improve socioeconomic development in Serbia based on coherent links between employment, market economy, education and social inclusion. Two of the objectives include VET and labour market reform: supporting education reform by improving the quality and relevance of education, by developing qualification standards that better meet labour market needs); and enhancement of employment and employability through targeted measures.

Serbia made progress in 2015 unifying the NQFs for higher education and VET into one comprehensive NQF for lifelong learning, and developing an inventory of qualifications.

The Council for Vocational and Adult Education has clear responsibility for approving curricula and

([458]) Data from the ETF Torino process report 2016-17, Serbia.

drafting regulations such as the one for sector skills councils. The Council will play a key, policy role reforming the VET system.

International cooperation

Serbia is an EU candidate country. It receives financial assistance from the EU via IPA (Instrument for pre-Accession). IPA II funds will provide sector budget support following the Sector reform contract (SRC), probably from 2017. The SRC focus is on NQF development, teacher training, Roma and minority language education.

Serbia has also adopted the Riga 2015 conclusions on a new set of medium-term deliverables (MTD) in VET for the period 2015-20 (Riga is a follow-up of the Bruges process). MTD 3 is related to the NQF: 'Enhance access to VET and qualifications for all through more flexible and permeable systems, notably by offering efficient and integrated guidance services and making available validation of non-formal and informal learning'.

Levels and use of learning outcomes

Scope and structure of NQF

The national qualifications framework in Serbia (NQFS) is described as an instrument for identification, creation and classification of qualifications in accordance with labour market requirements, further learning, science and society in general. The NQFS also determines the processes and institutions (bodies, organisations) responsible for setting qualifications and qualification standards, ways and conditions for acquisition, comparison and recognition of qualifications, as well as the other mechanisms for quality assurance. Qualifications regulated by the national qualifications framework are recognised nationally and entered in the national qualifications registry.

The NQFS defines 'qualification types' according to the mode of acquisition as:

(a) formal qualifications, obtained through formal education, after which a diploma or a certificate is issued as a public document;
(b) qualifications gained through non-formal education, acquired through different forms of adult education, most commonly through vocational training, after which a certificate is issued as a public document;
(c) qualifications obtained through recognition of prior learning, acquired by adults based on work or life experience, after which a certificate is issued as a public document.

Alignment to other classification systems

Over recent decades, important changes have occurred in education and in the acquisition of qualifications. There is now a genuine need to carry out a formal comparison of the classification of current qualifications and education to those from the previous period. The lack of such comparison has had significant implications in terms of achieving the right to work and to adequate income, the right to further education, statistical reporting, and similar aspects essential both for an individual and for society as a whole. This is particularly important from the standpoint of the economically active population contingent that has gained qualifications in different education systems and social circumstances.

NQF levels

The NQFS has eight levels and six sublevels; levels 6, 7 and 8 are each divided in two sublevels. The need for sublevels comes from communicational purpose of the NQF: the necessity to put the 'old' qualifications into the framework.

Level descriptors

NQF level descriptors have been defined in terms of learning outcomes and use the following domains:

(a) knowledge;
(b) skills and attitude;
(c) ability.

Knowledge descriptors are statements of complexity of general and vocational knowledge necessary for performing a job or for further learning. In this context, knowledge is seen as a set of acquired and related facts, principles, theories and practices (experience) in relation to a particular field of work or study.

Skills descriptors refer to cognitive (logical, intuitive and creative opinion), psychomotor (physical abilities, the use of methods, instruments, tools and material) and/or social skills (communication and presentation, team work), whose differentiation in levels is determined by:

(a) complexity and diversity of jobs;
(b) predictability of situations/conditions;
(c) determination or standardisation of jobs;
(d) application of methods and techniques;
(e) complexity of problems and creation of new solutions;
(f) complexity and type of communication;
(g) use of information (skills for collecting, selecting, processing, applying and creating information);
(h) handling utensils, tools, machines, equipment and plant;
(i) usage of material.

Table 80		Comparative table of qualifications and types of education in Serbia	
NQF levels		**Current**	**Previous**
1		• Primary education • Elementary adult education	• Unqualified (UQ) worker • The first level of professional qualification (LPQ 1)
2		• Vocational training (1 year) • Education for work (2 years) • Training (120-360 hours of training)	• Semi-qualified (SQ) worker • The second level of professional qualification (LPQ 2)
3		• Three-year secondary vocational education • Non-formal adult education (minimum 960 hours of training)	• Qualified (Q) worker • The third level of professional qualification (LPQ 3)
4		• Four-year secondary education (vocational, artistic, general)	• The fourth level of professional qualification (LPQ 4)
5		• Specialist and craftsman education	• Highly qualified (HQ) worker • The fifth level of professional qualification (LPQ 5)
6	6.1	• Basic academic studies (BAS, 180-240 ECTS) • Basic vocational studies (BVS, 180 ECTS)	• Higher education lasting 2-3 years (LPQ 6.1) • The first university level (until 2005, LPQ 6.1)
	6.2	• Basic academic studies (BAS, 180-240 ECTS) • Specialist vocational studies (SVS, 180 + 60 ECTS)	• Higher education with a specialisation lasting up to one year (LPQ 6.2)
7	7.1	• Integrated academic studies (IAS, maximum 360 ECTS) • Master academic studies (MAS, 180 + 120 or 240 + 60 ECTS) • Master vocational studies (MVS, 120 ECTS)	• Basic (graduate) studies lasting 4-6 years (until 2005, LPQ 7.1)
	7.2	• Specialist academic studies (SAS, 60 ECTS)	• Specialist studies lasting 1-2 years (until 2005, LPQ 7.2) • Specialisation in health care lasting 2-6 years • Subspecialisation in health care lasting one year
8	8.1		• Master of science (*Magistar*) studies lasting two years (until 2005, LPQ 7.2)
	8.2	• Doctoral Studies (DS, 180 ECTS)	• Doctorate of sciences – PhD (until 2005, LPQ 8)

Source: Ministry of Education, Science and Technological Development, Council for Vocational and Adult Education, National Higher Education Council.

Attitude and ability descriptors refer mainly to independence and responsibility, and, as from level 6, are cumulative in defining:

(a) levels of independence in work;
(b) assuming responsibility for own work and/or the work of others, along with specifying in relation to means, actions, procedures and decisions;
(c) entrepreneurial spirit in problem solving;
(d) analysing, planning, organising and evaluation of one's own work and/or the work of others.

Use of learning outcomes

The NQFS is based on qualification standards and learning outcomes. Description of learning outcomes is one of the elements of a qualification standard.

Definition of qualification

The definition of qualification in the NQFS document is: 'A qualification is a formal recognition of acquired competences. An individual obtains the qualification when the authorised body determines that they have achieved the learning outcomes prescribed by the qualification standard, the fact acknowledged by issuing a public document (diploma or certificate).'

Qualification standards

The NQFS is based on qualification standards. A qualification standard represents the content of a specific qualification that is defined according to the following elements:

(a) a qualification name;
(b) a code from the national qualifications registry;
(c) a code of the occupational group which the qualification is connected to according to the national system of classification of occupations ([459]);
(d) a qualification level according to the NQFS/EQF;
(e) a qualification type;
(f) a qualification sector;
(g) work description (competences and competence units);
(h) prerequisites for acquisition of a qualification;
(i) mobility in the qualifications system;
(j) a qualification scope (the minimum duration of education or training, the minimum number of credits);
(k) learning outcomes (outcomes of knowledge, skills, abilities and attitudes);
(l) the way of assessing the achievement of learning outcomes (the examination type);
(m) the type of public document and the competent body in charge of issuing the document;
(n) qualification reference data (includes description of the body responsible for the approval, the date of approval, the qualification audit date, the date of entry into the registry).

Access, progression and credit

The NQFS document describes access to qualifications at NQF levels as follows: 'Preconditions for acquiring qualifications are minimal requirements that a person has to meet to start the process of acquiring a qualification at a certain level, and they form an integral part of every qualification standard.'

Level 1: access to the acquisition of qualifications is enabled for children who have previously completed the preparatory preschool programme or for adults who have finished the second cycle of elementary adult education, based on the model of functional elementary education of adults.

Level 2: access to the acquisition of qualifications is enabled for those who have previously completed primary education or the second cycle of functional elementary education of adults. In the case of recognition of prior learning (RPL), in addition to completing primary education, requirements include two years of relevant work experience.

Level 3: access to the acquisition of qualifications is enabled for those who have previously completed primary education or have obtained the qualification at level 2. In the case of RPL, in addition to completing primary education, requirements include five years of relevant work experience.

Level 4: access to the acquisition of qualifications is enabled for those who have previously completed primary education or have obtained the qualification at level 3 for additional training.

Level 5: access to the acquisition of qualifications is enabled for those who have completed three-year or four-year secondary education. In the case of specialist craftsman education, in addition to completing the secondary education, two years of appropriate working experience are needed and for the RPL it is necessary to have five years of relevant work experience.

Level 6: access to the acquisition of qualifications is enabled for those with completed secondary education, except in the case of artistic qualifications when completed secondary education is not compulsory. Access to the acquisition of specialist vocational qualifications is enabled for persons who have completed basic academic or vocational studies.

Level 7: access to acquiring master qualifications is enabled for those who have completed basic academic or vocational studies, and the acquisition of the qualifications of specialist academic studies is allowed for persons who have completed master studies. Access to acquisition of qualifications in integrated academic studies is enabled for those with completed secondary education.

Level 8: access to acquisition of qualifications is enabled for those who have completed master academic studies.

Credits are based on duration of education or training programmes, described in the NQFS document as the qualification scope: a qualification scope is the minimum duration of an educational or training programme or the number of credits of individual qualifications and it is specified in the qualification standard. The programme duration and the number of credits in formal education are regulated by law.

The non-formal adult education and training programmes for acquisition of qualifications have the following duration depending on the level:

([459]) Codes of occupational groups encompassed by qualifications will be used from ISCO 08 up to the moment the NSCO is adopted and a competent institution for its application defined.

Table 81 Beneficiaries and specific activities of the NQF of Serbia	
Beneficiaries	**Activities**
Companies, implementers of education/training programmes, State entities, trade unions	Planning of human resources development, education and employment
Participants in the development and evaluation of the education/training programmes	Education and training programming
Schools, faculties, organisations, companies and learners	Accreditation of programme implementers
Teachers, professors, trainers and learners	Implementation of the education/training programmes
Examination bodies, examiners and candidates	Certification
Councillors, learners or individuals who opt for an occupation	Career guidance and counselling
Employment services/agencies, companies and job seekers	Employment mediation
National institutions, public services	Establishing policies and strategies in a given portfolio, keeping records in education, employment, statistics, social insurance

Source: Ministry of Education, Science and Technological Development, Council for Vocational and Adult Education, National Higher Education Council.

(a) level 2 qualification: 120 to 360 hours;
(b) level 3 qualification: minimum 960 hours (over at least six months and, at most, two years);
(c) level 5 qualification: over at least six months and, at most, two years.

Defined duration of non-formal education provides the basic credibility of the adult education process; it contributes to quality assurance in acquiring qualifications at a certain level.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

Two separate Laws currently govern the NQF in Serbia. The Law on Foundation of Education System ([460]) regulates NQF levels I to V (pre-university education). Based on the Council for Vocational Education and Adult Education ([461]) proposal, the minister is responsible for NQF adoption. NQF levels belonging to higher education, levels VI to VIII are regulated by the Law on Higher Education ([462]). The National Council for Higher Education is responsible for proposing the NQF for higher education to the ministry ([463]).

The NQFS is not yet regulated by law, though such a law is planned for implementation and further development.

Governance and institutional arrangements for the NQF

The institutional arrangements for NQF implementation will be regulated by the Law on the National Qualifications Framework. The law will define (among other things) institutions and their competences necessary for the operation of the NQFS and on the basis of specified functions and users. Analysis of the institutional framework for the establishment of the NQFS has been carried out and followed by the development of the financial framework.

Table 81 presents presents the beneficiaries and specific activities of the NQF by which the objectives of the NQF are realised.

According to the current legal framework, different institutions have roles and functions in implementing NQF, such as the Ministry of Education, Science and Technological Development, the Council for Vocational Education and Adult Education, and the National Higher Education

([460]) Official Gazette RS, no. 72/2009, 52/2011, 55/2013, 35/2015 and 68/2015.
([461]) Article 16, Law on Foundations of the Education.
([462]) Official Gazette RS, No 76/2005, 100/2007, 97/2008, 44/2010, 93/2012, 89/2013, 99/2014, 45/2015, and 68/2015).

([463]) Article 11, Law on Higher Education.

Council. For some future NQF functions there is a gap in institutional setting. These gaps will be closed by establishment of the Qualification Agency ([464]), and by the Law on NQF, as defined by the law.

An expert team has a mandate from the Ministry of Education, Science and Technological Development. The special advisor to the minister chairs the expert team. Members are experts of the Institute of Improvement of Education, National Employment Service and representatives of the higher education sector.

Roles and functions of actors and stakeholders

There is no agreement between social partners and government that includes statements about the NQFS.

The NQFS document attributes evaluating and decision-making tasks in identifying the need for qualifications and development of qualification standards to sector skills councils; these are not yet operational.

Resources and funding

There are resources allocated in the national budget for NQF development but they are limited. However, as development of the NQF is one of the areas covered by the IPA II budget support programmes, relevant work should also get appropriate resources.

Quality assurance of qualifications

The NQFS document (section 3) describes quality assurance arrangements of:

(a) identification of need for qualifications;
(b) development of the qualification standard;
(c) development of the education programme for a qualification;
(d) acquiring a qualification;
(e) monitoring and evaluation of the process of acquiring qualifications.

Recognising and validating non-formal and informal learning and learning pathways

Validation of informal and non-formal learning (VNFIL) – also recognition of prior learning (RPL) – in the NQFS document is one of the paths for acquisition of qualifications. It is currently regulated by the Law on Adult Education. After completion of the RPL process, acquisition of the qualification is finalised by the award of a public certificate which is equalised with the certificate of non-formal education which gives right to work (recognised on the labour market).

NQF implementation

Inclusion of qualifications in a register

There is no national register of qualifications yet. A database is in process of development.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of NQFS implementation have not yet been defined, but will be in the NQF Law.

Impact for end-users

The NQFS has had no impact yet on end-users. The NQF is not yet regulated by law and an action plan for its implementation is yet to be developed. The qualifications agency is not yet operational. Principles and procedures for inclusion of qualifications in the NQF have yet to be developed and a qualifications database is under construction.

Referencing to regional frameworks

Serbia is an EU candidate country and participates in the EQF advisory group. Referencing the NQFS to the EQF is planned for 2018-19.

Important lessons and future plans

Establishment of the NQF working group with a mandate is speeding up the development and implementation of the NQFS and related legislation.

One challenge is to link NQF development and implementation to the reform of provision (i.e. modernising curricula) and developing work-based learning in the VET system. Another is the legal and institutional developments necessary for implementing the NQF and sector skills councils.

Limited resources in the national budget, insufficient human capacities for development, implementation and management of NQF, public administration reform and limited employment are all issues to be addressed.

([464]) Legal bases in the Article 24a, Law on Foundations of Education System.

Abbreviations

ECTS	European credit transfer and accumulation system
ILO	International Labour Organisation (branch of UN, which is concerned with labour standards, and decent work)
IPA	Instrument for Pre-accession (EU support programme)
ISCO	international standard classification of occupations
NEETS	young people aged 15 to 24 who are neither in employment nor in education and training
NQF	national qualifications framework
NQFS	national qualifications framework of Serbia
NQFWG	NQF working group
NSCO	national system of classification of occupations
RPL	recognition of prior learning
RS	Serbia, Republic of
SPD	strategic planning document
SRC	sector reform contract (EU support programme)
VNFIL	validation of non-formal and informal learning

Prepared by:
the European Training Foundation (ETF).

SEYCHELLES

Introduction and context

It has been government policy in the Seychelles since 2000 to develop a national qualifications framework (NQF), along with a national qualification authority to administer and develop it. The idea had surfaced in the late 1990s in the Ministry of Social Affairs and Manpower Development. It commissioned a study to explore the feasibility of setting it up (Ministry of Social Affairs and Manpower Development of the Republic of Seychelles, 1999).

The Seychelles NQF is a 10-level framework, designed in 2007 following the creation in 2005 of the Seychelles Qualifications Authority (SQA) under the Qualifications Authority Act (Republic of Seychelles, 2008).

To develop the human resources required to meet its ambitious development goals, the government is taking steps to improve training in vocational, managerial and service skills. Training is to be restructured in alignment with internationally recognised standards and certification processes. This will be made possible through partnerships with international institutions of higher learning, which will offer a variety of training courses to Seychelles students, from skills programmes and short courses through to full qualification programmes.

The active involvement of sectors of the economy such as tourism, fisheries and financial services will help strengthen links between training and the world of work, making the Seychelles education system more responsive to both local and international labour market needs (Republic of Seychelles, 2008). Particular emphasis is being placed on improving the information and communications technology skills of the workforce so as to render it more competitive in today's technologically driven business environment.

The SQA had completed the first institutional accreditation exercise in seven post-secondary institutions (there are nine institutions now) by the end of September 2012. The outcome was provisional accreditation for all the seven institutions. The institutional accreditation exercise for the University of Seychelles (UniSey, an institution registered under the Education Act of 2004) occurred in September 2013, and again led to provisional accreditation.

There was a second institutional audit of UniSey in July 2015, by SQA under the Seychelles Qualifications Authority Act of 2005 (Republic of Seychelles, 2005), which led to its being granted accreditation for five years (14 August 2015 to 13 August 2020).

Accreditation is now an integral activity of the SQA, and there is at least one institutional audit each year. Two were scheduled for 2016.

Policy objectives

The Seychelles qualifications framework (SQF) is designed to provide:

(a) high-quality training and qualifications;
(b) recognition and credit for prior learning and skills;
(c) parity between academic and vocational qualifications;
(d) qualifications based on unit standards linked to the requirements of industry and society;
(e) a more integrated approach to education and training;
(f) a coherent learning system offering potential for mobility between different courses and levels;
(g) qualifications that are nationally and internationally comparable and portable (SQA).

Stakeholder involvement and institutional arrangements

The SQA uses fixed standards to evaluate existing training courses and position them at SQF levels 3 to 6. Although the SQA was created in 2005, this work did not begin until 2008; subsequently all providers of education and training programmes leading to the achievement of unit standards and/or full qualifications were required to become accredited by the SQA.

Development of the SQA and SQF needs to be understood in the context of the major political and social changes that were taking place at the time, as the Seychelles moved from a State-controlled economy to market-oriented. This shift profoundly affected the management of key sectors of the economy, and provided the impetus for the government's public sector investment programme, a branch of the broader human resource development programme instigated by the Agency for National Human Resource Development, established by the National Human Resource Act in 2006 (Republic of Seychelles, 2008).

Levels and use of learning outcomes

The SQF has 10 levels, ranging from primary to doctoral and postdoctoral qualifications. These are based on a hierarchy of competences which are detailed in the descriptors provided for each level. Post-secondary level qualifications are further categorised into types such as diplomas, associate degrees and certificates, and carry a fixed minimum number of credits and notional hours in order to provide flexibility in programme design. The smallest number of notional hours for the achievement of an SQF qualification is 1 200, amounting to 120 credits (SQA, n.d.). The input-based national curriculum, rather than the learning-outcomes-based qualifications, continues to be the framework for general education up to and including secondary level.

Core skills are an essential part of all SQF qualifications. These include communication skills (including the use of the English language, considered essential for promoting international mobility), numeracy and information and communications technology skills, and life skills, which include social behaviour and ethics.

Recognising and validating non-formal and informal learning and learning pathways

The SQF offers a number of progression pathways by which candidates can move from basic to more advanced certificates. Mechanisms for RPL also give individuals who have gained significant experience in a particular field the opportunity to become formally qualified at a level commensurate with their abilities. Candidates may achieve partial or even whole qualifications through RPL, or may qualify for credit at a higher level than that of the qualification applied for. At degree level, up to 50% of a qualification can be obtained through RPL. Once implementation of the SQF is complete, learners will be able to register for a number of courses over an extended period and accumulate credits towards a recognised qualification.

RPL is not a new concept in the Seychelles: trade tests in various vocational disciplines have been conducted for more than three decades.

Table 82 Seychelles national qualifications framework

NQF levels	Qualification type	Notional hours (minimum)
10	Doctorate	3600
9	Master degree	1600
8	Postgraduate certificate Postgraduate diploma	1200
7	Bachelor degree	3600
6	National advanced diploma	1200
5	National diploma	3600
4	High school certificate (A levels) / National advanced certificate	2400
3	National certificate	1200
2	Secondary certificate (IGCSE)	
1	Primary certificate	

Source: Republic of Seychelles, 2008.

The Employment Department sensitises its own employees to RPL so that they are able to spread the message and encourage workers in other fields to undergo assessment. The SQA has campaigned, for example, for the formation of a hairdressers' association to develop standards for the profession and encourage hairdressers to undergo RPL assessment. The SQF recognises all forms of adult learning: formal, non-formal and informal. A special division of the Ministry of Education, Secretariat for Professional Centres (SPC), is responsible for linking youth and adult education to the SQF. The Seychelles Institute of Open and Distance Learning, one of the training centres of the SPC, offers distance programmes in collaboration with international universities such as the University of South Africa and the Indira Gandhi National Open University.

Achieving parity between academic and vocational qualifications is considered vital for the creation of a pool of skilled labour to meet the needs of the economy and promote development (Republic of Seychelles, 2008, pp. 17 to 19). It is important that young people and adults studying for vocational and technical qualifications do not feel that their chosen path is inferior to that of their academic counterparts. Articulation between technical and vocational education and training (TVET) and higher academic education is increasingly becoming a reality in the Seychelles, largely due to SQF-led reforms. Students of some vocational training institutions, such as the National Institute of Health and Social Studies (NIHSS), are being admitted to higher education courses based on assessment of their skills and experience (Republic of Seychelles, 2008, p. 35).

Referencing to regional frameworks

The Seychelles is a member of Southern African Development Community (SADC) and plays a part in the continuing development of the RQF. The SQA contracted the South African Qualifications Authority in 2007 to help build capacity to establish the SQF.

Like Mauritius, the Seychelles has a well-established and functioning NQF. However, the SQF is more closely aligned to the competence-based modular training approach, whereas the Mauritius qualifications framework follows an outcomes-based approach.

Important lessons and future plans

Communicating information about the SQF to all stakeholders is the most ambitious project carried out by the SQA so far. Several groups have already been successfully sensitised to the importance of RPL, including health workers, construction workers, and human resource development officers in both private and public enterprises.

A new draft policy on RPL (SQA, 2014a) and draft guidelines for its implementation were developed in 2014 (SQA, 2014b) through consultancy with the South African Qualifications Authority. These documents will replace the existing *Manual and policy guidelines for the recognition of prior learning* of 2009 (SQA, 2009). Following a pilot on RPL conducted in 2014-15, the draft policy for RPL has been reviewed and was presented to the SQA Board in March 2016. The RPL project is now at the stage of stakeholder engagement.

SQA is implementing the following areas of its NQF regulations: validation of programmes, standards development (for qualifications from levels 3-6), evaluation and certification of qualifications/certificates, institutional accreditation, and RPL. Several policy guidelines in relation to these areas have been developed or reviewed, including a quality assurance manual (which covers validation and institutional accreditation), a programme validation guide for providers, an internal quality assurance manual, and an internal quality assurance handbook for tertiary education institutions.

The main current challenge is to set up quality assurance mechanisms within providers. The SQA has been lobbying for the setting-up of a quality assurance unit and quality assurance officer within each provider. To date this has been done for UniSey and one professional centre (previously post-secondary institution) only. There is need to build the capacity of professional centres. The internal capacity of the SQA also needs to be strengthened, for which training is required.

Further source of information

Seychelles Qualifications Authority. *The national qualifications framework: an introduction.* http://www.sqa.sc/pages/NQF/Nqf.aspx

Abbreviations

NQF	national qualifications framework
RPL	recognition of prior learning
SPC	Secretariat for Professional Centres
SQA	Seychelles Qualifications Authority
SQF	Seychelles qualifications framework

References

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Republic of Seychelles (2008). National Qualifications Framework Regulations. S.I. No 102 of 2008. Adopted on 18 December 2008. Published in the supplement to the *Official Gazette*, 29 December 2008, pp. 367-378. http://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=81303

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Seychelles Ministry of Social Affairs and Manpower Development (1999). *Towards a national qualifications framework for the Seychelles.*

Prepared by:
UNESCO in collaboration with national experts.

SLOVAKIA

Introduction and context

Slovakia has a comparatively low rate of early leavers from education and training (6.9% in 2015, compared to the EU average of 11.0%), but is below the EU average for several other key indicators. A current challenge is a need to improve educational outcomes, especially among pupils from disadvantaged backgrounds. Improving the attractiveness of the teaching profession and the education of teachers, as well as strengthening early childhood education and care, are seen as key aspects in tackling this challenge. All levels of the education and training system have been undergoing reform and the new government is preparing a 10-year education strategy (European Commission, 2016).

Work on the Slovak qualifications framework (SKKR) has been under way for some time, based on a 2009 government decision on European qualifications framework (EQF) implementation ([465]). The Act on Lifelong Learning of 2009 ([466]), amended in 2012, stipulated the legal background for development of a national qualifications system and framework. A strong tradition of formal education with a firmly established education and training branch structure initially contributed to reluctance to accept a framework development; in the past few years, however, more engaged actions have been taken to develop the framework and the national qualifications register (NQR). This has been stimulated by post-crisis labour market transformation that highlighted the gap between labour market requirements and the knowledge and skills of graduates (State Vocational Education Institute, EQF NCP, 2015). The tasks related to the development of the SKKR became a part of the national reform programme of the Slovak Republic in 2012.

In 2011, level descriptors for a comprehensive national qualifications framework (NQF) for lifelong learning were approved by the Ministry of Education, Science, Research and Sports, encompassing qualifications from all subsystems of formal education and training (VET, general education and higher education). However, this initial NQF proposal was deemed to be too much shaped around the formal education system (State Vocational Education Institute, EQF NCP, 2015), and in 2013 strategies for revision were proposed, along with involvement of other actors and social partners.

The State Vocational Education Institute (*Štátny inštitút odborného vzdelávania* – ŠIOV) launched a national project under the auspices of the Ministry of Education, Science, Research and Sport of the Slovak Republic, aiming to develop a national system of qualifications ([467]). One of the outcomes of this project was revision of the SKKR grid; this work, together with the methodology for linking qualifications to the SKKR levels, was completed at the end of 2014.

The first phase of SKKR development was finalised in 2015 and the EQF referencing report was presented in the EQF advisory group in December 2015. An updated report following recommendations of the advisory group is expected to be submitted in the first quarter of 2017. As with most other young frameworks, further development and implementation of the SKKR is work in progress.

Policy objectives

Development of the NQF in Slovakia is taking place as part of a more complex process of reform in VET and lifelong learning ([468]). Apart from its main

([465]) Government Decision No 105/2009 (available in Slovak). http://www.rokovania.sk/File.aspx/ViewDocumentHtml/Uznesenie-5819?prefixFile=u_

([466]) Act of 1 December 2009 on lifelong learning and amendments to certain acts (Ministry of Education, Science, Research and Sport of the Slovak Republic). https://www.minedu.sk/data/att/4125.pdf

([467]) The project is jointly financed from European Union (EU) Structural Funds. Information about the project is available at: http://www.kvalifikacie.sk/zakladne-informacie

([468]) This concerns the implementation of dual education, development of the national qualifications register, development of the national occupations register, as well as reform of the national qualifications system in the context of lifelong learning. A new Act on lifelong learning is currently being prepared.

function of classification of qualifications, resulting from the hierarchical division of the qualifications system into levels, the SKKR is seen as having a threefold role:

(a) communication: to provide transparent information on national qualifications, their characteristics and relationships;
(b) transformation: gradually revising the recognition and validation system and leading to better coordination of lifelong learning;
(c) regulation: to monitor and regulate the description of qualifications and their levelling, as well as the system of recognition and validation of qualifications.

There is also general consensus in the country about the role of the framework in promoting lifelong learning, improving the quality of education at all levels, and promoting student and workforce mobility.

Among the anticipated benefits and impacts of SKKR implementation are:

(a) better education system transparency, both for individuals and employers, as well as for international comparison;
(b) increased transparency of qualifications, through their description in terms of learning outcomes rather than inputs;
(c) better match between education and training and the needs of the labour market through a more demand-oriented education system;
(d) strengthened relationships between all stakeholders involved in education;
(e) modernisation of education through the application of quality principles in the process of acquiring qualifications;
(f) increased quality in the processes of identification, validation and recognition of qualifications, and developing general principles for the validation of non-formal and informal learning (State Vocational Education Institute, EQF NCP, 2015).

Levels and use of learning outcomes

The revised SKKR ([469]) includes all qualifications: general education, VET, higher education, those outside the formal education system and those gained through validation of non-formal and informal learning. It is an eight-level framework, with level descriptors defined in learning outcomes, covering knowledge (general and professional), skills (cognitive and practical) and competence (responsibility, autonomy and social competences). The architecture of the SKKR consists of the framework grid and a catalogue of qualification cards describing full and partial qualifications ([470]). Qualifications were assigned to SKKR levels following analysis of the learning outcomes set in the qualification standards, and their comparison with the national descriptors.

The SKKR comprises four types of qualification, reflecting the educational pathways:

(a) general education qualifications: refer to the level of education and entitle the holder to continue his/her studies at a higher level; they provide the holder with general knowledge, skills and competences;
(b) vocational qualifications: awarded in formal secondary VET, they are closely linked to the level of education and represent the first qualification an individual can achieve in formal education;
(c) higher education qualifications: representing a level of education and a qualification;
(d) occupational qualifications: awarded outside the formal system, as a result of courses, working experience.

The learning outcomes approach has been recognised as part of the reform agenda. The 'shift to learning outcomes' policy is well embedded in national discourse and partly also in legislation. The approach is being integrated into all new developments across the various parts of the education system, for example in relation to:

(a) changes in accreditation processes at higher education institutions, with a shift of emphasis to output indicators rather than input;
(b) improved employability through better match between content of education and labour market demands;
(c) setting educational standards (including content and performance components) for primary and secondary schools;
(d) progress in identification of occupational standards.

General education (primary/secondary) programmes have been revised to strengthen performance standards. Although this can be seen as a reflection of a shift towards the learning outcomes approach,

([469]) The website of the national qualifications system, including the SKKR: http://www.kvalifikacie.sk

([470]) According to the Act on lifelong learning (2009), a full qualification entitles its holder to perform all tasks within an occupation, whereas a partial qualification allows performance of one or a limited set of tasks within a relevant occupation. Full qualification may comprise one or more partial qualifications.

substantial changes in programming and curriculum development will need more time and deeper discourse about the learning outcomes approach foundation (Cedefop, 2016).

The learning outcomes approach is being reinforced in VET through the VET Act of 2009 ([471]) and curriculum reform. Two-level educational VET programming was introduced, with performance standards formulated within State educational programmes, and requiring schools to develop learning outcomes within school programmes, in cooperation with regional partners. Between 2013 and 2015, qualifications standards were elaborated in the frame of the European Social Fund (ESF) project *Development of the national qualifications system* by sector councils, associating different players from education and labour market (educators, employers, chambers).

In higher education, the Ministry of Education adopted in 2013 the *Criteria for the accreditation of higher education study programmes* ([472]) as well as other documents related to the performance of higher education institutions; the learning outcomes approach is now part of the criteria for assessing the quality of higher education institutions and for obtaining study programme accreditation. In 2014, the Higher Education Act defined a field of study based on the extent of knowledge, skills and competences forming the graduate's profile.

In November 2016, the ministry started the process of public consultations on future reforms in Slovak education ([473]). The steps envisaged include revision of the system of study fields in line with the learning outcomes approach and their reduction in number to increase flexibility in line with SKKR. Specific measures based on the consultations are expected to be published in the first half of 2017.

([471]) Act of 23 April 2009 on VET and amendments to certain acts (Ministry of Education, Science, Research and Sport of the Slovak Republic). http://www.tnuni.sk/fileadmin/dokumenty/univerzita/dolezite_dokumenty/Zakon_184_2009_o_odbornom_vzdelavani.pdf

([472]) http://www.minedu.sk/kriteria-pouzivane-pri-vyjadrovani-sa-akreditacnej-komisie/

([473]) The national programme for the development of education (*Learning Slovakia*) is based on the goals of the Manifesto of the Government for 2016-20. The main goals of the reform in higher education focus on quality assurance, flexible response to the labour market needs, internationalisation, and accessibility of university studies for all.

Stakeholder involvement and institutional arrangements

Work on the initial NQF, following Government Decision No 105/2009 on a proposal for implementation of the EQF, was started and coordinated by the Ministry of Education, Science, Research and Sports of the Slovak Republic. The national coordination point for EQF (NCP) was created at that time and, until 2011, was under the direct responsibility of the Ministry of Education. An interministerial group for the implementation of EQF was set up to develop the NQF grid, and cooperation with the national team of Bologna experts was established to ensure coordination between the NQF and Bologna implementation.

Revision of the initial NQF was closely linked to development of the national qualifications system. Stakeholder involvement from the world of work was vital, including employers' chambers, unions, confederations and other professional associations. Between 2011 and 2014, the NCP moved to the National Institute for Lifelong Learning and, since February 2014, it has been within the State Vocational Education Institute (ŠIOV), the coordinator body of the national project for the development of the national qualifications system. The role of the NCP is primarily one of coordination, monitoring and technical advice. The Ministry of Education maintains overall competence and responsibility for NQF development and implementation.

The current governance of the SKKR consists of:

(a) a working group for the development of the NQF, comprising experts from educational institutions at all levels and employer representatives. The working group is responsible for developing SKKR descriptors and levelling processes;
(b) a national team of experts comprising representatives of institutions governed by the Ministry of Education, Science, Research and Sport ([474]) and social partner representatives ([475]). Its role is to act as an advisory body, ensuring social dialogue;

([474]) The National Institute of Lifelong Learning, the State School Inspection, the National Institute of Education and the National Institute of Certified Measurement of Education.

([475]) The Federation of Employers' Associations, the National Union of Employers and the Confederation of Trade Unions.

(c) the National Council for Education and Qualifications (NCEQ) ([476]), a supra-sectoral national authority composed of representatives of all sectoral ministries, professional and employers' organisations, State and regional administration, and associations of schools. The NCEQ is the highest approval and monitoring body of the NQF. Its work is also directly related to the work of the sector councils;
(d) sector councils composed of representatives of all stakeholders (national and regional authorities, employers, representatives of trade unions, and educators). The sector councils have a key role in developing, monitoring and updating national occupations and qualifications standards ([477]).

The body responsible for quality assurance is the Ministry of Education, Science, Research and Sport, with the social partners also involved.

The main strength of the current governance structure of the Slovak NQF is the active participation of stakeholders, though this requires effective communication strategies yet to be developed. Activities related to the introduction and implementation of the SKKR were mainly project-based, but in 2016 ŠIOV was provided with a budget from the Ministry of Education, ensuring sustainability and continuity of work on issues related to the further development of SKKR and the qualifications system.

Recognising and validating non-formal and informal learning and learning pathways ([478])

There is currently no national system for validating non-formal and informal learning (NFIL) in Slovakia. The underlying principles are set out in the 2009 Act on Lifelong Learning, which created some of the conditions for gradual development of a validation system. The development of the national qualifications system has introduced a new approach to the description of qualifications, based on learning outcomes.

However, neither the SKKR nor the national qualifications system is ready to be used for validation of NFIL. For example, qualification standards were approved by the National Council for Education and Qualifications but they cannot yet be used for validation of NFIL because they are not yet embedded in the relevant legislation. Instead, earlier set standards placed in the information system of further education ([479]), created prior to the development of the national qualifications system, are still being used for validation according to the 2009 Act on Lifelong Learning.

There is also a lack of unified terminology contributing to misunderstanding, especially in relation to the international discourse. The term 'non-formal' is often used with reference to standards and validation, but 'non-formal education' is considered equal to 'further education' leading to partial or full qualifications. Therefore, the validation practices presently used refer mainly to qualifications obtained by accredited further learning programmes, rather than to validation of non-formal and informal learning. Individuals with five years of practical experience can apply for examination in authorised institutions and can receive a certificate confirming compliance with qualification standards. These certificates are not the same as those issued from formal education because they do not relate to the level of education; they give access to further study at the same (not higher) education level. New legislation is considered necessary to support the development of validation more appropriately.

Vocational qualifications in Slovakia are currently not based on units and a credit system is not used. However, a unit-based approach to designing qualifications, also introducing modularised provision of VET, has been advocated in ESF-funded analytical studies ([480]) and is expected to materialise within the next phases of development of the national qualifications system.

The main responsibility for validation policies lies with the Ministry of Education. Policies and initiatives

([476]) A legal framework for the National Council for Education and Qualifications is expected to be defined by the new Act on lifelong learning.
([477]) There are 24 sector councils in Slovakia, with a rather wide scope of responsibilities and competences, such as development and monitoring of the national occupations register and the national qualifications register, communication between the labour market and the world of education, and establishing partnerships for validating and recognising non-formal and informal learning. Their role is defined in the Act No 5/2014 on employment services and on amendment of certain laws (https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2004/5).
([478]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).
([479]) Available at: http://isdv.iedu.sk/EligibleInstitutions.aspx
([480]) For example, Vantuch, J. et al. (2014): *Analýza Európskeho kvalifikačného rámca a Národných kvalifikačných rámcov vo vybraných krajinách EÚ [Analysis of EQF and NQFs in selected EU countries]*. Available at: http://www.tvorbansk.sk/files/Analyza_EKR_NKR_EU.pdf (quoted in European Commission et al., 2016).

are designed in cooperation with stakeholders: social partners, regional authorities, education and training institutions and central public administration. A working group was created in November 2015 to prepare a new Act on Lifelong Learning, which is expected to address terminological issues (in particular concerning the conceptualisation of 'qualifications') and also to support validation of NFIL better (such as by addressing validity and reliability of validation processes and a stronger focus on validation tools). A follow-up project on further development of the national qualifications system will also focus on validation processes, including quality assurance procedures.

NQF implementation

NQF development in Slovakia has been a lengthy process that involved a range of different stakeholders and was carried out within wider reforms aimed at the creation of a national system of qualifications. This system consists of two pillars, the NQF and the national qualifications register (NQR) ([481]); development of the two was closely related. The description of qualifications in terms of qualification standards forms the content of the national qualifications register; their levelling is the content of SKKR.

The framework has been designed to be comprehensive, with clearly defined objectives. The SKKR grid was completed and a methodology for linking qualifications to SKKR levels was proposed and tested on a first set of qualifications. The methodology was then revised and approved by the National Council for Education and Qualifications in 2015. Qualifications were levelled to SKKR based on the 'best fit' principle, following analysis of learning outcomes defined in qualification standards and their comparison with national descriptors. This methodology was also used by the sector council members and their sectoral working groups as a tool for defining learning outcomes and better understanding of the whole process.

The NQR has 'qualification cards' ([482]) as its main units, with identified qualifications described in terms of: general information (how to acquire the qualification, relation to an occupation, relation to education, evidence of an acquired qualification, the SKKR level); a qualification standard, which contains categories and subcategories of knowledge, skills and competences; an assessment standard, containing information on assessment criteria, methods and tools; and methodological guidance about the requirements for exams for validation. By November 2015, one thousand qualifications aligned to the SKKR were described and included in the NQR ([483]).

The basic framework for the development of NQR was the national occupations register (NOR), and synchronising the two tools is a key element in the implementation of the SKKR. The NQR also has a role in quality assurance at all levels of lifelong learning.

Presentation of the referencing report in the EQF advisory group marked the completion of the first stage of SKKR implementation (2009-15), though implementation of the framework is a gradual process which will continue. Further work on expansion of the register and refinement of the already set standards is expected to be achieved through a new ESF-funded project. Evaluation of the functionality of the SKKR and of the levelling process started at the end of 2015 ([484]). It analysed 586 qualifications from the SKKR and compared the Slovak system of levelling with the systems in Denmark, Estonia, the Netherlands, Norway, Scotland and Slovenia. The preliminary results were presented by the NCP working group in November 2016. They included recommendations concerning the consistent use of learning outcomes and differentiating in levelling occupational qualifications and those from formal education. The recommendations will be used in developing the SKKR and NQR.

The national coordination point has started to disseminate information about the framework to increase its visibility. It has established cooperation with the Euroguidance centre and participates in its activities. Employers and sectoral bodies, trade unions and education and training providers are already aware of the SKKR as they have been engaged in its development. The next step, which will make the framework better known among students and parents, will be indicating NQF and EQF levels on certificates and diplomas, once the referencing to the EQF is completed.

([481]) The national qualifications register (NQR) was developed within an ESF-funded project. The website of the national qualifications system can be found at: www.kvalifikacie.sk

([482]) The development of qualification cards is the responsibility of working groups within the sector councils.

([483]) The number of qualifications distributed by levels of SKKR are: SKKR Level 2, 34 qualifications; SKKR Level 3, 310 qualifications; SKKR Level 4, 262 qualifications; SKKR Level 5, 72 qualifications; SKKR Level 6, 139 qualifications; SKKR Level 7, 181 qualifications; SKKR Level 8, 2 qualifications.

([484]) State Vocational Education Institute (2016). *Comparative analysis of levelling qualifications to SKKR levels and national qualifications frameworks in selected EU countries* [unpublished].

Referencing to regional frameworks

The referencing report of the Slovak qualifications framework towards the European qualifications framework was presented in the EQF advisory group in December 2015. The report covered the first phase in the development of the framework (2009-15), but further progress and clarifications were considered necessary. An updated version of the report is expected to be submitted.

Important lessons and future plans

Important progress has been achieved in developing the SKKR in the past few years. A comprehensive framework with a clear structure and ambitious objectives has been put in place, and one thousand qualifications, ranging from levels 2 to 8, have been described and assigned to NQF levels. The next step is submission of an updated report addressing the recommendations of the EQF advisory group. A clearer conceptual framework is necessary, particularly a consistent approach to the conceptualisation of 'qualifications' and other key concepts, as well as better clarification of the links between different tools and systems used in the country (SKKR, NQR, NOR, different standards, full and partial qualifications).

Revision of the Law on Lifelong Learning is currently underway and will address terminological and conceptual issues. More time is needed to establish quality assurance procedures appropriately and better address higher education qualifications, with stronger involvement of higher education stakeholders. Verification of the levelling of qualifications to the SKKR and revision of the functionality of the framework are envisaged.

The development and further implementation of the SKKR is seen as not only an opportunity to unify terminology and find a common language between the different subsystems, but also to systematise the classification of qualifications, and to achieve separation between recognition and validation processes, on the one hand, and education attainment, on the other. Some of the challenges lying ahead are to establish effective links between formal, non-formal and informal pathways to qualifications, and to develop a trustworthy system for validation of non-formal and informal learning.

One of the fundamental questions is the fragmentation of the SKKR into subframeworks to achieve the comparability of learning pathways. Analysis of levelling of qualification cards against SKKR opened the way for a debate on the creation of up to five subframeworks, depending on the educational path/recognition of qualifications: for general education; for VET; for higher (tertiary) education; for non-formal learning pathways (further education or learning outcomes achieved by other ways); and for international/sectoral qualifications.

Conditions in Slovakia are favourable for the implementation of the learning outcome approach, and the philosophy is widely accepted. The main barriers are related to identification of learning outcomes and translation into practice. Deeper understanding is needed of the impact of learning outcomes on learner performance, as well as establishing correct assessment procedures. Adequate expertise, teaching materials and professional assistance are required. There is a lack of experts from the world of work able to translate workplace requirements into the language of education, and capacity building for employers is crucial to securing relevance of learning outcomes for the labour market (Cedefop, 2016).

Further sources of information

(available in Slovak)

Website of the national qualifications system:
http://www.kvalifikacie.sk/
Ministry of Education, Science, Research and Sport:
http://www.minedu.sk
The State Vocational Education Institute (ŠIOV) – EQF national coordination point:
http://www.siov.sk/index.php/sk/

Abbreviations

EQF	European qualifications framework
ESF	European Social Fund
NCEQ	National Council for Education and Qualifications
NFIL	non-formal and informal learning
NOR	national occupations register
NQR	national qualifications register
NQF	national qualifications frameworks
QF-EHEA	qualifications framework in the European higher education area
ŠIOV	Štátny inštitút odborného vzdelávania [State Vocational Education Institute]
SKKR	*Slovenský kvalifikačný rámec* [Slovak qualifications framework]
VET	vocational education and training

Table 83	Proposed Slovak qualifications framework (SKKR)
SKKR levels	**Types of qualifications**
8	Diploma – *Vysokoškolský diplom* Certificate of State exam – *Vysvedčenie o štátnej skúške* Diploma supplement – *Dodatok k diplomu*
7	Diploma – *Vysokoškolský diplom* Certificate of State exam – *Vysvedčenie o štátnej skúške* Diploma supplement – *Dodatok k diplomu*
6	Diploma – *Vysokoškolský diplom* Certificate of State exam – *Vysvedčenie o štátnej skúške* Diploma supplement – *Dodatok k diplomu*
4-5*	*Maturita* certificate – *Vysvedčenie o maturitnej skúške* Certificate of apprenticeship – *Výučný list*
4-5**	Certificate of final exam – *Vysvedčenie o záverečnej skúške* *Absolutorium* diploma – *Absolventský diplom*
4	*Maturita* certificate – *Vysvedčenie o maturitnej skúške*
3-4*	*Maturita* certificate – *Vysvedčenie o maturitnej skúške* Certificate of apprenticeship – *Výučný list*
2-3*	Certificate of final exam – *Vysvedčenie o záverečnej skúške* Certificate of apprenticeship – *Výučný list*
2	Certificate with supplement – *Vysvedčenie s doložkou*
1	Certificate with supplement – *Vysvedčenie s doložkou*

(*) Depending on qualification.

(**) Secondary vocational school, conservatory.

Source: Adapted from the *Referencing report of the Slovak qualifications framework towards the European qualifications framework. Annex 2* (State Vocational Education Institute; EQF NCP, 2015).

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Cedefop (2016). *Application of learning-outcomes approaches across Europe: a comparative study.* Luxembourg: Publications Office. http://www.cedefop.europa.eu/en/publications-and-resources/publications/3074

European Commission (2016). *Education and training monitor 2016: Slovakia.* https://ec.europa.eu/education/sites/education/files/monitor2016-sk_en.pdf

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Slovakia.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

State Vocational Education Institute; EQF NCP (2015). *Referencing report of the Slovak qualifications framework towards the European qualifications framework.*

Prepared by:

The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

SLOVENIA

Introduction and context

Slovenia is well situated in relation to most European benchmarks for education and training. The country has exceeded EU targets for tertiary education attainment, rate of early leavers from education and training, and student achievement in science; student achievement in maths and the rate of adult participation in lifelong learning ([485]) are slightly above EU average. Areas where the country has not yet reached average performance are employability of recent graduates, participation of children in early education and care, and proportion of students with underachievement in reading. Reforms are under way in higher education, with internationalisation, quality assurance and financing of institutions as the main lines of action. Modernisation of vocational education and training (VET) is also on the agenda, aiming at the promotion of adult learning and (re)introduction of apprenticeships (European Commission, 2016).

Following a broad national debate, Slovenia started the development of a national qualifications framework (NQF) in 2005. NQF development builds on a series of education and training reforms since the mid-1990s (in VET, higher education, general education and adult education), including the introduction of certification and validation of non-formal learning in 2000.

The 10-level comprehensive Slovenian qualifications framework (SQF) was developed by an interdepartmental working group, discussed with stakeholders, and finalised in May 2011 (Institute of the Republic of Slovenia for VET, 2014). Agreement was reached on assigning major national qualifications to SQF levels, including qualifications from formal education and training (vocational education and training (VET), higher education, general education, adult education) and the system of national vocational qualifications under the remit of the Ministry of Labour. The SQF was linked to the European qualifications framework (EQF) and self-referenced to the qualifications framework for the European higher education area (QF-EHEA) in May 2013. The Slovenian Qualifications Framework Act ([486]) came into force in January 2016, serving as the legal basis for SQF implementation and full operationalisation.

Policy objectives

All subsystems of education and training in Slovenia have been reformed since the mid-1990s. There is a general view that the system functions well in terms of permeability; there are almost no dead-ends at upper secondary level and individuals can move vertically and horizontally without major obstacles. However, there is a need to strengthen cooperation and coordination between different education and training subsystems and increase participation in lifelong learning. It is necessary to improve the link between education and certification and responsiveness of qualifications to labour market and individual needs, and to have a reliable tool for assessing and recognising non-formal and informal knowledge and skills.

The SQF is primarily a communication framework whose purpose is to achieve transparency and recognisability of qualifications in Slovenia and the EU. Its fundamental objectives are to support lifelong learning; to connect and coordinate the Slovenian qualifications subsystems; and to improve the transparency, accessibility and quality of qualifications with regard to the labour market and civil society.

The framework brings added value at several levels. Along with the register of SQF qualifications, it ensures increased transparency of the qualifications system, benefitting end-users: learners, employees, employers, education providers, and career advisers. Although the SQF is not a tool for major reform, level descriptors are used in accreditation procedures for new education programmes or in

([485]) 11.9% of adults participated in adult education in 2015 (compared to the EU average of 10.7%), but this percentage has been gradually decreasing since 2010.

([486]) The SQF Act is available in Slovenian at: http://www.uradni-list.si/1/content?id=124645#!/Zakon-o-slovenskem-ogrodju-kvalifikacij-%28ZSOK%29

their reaccreditation. The inclusion of supplementary qualifications in the SQF brings added value to employees and employers, making it easier to choose qualifications and to select candidates (Institute of the Republic of Slovenia for VET, 2014).

Levels and use of learning outcomes

The SQF is a comprehensive framework with 10 qualification levels. The descriptor for each level contains three categories of learning outcomes: knowledge, skills and competences. Each qualification in the framework includes all three categories, although it is not necessarily the case that each category has equal weight within the qualification. Such a selection of categories allows capturing the full diversity of learning outcomes and qualifications that, though acquired in different settings and for different purposes, are broadly comparable in terms of learning outcomes.

The starting points for classification of qualifications in the SQF are the relevant sectoral legislation and the classification system of education and training (KLASIUS). The SQF aims to establish a flexible connection between education and qualification structures. It links two concepts: educational activities/programmes and learning outcomes.

The SQF includes three categories of qualifications covering all subsystems of formal education and training, as well as further learning:

(a) educational qualifications awarded after completion of formal education programmes at all levels (general, vocational and higher);
(b) vocational qualifications awarded by an NVQ certificate issued in accordance with the regulations governing NVQs or another document certifying completion of training or continuing education, issued in accordance with the regulations governing technical and higher education;
(c) supplementary qualifications acquired in further and supplementary training on the labour market (linked to supplementing abilities and competences) and not issued by national authorities.

Additionally to learning outcomes, input criteria are used for educational qualifications acquired after completion of nationally accredited programmes: these include access requirements, typical programme length, and input in terms of volume of learning activities in VET and higher education (defined also in credit points). For NVQs, only standards of learning outcomes are defined, and not the programmes or pathways that lead to the NVQ.

The learning outcomes approach is already embedded in the Slovene education system and well accepted, following reforms carried out since the 1990s.

Education programmes have moved from content-based to an objective-based approach. Reforms have supported and broadened assessment of learning outcomes. A balance is sought in emphasising the role played by general knowledge and acquired key competences, sufficiently broad technical knowledge and certain pedagogical processes in defining educational outcomes.

In VET, the learning outcomes approach is seen as a useful way of bringing vocational programmes and schools closer to 'real life' and labour market needs. The basis for all VET qualifications is a system of occupational profiles and standards, identifying knowledge and skills required in the labour market. National VET framework curricula define expected knowledge, skills and attitudes to be acquired by students. The school curriculum was also introduced and is an important innovation in Slovenia. It gives schools increased autonomy in curriculum planning, especially in taking the local environment and employers' needs into account when developing the curriculum.

Assessment in VET (at NQF levels 4 and 5) is in the form of project work, testing practical skills and underpinning knowledge; written tests are also used at level 5 to test theoretical professional knowledge and knowledge of general subjects (Slovenian language, foreign languages, mathematics), which are tested externally. An accumulation and transfer credit system, compatible with the European credit system for VET (ECVET) is used in vocational education to describe the volume and weight of programmes and units/modules.

New programmes in general education (compulsory and upper secondary) include learning outcomes to be achieved either at the end of the three stages in compulsory education or at the end of upper secondary education, tested in the external *matura* examination.

Reform and introduction of study programmes according to the Bologna declaration guidelines has taken place gradually in higher education. Starting with 2009/10, only new study programmes were made available for all three cycles. Students entering higher education in 2009/10 pursued their education in courses of the first, second and third cycles in line with the Bologna guidelines. Learning outcomes in higher education are described in terms of general and professional competences. The European credit transfer and accumulation system (ECTS) has been obligatory in higher education since 2002.

Stakeholder involvement and institutional arrangements

Work on establishing an NQF was initiated in 2005 through the EQF consultation process by the (then) Ministry of Education and Sport in cooperation with the Ministry of Higher Education, Science and Technology ([487]) and the Ministry of Labour, Family and Social Affairs. In 2009, the Institute of the Republic of Slovenia for Vocational Education and Training (CPI) was appointed to manage the Slovenian qualifications framework project ([488]), under the responsibility of the Ministry of Labour, Family, Social Affairs and Equal Opportunities. CPI was also appointed as national coordination point for the EQF (EQF NCP), providing technical assistance and coordinating the work of stakeholders involved in developing the SQF and during the referencing. The institute continues to be in charge of coordinating the implementation of the framework and its roles and responsibilities have now been stipulated in the Slovenian Qualifications Framework Act ([489]). They include information and communication on matters related to the SQF and EQF, managing the process of placing qualifications in the framework, coordinating the work of other stakeholders involved in linking qualifications to the EQF via the SQF, and maintaining the register of SQF qualifications.

In its role as NCP for the EQF, CPI collaborates with the Slovenian Quality Assurance Agency for Higher Education (NAKVIS) – the institution responsible for the quality of higher education qualifications – on all issues relating to higher education. This cooperation is based on a written agreement signed by the two agencies in 2012.

The highest decision-making body in establishing the SQF and referencing to the EQF and QF-EHEA is the interdepartmental working group (IWG) nominated by the government in January 2010 ([490]). The proposals for the SQF, for placing qualifications in the SQF, and referencing SQF levels to the EQF and the QF-EHEA were prepared by an expert group appointed by the IWG, and were broadly debated in national consultation. Two other expert groups were appointed in 2012 to prepare the technical background for the Law on the SQF and the final report on referencing the SQF to the EQF (Institute of the Republic of Slovenia for VET, 2014). The composition of the IWG is a positive aspect of the governance structure of the SQF, as it guarantees that the main issues are discussed and decided in social partnership. This helps ensure consistency and trust in the NQF. There is also a proposition to include a representative of NAKVIS in the IWG, to ensure better representation of higher education.

The 2016 SQF Act ([491]) stipulates the creation of the NCP SQF-EQF expert committee, under the coordination of the NCP, to implement the system of supplementary qualifications. This comprises seven members, appointed by the Minister for Labour on a four-year basis: three members proposed by the Ministry of Labour, one member proposed by the Ministry of Education, one member proposed by the Ministry of Economy, and two members proposed by the Economic and Social Council (one representing the employers and the other representing the trade unions). Its responsibilities are to set out the criteria and to prepare proposals for inclusion of supplementary qualifications in the SQF, to monitor developments related to the SQF, EQF and QF-EHEA and to carry out other tasks necessary for placing qualifications in the framework.

Recognising and validating non-formal and informal learning and learning pathways ([492])

Validation of non-formal and informal learning has been an important issue on the Slovenian education policy agenda in the past decade. Since 2006 it has covered all education subsystems, regulated by sector-specific acts. An overall strategy applying to all levels of education has not yet been implemented; however, the Minister for Education has issued tasks to all bodies responsible for validation ([493]) to prepare a national system that will include common standards,

([487]) The Ministry of Education and Sport and the Ministry of Higher Education, Science and Technology have been merged into one body, the Ministry of Education, Science and Sport.

([488]) The SQF project (2009-14) was jointly financed by the European Social Fund.

([489]) The SQF Act is available in Slovenian at: http://www.uradni-list.si/1/content?id=124645#!/Zakon-o-slovenskem-ogrodju-kvalifikacij-%28ZSOK%29

([490]) Government Decision 02401-28/2009/3 of 14 January 2010. The interdepartmental working group is composed of representatives of the Ministry of Education, Science and Sport; the Ministry of Labour, Family, Social Affairs and Equal Opportunities; CPI; the National Education Institute; the Statistical Office; social partners and students.

([491]) The SQF Act is available in Slovenian at: http://www.uradni-list.si/1/content?id=124645#!/Zakon-o-slovenskem-ogrodju-kvalifikacij-%28ZSOK%29

([492]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([493]) Different bodies are in charge of validation at different levels of education: centres for vocational education for ISCED levels 2, 3 and 4; ENIC-NARIC for learning acquired in a different country; individual higher education institutions (universities and faculties) for validation in the higher education sector.

processes and quality assurance for all levels. The first step in developing an overarching national validation system is to collect ideas, examples of good practice and working solutions, and to identify the problems in existing validation practice. The entry into force of the 2016 SQF Act is seen as a step in this direction.

Validation of non-formal and informal learning is most advanced in VET, but other subsystems allow certain validation possibilities. For example, people over 21 can take the *matura* exam without being enrolled in formal education. There are two types of VET qualification in Slovenia. First, educational VET qualifications are awarded after completion of formal vocational programmes; non-formally acquired knowledge and skills are taken into account to shorten the length of studies. Second, national vocational qualifications (NVQ) can be entirely acquired through recognition of non-formal and informal learning outcomes. The National Professional Qualifications Act (amended 2009) ([494]) connects the two systems; occupational standards are the basis for qualification and assessment standards, and national VET programmes. The 'master craftsman' qualification can also be acquired through validation, though participation in preparatory programmes is possible and common.

Since 2010, most development has taken place in higher education. The Higher Education Act (2012) ([495]) obliges institutions to prepare validation measures and form a committee for validation of non-formal and informal learning. Universities are autonomous and can decide on their own procedures for this; they normally use professional assessors or committees. The result of validation in higher education can be the award of ECTS credit points for a single course or a module within a study programme.

NQF implementation

The SQF has reached full operational stage with the entry into force of the SQF Act, in January 2016 ([496]). This law summarises the main responsibilities of stakeholders in designing and awarding qualifications at different levels, and defines the tasks of the national coordination point (NCP) for EQF-SQF and the NCP expert committee. It refers to procedures and methods of allocation of qualifications from formal education and training and national vocational qualifications as defined in sectoral legislation. One important development brought by the SQF Act is the definition of procedures for inclusion of supplementary qualifications in the SQF. This had been strongly advocated by stakeholders during public consultations and debates on the SQF, but supplementary qualifications were not included in the framework in the first phase as accreditation procedures were still under development at that time. Other aspects covered by the SQF Act are the referencing of NQF levels to the EQF and the QF EHEA, funding provisions, and the maintenance of the SQF register.

The register ([497]) describes qualifications in accordance with SQF and EQF parameters: title, type and category of a qualification, credit points, access requirements, SQF/EQF level, ISCED level, learning outcomes, awarding body and transition possibilities. It is currently linked to the EQF portal ([498]), as Slovenia contributed to testing compatibility of a national register with the EQF portal. The SQF register already contains 1 435 qualifications (1 209 educational qualifications and 226 national vocational qualifications). Once fully developed, the SQF register will significantly increase transparency of qualifications and of the national qualifications system.

The SQF is a permanent feature of the national qualifications system ([499]). Currently the framework is visible mainly among learners and employees, but some employers are using NQF levels in calls for job vacancies. Broader promotion among the general public would be of value. Guidelines ([500]) for implementation of the NQF were produced and discussed with stakeholders in December 2015. They are intended to help education providers, guidance practitioners and sectoral bodies to use the SQF and learning outcome-based level descriptors in their work. The indication of SQF and EQF levels on certificates, diplomas, and Europass certificate and diploma supplement has been stipulated in the SQF Act, and the levels are already indicated in the online SQF register ([501]).

([494]) The National Professional Qualifications Act: http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO1626
([495]) The Higher Education Act: http://www.uradni-list.si/1/content?id=108446
([496]) The SQF Act is available in Slovenian at: http://www.uradni-list.si/1/content?id=124645#!/Zakon-o-slovenskem-ogrodju-kvalifikacij-%28ZSOK%29
([497]) The SQF register: http://www.nok.si/slovenian-qualifications-framework-register/
([498]) The EQF portal: http://ec.europa.eu/ploteus/search/site?f[0]=im_field_entity_type%3A97
([499]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs* [unpublished].
([500]) The guidelines can be found at: http://www.nok.si/assets/datoteke/SOK-smernice-koncna1.pdf
([501]) The SQF register: http://www.nok.si/slovenian-qualifications-framework-register/

Referencing to regional frameworks

Slovenia has completed referencing of SQF levels to the EQF and the self-certification to QF-EHEA. One joint report was presented and endorsed by the EQF advisory group in May 2013. Referencing to the two European frameworks was legislated through the 2016 SQF Act.

Important lessons and future plans

Developments in Slovenia are based on an incremental approach, reforms under way since the mid-1990s, and a good situation in education, training and qualification developments compared to EU benchmarks. However, drawbacks have been identified at system level. For example, there is a need for better linking/bridging between formal education and training governed by the Ministry of Education and the certification system (NVQ), steered by the Ministry of Labour, to help individuals to combine learning outcomes from different settings. One weak point of the system is communication between education and the labour market, and the mismatch between skills and knowledge obtained in education and training and labour market needs. Quality assurance is regarded as essential in this respect, and is increasingly focused on outputs, as in testing quality indicators such as graduate destinations. The SQF is expected to strengthen the quality assurance of learning outcomes.

The adoption of the SQF Act in January 2016, setting out the practical aspects of framework implementation, has been one of the major developments of the recent period. It opens up the qualification system to supplementary qualifications awarded on the labour market, establishing accreditation procedures and the criteria for placement into the SQF. It also stipulates the inclusion of SQF and EQF levels on certificates, diplomas and Europass documents, enabling the country to meet the second milestone of EQF implementation.

One remaining question on the placement of qualifications in the SQF is the decision to place the 'master craftsman' qualification at SQF level 5 / EQF level 4. In most other European countries, this qualification is placed at a higher level (EQF level 5 or 6), and the EQF advisory group raised the question of whether Slovenia is considering an upgrade of this qualification to bring it more in line with similar qualifications in Europe. Activities in connection with reform of the 'master craftsman' qualification were undertaken by the Chamber of Crafts and Small Business of Slovenia in conjunction with the CPI, the Ministry of Education, Science and Sport, and other social partners. As part of this reform, changes to the first occupational standards for the 'master craftsman' qualification were prepared in 2016, though the decision was to keep the same qualification level (SQF level 5 / EQF level 4).

Challenges that lie ahead for the SQF now that it entered its operational stage include: further development of the SQF register; inclusion of supplementary qualifications into the framework according to the procedures defined in the SQF Act; better dissemination of information about the SQF among the general and professional public; and further development of meaningful links between the SQF and related national and European tools (such as the Slovenian classification system of education and training (KLASIUS) and the EQF). The development of an overarching national validation system for non-formal and informal learning is also on the agenda.

Further planned developments in the country will focus on strengthening cooperation between different stakeholders in developing and implementing effective lifelong learning.

Further sources of information

The Institute of the Republic of Slovenia for VET (EQF NCP): http://www.cpi.si/en/

The website of the Slovenian qualifications framework: http://www.nok.si/en/

Abbreviations

CPI	Institute of the Republic of Slovenia for Vocational Education and Training
ECTS	European credit transfer and accumulation system
ECVET	European credit system for VET
EQF	European qualifications framework
IWG	interdepartmental working group
NAKVIS	Slovenian Quality Assurance Agency for Higher Education
NCP	national coordination point
NQF	national qualifications framework
QF-EHEA	qualifications framework in the European higher education area
SQF	Slovenian qualifications framework
VET	vocational education and training

Table 84 Slovenian qualifications framework (SQF)

NQF levels	Educational qualifications	Vocational qualifications	Supplementary qualifications (*)	EQF levels
10	Doctoral diploma *Diploma o doktoratu znanosti*			8
9	(**) Post-graduate research Master of science diploma *Diploma o magisteriju znanosti* (**) Specialisation diploma following academic higher education *Diploma o specializaciji*			8
8	Master degree *Diploma o strokovnem magisteriju* (**) Specialisation diploma following pre-Bologna professional higher education *Diploma o specializaciji* (**) Pre-Bologna diploma of academic higher education *Diploma o univerzitetnem izobraževanju* (**) Higher education diploma *Diploma o visoki izobrazbi*			7
7	Academic bachelor diploma *Diploma o izobraževanju prve stopnje – univerzitetna, UN* Professional bachelor diploma *Diploma o izobrazevanju visokem strokovnem, VS* (**) Pre-Bologna professional higher education diploma *Diploma o visokem strokovnem izobraževanju* (**) Specialisation diploma following old short cycle higher education *Diploma o specializaciji*			6
6	Short-cycle higher vocational diploma *Diploma o višji strokovni izobrazbi* (**) Old short-cycle higher vocational diploma *Diploma o višješolski izobrazbi*	NVQ certificate (level 6)		5
5	Vocational *matura* certificate (Secondary technical education, four years) *Spričevalo o poklicni mature* General matura certificate *Spričevalo o splošni mature* Master craftsman's examination certificate *Spričevalo o opravljenem mojstrskem izpitu* Foreman's examination certificate *Spričevalo o opravljenem delovodskem izpitu* Managerial examination certificate *Spričevalo o opravljenem poslovodskem izpitu*	NVQ certificate (level 5)		4

NQF levels	Educational qualifications	Vocational qualifications	Supplementary qualifications (*)	EQF levels
4	Final examination certificate (Secondary vocational education, three years) *Spričevalo o zaključnem izpitu, Srednja poklicna izobrazba*	NVQ (level 4)		4
3	Final examination certificate (Lower vocational education, two years) *Spričevalo o zaključnem izpitu*	NVQ (level 3)		3
2	Elementary school leaving certificate (nine years) *Zaključno spričevalo osnovne šole*	NVQ (level 2)		2
1	Certificate of completing grades 7 or 8 of elementary education *Potrdilo o izpolnjeni osnovnošolski obveznosti* Elementary school leaving certificate *Zaključno spričevalo osnovne šole*			1

(*) The inclusion of supplementary qualifications in the framework was legislated in 2016. Currently there are no supplementary qualifications in the SQF register.

(**) Pre-Bologna diplomas.

Source: Adapted from: Institute of the Republic of Slovenia for VET, 2014.

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Institute of the Republic of Slovenia for VET (2014). *Referencing the Slovenian qualifications framework to the European qualifications framework for lifelong learning and the qualifications framework for the European higher education area: final report.* https://ec.europa.eu/ploteus/sites/eac-eqf/files/Final%20Report%20SI_2014.pdf

Prepared by:

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SOUTH AFRICA

Introduction and context

South Africa has, in recent years, achieved a high level of macroeconomic and political stability. However, the legacy of apartheid remains a significant challenge, with various formal and informal initiatives under way to improve the level of education of historically disadvantaged people. Society is profoundly unequal. While this has historical causes, the current economic environment has not been able to eliminate the large levels of social and economic inequality. Although levels of inequality remain high (Gini coefficient = 0.35), they are no longer based solely on racial divisions. There are high levels of unemployment, particularly for the under-30 age group and more for women than men (Samuels, 2013).

A key challenge today is quality of provision across the schooling sector, which has only pockets of high-quality provision. International comparative studies rate this sector as needing strengthening, particularly in maths and science subjects. Several initiatives to address the problem are under way, including annual national assessments through which problem areas are identified, tracked and addressed. Despite these efforts, the legacy of apartheid is starkly evident in the schooling sector, and much more will have to be done. Approximately 4% of the population are citizens of other countries, mostly from other Southern African Development Community (SADC) countries. Qualifications obtained outside South Africa are evaluated by the South African Qualifications Authority (SAQA), with the majority of applications falling into the highly skilled grouping. Most of these highly skilled migrants originate from SADC countries: the largest group (26.9%) come from Zimbabwe.

South Africa has a large rural population: 41% live in rural areas where the levels of poverty and unemployment are high. At the same time it is experiencing rapid urban migration, especially among men in the 20-34 age group. Most urban areas are surrounded by a periphery of shack settlements with little access to basic services. A high proportion of households in rural areas are headed by young women (Statistics South Africa, 2002).

Between 1995 and 2014 the total number of qualifications awarded in South Africa increased, with average annual growth of 4.3% (SAQA, 2017a); highest growth was in undergraduate degrees. The rise in the number of qualifications awarded from 1995 to 2014 has been accompanied by a drastic increase in university enrolments – there are just under a million learners in the university system – which is a significant challenge for the country (SAQA, ibid). From 1995 until 2014, over 831 873 work-related qualifications and 1.6 million work-related part-qualifications were obtained, reflecting a steady improvement in the culture of learning in the workplace.

The vocational sector, comprising 50 technical and vocational education and training (TVET) colleges, originally known as further education and training colleges, has grown significantly over recent years from about 360 000 enrolments to over 800 000 in 2014. Despite significant government investment, there are still problems as TVET colleges are often viewed as a second or third choice for those with less ability. In an attempt to strengthen this sector, some TVET colleges are being transformed into community colleges. While enrolment rates have improved in recent years, much still needs to be done to convince the broader public that the vocational route can be a first choice for the majority of students.

The South African national qualifications framework (NQF) was established in 1998 after the South African Qualifications Authority (SAQA) Act in 1995. The NQF has been designed as an integrated system with a strong transformational agenda to promote lifelong learning for all South Africans in a non-racial, non-sexist democracy. Preceding the SAQA Act, broad and extensive consultation process took place which had, as one of its roots from the late 1980s, the labour movement's desire to recognise the tradable skills of black workers in the bargaining forums for better conditions of service. The overarching purpose of the NQF is to aid articulation, recognition, access and redress across education, training, development and workplace learning for all South Africans. The NQF is the principal instrument through which national

education and training qualifications are recognised and quality assured in South Africa.

The 2008 NQF Act came into effect from 1 June 2009, replacing the SAQA Act of 1995. Some of the main reasons for the review and subsequent change to the NQF environment have been debates over the integration of education and training, the different needs of the sectors in education and training, the relative importance of stakeholder and expert opinions, and power relations between bodies within the NQF structure. The most important change was the establishment of three sub-frameworks as part of the comprehensive NQF: the general and further education and training qualifications sub-framework, the higher education qualifications sub-framework, and the occupational qualifications sub-framework. In this new NQF landscape, professional bodies apply to SAQA to be recognised within the education and training system, while professional designations are also included through an agreed process between SAQA and professional bodies (SAQA, 2012b).

The main focus is presently on streamlining and simplifying NQF implementation and making it more responsive to South Africa's needs. SAQA and its quality partners, the three quality councils (the Council on Higher Education, Umalusi, and the Quality Council for Trades and Occupations) are working together to achieve the objectives of the NQF.

Policy objectives

The specific objectives of the NQF as outlined in the NQF Act No 67 of 2008 are the same as the objectives of the South African NQF and the 1995 SAQA Act, namely to:

(a) create a single integrated national framework for learning achievements;
(b) support access to, and mobility and progression within, education, training and career paths;
(c) improve education and training quality;
(d) accelerate the redress of past unfair discrimination in education, training and employment opportunities.

The objectives of the NQF are designed to contribute to the full personal development of each learner and the social and economic development of the nation at large. SAQA and the quality councils must:

(a) develop, foster and maintain an integrated transparent national framework for the recognition of learning achievements;
(b) ensure South African qualifications are of an acceptable quality and internationally comparable.

Levels and use of learning outcomes

One of the main changes for the South African NQF was expansion of the levels from eight to 10. Where the eight-level NQF required master and doctoral degrees to be grouped together on NQF level 8, the 10-level NQF rectifies this situation.

Learning outcomes are widely used across all sectors in South Africa (SAQA, 2012a). They also form the basis of the NQF and the qualifications registered on the framework. SAQA is currently strengthening its approach to the evaluation of foreign qualifications to be learning outcomes-oriented (SAQA, 2017b).

Considerable progress has been made in implementing the revised NQF since 2009. Policies have been completed on level descriptors (2012a), recognition of prior learning (RPL) (SAQA, 2013a), registration of qualifications and part-qualifications (SAQA, 2013b), recognition of professional bodies (SAQA, 2012b), credit accumulation and transfer (SAQA, 2014b) and assessment (SAQA, 2014a), and the evaluation of foreign qualifications (SAQA, 2017b). These policies have been agreed between SAQA and the quality councils. A policy on misrepresented qualifications is currently being developed.

To strengthen collaboration among the key agencies, SAQA has overseen the development of a system of collaboration and an NQF implementation framework which is the roadmap for NQF implementation. An NQF advisory service project has been developed to assist users to navigate the education and training system. Credential evaluation of both national and foreign qualifications also remains closely integrated with the NQF. The national learners' records database, which is the national NQF repository for information on learner achievements and related matters, continues to provide important insights into the status of education and training in the country.

Stakeholder involvement and institutional arrangements

In addition to changes in the NQF legislation, the government also reformed the political and administrative structures of the education and training landscape to improve quality. The previously single Department of Education was divided into two: a Department of Higher Education and Training

Figure 24 South African national qualifications framework

Adult Education and Training		
ABET Level 1	ABET Level 2	ABET Level 3

NQF levels				
1	Umalusi	General certificate	Quality council for Trades and Occupations (QCTO)	Occupational Certificate
2		Elementary certificate		Occupational Certificate
3		Intermediate certificate		Occupational Certificate
4		National Certificate E.g. National Senior Certificate for adults National Senior certificate National Certificate (Vocational)		Occupational Certificate
5	Council on Higher Education (CHE)	Higher Certificate		Occupational Certificate
6		Diploma Advanced Certificate		Occupational Certificate
7		Bachelor´s Degree Advanced Diploma		Occupational Certificate
8		Bachelor Honours Degree Postgraduate Diploma Bachelor´s Degree		Occupational Certificate
9		Master´s Degree Master´s Degree (Professional)	*	
10		Doctoral Degree Doctoral Degree (Professional)	*	

Adult Education and Training is the foundation towards lifelong learning, and provides learning at ABET levels 1-3

Umalusi is responsible for the General and Further Education and Training Qualifications Sub-Framework on NQF Levels 1-4"

Council on Higher Education (CHE) is responsible for the Higher Educational Qualifications Sub-Framework on NQF levels 5-10"

Quality council for Trades and Occupations (QCTO) is responsible for the Occupational Qualifications Sub-Framework on NQF levels 1-8"

* Where an occupational qualification is needed at NQF levels 9 and 10, the developers should contact SAQA and the Quality Council for Trades and Occupations to motivate.

Source: South African Qualifications Authority: www.saqa.org

(DHET) and a Department of Basic Education (DBE). The training component was transferred from the Department of Labour to DHET. This means that DHET is responsible for universities, universities of technology, further education and training colleges (which are being renamed as community colleges and TVET colleges), adult basic education and the entire training sector. Individual training colleges (for nursing, agricultural and similar specialist occupations) are still functioning under different departments. DBE is responsible for the formal schooling sector from primary to secondary school,

as well as for the national adult literacy campaign, known as *Kha Ri Gude*. The NQF continues to be led by a central statutory body, SAQA, with extensive input by other stakeholders. Three sector-specific bodies known as quality councils have taken over responsibility for quality assurance and standards development within their respective sectors, while SAQA registers qualifications on the NQF once they meet the stipulated criteria. The quality councils are responsible for the sub-frameworks of higher education, further and general education and training, and trades and occupations. Each quality council is responsible for determining qualification types in accordance with SAQA criteria. SAQA is responsible for maintaining the NQF and coordinating the sub-frameworks. The three quality councils and SAQA report to the Minister of Higher Education and Training, while Umalusi (one of the quality councils) on certain aspects also reports to the Minister of Basic Education.

Representatives from trade unions, provider bodies (including higher education, further education and general education), professional bodies, employers and experts serve on the boards and councils of SAQA and the quality councils. Professional bodies have been given the opportunity to take on specific responsibilities related to qualifications development and quality assurance, provided they meet SAQA policy and criteria. By 31 March 2017, 93 professional bodies had already met these requirements and over 343 professional designations had been registered.

Recognising and validating non-formal and informal learning and learning pathways

The term RPL is used in South Africa for recognition of non-formal and informal learning, and is defined as comparison of the previous learning and experience of a learner, howsoever obtained, against the learning outcomes required for a specified qualification. Learning is measured in terms of specific learning outcomes for a specific qualification, and may lead to achievement of credits towards the qualification. Two types of RPL have emerged: for credit, usually associated with the occupational and trades sector, and for access, usually associated with higher education.

In the 18 years since the creation of the RPL policies, it has become a reality for over 59 000 people who have achieved full qualifications. Most RPL achievements, however, have been in part-qualifications where 1.1 million learner achievements have been recorded. From 'islands of excellent practice', the country continues to move towards a national RPL system, with three main target groups. The access group comprises under-qualified adult learners wishing to upskill and improve their qualifications, and candidates lacking minimum requirements for entry into a formal learning programme. The redress group consists of workers who may be semi-skilled and even unemployed, who may have worked for many years but were prevented from gaining qualifications due to restrictive past policies. The third group is those who left formal education prematurely and who have, over subsequent years, built up learning through short programmes.

Most RPL candidates fall between NQF levels 2 and 4; they do not generally possess a school leaving certificate (Samuels, 2013).

Referencing to regional frameworks

South Africa is a member State of the Southern African Development Community (SADC) and has played an active role in the development of a regional qualifications framework (RQF) since 2001 (SADC Secretariat, 2005). Although approved by SADC ministers in 2011, the qualifications framework (SADCQF) has progressed slowly. However, since 2016 there has been an acceleration of the implementation with the formal launch of the SADCQF by the SADC education ministers and South Africa as one of eight countries piloting alignment with the SADCQF. The success of this initiative can be attributed to strong central coordination driven by the SADC technical committee on certification and accreditation (TCCA).

Important lessons and future plans

The South African NQF has become an integral feature of the national education and training landscape. Learning outcomes are widely used across all sectors. SAQA and the three quality councils have become mature organisations with clearly defined mandates which work together to implement the NQF.

Articulation between the sub-frameworks of the NQF remains an area to be improved; a national policy and a set of articulation criteria have been developed to address some of these challenges. The intention is to expand RPL through a national coordinated strategy. To ensure that this RPL strategy has a major impact, its development has been tasked by the Ministry of Higher Education and Training to a national RPL task team. The team completed its work in 2013 and, in 2016, a national RPL coordination policy was published.

New legislation for the post-school sector is currently being developed. The *White paper for post-school education and training* has been released to the public and implementation plans are currently being developed.

SAQA is shifting its focus from policy development, which had been required by the NQF Act of 2008 and had been largely completed by 2014, towards overseeing policy implementation. This will include greater emphasis on monitoring and evaluation, as well as an increased role for SAQA in cases where unfair and discriminatory exclusionary practices occur, preventing learner mobility.

International benchmarking between the South African NQF and several other countries is currently under way.

Abbreviations

NQF	national qualifications framework
RPL	recognition of prior learning
SADC	Southern African Development Community
SADCQF	qualifications framework of SADC
SAQA	South African Qualifications Authority
TVET	technical and vocational education and training

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Prepared by:
UNESCO in collaboration with national experts.

SPAIN

Introduction and context

Under significant fiscal pressure, Spain is struggling to finance an effective and equitable skills system ([502]). The country has increased its education budget since 2015, but the previous accumulated financial constraints have reduced equity in education, and the effectiveness of education spending remains an issue (European Commission, 2016). General government expenditure on education was among the lowest in the EU in 2014, as a proportion both of GDP (4.1%) and of total general government expenditure (9.1%). Spain's early school leaving rate has continued to fall, from 21.9% in 2014 to 20% in 2015 but it is still the highest in the EU, and above the national Europe 2020 target of 15% (European Commission, 2016).

Spain has developed its qualifications framework for lifelong learning, known as the Spanish qualifications framework (*Marco Español de Cualificaciones* (MECU)). It is based on learning outcomes and aims to link and coordinate different education and training subsystems. The framework will include qualifications obtained in compulsory, post-secondary and higher education, and will integrate validation of non-formal and informal learning processes.

The Royal Decree on the introduction of MECU is the legal basis for its implementation, although this decree has yet to come into force. It defines levels and level descriptors for referencing the MECU to the European qualifications framework (EQF) levels. It was developed in consultation with main stakeholders and supervised by the national advisory bodies.

The higher four levels of MECU will be linked to the qualifications framework for higher education (*Marco Español de Cualificaciones para la Educación Superior* (MECES), which has been put in place separately ([503]). This framework has been self-certified against the qualifications framework of the European higher education area (QF-EHEA) as part of Spain's continuing commitment to the Bologna process. The self-certification followed the procedures and criteria set down for such work within the Bologna process, and involved a committee of senior Spanish and international experts and stakeholders.

Policy objectives

One of the main objectives in developing a national framework compatible with the European qualifications framework (EQF) and those in the European higher education area (QF-EHEA) is to make Spanish qualifications easier to understand by describing them in terms of learning outcomes; it should also clarify relations between them. It is expected that this will improve the extent to which stakeholders are informed about national qualifications, raising trust and making mobility easier. The MECU aims to support lifelong learning, including qualifications acquired through formal education, but also integrating validation of non-formal and informal learning (European Commission et al., 2016). It also aims to link initial vocational education and training (IVET) and continuing VET, and improve access and participation for everyone, including the disadvantaged. Adult participation in lifelong learning stood at 9.8% in 2014 and 9.9% in 2015, slightly below the EU average of 10.7% (European Commission, 2016).

Through the MECU it should be easier to identify, validate and recognise all kinds of learning outcomes (including non-formal and informal learning), regardless of the way they were acquired.

([502]) The OECD identified 12 skills challenges for Spain across education, employment, research, social, growth and fiscal policies, all interlinked (OECD 2015a).

([503]) Established under Royal Decree: Ministry of Education (2011). Real Decreto 1027/2011, de 15 julio, por el que se establece el Marco Español de Cualificaciones para la Educación Superior [Royal Decree 2027/2011, of 15 July, for the establishment of the Spanish qualifications framework for Higher Education]: http://www.boe.es/boe/dias/2011/08/03/pdfs/BOE-A-2011-13317.pdf

It will support better use of qualifications at national and European level. Developments take into account experiences with occupational standards. Of special attention and lively discussion are levels 3 and 4 of the national qualifications framework, where formal vocational qualifications/titles, regulated by the Ministry of Education, and professional qualifications/certificates, under the remit of Ministry of Labour, would be assigned. They are different in the learning they represent, but can be linked to the same level of the catalogue. Another important aim is to support transition and progression possibilities within the various subsystems of education and vocational training; examples include progression from short cycle to university programmes and opening up higher education for non-traditional learners, who might have no school leaving certificate. The MECU should also have an important communication role for diverse stakeholders.

The purpose of the Spanish qualifications framework for higher education (MECES) is to allow the classification, comparability and transparency of higher education qualifications within the Spanish education system. The levels within MECES are labelled 1 to 4 and correspond to the four levels of the QF-EHEA: *técnico superior* (advanced VET), *grado* (bachelor), *master* (master) and *doctor* (doctorate). Of these, the first is a non-university higher education level included to support and promote lifelong learning. Some advanced vocational education and training (VET) is considered higher education (HE) but is undertaken outside the university system; such advanced VET studies may be recognised not only for admission to university but also as ECTS credits where subjects/learning outcomes are properly aligned.

Levels and use of learning outcomes

An eight-level framework has been proposed to cover all main types of Spanish qualification. The four highest levels are compatible with the Spanish qualifications framework for higher education, based on the Dublin descriptors.

Level descriptors are defined in terms of knowledge, skills and competence. They have been inspired by EQF level descriptors, but adopted to suit the national context. This is particularly the case for skills, where the ability to communicate in different languages and analytical skills are emphasised. Competence is defined as autonomy and responsibility, including learning skills and attitudes.

It is expected that the development of both MECU and MECES will further support the strengthening of learning outcomes at all education and qualification levels, to make qualifications more readable and easier to compare. A new law for the improvement of the quality of education has been adopted ([504]), aiming to improve quality and promote lifelong learning, mobility and coherence of the national system in line with international standards. Framework curricula should include 'the standard and measurable learning outcomes'.

The learning outcomes approach is seen as an essential part of MECU and MECES development and implementation. However, as reported for the Cedefop study on learning outcomes (Cedefop, 2016), the notion of learning outcomes is a new concept in the Spanish context and not widely shared. Competences and capacities are often referred to in policy documents, with many different interpretations due to various linguistic and pedagogic concepts.

The level of implementation also varies across subsystems; the most developed and elaborated is in VET. The VET qualification system is defined by the Law on qualifications and vocational training ([505]) that establishes the national catalogue of professional qualifications. Professional modules for each qualification gather the learning outcomes and the corresponding assessment criteria that show that the qualification holder knows, understands and is able to do as expected on completion of the programme. Learning outcomes are closely related to work activities and required professional competences.

The Ministry of Education, Culture and Sport has established in legislation, national core curricula for the various levels of education: pre-primary, primary, lower secondary, upper secondary and vocational training. These are determined by central government ([506]), though schools can take responsibility for developing part of their own curriculum. The core curricula determine the general objectives for each stage of education as well as specific objectives for each area or subject. They

([504]) Government of Spain (2013). Ley Orgánica 8/2013, de 9 de diciembre, para la mejora de la calidad educativa [Organic Law 8/2013, of 9 December, for the improvement on the quality of education]. *Boletín oficial del estado*, No 295. http://www.boe.es/boe/dias/2013/12/10/pdfs/BOE-A-2013-12886.pdf

([505]) Government of Spain (2002). Ley orgánica 5/2002, de 19 de junio, de las Cualificaciones y de la Formación Profesional [Organic Law 5/2002 on qualifications and vocational training]. *Boletín oficial del estado*, No 147. https://www.boe.es/boe/dias/2002/06/20/pdfs/A22437-22442.pdf

([506]) Central government is responsible for designing 65% of the curriculum (55% in those autonomous communities which have their own language); the additional curriculum at regional level differs between autonomous communities.

also establish the content and evaluation criteria for each area and the basic skills for each stage of compulsory education.

New higher education study programmes have to include expected outcomes and achievement of learning objectives set for the student. All study programmes have to be accredited according to national guidelines. MECES refers directly to learning outcomes (*resultados de aprendizaje* and *competencias*). Linked to MECES levels, learning outcomes are a specific requirement in, for example, the ex-post external evaluation of study programmes required for the formal *Acredita/ Renovación de la acreditación* of all official degrees. Consideration of the use of learning outcomes is also a specific requirement in the external evaluation of a higher education institution's or unit's internal quality assurance systems within audit procedures.

Stakeholder involvement and institutional arrangements

The Ministry of Education, Directorate General for Vocational Training, is coordinating NQF development and implementation in cooperation with other ministries (employment and social security, industry, energy and tourism, health, social services and equality, economy and competitiveness). Development work includes a wide range of other stakeholders such as social partners (unions, Spanish Confederation of Employers' Organisations, Spanish Confederation of Small and Medium Enterprises), institutional coordination bodies (such as Sectoral Conference of Education, General Conference for University Policy), consultative bodies (State School Council, Vocational Training Council, Arts Education Council, University Council), agencies for evaluation and others (professional corporations and associations). Regional councils for education have been involved. Spain is seeking to create a simple and practical system that is robust, but also flexible enough to respond to the requirements of regional autonomy. However, overall responsibility for the development and implementation of the MECU, in accordance with the Spanish constitution, lies with central government. The State has exclusive competence on all regulation of qualifications, an aspect correspondingly developed and revised by the 2006 and the 2013 Organic Acts ([507]).

Cooperation with the Ministry of Employment and Social Security has been reinforced to address high unemployment in the country.

Cooperation with the Bologna process is ensured with members represented in both the committee for MECU and in the group for MECES to achieve methodological and structural coherence, making possible the alignment of the two frameworks. MECES was formulated by a formal committee established under Royal Decree 900/2007 ([508]).

External quality assurance in higher education is undertaken by the national agency (ANECA) and a number of agencies within some of the autonomous regions. The competences of the quality assurance agencies vary depending on the procedures being undertaken and whether or not the agency is a member of the European Association for Quality Assurance in Higher Education (ENQA) ([509]) and the European Quality Assurance Register (EQAR) ([510]).

Recognising and validating non-formal and informal learning and learning pathways ([511])

Spain does not have a comprehensive national strategy for validation; different laws frame validation, targeting different education sectors. The Organic Law of Education and the Organic Law of Universities incorporate actions to validate non-formal and informal learning, such as access exams to VET and university studies aimed at those who do not have the required qualifications. Royal Decree 1224/2009 ([512]) established

([507]) Organic Acts 2006 and 2013:
Government of Spain (2006). Ley Orgánica 2/2006, de 3 de mayo, de Educación [Organic Law 2/2006, of 2 May 2006, on education]. *Boletín Oficial del Estado*, No 106, 4 May 2006. http://www.boe.es/boe/dias/2006/05/04/pdfs/A17158-17207.pdf
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([508]) Government of Spain (2007). Real Decreto 900/2007, de 6 de julio, por el que se crea el Comité para la definición del Marco Español de Cualificaciones para la Educación Superior [Royal Decree 900/2007, of 6 July, on the establishment of the Committee for the definition or the Spanish qualifications framework in higher education]: http://secretariageneral.ugr.es/pages/normativa/fichasestatal/21mko/!

([509]) ENQA: http://www.enqa.eu

([510]) In addition to ANECA, five of the regional agencies (AQU-Catalunya in Catalonia, ACSUG in Galicia, ACSUCYL in Castilla y León, ACC-DEVA in Andalusia, and UNIBASQ for the Basque Country) are members of EQAR: https://www.eqar.eu

([511]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([512]) Government of Spain (2009). Real Decreto 1224/2009,

recognition of skills acquired through work experience. This decree provides the possibility of evaluating professional competences through non-traditional assessment methods; this is common to gaining qualifications from the employment administration (*certificados de profesionalidad*) and the education administration (IVET programmes) through specific calls for validation. The procedure only validates professional competences acquired through work experience or non-formal learning pertaining to specific units of competences registered in the national catalogue of professional qualifications.

Since 2009, awareness of validation has increased in all sectors of society and stakeholders have become more sensitive towards validation as a way of recognising learning outcomes acquired in non-formal and informal contexts, and through work experience. The concept of lifelong learning (LLL) has become more accepted by society and there is greater demand for it. The Spanish procedure of validation is clearly accepted among potential users, but it is generally considered that the efforts made are not enough to reach out to all possible beneficiaries and give them validation opportunities in line with the needs of the job market. In recent years, the topic of validation of non-formal and informal learning has been included in many policy documents. Validation processes, especially procedures of assessment and certification of professional skills acquired through work experience, are now clearly recognised in the VET plans of autonomous communities and institutional declarations for improving lifelong learning.

The needs of validation, and assessment and certification of professional skills, are also identified in some regional operational programmes. Extremadura, Andalusia, Canarias, Castilla-la Mancha and the autonomous cities of Ceuta and Melilla recognise as a priority, promoting recognition of occupation competences acquired through work experience and their validation and accreditation, as well as promoting enhanced training to complete their qualification level.

Other degrees regulate access to formal qualifications through tests to obtain the title of Graduate in secondary education. The tests assess the degree of development of skills and competences equivalent to secondary education level. Since the 1970s, those over 25 can access university upon satisfactory performance of 'over-25' access exams, but without a qualification in post-compulsory upper secondary education. Adults can also gain the diploma of compulsory secondary education and the baccalaureate diploma (post-compulsory upper secondary education) through examinations, without having undertaken the corresponding formal studies.

NQF implementation

The framework is not yet operational. The Royal Decree on the introduction of MECU will establish the legal basis for its implementation but this has yet to come into force. The draft Royal Decree recommends establishing a MECU committee, including stakeholders such as ministries, representatives of professional associations, trade union and business representatives, and qualifications framework experts from different sectors. The committee will be mandated to decide on assignment of framework levels to the Spanish qualifications and to submit proposals to the government for approval. The national qualifications will be assigned to MECU levels based on three criteria:

(a) comparability of qualifications type descriptors defined in learning outcomes and the MECU level descriptors;
(b) implementation of the common quality assurance in higher education and in VET, in line with annex III of the EQF recommendation;
(c) public consultation with bodies involved in design, award and use of qualifications in a respective field.

Qualifications from formal education and training will be assigned first; no major challenges are expected. More challenging is the inclusion of qualifications resulting from validation of non-formal or informal learning. These processes are more recent and consolidated experiences are still weak.

As the MECU has not been referenced to the EQF, EQF levels are not indicated on the vocational qualifications, nor on Europass certificate supplements and diploma supplements. Universities in Spain are expected to make the diploma supplement (*Suplemento Europeo al Título* (SET)) available to graduates.

Referencing to regional frameworks

The qualifications framework for higher education (*Marco Español de Cualificaciones de Educación Superior* (MECES)) has been self-certified against the QF-EHEA. The Spanish qualifications framework (*Marco Español de Cualificaciones* (MECU)) is planned to be referenced to the EQF in 2017.

de 17 de julio, de reconocimiento de las competencias profesionales adquiridas por experiencia laboral [Royal Decree 1224/2009, of 17 July, on the recognition of professional competences acquired through working experience]. *Boletín oficial del estado,* No 205. http://www.boe.es/boe/dias/2009/08/25/pdfs/BOE- A-2009-13781.pdf

Important lessons and future plans

Development of the Spanish national qualifications framework for lifelong learning aims to strengthen the links between education and employment but there are various challenges at different levels. Dialogue and interaction with, and developing trust among, different stakeholders from education and employment is considered a cornerstone and key success factor for the development and implementation of a comprehensive NQF. The government is taking initiatives to support cooperation between universities, businesses and research centres but university governance and financing systems do not create a favourable environment, so fostering cooperation remains a challenge (European Commission, 2016a). The future of the 2013 Organic Law for improvement of the quality of education ([513]) is questioned and the reform of the teaching profession remains on hold.

Including VET qualifications, especially at levels 3 and 4, remains a challenge because VET qualifications at these levels are not only awarded by different bodies (Ministry of Education and Ministry of Labour), but are of different nature, workload, delivery and quality assurance mechanisms, some of which are less regulated. There seems to be less confidence and trust in the ways these qualifications can be mapped together. Putting the framework into the lifelong learning perspective, and including non-formal and informal aspects of learning in the framework, is regarded as complex. Including qualifications resulting from non-formal or informal learning uses recognition and validation processes widely implemented only in recent years.

Further application of MECES is an integral part of both external and internal quality assurance mechanisms undertaken within Spanish higher education, nationally and within the autonomous regions.

NQF development in Spain also shows the importance of political processes and cycle on the implementation of European tools, such as the EQF. Adoption of the Royal Decree on MECU will be an important step towards implementation.

Table 86 Spanish qualifications framework for higher education (MECES) and draft Spanish qualifications framework for lifelong learning (MECU) levels

Draft MECU levels	MECES levels	Higher education qualifications	QF-EHEA
8	4	*Doctoral degree (Doctorado)*	Third cycle
7	3	*Master degree (Master)*	Second cycle
6	2	*Bachelor degree (Grado)*	First cycle
5	1	*Advanced technician (Técnico superior)*	First cycle
4			
3			
2			
1			

Source: Adapted from the Royal decree 1027/2011, 15 July on the establishment of the Spanish Qualifications Framework of Higher Education.

([513]) Government of Spain (2013). Ley Orgánica 8/2013, de 9 de diciembre, para la mejora de la calidad educativa [Organic Law 8/2013, of 9 December, for the improvement on the quality of education]. *Boletín oficial del estado*, No 295. http://www.boe.es/boe/dias/2013/12/10/pdfs/BOE-A-2013-12886.pdf

Further sources of information

The Directorate General for Vocational Training has been designated the national coordination point.

The MECU website: www.mecd.gob.es/mecu

The Ministry of Education, Culture and Sport is the main source of information on framework development (MECU and MECES), also for all formal qualifications, including VET diplomas: http://www.mecd.gob.es/educacion-mecd/mc/mecu/presentacion.html

Abbreviations

EQF	European qualifications framework
IVET	initial vocational education and training
MECU	*Marco Español de Cualificaciones* [Spanish qualifications framework]
MECES	*Marco Español de Cualificaciones para la Educación Superior* [Spanish qualifications framework for higher education]
NQF	national qualifications framework
QF-EHEA	qualifications frameworks in the European higher education area
VET	vocational education and training

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Government of Spain Ministry of Education, Culture and Sport (2014). *MECES self-certification report: verification of compatibility with the framework for qualifications of the European higher education area.* http://www.mecd.gob.es/mecd/dms/mecd/destacados/meces/Self-Certification-Report-MECES-VFinal3-031114.pdf

Government of Spain (2007). *Real Decreto 900/2007, de 6 de julio, por el que se crea el Comité para la definición del Marco Español de Cualificaciones para la Educación Superior [Royal Decree 900/2007, of 6 July, on the establishment of the Committee for the definition or the Spanish qualifications framework in higher education].* http://secretariageneral.ugr.es/pages/normativa/fichasestatal/21mko/!

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

SRI LANKA

Introduction and context

The Sri Lankan qualifications framework (SLQF) was established in 2012 to provide a nationally consistent framework for all higher education qualifications offered in Sri Lanka. SLQF also integrates the national vocational qualifications framework (NVQF) developed by the Tertiary and Vocational Education Commission (TVEC) in 2005. An updated third version of the SLQF, published by the Ministry of Higher Education in September 2015, supersedes all previous versions (UGC, 2015).

In line with the 2009 national policy on tertiary education, which covers all areas of higher education including universities and the technical and vocational education and training (TVET) sectors, recommendations by TVEC focused primarily on providing opportunities for higher education through multiple modes of delivery, including non-state-accredited institutions, professional bodies and postgraduate institutions. Importance was also placed on developing links from higher education and TVET to industry, services and other sectors.

The commission also recommended that measures be taken to make TVET a more attractive alternative to university education and to combat the widespread perception that TVET is an inferior option, as well as to encourage private sector training providers to take a more active role in both training and employing TVET graduates.

Policy objectives

The aim of the SLQF is to create an integral national framework for learning achievements by recognising and accrediting qualifications offered by different institutions engaged in higher education and vocational training in Sri Lanka.

The objectives of the SLQF are to:

(a) increase the quality of higher education and training at all levels;
(b) support access to higher learning and so contribute to full personal development of learners and to social and economic development of the country;
(c) improve equity in higher education, training and employment opportunities;
(d) assist employers to identify the levels of knowledge, skills and competences of qualification holders;
(e) develop positive attitudes in qualification holders;
(f) aid lateral and vertical mobility, and progression within higher education and career pathways;
(g) provide guidance in comparing qualifications offered by different institutions;
(h) help in developing higher education and vocational training programmes at appropriate levels;
(i) recognise prior learning;
(j) promote lifelong learning.

Levels and use of learning outcomes

The SLQF consists of 12 levels, with the demands and complexity of learning outcomes increasing with each level. Levels 1 and 2 are senior secondary level education qualifications; levels 3 to 6 are undergraduate qualifications. The other six levels (7 to 12) are postgraduate qualifications. The levels are not directly related to the years of study; they are summarised, along with the relevant qualifications awarded, in Table 86, and the minimum credit requirements for each level are summarised in Table 87. The comparable levels of NVQF are also identified in the SLQF.

The SLQF comprises several qualification types: certificate and advanced certificate at senior secondary level; diploma, higher diploma, bachelor and bachelor honours at undergraduate level; and postgraduate certificate, postgraduate diploma, master and doctorate at postgraduate level.

The volume of learning at each level is illustrated in terms of credits. In the SLQF credit system, the student workload of a study programme is defined as 1,500 'notional learning hours' per academic year, which include direct contact hours with

Table 87 Sri Lankan qualifications framework (SLQF) and national vocational qualifications (NVQ) levels		
SLQF levels	**Qualification awarded**	**Comparable NVQ levels**
12	Doctor of philosophy/MD with board certification/Doctor of letters/Doctor of science	
11	Master of philosophy	
10	Master by course work and a research component	
9	Master by course work	
8	Postgraduate diploma	
7	Postgraduate certificate	
6	Honours bachelor	
5	Bachelor	7
4	Higher diploma	6
3	Diploma	5
2	Advanced certificate GCE A/L or equivalent	4
1	Certificate (GCE O/L or equivalent	3 2

Source: University Grants Commission, 2015.

teachers and trainers, time spent distance learning, preparation for assignments, and carrying out assignments and assessments (UGC, 2015).

The comparable NVQ and SLQF levels have been recognised by a panel of experts based on significant similarities in the learning outcomes stated under respective level descriptors in the two frameworks. The degree level qualification (NVQ 7) is benchmarked to internationally accepted standards for a bachelor's degree (SLQF level 5). However, the proportion of cognitive and psychomotor outcomes may differ in the two qualifications, especially in qualifications below SLQF 2 (NVQ 4). Further, the attributes of two qualification holders below degree level at comparable SLQF and NVQ levels may differ.

Learning outcomes are statements that describe what learners should know, understand and can demonstrate on completion of a course or study programme. Learning outcomes in the SLQF occur in two parts. The first part, called the 'attributes' of the qualification holder, is a set of general statements of the wider abilities that the typical student is expected to have developed by the end of the course or study programme. These attributes could be seen as precursors to the study programme learning outcomes rather than the actual learning outcomes. The second part, called the 'level descriptor', is a set of specific outcomes that are assessed and which a student should be able to demonstrate to meet the requirements of the qualification (the specific broad abilities that the graduate should be capable of). This is significant for higher education institutes (HEIs) as it enables them to design and review courses or study programmes. The curriculum and assessments must provide all students with the opportunity to achieve and to demonstrate achievement of the intended outcomes stated under respective level descriptors.

The SLQF descriptors for each level provide the specifications; these include the:

(a) SLQF exit level;
(b) qualification type with designators and the qualifiers;
(c) number of credits required at each level;
(d) purpose, scope and generic outcomes and attributes expected for the award of each qualification;
(e) minimum admission requirements;
(f) possible progression opportunities.

Table 88	Minimum volume of learning required for each Sri Lanka qualifications framework level	
SLQF levels	**Qualification awarded**	**Minimum volume of learning for the award**
12	Doctor of philosophy/MD with board certification/ Doctor of letters/Doctor of science	Minimum 3 years of full-time or equivalent time of original research after SLQF level 6 or above
11	Master of philosophy	Minimum 2 years of full-time or equivalent time of original research after SLQF level 6 or above
10	Master by course work and a research component	60 credit after SLQF level 5 or SLQF level 6 including a research component of minimum 15 credits
9	Master by course work	30 credits after SLQF level 5 or SLQF level 6
8	Postgraduate diploma	25 credits after SLQF level 5 or SLQF level 6
7	Postgraduate certificate	20 credits after SLQF level 5 or SLQF level 6
6	Honours Bachelor	120 credits after SLQF level 2 of which 90 credits after SLQF level 3 of which 60 credits after SLQF level 4 of which 30 credits after SLQF level 5
5	Bachelor	90 credits after SLQF level 2 of which 60 credits after SLQF level 3 of which 30 credits after SLQF level 4
4	Higher diploma	60 credits after SLQF level 2 of which 30 credits after SLQF level 3
3	Diploma	30 credits after SLQF level 2
2	Advanced certificate (GCE A/L or equivalent)	
1	Certificate (GCE O/L or equivalent	

Source: University Grants Commission, 2015.

The generic outcomes and attributes for each qualification reflect the capabilities expected from qualification holders defined in terms of four 'domains' of learning: knowledge, skills, attitudes, and mind-set and paradigm, known as the 'K-SAM model'. 'Knowledge' is what the qualification holders know, 'skills' define what the qualification holders can do; 'attitudes, values, professionalism and vision for life' reflects how the qualification holders think and behave; and 'mind-set and paradigm' signify how the qualification holders perceive the world. K-SAM is considered an integrated model, which is a blend of more than one domain (in most cases all the domains).

Having been identified by the Ministry of Higher Education in Sri Lanka as of national importance, the 12 learning outcomes have been customised as level descriptors to suit each level of qualification. Categorisation of the learning outcomes according to the principal K-SAM components is given in Table 87.

The degree of intellectual abilities, cognitive skills and soft skills are considered in describing each level. The purpose of the level descriptors for levels 1 to 12 is to guarantee consistency across learning in achieving the expected attributes of qualifications through part-qualification levels, and to help an HEI evaluate the comparability of qualifications and part-qualifications issued by another HEI. The level descriptors may also be used as a guideline to develop course materials of a particular study programme, having several course units or modules to ensure learners are able to meet the expected attributes of the relevant qualification type at the end of the course.

The learner is expected to meet or demonstrate that certain learning outcomes have been achieved; assessment of the outcomes of learning by effective and appropriate assessment methods is essential to the qualifications framework (UGC, 2015).

Stakeholder involvement and institutional arrangements

Development of the SLQF was initiated in 2009 with assistance from the World Bank-funded project *Improving relevance and quality of undergraduate education* (IRQUE) in Sri Lanka and continued with funding from the *Higher education for the twenty-first century project* (HETC). Preparatory work for the development of the SLQF was undertaken by a national committee comprising:

(a) a representative of the Ministry of Higher Education, nominated by the Minister for Higher Education;
(b) a representative of the University Grants Commission, nominated by its chair;
(c) the Director General of Sri Lanka Institute of Advanced Technological Education (SLIATE) or his nominee;
(d) the Director General of Tertiary and Vocational Education Commission of Sri Lanka;
(e) a representative of the Quality Assurance and Accreditation Council;
(f) a representative of the Committee of Vice-Chancellors and Directors.

The NVQF initiative, which was subsumed within the SLQF in 2012, was implemented in 2005 through two skills development projects supported by the Asian Development Bank (ILO, 2010b). The main goal of the first project, the *Skills development* project which ran from 2001 to 2007, was 'developing NVQF infrastructure and capacity'. Its other aims included 'the development of an accreditation system, assessor training and certification, the expansion of the National Trade Testing Programme and the establishment of a quality management system' (ILO, 2010a, p. 25). The second project, called the *Technical education development* project (2006-10), aimed to 'set up review systems for the skill standards developed in the earlier project' (ibid.).

While no new bodies were established for the purpose of implementing the NVQF, the mandates of existing bodies have been modified slightly. The bodies concerned are:

(a) the Tertiary and Vocational Education Commission (TVEC), a statutory organisation responsible for managing the NVQF, determining occupations for skills standards development, developing national skills standards, awarding certificates to trainees, and registering assessors' certifications;

Table 89 Categorisation of the learning outcomes according to the K-SAM model in Sri Lanka

	Categories of learning outcomes	Core area
1	Subject/theoretical knowledge	Knowledge
2	Practical knowledge and application	
3	Communication	Skills
4	Teamwork and leadership	
5	Creativity and problem solving	
6	Managerial and entrepreneurship	
7	Information usage and management	
8	Networking and social skills	
9	Adaptability and flexibility	
10	Attitudes, values and professionalism	Attitudes, values, professionalism and vision for life
11	Vision of life	
12	Updating self/lifelong learning	Mind-set and paradigm

Source: University Grants Commission, 2015.

(b) the Registration Division of the TVEC, which oversees registration of public and private training providers, accreditation of courses, quality assurance (QA) systems, and monitoring and auditing. QA systems holds regular audits to review NVQF quality assurance mechanisms, registration and accreditation. It is certified under the International Organisation for Standardisation (ISO) 9001:2008 certification;
(c) the National NVQ Steering and Coordination Committee of the TVEC, which is responsible for the implementation of the NVQF. All issues connected with the administration of the NVQF are discussed and decided on by the steering committee.

Other organisations involved in the development of standards, training of assessors and testing of applicants are the National Apprentice and Industrial Training Authority (NAITA) and the Department of Technical Education and Training (technical colleges division). NAITA assists the TVEC with regard to competence standards and assessment resource development. The University of Vocational Technology (UNIVOTEC) assists the TVEC with regard to curriculum and learning resource development and assessor training.

While there is a strong emphasis on public education and training providers, private and non-governmental organisations and training centres have also been registered and accredited to provide NVQF courses (ILO, 2010b). Training institutions acknowledge the benefits of the NVQF; it allows them to award their trainees nationally valid certificates, enhancing their own reputation and image at the national level.

Trade unions have been involved in the development and implementation of the NVQF in the past but this involvement has diminished, with more focus being given to union members' 'bread and butter' issues such as salaries and working conditions (ILO, 2010a, p. 27).

Recognising and validating non-formal and informal learning and learning pathways

One of the objectives of the SLQF is to establish pathways for obtaining different qualifications. Vertical progression between qualifications is straightforward provided that minimum stipulated requirements are met. Lateral progression is also possible at certain levels if the candidate meets the minimum requirements for admission to the target qualification.

Access to qualifications at levels 1 to 4 is possible, both directly and progressively through an accredited course or through the recognition of prior learning (RPL); this is defined as the process whereby competences acquired through industry practice or previous training are recognised towards a certificate or credits. RPL is an important instrument for promoting NVQF-aligned certification, particularly in occupations for which demand is high. So far, most certificates issued through RPL have been awarded to beauticians, hairdressers and bakers. RPL is also especially important for people who want to work or study in other countries. There is no difference between certifications resulting from accredited courses and those achieved through RPL; however, the award of a full qualification through RPL is limited to NVQF level 4. Accredited courses are expected to issue a separate certificate of participation as proof of attendance. Two institutions are authorised to conduct RPL: NAITA and the Vocational Training Authority (VTA). Established under Sri Lanka Act No 12 in 1995, the VTA consists of six national vocational training institutes, 22 district vocational training centres and 232 vocational training centres. The VTA operates under the Ministry of Youth Affairs and Skills Development and provides rural youth with skills training combined with workshops on information technology and entrepreneurship.

To avoid corruption in RPL (attempting assessment without the necessary preparation, exerting influence over the assessors), the government has stipulated one to five years of experience as a requirement for NVQF levels 2 and 3 and a further two years for NVQF level 4. However, craftspersons with a minimum five years' experience may be considered for assessment at level 4 directly.

The prerequisite for access to level 5 diploma courses is NVQF level 3 plus academic ability equivalent to general certificate of education (GCE) ordinary level. The entry qualification for level 7, the degree programme, is NVQF level 5. To maintain links between the lower and higher levels, occupations at levels 1 to 4 and fields of study at levels 5 to 7 are clustered to provide the necessary upgrading of qualifications and competences. Industry-linked courses have been created at NVQF levels 5 to 7 to enable progression (ADB, 2011).

Integration of the NVQF into the SLQF has strengthened lateral mobility pathways between vocational education and higher education sectors. UNIVOTEC was established to provide pathways to higher education for TVET students who are unable to enter conventional universities. Students who have achieved the relevant qualifications at levels 5

and 6 can proceed from national diploma to degree programmes. Those with level 6 qualifications are eligible to receive appropriate credit transfers towards a degree programme determined by UNIVOTEC.

NQF implementation

The Sri Lanka qualifications framework helps qualification holders to know the level of their qualification. It also helps potential employers to know the level of learning and the attributes of a particular qualification holder. SLQF is useful to higher education institutions (both State and non-State) in designing their courses in terms of the minimum level of learning effort and the number of credits that should be earned by a qualification holder. In this way, it contributes to strengthening the quality of higher education qualifications offered in universities and higher education institutions in Sri Lanka.

Referencing to regional frameworks

The SLQF provides a clear system to develop links with higher education institutions abroad. With the globalisation of higher education, national qualifications frameworks developed in several other countries have helped to evaluate the higher educational qualifications obtained in different countries.

Sri Lanka is part of the South Asian Association for Regional Cooperation (SAARC), which cooperates in the areas of education, training and human resource development. SAARC has established a South Asian University with a Centre of Excellence to provide world-class facilities and professional faculty to students and researchers drawn from every country of the region. The eight member states of the South Asian Association for Regional Cooperation (SAARC) – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka – unanimously adopted the SAARC framework for action (SFFA) for education 2030 at the third meeting of Ministers of Education/Higher Education held in Male, Maldives, in 2016. Under regional collaboration and partnerships, the ministers agreed objectives of this action plan: share the national skills qualifications framework (NSQF) and develop a regional quality assurance framework for vocational/skills education; and support the mutual recognition of qualifications and students' mobility (SAARC, 2016).

Important lessons and future plans

The SLQF will be beneficial to all higher education stakeholders, including students, parents and employers, as well as education and training providers.

For learners, the SLQF enables recognition and evaluation of prior learning and identifies the pathways for acquiring higher qualifications. This will help them develop their full potential and contribute to the social and economic development of the country at large.

The level descriptors given in the SLQF allow employers to identify the levels of competences of qualification holders. This helps in comparing qualifications so that the supply and demand for knowledge, skills and competences can be properly matched. The SLQF also enables comparison of the qualifications offered by different institutions; this, in turn, helps employers find appropriate qualification holders for their business needs.

The SLQF outlines the credit requirements for each qualification level as well as the intended learning outcomes; for higher education providers, both in the State and private sectors, this helps to design academic programmes.

The SLQF enables all post-secondary education stakeholders to identify the full range of qualifications offered in the higher education system in Sri Lanka and comparable levels of vocational education and training. This helps to clarify which qualifications are related to each other and how they contribute to the enhancement of knowledge and understanding and improve intellectual abilities including analytical skills, evaluation skills, problem-solving skills and soft skills.

The SLQF also encourages the general public to have access to appropriate lifelong education and training, which helps them fulfil their personal, social and economic potential.

The SLQF will be useful to programme-approving agencies in their quest to identify the appropriate levels of qualifications offered by different HEIs. It will also help in evaluating different qualifications offered by HEIs, both local and foreign, which in turn affects decisions on recruitment and promotion in the academic, technical and professional sectors.

Further sources of information

SAARC areas of cooperation: http://saarc-sec.org/areas_of_cooperation

Abbreviations

GCE	general certificate of education
HEI	higher education institution
HETC	higher education for the twenty-first century
IRQUE	improving relevance and quality of undergraduate education
ISO	International Organisation for Standardisation
NAITA	National Apprentice and Industrial Training Authority
NVQ	national vocational qualifications
NVQF	national vocational qualifications framework
QA	quality assurance
RPL	recognition of prior learning
SAARC	South Asian Association for Regional Cooperation
SLQF	Sri Lankan qualifications framework
SLIATE	Sri Lanka Institute of Advanced Technological Education
TVEC	Tertiary and Vocational Education Commission
TVET	technical and vocational education and training
UNIVOTEC	University of Vocational Technology
VTA	Vocational Training Authority

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Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with national experts.

SWAZILAND

Introduction and context

There is currently no unified national qualifications framework (NQF) in Swaziland. The development of an NQF was included as a strategic policy objective in national technical and vocational education and training (TVET) and the skills development policy and strategy (2010). The proposal for a national TVET qualifications framework was articulated in the form of an all-inclusive NQF. Furthermore, the Swaziland education and training sector policy and the revised National development strategy (Swaziland Ministry of Economic Planning and Development, 2014) stipulate the design and implementation of an NQF to improve management and regulation of education through the development of standards for the education sector. The recent establishment of the Higher Education Council also highlights the need for an operational NQF.

In the context of the TVET reform agenda for the introduction of competence-based education and training, recommendations were made to establish a qualifications framework for TVET. Key features of the proposed NQF stipulated a simple, workable and practical tool for developing and classifying qualifications based on a set of nationally agreed standards and criteria, benchmarked against regional and international best practice. The framework should be instrumental in defining and recognising quality-assured occupational standards, providing for the portability of these qualifications, and ensuring the recognition of prior learning and lifelong learning to meet the requirements of the world of work in a knowledge-based society in the 21st century.

In 2013 the Higher Education Act was enacted. Although, this is limited to the higher education sector, it can be seen as the first step in developing the structural framework for implementing an NQF. The act regulates the Swaziland Higher Education Council, the key entity for advice, quality promotion and quality assurance for higher education.

A review of the curricula for general education (primary and secondary) was started by the National Curriculum Centre. A draft curriculum framework, based on a competence-based approach, was produced in September 2014. This approach and the proposed curriculum framework provide important elements to link general education in a systematic and unified NQF that encompasses the whole education sector in Swaziland.

The draft NQF document has been completed through a stakeholder participatory process which involved facilitation by technical experts. The NQF policy document is undergoing policy approval processes by the cabinet. An NQF legal framework and instruments will be developed to kick-start implementation. Unit standards and qualifications for the TVET subsector are currently being developed to enable pilot testing of the competence-based education and training approach using the draft NQF.

Policy objectives

The Swaziland qualifications framework should:

(a) encourage participation: unnecessary barriers that restrict access because of age, gender, pre-entry requirements, or any other characteristics should be removed;
(b) promote progression and further training: everyone should have opportunities for progressing to more education and training at the same or a higher level;
(c) be flexible and give the possibility for individuals to enter education and training at several different times during their lifetime;
(d) prepare people for change, and develop the ability to learn, to use modern technologies, to handle numerical data, and to communicate effectively, for example by supporting the development of transferable skills which help people adapt to the changing environment.

The main purposes of the qualifications framework are to:

(a) provide a mechanism for comparability and recognition of qualifications;
(b) aid mutual recognition of qualifications, both nationally and internationally;
(c) harmonise qualifications wherever possible;

(d) promote credit transfer within the national education system and beyond;
(e) create national standards that can be recognised and valued by society and the world of work.

Levels and use of learning outcomes

The Swaziland qualifications framework has 10 levels. The descriptors from level 1 to level 8 include learning competence, communication and social competence, vocational competence, knowledge, skill, and autonomy and responsibility. Levels 9 and 10 involve knowledge, skill, and autonomy and responsibility.

Stakeholder involvement and institutional arrangements

The following stakeholders are involved in developing and implementing the qualifications framework:

(a) Ministry of Labour and Social Security;
(b) Ministry of Commerce, Industry and Trade;
(c) Ministry of Public Service;
(d) Federation of Swaziland Employers and Chamber of Commerce;
(e) Higher Education Council;
(f) TUCOSWA – trade unions;
(g) Investor Road Map and Swaziland Investment Promotion Authority.

Recognising and validating non-formal and informal learning and learning pathways

Implementation of the framework will involve four councils, which will include the Adult and Non-formal Education Council, to ensure recognition and validation of subsector qualifications.

Referencing to regional frameworks

Swaziland reported that it places emphasis on regional collaboration in the higher education sector. Through the Southern African Development Community (SADC) protocol on education and training, it has agreed which specific collaboration and integration initiatives it should focus on. Some of the collaborative initiatives have had success: admission of students from SADC, harmonisation of entrance admission levels, mutual recognition of qualifications attained within the region, and mobility of students within the region for purposes of study, research, student and staff exchange programmes (SARUA, n.d.). The Swaziland qualifications framework level descriptors were benchmarked against the SADC regional qualifications framework (RQF) level descriptors among other frameworks.

Important lessons and future plans

Swaziland plans to accelerate its NQF approval processes and development of a legal framework and operational instruments to enable immediate implementation of its national qualifications framework.

Abbreviations

NQF	national qualifications framework
RPL	recognition of prior learning
RQF	regional qualifications framework
SADC	Southern African Development Community
SARUA	Southern African Regional Universities Association
TVET	technical and vocational education and training

References

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Prepared by:
UNESCO in collaboration with national experts.

SWEDEN

Introduction and context

The legal basis supporting the Swedish national qualifications framework (SeQF) came into force on 1 October 2015 ([514]). While the overall technical design of the framework was finalised by 2012, legal adoption has proved time-consuming, not least due to the need to include all stakeholders in the process. SeQF developments have, from the start, focused on the need to include all types of qualifications in the framework. The added value of the national qualifications framework (NQF), it is argued, depends on its ability to address explicitly, and include certificates and qualifications awarded by, private companies and branch/sector organisations and bodies. While the SeQF is mainly seen as a tool to increase transparency of qualifications, the framework is also seen as supporting better cooperation between the education and training system and the labour market. In this sense, the framework is not only about describing existing qualifications but also about improving policies and practices. The SeQF was referenced to the European qualifications framework (EQF) in June 2016 (National Agency for Higher Vocational Education, 2016). Following legal adoption of the framework in autumn 2015, criteria and procedures for inclusion of non-formal qualifications have been put in place and made public. The SeQF can be considered to have reached (an early) operational status.

Policy objectives

Different from other European frameworks, the SeQF has from the start (in 2009) been seen as a tool for opening up to qualifications awarded outside the public system, particularly in the adult/popular education sector and in the labour market. This focus on the inclusive character of the framework responds to specific features of Swedish education and training.

First, the role of adult and popular education is generally very strong, largely explaining why Sweden consistently scores highly in all international comparisons on adult and lifelong learning. Courses are offered by a wide range of stakeholders and institutions, both public and private; their link to the ordinary public system is not always fully transparent and clear. An inclusive framework is expected to increase overall transparency of Swedish qualifications and clarify options for progress and transfer.

Second, an important part of vocational education and training (VET) is carried out by enterprises and sectors. While upper secondary education (*Gymnasieskolan*) offers a full range of (three-year) vocational courses, acquiring a full qualification (enabling someone to practise a vocation), will sometimes require additional training and certification at work. This extensive system of labour market-based education and training is diverse and, in some cases, difficult to summarise.

Linking this 'non-formal' sector to the NQF is seen as crucial for increasing overall transparency of qualifications in Sweden. The 2015 SeQF Law and Regulation authorises the National Agency for Higher Vocational Education (Myndigheten for Yrkeshögskolan (MYH)) to act as 'gatekeeper' (supported by an advisory council) and put in place the necessary procedures and criteria to allow this to happen in practice. These procedures and criteria have been publicly available since March 2016 ([515]).

Levels and use of learning outcomes

The SeQF is based on an eight-level structure where each level is described through knowledge (*kunskap*), skills (*färdigheter*) and competence (*kompetens*). The explicit objective has been to develop a set of descriptors as closely aligned with the EQF as possible. While the influence of the original EQF descriptors is apparent, the level

([514]) Law 2015:478: Regulating fees linked to the approval of qualifications for lifelong learning.
Regulation 2015:545: On a qualifications framework for lifelong learning.

([515]) Guidelines for applying for levelling of non-formal qualifications: https://www.seqf.se/sv/Sa-funkar-det/Ansokan/

of detail has been increased. In the definition of competence, for example, the EQF emphasis on autonomy and responsibility is extended to also address decision-making ability and cooperation/ teamwork.

The learning outcomes perspective (*Resultat av lärandet*) is an important and mostly implemented feature of Swedish education and training. While the term learning outcomes is only gradually coming into general use, the underpinning principles are well known and broadly accepted. The core curricula for compulsory education have recently been revised, further strengthening and refining the learning outcomes-based approach.

Universities follow national regulations on examinations, requiring the use of learning outcomes, though how these learning outcomes are interpreted by individual institutions varies. The Bologna process has been influential in this area, as have local initiatives.

Implementation of the SeQF since 2009 has contributed to the overall shift to learning outcomes and clarified the importance of the concept to stakeholders outside traditional, formal education and training. In the longer term this may prove of particular importance, potentially supporting dialogue between education and the labour market.

Stakeholder involvement and institutional arrangements

The Ministry of Education and Research has overall responsibility for work on the NQF and referencing to the EQF. Supported by the National Agency for Higher Vocational Education, first step towards full operational status of the framework has now been taken.

A broad group of stakeholders, from education and training as well as the labour market, has been involved in developing the SeQF (Swedish National Agency for Higher Vocational Education, 2016). This reflects the objective of the ministry to open up the framework to qualifications offered outside the public sector. The discussion on the opening up of levels 6 to 8 to non-academic qualifications has also contributed to raising interest in the proposal.

Several stakeholders have signalled interest in using it as a reference for their work, as in the sports-sector (*Svenska Riksidrottsforbundet*) where the NQF is seen as an instrument for better structuring existing education and training offers. Another example is provided by the 26 institutions responsible for the qualifications of teachers and trainers in VET which have used the NQF as an instrument to identify available pathways into teacher-training and to indicate minimum requirements in prior learning and qualifications. A third example is the construction sector, where the framework is being used to indicate alternative

Table 90 Swedish national qualifications framework (SeQF)

NQF levels	Qualifications	EQF levels
8	Doctorate diploma	8
7	Master diploma	7
6	Bachelor diploma Advanced diploma in higher vocational education	6
5	Qualified graduate from upper secondary engineering courses Diploma in higher vocational education	5
4	Upper secondary level (new and former)	4
3		3
2	Compulsory education for young and corresponding education for adults, special needs schools and Swedish tuition for immigrants	2
1	Special needs education	1

Source: Adapted from https://www.seqf.se/.

progression routes for those wanting to qualify as construction site managers. This approach shows that the traditional higher education pathway (civil engineer) is not the only possible alternative; several combinations of work experience and formal education (both upper secondary and post-secondary VET) are possible. A fourth example is the financial sector, where the framework is seen as an opportunity to make visible the training activities taking place within the sector, in most cases independent of public education and training.

A set of procedures and criteria have been developed for the inclusion/levelling of non-formal qualifications to the SeQF. An advisory council (*Rådet for den nationella referansramen för kvalifikationer*) will support the national agency; this council will consist of 14 representatives from all stakeholders in education and the labour market. The following steps have to be described by those submitting a request to this council:

(a) before initiating the process, a fee has to be paid;
(b) in addition to title, occupational and/or educational context of the qualification has to be clarified;
(c) the type of qualification (certificate, diploma, proof of education, proof of vocation);
(d) assumed level of qualification;
(e) motivation for assumed level;
(f) learning outcomes of qualifications;
(g) learning outcomes for parts of qualification;
(h) legitimacy/acceptance of qualification in relevant occupational area;
(i) form of assessment;
(j) quality assurance;
(k) awarding institution.

Recognising and validating non-formal and informal learning and learning pathways ([516])

In the past two years, Sweden has made progress in the area of validation, particularly related to assessing and recognising immigrants' prior learning. This is exemplified by the 2015 Budget Bill where a total of SEK 141 million was allocated to strengthen validation measures, mostly related to migrants' qualifications and experiences.

A new national committee (the National Delegation for Validation) was set up in 2015 to develop and promote a strategy on validation, addressing the regional as well as the national level. In parallel to this, also in 2015, the Swedish government launched a formal consultation on validation, preparing a bill to be presented to parliament during spring 2017.

The strategy seeks to remedy existing and acknowledged weaknesses in the Swedish validation system. Such weaknesses are primarily connected to the decentralised, complex and pluralistic nature of arrangements. Since 2010, the Swedish National Agency for Higher Vocational Education (Myndigheten för yrkeshögskolan (MYH)) has had the task of coordinating and supporting the national structure for validation of prior learning. Given that this national agency is also responsible for the implementation of the SeQF, a close link between the NQF and validation is seen as critical. Cooperation with education and training providers, sector organisations, social partners, universities and regional representatives has been an essential part of this work. In 2012, the agency presented criteria and guidelines on validation of prior learning.

NQF implementation

The National Agency for Higher Vocational Education plays a key role in implementing the SeQF. The agency was set up in 2009 with responsibility for administering what is a new and vocationally oriented strand of Swedish higher education and training. *Yrkeshögskolan*/higher vocational education has attracted a lot of interest both among individuals and employers offering an alternative to the traditional university sector, for example by combining theoretically and practically oriented learning. The new institutions can be seen as complementing existing education and training provisions and qualifications.

This means that coordination of framework developments is carried out by an institution with a clear position on the role of non-academic qualifications at levels 5 to 6. For the forthcoming implementation of the framework this can prove both positive and negative.

The national agency is well placed to administer the opening up of the framework to the non-formal and private sectors. Extensive dialogue with a wide range of stakeholders has already taken place and the gradual inclusion of private qualifications has now started. It can be questioned, however, whether the national agency is well placed to ensure the commitment of higher education institutions to the SeQF.

Sweden has decided to develop a separate qualifications framework for higher education and separate self-certification to EHEA has been

([516]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

carried out. While the character of levels 6 to 8 in the NQF was extensively discussed during initial development stages, long-term interaction between the SeQF and the national framework for higher education is not addressed explicitly. The consultation carried out in spring 2011 on the opening up of levels 6 to 8 showed differences in opinion between the (academic) higher education sector and others involved in developing the NQF. For the SeQF to be able to operate as a comprehensive NQF, its relationship to the higher education framework will require further clarification and continuous dialogue.

The Swedish qualifications framework has now reached operational stage, a judgement based on the following factors:

(a) a formal legal basis has been established, clarifying governance issues and stakeholder involvement;
(b) the institution responsible for day-to day coordination and development of the work has been appointed and is actively pursuing agreed tasks;
(c) a register of qualifications has been put in place and is accessible via the SeQF web-portal ([517]);
(d) all relevant formal qualifications have been included in, and levelled to, the framework;
(e) criteria and guidelines for inclusion and levelling of non-formal qualifications have been developed and published;
(f) all qualifications included in the framework are based on learning outcomes.

Referencing to regional frameworks

Referencing to the EQF took place in June 2016 (Swedish National Agency for Higher Vocational Education, 2016). The eight SeQF levels mirror the eight levels of the EQF.

This placing of qualifications reflects what is seen as the first stage of NQF implementation, addressing public education and training qualifications. Opening up the framework to private and non-formal qualifications will take place in a second stage and progress according to the level of interest among stakeholders.

Important lessons and future plans

The formal adoption of the SeQF in 2015 has made it possible for the framework to move into an early operational stage.

Compared to other countries, Sweden has, from the start, emphasised the need to open up to non-formal education and training and make it possible to establish links to the diverse and extensive field of continuing and popular education and training run by the private sector and non-governmental organisations. The overall success of the framework will partly depend on the extent to which the framework is seen as relevant to stakeholders outside formal, initial education and training. For this reason it is particularly important to make practical progress and move from intention to concrete action.

While involvement of stakeholders has been systematic and extensive, the continued separate qualifications framework for higher education – and the separate self-certification of this to the qualifications framework in the European higher education area – points to the need for closer dialogue between the university sector and the remaining areas of education and training.

Further sources of information

Swedish National Agency for Higher Vocational Education (national coordination point): https://www.myh.se/In-English/Swedish-National-Agency-for-Higher-Vocational-Education-/

Swedish national qualifications framework: https://www.seqf.se/

Abbreviations

EQF	European qualifications framework
MYH	*Myndigheten for Yrkeshögskolan* (National Agency for Higher Vocational Education)
NCP	national coordination point
NQF	national qualifications framework
SeQF	Swedish qualifications framework
VET	vocational education and training

([517]) SeQF web portal: https://www.myh.se/In-English/EQF/

References

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Sweden.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

Swedish National Agency for Higher Vocational Education (2016). R*eferencing report of the Swedish qualifications framework to the EQF* [unpublished].

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

SWITZERLAND

Introduction and context

While Swiss education and training is generally considered to be of high quality, many of its qualifications are relatively unknown in other countries, potentially hindering Swiss citizens seeking employment abroad. Switzerland sees the link to European qualifications frameworks – both the European qualifications framework (EQF) and the qualifications framework in the European higher education area (QF-EHEA) – as an opportunity to strengthen the transparency and comparability of its national qualifications in a European and wider international context. In 2009 Switzerland adopted a national qualifications framework for higher education (NQF-HE) - *Qualifikationsrahmen für den schweizerischen Hochschulbereich (NQR-CH-HS)* ([518]) – in line with the Bologna-process. A NQF for vocational and professional qualifications (NQF-VPET) - *Nationaler Qualifikationsrahmen für Abschlüsse der Berufsbildung (NQR-CH-BB)* – was adopted on 27 August 2014 ([519]) and put in force from 1 October 2014 ([520]). This latter framework is explicitly oriented to the EQF and introduces an eight-level structure defined through knowledge, skills and competence. The framework was referenced to the EQF in May 2015 (State Secretariat for Education, Research and Innovation, 2015). The NQF-VPET can be considered to have reached operational stage, given that a significant proportion of existing vocational and professional qualifications, have been included.

Policy objectives

The proposal for the Swiss national qualifications framework for vocational and professional education and training (NQF-VPET) (*Nationaler Qualifikationsrahmen für Abschlüsse der Berufsbildung* – NQR-CH-BB) was presented in February 2012. The framework consists of eight learning-outcomes-based levels described through knowledge, skills and competence, as in the EQF. The main objectives of the framework are:

(a) to increase the national and international transparency and comparability of Swiss vocational and professional qualifications;
(b) to express the high value attributed to Swiss vocational and professional education and training;
(c) to strengthen, as part of an overall strategy, the recognition of Swiss higher vocational and professional education and training;
(d) to contribute to parity of esteem between vocational and academic education and training;
(e) to improve the opportunities for Swiss-educated professionals to get jobs abroad and so increase overall mobility.

Including all levels of qualification, the framework could potentially be seen as a forerunner of a comprehensive NQF, linking up with the qualifications framework for higher education and covering all types of qualification. This will require political discussion and there are currently no signals in this direction. The recent reorganisations at ministerial level, bringing the responsible departments closer together, could provide a closer link between the NQF-VPET and the NQF-HE.

Levels and use of learning outcomes

The shift to learning outcomes has been fundamental to reforming Swiss vocational and professional qualifications in recent years. This work has led to the gradual development of methods for writing learning outcomes ([521]). The use of learning outcomes for general and higher education is more limited but can be observed in these areas as well.

([518]) Information on the NQF for higher education can be found at: https://www.swissuniversities.ch/en/higher-education-area/qualifications-framework-nqfch-hs/

([519]) Government of Switzerland (2014). *Verordnung überden nationalen Qualifikationsrahmen für Abschlüsse der Berufsbildung V-NQR-BB [Regulation on the NQF for VET qualifications]*. http://www.admin.ch/opc/de/classified-compilation/20140910/index.html

([520]) Information on the adoption of the framework can be found at: https://www.sbfi.admin.ch/sbfi/de/home/themen/berufsbildung/nqr.html

([521]) For information on the method for writing learning outcomes, and for examples of profiles, consult: http://www.bbt.admin.ch/themen/hoehere/00160/index.html?lang=de

The level descriptors of the NQF-VPET reflect the competence approach already in use in Swiss vocational and professional education and training. The main elements of the descriptors are presented in Table 89.

It is emphasised that the descriptors are defined specifically in relation to Swiss vocational and professional education and training (State Secretariat for Education, Research and Innovation, 2015). 'Knowledge' relates to factual knowledge in a field of work or study and is subdivided into the categories of 'knowledge' and 'understanding'. 'Skills' relate to the ability to apply knowledge to perform tasks and solve problems. A distinction is drawn here between procedural and sensorimotor skills. 'Competences' denotes the regular and routine application of knowledge and skills in the context of work and is divided into 'professional' and 'personal' competences. The formulation of this descriptor gives due weight to the importance of practical experience and indicates that other competences beyond technical ones can be acquired, contributing to the development of the individual both within and outside work situations. While it is not envisaged that any VET qualifications will be aligned to level 1, levels 2 to 5 are open to the various qualifications for vocational education and training. With respect to levels 5 to 8, the NQF VPET is compatible with the level descriptors for the qualifications framework for the European higher education area (QF-EHEA). However, only professional qualifications will be aligned to NQF-VPET; university qualifications are assigned to the NQF-HE.

Stakeholder involvement and institutional arrangements

The development of the NQF-VPET has been rapid and was initiated in 2009-10. During 2011, the responsible ministry ([522]) organised a series of roundtables for representatives of cantons, trade associations, and the social partners. Based on the oral and written comments received on the proposal during these gatherings, the documents forming the basis for the spring 2012 consultation ([523]) were amended.

The proposal has received support from stakeholders (cantons, trade associations and social partners), linked to two particular issues. First, the NQF is seen as a precondition for increasing the visibility and value of Swiss qualifications abroad and supporting employment opportunities for Swiss citizens. Second, the NQF builds directly on the shift to learning outcomes initiated by the 2004 reform of the Federal Act on Vocational and Professional Education and Training. This reform introduced a more outcome-oriented approach to defining VET programmes and qualifications. A total of more than 600 different qualifications have been redefined in dialogue between trade associations and public authorities, preparing the ground for the overarching learning outcomes approach now taken forward by the NQF-VPET.

Table 91 The main elements of the descriptors in the Swiss NQF

Knowledge	Declarative knowledge Understanding	
Skills	Procedural skills Sensorimotoric skills	
Competences	Professional competence	
	Personal competence	Self-competence Social competence Leadership competence

([522]) *Eidgenössisches Volkswirtschaftdepartement* (Federal Department for Economic Affairs).

([523]) Reactions to the consultation are available at: http://www.bbt.admin.ch/themen/01051/01071/01076/01312/index.html?lang=de

The Swiss State Secretariat for Education, Research and Innovation (SERI) ([524]), is in charge of the implementation of the framework. SERI plays a key role in organising and quality assuring the levelling process. SERI also takes on the role of national contact point for the EQF.

Recognising and validating non-formal and informal learning and learning pathways ([525])

A number of key national factors should be taken into account when considering the Swiss perspective on validation: the federalism, the quadrilinguism and the complex articulation of the Swiss education area. Since January 2013, all matters relating to education, research and innovation at federal level have been brought together in the Federal Department of Economic Affairs, Education and Research (EAER). The State Secretariat for Education and Research (SER) has been combined with the Federal Office for Professional Education and Technology (OPET) to form the SERI: both are now part of the EAER. SERI has overall governance of validation projects throughout Switzerland, supporting or checking the pilot projects implemented in cooperation with specific services, and coordinating processes in the different education and training degrees and sectors. It is also the organisation in charge of developing the NQF, initially just for VET qualifications, and it will maintain existing validation practices.

Switzerland has defined validation procedures mainly for VET and further professional training. In other sectors there are no binding rules; instead, various official documents include indications for development and diffusion of validation procedures. Access to validation is considered an individual right, and validation practices are optional.

Validation is formally referred to as one of the four possible ways of obtaining a qualification in upper secondary VET ([526]). Full qualifications, as well as exemptions and provision of access, can be also obtained for higher VET and professional education and training (PET). The OPET (now integrated in SERI) developed national validation guidelines in 2010 specifying five different validation phases: information and advising, self-evaluation, assessment, accreditation (or partial certification) and certification. These phases, although referring specifically to the upper-secondary level of VET, also act as a general indicator of other Swiss validation practices.

In higher education, regulation is normally decentralised to the institutional level; depending on the type of university (Cantonal universities, universities of applied science, and university colleges for teacher education) procedures and regulations might differ. There are options for admission into a programme without a baccalaureate and the possibility to validate, partially or completely, a higher education degree.

Validation procedures, both in VET and higher education, use the standards of formal qualification/programmes as reference.

The Labour Market and Unemployment Insurance, part of the State Secretariat of Economic Affairs, has set up skills assessment centres that carry out personal *bilans* (skills audits) to identify skills and know-how acquired in formal, non-formal and informal contexts, and aid development of a personal or professional portfolio. There are other initiatives of this nature in Switzerland, normally integrated into career guidance practices, though it is not clear how these are connected to formal qualification standards.

NQF implementation

The NQF-VPET became formally operational on 1 October 2014. The decision to assign levels to single qualifications is an important feature of the Swiss approach and signals that the learning outcomes approach is taken seriously; this means that qualifications belonging to the same category, for example initial VET, can be placed at different levels. A set of guidelines have been developed supporting education and training stakeholders in carrying out this levelling. Existing vocational and professional qualifications will be assigned levels during a three-year initial process (ending 2017). Following this initial period, qualifications will be levelled when there is need (new or revised qualifications). By July 2016 ([527]) a total of 82 qualifications had been attributed levels. These were distributed as shown in Table 91. Figure 23 outlines the main steps in the Swiss levelling process.

([524]) SERI: https://www.sbfi.admin.ch/sbfi/en/home.html

([525]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

([526]) The other ways are: structured curriculum of study (classical formal way); admission of adults to professional exams without having participated in a formal curriculum of study; shortened initial vocational training if the adult is able to demonstrate his or her knowledge within the desired professional domain.

([527]) https://www.admin.ch/opc/de/classified-compilation/20151046/index.html

Referencing to regional frameworks

The NQF-VPET was referenced to the EQF in May 2015. Figure 26 shows the approximate alignment of EQF and NQF-VPET levels and how different categories of qualifications fit into the framework.

Further source of information

SERI acts as EQF NCP: https://www.sbfi.admin.ch/sbfi/de/home/themen/berufsbildung/nqr.html

Table 92 Distribution of qualifications according to levels

Level 3	Level 4	Level 5	Level 6	Level 7
8	19	14	30	11

Figure 25 Main steps in the Swiss levelling process

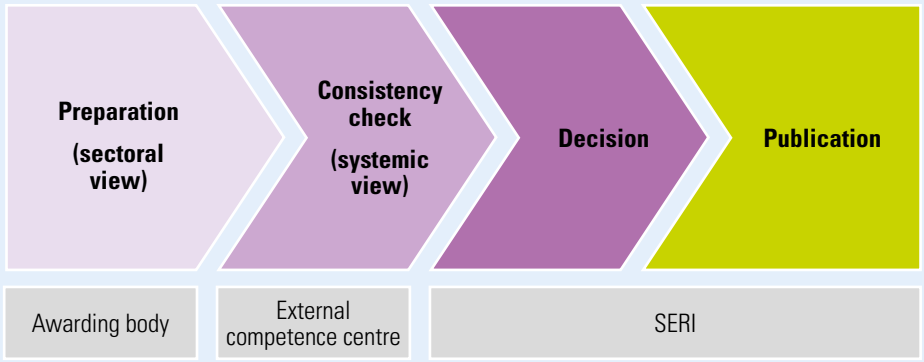
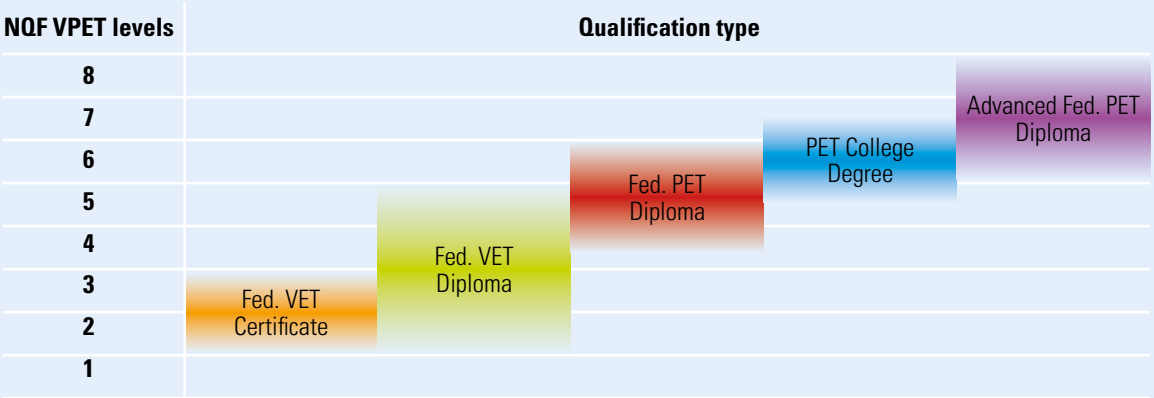


Figure 26 Indication of qualification types to be included in the NQF-VPET and approximate level



NB:

- Federal VET certificate, two years vocational education and training at upper-secondary level.
- Federal VET diploma, three to four years vocational education and training at upper-secondary level.
- Federal PET diploma, part-time tertiary level professional education and training.
- PET college degree is a diploma from a college of professional education and training, tertiary level professional education and training (minimum two years academic study or three years part-time study with work placement).
- Advanced federal PET diploma, part-time tertiary level professional education and training.

Source: SERI, 2015.

Abbreviations

EAER	Federal Department of Economic Affairs, Education and Research
EQF	European qualifications framework
NQF	national qualifications framework
NQF-PVET	national qualifications framework for professional and vocational education and training
NQR-CH	*Nationaler Qualifikationsrahmen Schweiz* [Swiss national qualifications framework]
NQR-CH-BB	*Nationaler Qualifikationsrahmen für Abschlüsse der Berufsbildung* [national qualifications framework for vocational and professional education and training]
NQR CH-HS	*Qualifikationsrahmen für den schweizerischen Hochschulbereich* [qualifications framework for the Swiss higher education area]
OPET	Federal Office for Professional Education and Technology
PET	professional education and training
SER	*Staatssekretariat für Bildung und Forschung* [State Secretariat for Education and Research]
SERI	*Staatssekretariat für Bildung, Forschung und Innovation* [State Secretariat for Education, Research and Innovation]
VET	vocational education and training

References

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report Switzerland.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

State Secretariat for Education, Research and Innovation (2015). *Swiss EQF referencing report.* https://ec.europa.eu/ploteus/sites/eac-eqf/files/e_referencing_report_final_ch.pdf

Prepared by:
The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

TAJIKISTAN

Introduction and context

NQF snapshot

The Tajik national qualifications framework (NQF) has not been adopted yet. It is still in an ad hoc stage, where no major decisions, such as on number of levels or descriptors, have been taken.

Educational, social, economic and political context

The population of Tajikistan has been growing steadily in the past years, reaching circa 8 million in 2014, from 6.25 m in 2000. Its population is predominantly rural, with 73.7% living in the countryside. The country has a very young population with 60.5% below 25 years-old; 32.4% between 25 and 54; and 7.2% over 55 ([528]).

This data show that there is a challenge in accommodating this large share of young people within the education system as well as in the local labour market. Youth unemployment (age 15 to 29) has been increasing in recent years: in 2009, the latest year for which figures are available, 15.4% of young people were out of work.

Unemployment is the result of a lack of jobs in the domestic labour market and limited economic development and business growth, especially in rural and remote areas. Migration is officially recognised as a tool to maintain social equilibrium and to support skills development not provided by the VET system.

Around 1.3 million Tajik citizens live abroad, notably men aged 20 to 39, of whom one third live and work abroad, especially in Russia. Their labour provides an important economic support to the home country in the form of remittances.

In addition to migration, the increase in the working age population has particularly affected the informal sector, which is mainly made up of household-based enterprises or corporate enterprises owned by households producing goods and services. In 2009 informal employment accounted for 51% of the employed, excluding the agricultural sector.

The Tajik labour market lacks qualified people in most branches of industry; it is not sufficiently structured and 70% of employment is rural. The labour market is characterised by high unemployment and low salaries. Young people with traditional vocational qualifications, such as those provided by initial VET, experience considerable difficulties in finding employment in the country, and most become migrants. Estimates of the number of migrants vary from one eighth to one third of the workforce. At the same time, every year many vacancies remain unfilled due to lack of relevant competences.

There is a strong need to revitalise skills development and to improve transparency and efficiency through streamlining numerous specialisations into a manageable number of broad occupations or career paths. The quality and relevance of programmes of study needs to be improved to target gaps in the labour market, and to make vocational, professional and higher education institutions more accountable for quality results. Key elements of this process are the strengthening of quality assurance mechanisms and recognition of qualifications at national level.

Policy objectives

Education and training reforms

Tajikistan adopted in 2012 the National education development strategy 2020 (NEDS 2020); this assumes a transition to competence-based training in VET, modularisation of programmes and adoption of an NQF.

An NQF would contribute to transparency of qualifications, and their quality and relevance to the labour market.

([528]) Data from the ETF Torino process report 2017, Central Asia.

International cooperation

Tajikistan aspires to cooperation with the Bologna process area. Links with Kazakhstan and Russia are important and should form part of NQF planning considerations. The country currently participates in the Central Asia Education Platform (CAEP) initiative.

Levels and use of learning outcomes

Scope and structure of NQF

No decision has been made yet on the scope of any NQF.

Alignment to other classification systems

The national classification of occupations (NCO) adopted in 2013, links occupations to qualifications. Four levels of qualifications are allocated in the NCO, in a hierarchy. The initial level corresponds to primary and secondary general education, the second level to lower secondary VET, the third to upper secondary VET and the fourth to higher education.

Various projects have produced occupational standards and higher education has developed qualification standards. HE providers propose a standard and it is ultimately approved by the Ministry of Education. In VET, similar processes apply. In essence, the old Soviet standards are still in operation and there is little or no employer involvement.

No framework to authorise validation of non-formal learning yet exists. However, the Ministry of Labour, Migration and Employment of the Population is developing adult learning and plans to establish a mechanism to recognise skills acquired outside formal education. Similarly, the National Adult Training Centre issues some qualifications to adults whose work experience illustrates their skills equivalent to specified qualifications.

NQF levels

There is no decision on the number of levels, but eight is likely, given it is the international norm and the country's aspiration to be linked to the Bologna process, most of whose members have eight-level qualifications frameworks.

Level descriptors

None developed yet at national level.

Use of learning outcomes

The NDES 2020 implies an NQF would be outcomes-based.

Definition of qualification

No definition available yet.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

No law authorising an NQF has yet been adopted. Instead, an NQF concept was adopted under a Tempus project; other tools developed, which might support an eventual NQF, were an NQF manual and other supporting documents.

Governance and institutional arrangements for the NQF

The Ministry of Education is responsible for qualifications; it currently approves State education standards.

Roles and functions of actors and stakeholders

While previous donor projects included employers and other stakeholders, awareness of NQFs as instruments of change is otherwise very limited, so stakeholder representation in qualifications issues is limited.

Resources and funding

These are limited. An NQF will need much donor support.

Quality assurance of qualifications

No system for quality-assuring qualifications is in place. References to quality assurance broadly appear across various laws and regulations governing education but there is nowhere a clear definition of quality assurance or allocation of quality assurance functions. There is provision in law to accredit providers, plus the State education standards, but no quality assuring of assessment or criteria to validate qualifications.

The State has, to date, been concerned with control, not improvement.

Recognising and validating non-formal and informal learning and learning pathways

No validation system operates in the country.

NQF implementation

Inclusion of qualifications in a register

There is no national register or database yet.

Monitoring, evaluation and review of the NQF

Given very limited progress of NQF plans, there are no mechanisms to monitor development.

Impact for end-users

None yet.

Referencing to regional frameworks

Tajikistan is not involved in any regional framework.

Important lessons and future plans

The NQF has not gone beyond an aim set in the National education development strategy 2020. Capacities to develop an NQF are lacking. There is a need to conceptualise and define qualifications in terms of outcomes achieved; stakeholder awareness is largely absent. Occupational standards need to be developed with employers and to provide the basis of qualifications. An NQF concept needs to be developed fully by the ministries in cooperation with stakeholders as the basis of a law.

Abbreviations

CAEP	Central Asia Education Platform (an EU initiative in education for this region)
NCO	national classification of occupations
NEDS 2020	National education development strategy 2020
NQF	national qualifications framework

Prepared by:
the European Training Foundation (ETF).

THAILAND

Introduction and context

The establishment of a Thai national qualifications framework (NQF) was proposed by the Office of Education Council (OEC) of the Ministry of Education as part of the *National manpower production and development initiative* during the second decade of education reform, 2009-18. The Thai NQF builds on the existing Thai qualifications framework for higher education (TQF) and the Thai qualifications framework for vocational education (TVQF) (Office of Education Council, 2013). It was approved by the Cabinet on 21 December 2010.

Thailand's economy has attained high levels of growth in recent years. However, a study by the Thailand Development Research Institute (TDRI) on the qualifications of workers in the manufacturing and services sectors revealed that between 7 and 10 million workers in these sectors had no qualifications, 21.66 million had experienced only primary education, and 5.94 million only lower secondary education (TDRI, 2010). Many workers had acquired competences on the job yet remained without qualifications.

The Thai NQF is intended to address this situation. The government sees the NQF as a tool for increasing manpower capabilities and competitiveness to meet the demands of production and services in today's rapidly changing economic climate. The NQF is thus designed to benefit both individuals and industry. By setting out unified standards for qualifications and clear learning outcomes, it will enable individuals to clearly visualise their own learning trajectories. Workers already in the labour market will be able to access learning pathways previously barred to them, and to have their previous experiences and learning validated, whether formal, non-formal or informal. This will, in turn, benefit industry by providing it with a better qualified workforce.

A number of measures are envisaged to improve the quality of education and training in Thailand. These include improving the quality of content, inputs and standards, introducing assessment based on learning outcomes, and ensuring internal and external assessment of education institutions at every qualification level (Choomnoom, 2011). The capacity of education institutions and of public and private sector training providers to implement the NQF will be strengthened, making them better able to meet the needs of production and services. Training will also be introduced to raise the calibre of educational personnel.

The Thai NQF is designed to aid regional worker and student mobility, which is expected to increase in the near future, particularly in the context of the recent ASEAN Economic Community (AEC) established in 2015. Making Thai and foreign qualifications mutually recognisable, although crucial, will not be an easy task, and will require coordination at all levels.

Policy objectives

The Thai NQF is intended to:

(a) make education qualifications more relevant to industry's needs, raising the quality of manpower in the manufacturing and services sectors;
(b) raise the standard of Thai qualifications to international level;
(c) make qualifications transparent and comparable across national borders;
(d) enhance the competitiveness of both domestic and regional labour markets.

Levels and use of learning outcomes

The Thai NQF currently has nine levels. Each level is described by a level descriptor based on learning outcomes. The level descriptors were arrived at by linking education qualification levels (secondary, vocational and higher) with the competence levels required by various industry clusters, thus ensuring the closest possible fit between education content and industry demands. At the time of writing this report, the framework was being re-organised and the number of levels reduced to eight.

Table 93 Thailand's national qualifications framework

Qualification levels	Connecting/filling-up mechanisms	Work experiences	Learning outcomes according to education qualification levels (EQLs)
9	**Testing, measuring and evaluating transferred experiences from work.** **Accumulating learning units for raising EQL (Credit Bank).**	**Acquisition of additional knowledge from formal, non-formal and informal education.** **Promoting practical training and actual work performance for improving craftsmanship and level of occupational skills.**	Doctoral degree
8			Advanced graduate certificate
7			Master's degree
6			Graduate certificate
5			Bachelor degree
4			Higher vocational certificate
3			Vocational certificate
2			Upper secondary
1			Lower secondary

Source: Office of Education Council, 2013.

Stakeholder involvement and institutional arrangements

The OEC has been responsible for various NQF related activities, including:

(a) working closely with the Thailand Professional Qualifications Institute (TPQI) to communicate information about the skills required by industry to education institutions;
(b) appointing a working team comprising representatives from various education and training sectors and relevant agencies to develop the NQF based on the already existing design of the TQF and TVQF. Bodies represented include the National Education Quality Assessment and Assurance Office and the National Testing Office;
(c) undertaking research studies. One study, undertaken in collaboration with King Mongkut University of Technology during 2010-11 (Office of Education Council and King Mongkut University of Technology, 2012), aimed to develop links between the skills standards required by key industry clusters and the learning outcomes of education qualifications at secondary, vocational and higher levels. Employers, employees, educators and teachers were involved in the consultation process, providing in-depth analysis and synthesis. Key stakeholders from six industrial clusters ([529]) first identified core competences at each qualification level. A further nine industry clusters were then identified to review the reliability of the comparisons made between occupational standards and education qualifications;
(d) appointing the NQF and ASEAN qualifications framework development working group to develop criteria for referencing the Thai NQF to the ASEAN regional qualifications framework and propose NQF development guidelines accordingly;
(e) organising four public hearings on NQF Development, attended by representatives of the Federation of Thai Industries, the Thai Chamber of Commerce and Board of Trade of Thailand, and Commissions of Higher and Vocational Education.

Overall responsibility for setting up the NQF is in the hands of the ministries of education, labour and industries, together with the Federation of Thai Industries and the Thai Chamber of Commerce and Board of Trade of Thailand. A national committee composed of qualified experts from education institutions, workplaces and professional associations will be in charge of implementing the NQF in accordance with the principles and guidelines approved by the Cabinet. The Office for National

([529]) Food processing, petrochemicals, fisheries, tourism and hospitality, logistics, and jewellery-making.

Educational Standards and Quality Assessment, the Ministry of Education, and the National Institute of Education Testing Service are also involved.

Recognising and validating non-formal and informal learning and learning pathways

One of the key aims of the Thai NQF is to give Thai citizens greater understanding of, and control over, their own education by enabling them to match formal education provision with the learning outcomes and competences described in the NQF. Special attention will be paid to developing assessment mechanisms which will allow workers to put their existing learning towards a full qualification in combination with other measures such as additional education and training or workplace-based learning.

NQF implementation

Four implementation strategies are planned:

(a) strategy one involves the development of systematic cooperation between the workplace, professional associations, professional and/or occupational groups and education institutions to produce manpower equipped with the requisite skills, knowledge and attitudes according to NQF guidelines;
(b) strategy two concerns curriculum development in line with NQF level descriptors. Advocacy campaigns will be held to encourage workplaces, professional associations and education institutions to work together to design curricula integrating formal, non-formal and informal education systems, and to determine learning outcomes and performance standards at each qualification level. A system will also be established for monitoring, evaluating and accrediting education institutions in accordance with NQF levels;
(c) strategy three involves developing systems for the assessment and evaluation of learning achievement, incorporating mechanisms for the recognition of prior learning and for credit accumulation and transfer;
(d) strategy four involves strengthening education institutions in their efforts to link education to the skills demanded by the labour market.

Referencing to regional frameworks

The OEC plans to link the NQF with those of other ASEAN countries as well as the regional ASEAN framework. This is a priority, particularly in the TVET sector (SHARE, 2015). The NQF is currently being revised, with the number of levels being reduced to eight, to support these links.

Important lessons and future plans

The government has identified a number of conditions for the successful implementation of the Thai NQF. These are:

(a) the presence of a central agency to coordinate the work plans of the ministry's key organisations and conduct public relations campaigns;
(b) clear presentation of information about the NQF to representatives from stakeholder agencies;
(c) close cooperation with key education providers, both study and workplace-based, allowing them to share in the leadership of the NQF;
(d) support for the NQF's activities from all stakeholders;
(e) serious and concerted efforts to link the Thai NQF with the NQFs of other countries;
(f) targeting first and foremost the occupations and industry clusters which are of greatest strategic importance for national development;
(g) promoting decentralised collaborative partnerships between education institutions and representatives of specific industries and/or professions;
(h) establishing a system of coherent and continuous monitoring, evaluation, research and development at national, regional and international levels;
(i) systematically enforcing ministerial regulations for the implementation of the NQF;
(j) making education and training provision more outcomes-based by developing active learning methodologies such as combining work with education, project- and problem-based learning (OEC, 2011). These methodologies can be adapted to suit various settings, including on-the-job training programmes and internship or placement programmes.

Abbreviations

AEC	ASEAN Economic Community
ASEAN	Association of Southeast Asian Nations
NQF	national qualifications framework
OEC	Office of Education Council
TDRI	Thailand Development Research Institute
TPQI	Thailand Professional Qualifications Institute
TQF	Thai qualifications framework for higher education
TVET	technical and vocational education and training
TVQF	Thai qualifications framework for vocational education

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Prepared by:
UNESCO in collaboration with national experts.

TRINIDAD AND TOBAGO

Introduction and context

Trinidad and Tobago has a seven-level qualifications framework for its tertiary and vocational education sectors, the country's first step towards formalising its hitherto disparate education system. The aim is to create a unified structure in which learners can use credit transfers to move seamlessly from one programme or institution to another. The qualifications framework in the vocational sector is the Trinidad and Tobago national vocational qualifications (TTNVQ) system; the tertiary framework is currently being revised. National education and training at all levels is in need of expansion, upgrading and integration if the country is to equip its citizens with the entrepreneurial, ethical and critical-thinking skills demanded by today's labour market.

The Government of Trinidad and Tobago recognises that several challenges must be overcome to expand its education system: reforming the education and training landscape while maintaining a focus on curricula about the country's history and geography; increasing cultural diversification; improving STEM subject education; and ensuring that post-secondary and tertiary education remains relevant (Ministry of Education, 2015 Ministerial Priorities).

The Ministry of Education (MoE) aims to develop policies to address its ageing school infrastructure, as well as deficiencies in the education system and in research capacities. It understands that human capital development is a major contributor to economic growth and sustainable wealth creation. Its strategies are enshrined in the Ministerial Priorities published on 9 October 2015, which are available to view on the government's website (MoE, 2015).

The government hopes to strengthen connections between TVET and academic higher education to support transfer of learning and skills between the two. This will ultimately create a more competent workforce, supporting industrial development.

Policy objectives

The government is committed to:

(a) preserving, maintaining and expanding where necessary the system of free education and training at all levels;
(b) ensuring the 2004 Government assistance for tuition expenses (GATE) programme remains relevant, easily accessible and available to all citizens who need it;
(c) supporting its two public universities, the University of the West Indies and the University of Trinidad and Tobago (UTT), to achieve maximum efficiency and high standards;
(d) developing a culture of discipline, productivity and tolerance in all schools and emphasising these core values in the curriculum;
(e) implementing a comprehensive, efficient and sustainable school maintenance programme to cope with an ageing school infrastructure;
(f) replacing dilapidated schools with new modern facilities and building new schools in areas where they are most needed;
(g) emphasising the richness of cultural diversity and eliminating any dissonance that may arise from ethnic, cultural, religious or class differences;
(h) supporting teaching of the country's history and geography in schools;
(i) mobilising the artistic community to take a leading role in cultural diversification and cultural education;
(j) ensuring primary, secondary and tertiary curricula comprise STEM education;
(k) fostering, developing and encouraging best practices in the administration of the education system;
(l) providing clear prospects for advancement for all teachers in their careers and professions, and ensuring their education comprises modern-day training on world cultures, technology and social media;
(m) ensuring students have free and easy access to broadband internet in all schools;
(n) developing and encouraging a culture of research and development in all tertiary-level institutions, both public and private;

(o) maintaining high standards in enrolment and participation in post-secondary and tertiary education;
(p) providing opportunities for school leavers to return to education;
(q) ensuring universal early childhood education;
(r) promoting and encouraging continuing education and adult education;
(s) developing sports- and humanities-based curricula;
(t) harmonising, rationalising and modernising the legislation governing the education sector.

Levels and use of learning outcomes

The qualifications framework for the tertiary sector is divided into seven levels, from the certificate at level 1 to the doctorate at level 7. The levels are differentiated according to:

(a) complexity of subject matter;
(b) breadth of competences required;
(c) degree of specialisation;
(d) transferability of competences;
(e) ability to innovate and to cope with non-routine activities;
(f) ability to plan and organise work and supervise others.

As a result, similar jobs are supported by similar qualifications.

Vocational qualification programmes are designed to impart the practical skills required in specific job roles or sectors. Courses tend to be classroom-based with assessment by written and practical examinations. There is tension between performance-based assessment and assessment by written and practical examinations.

TTNVQs are based on national occupational standards. Industry experts come together to define the standards for top performance in their industries. These standards are then translated to the curriculum and assessment procedures developed to encompass them. All TTNVQs are represented on the five-level TTNVQ framework, which ranges from level 1 (semi-skilled) to level 5 (chartered and advanced professional level).

Stakeholder involvement and institutional arrangements

The Accreditation Council of Trinidad and Tobago (ACTT) is the regulatory body for quality assurance in post-secondary and tertiary education. It provides the following services: accreditation, registration, recognition, conferment of institutional titles, programme approval, equivalence assessment and quality enhancement.

Learning standards are also set by ACTT, which encourages institutions to shift to curricula based on learning outcomes expressed in terms of competences gained. Quality-assurance measures have been introduced to standardise learning outcomes and allow for accountability. Various institutions such as the National Institute of Higher Education Research Science and Technology (NIHERST) have identified a profile of their ideal graduate based on the government's Vision 2020 statement (Government of the Republic of Trinidad and Tobago, 2008/2009).

The National Training Agency of Trinidad and Tobago (NTATT) is the body responsible for overseeing TVET; its mission is to establish a national system to coordinate, harmonise and evaluate all TVET provision in the country. The NTATT laid the foundations for the five-level TTNVQ framework. Cabinet Minute 736 of 27 March 2008 mandated the NTATT to develop a world-class labour force that is competent, innovative and entrepreneurial. In order to enable institutions to deliver the quality of

Table 94 Trinidad and Tobago national vocational qualifications framework (TTNVQ)

Level	TTNVQ framework
5	Chartered and advanced professional
4	Professional
3	Technician
2	Craft
1	Pre-craft (semi-skilled)

Source: ACTT, 2007.

Table 95 Qualifications framework for the tertiary and vocational sectors in Trinidad and Tobago

Level	Type of certificate	Skills achieved
1	Certificate	Candidate demonstrates knowledge of the tasks required to accomplish a routine job and the practical skills to perform those tasks effectively. Can apply learned responses to straightforward problems.
2	Certificate	Candidate demonstrates knowledge of the main problems in his/her field of study and the practical skills necessary for employment in that field. Can solve some practical problems in the area by applying learned principles.
3	Diploma	Candidate demonstrates knowledge of the underlying principles in his/her field of study and the practical skills necessary to interpret and evaluate these principles in a related field of employment. Candidate is able to present, interpret and evaluate qualitative and quantitative data, to develop lines of argument, and to make sound judgements in accordance with the basic principles of the field.
4	Associate degree or higher diploma	Candidate demonstrates knowledge and critical understanding of the established principles in his/her field of study, and of the way in which those principles have developed. Applies principles outside the context in which they were studied and in an employment context. Demonstrates knowledge of the main methods of enquiry in the field and is able to critically evaluate different approaches to solving problems in related fields of employment. Understands the limits of his/her knowledge and how these impact on analyses and interpretations based on that knowledge.
5	Baccalaureate, bachelor degree, honours degree, graduate diploma	Candidate demonstrates a systematic understanding of the key principles of his/her field of study. Shows coherent and detailed knowledge, at least some of which is at or informed by the cutting edge of research in the field. Can devise and defend arguments and/or solve problems by accurately deploying ideas and techniques, some of which are at the forefront of the field. Understands how these techniques can be used in employment. Can describe and comment on aspects of current research or equivalent advanced scholarship in the field. Shows an appreciation of the uncertainty, ambiguity and limits of knowledge. Candidate can manage his/her own learning and make use of scholarly reviews and primary sources.
6	Master degree, postgraduate diploma, professional qualification	Candidate demonstrates a systematic understanding and critical awareness of current problems and/or new insights, much of which is at, or informed by, the cutting edge of his/her field of study or professional practice. Shows a comprehensive knowledge of techniques applicable to his/her own research or professional practice, and applies this knowledge in original ways. Demonstrates a practical understanding of how established research techniques are used to create and interpret knowledge in the field. Can critically evaluate current research and advanced scholarship in the field. Can evaluate and critique methodologies and, where appropriate, propose new hypotheses.
7	Doctoral degree	Candidate demonstrates a systematic acquisition and understanding of a substantial body of knowledge and advanced research techniques at the cutting edge of an academic discipline or area of professional practice. Through original research or other advanced scholarship, candidate creates and interprets new knowledge of a quality to satisfy peer review, extend the forefront of the discipline and merit publication. Demonstrates an ability to conceptualise, design and implement a project for the generation of new knowledge and to adjust the design in the light of unforeseen problems.

Source: ACTT, 2007.

training required to produce such a labour force, the NTATT has developed standardised curricula which provide all training institutions with regional and international recognition.

The TTNVQs follows a national curriculum with an internationally approved design which incorporates the latest theories on teaching and learning, associated with competency-based education and training (CBET). Assessment is performance-based, and is conducted according to rigorous criteria designed to reveal a candidate's knowledge, skills and attitudes.

The Caribbean Examination Council (CXC) is the official certifying body, which ensures the quality of and awards level 1 and level 2 Caribbean vocational qualification (CVQ) units to students who have met the requirements stipulated in regional occupational standards. The CXC is authorised by heads of State in the region to carry out regional certification at secondary level. The existence of an external awarding body at this level makes assessment more objective and encourages stakeholder acceptance of outcomes-based learning.

Recognising and validating non-formal and informal learning and learning pathways

There is currently no national policy on the recognition of prior learning (RPL) in Trinidad and Tobago, although there has been some development in this area with the establishment of workforce assessment centres, developed to increase access to and participation in post-secondary education and training. In recent years, some tertiary education providers have begun to award credit for prior learning. These providers also evaluate the impact of informal and non-formal learning on the progress of adult learners, whose enrolment in these institutions has substantially increased. So far, however, few institutions have formalised their policies for RPL.

This slow progress is largely attributable to the difficulty education providers face in convincing employers of the value of non-formal and informal learning. The concept of RPL is new to the Caribbean, and a traditionalist approach to education dominates; many resist what they see as a radical departure from cherished ideals. Even within tertiary education institutions there is substantial resistance to the RPL initiative. This makes it difficult for the government to achieve its aim of integrating graduates into a permeable lifelong learning system.

In the institutions that practise RPL to some degree, learner competences are measured via portfolios and interviews. Candidates are accepted for RPL assessment following an initial interview during the admissions process. Various documents may be submitted as evidence of competences, including letters from employers, samples of work, and critical reflective statements. Mentors assist candidates in developing their portfolio and presenting the information to the assessor, who then examines the evidence in order to ascertain whether the candidate has achieved 70% or more of the competences required for completion of a course. If this is judged to be the case, exemption is granted: the candidate is exempted from parts of the study programme or is required to do a shorter training period in preparation for an examination for a full qualification. The introduction of effective quality assurance and accreditation systems ensures that the quality of learning outcomes from RPL meets or exceeds internationally accepted standards.

In TVET, the situation with regard to RPL is more promising. The TVET qualifications framework gives all candidates the opportunity to attain progressively higher qualifications in their selected occupation, with credits transferable between programmes from one level to another. The prior learning assessment and recognition (PLAR) system allows TVET learners to have their skills and knowledge validated, no matter how, when or where they were acquired. In PLAR, assessment of an individual's skills and knowledge against approved occupational standards may lead to the award of a full or partial occupational or professional qualification (TTNVQ or CVQ). Where necessary, further training in specific areas is recommended. Trinidad and Tobago is currently experiencing heightened demand for trained, competent and certified workers; increased use of the PLAR system will help to fulfil this need by providing industries with a pool of certified workers who meet required occupational standards.

NQF implementation

The ACTT, the organisation responsible for the design of the national qualifications framework, has been a key player in the development of a quality tertiary education sector in the country. Since its board appointment in 2004 and launch in November 2005, the ACTT has:

(a) established 57 institutions with 'registered' status, offering programmes that lead to post-secondary and tertiary-level qualifications;
(b) secured 12 institutions with institutional accreditation;

(c) offered 500 recognised transnational programmes;
(d) issued 13 730 statements of recognition to scholarship-awarding authorities;
(e) recognised 18 foreign awarding bodies;
(f) approved more than 200 locally developed higher-education programmes.

Referencing to regional frameworks

In 1972, Commonwealth Caribbean leaders at the seventh Heads of government conference decided to transform the Caribbean Free Trade Association (CARIFTA) into a common market and establish the Caribbean Community (CARICOM), of which the common market would be an integral part.

CVQ levels are consistent with the levels in the regional qualifications framework (ACTT, 2007) and are recognised and portable within CARICOM and the wider world. The CVQ provides a broad preparation base for employment that aims to produce workers able to meet the varied demands of the modern workplace. The award of a CVQ represents the achievement of a set of competences that define the core work of an occupation area. CVQs have parallel standing with academic qualifications at the same level and can provide access to higher education.

Over the past two decades, the post-secondary and tertiary education sectors in Trinidad and Tobago have become a great deal more international. At first, only indigenous programmes were provided at local public institutions but recent arrangements such as franchises have enabled foreign universities and professional bodies to provide courses in the country. This particularly applies to tertiary education. TVET, in contrast, remains almost totally regional.

The level descriptors in the national qualifications frameworks are derived from those in other countries' NQFs and represent internationally recognised standards. Levels 1 to 3 of the ACTT framework for tertiary education equate broadly to the first three levels of the five-level general framework for occupation levels proposed by the Caribbean Association of National Training Agencies (CANTA). The ACTT framework has more levels than CANTA, however, because it covers academic as well as occupation qualifications. CANTA level 4 corresponds to ACTT level 4 or 5; CANTA level 5 is equivalent to ACTT level 5 or 6, while ACCT level 7 is reserved for doctoral qualifications.

ACTT is responsible for the free movement of skills within the Caribbean Single Market and Economy (CSME) through the recognition of foreign and local qualifications.

Important lessons and future plans

The MoE envisages a number of innovative policies to reduce the burden on the economy while ensuring value for money in expenditure on education. These include rationalising expenditure in the post-secondary and tertiary education sectors to improve efficiency and accountability and to avoid duplication. In the long run, the MoE aims to develop an overarching system to guide the management and operation of all levels of education in Trinidad and Tobago, while providing the infrastructure necessary to ensure dynamic progress.

Abbreviations

ACTT	Accreditation Council of Trinidad and Tobago
CANTA	Caribbean Association of National Training Agencies
CARICOM	Caribbean Community
CARIFTA	Caribbean Free Trade Association
CSME	Caribbean Single Market and Economy
CVQ	Caribbean vocational qualification
CXC	Caribbean Examination Council
GATE	Government assistance for tuition expenses
MoE	Ministry of Education
NTATT	National Training Agency of Trinidad and Tobago
PLAR	prior learning assessment and recognition
TTNVQ	Trinidad and Tobago national vocational qualifications
TTNVQs	Trinidad and Tobago national vocational qualifications system
UTT	University of Trinidad and Tobago
UWI	University of the West Indies

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Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with national experts.

TUNISIA

Introduction and context

NQF snapshot

The national qualifications framework (NQF) was adopted by presidential decree, proposed by the Ministers for Education, Vocational Training and Higher education in July 2009. In practice, it has been moribund, owing to poor stakeholder involvement and inconstant ministerial lead. However, a new EU project – IRADA, a regional initiative to support sustainable economic development – signed in December 2015, includes an NQF component and will seek to revive the framework.

Educational, social, economic and political context

Tunisia's population is circa 11.2 million. Young people aged 15 to 24 account for 22.6% of the total. More than half of the Tunisian population is under 29. Unemployment is a major challenge; in 2015, it was recorded at 15.2% (22% among women) and highest among the young at 35% of those aged 15 to 24. Inevitably, this puts pressure on education systems ([530]).

Unemployment by education level shows that educated young people and women are more affected. Agriculture contributes 8.8% of GDP and is in decline; industry constitutes 29.3%, also in decline relatively, while services are increasing in relative value, now at 61.9%. Industry and agriculture employ high percentages of the workforce relative to their weaker GDP contribution, most marked in agriculture. Enrolment rates are high for the region, at over 90% in secondary education. VET students, though, make up only 24% of all secondary pupils. Low achievement is recorded, especially in maths and sciences; more than half of school pupils fall into this category.

([530]) Data from the ETF Torino process report, 2016-17, Tunisia.

Policy objectives

Education and training reforms

The Tunisian NQF has several objectives:
(a) to contribute to better readability of competences;
(b) to bridge the gap between the economy's skills needs and education and training provision;
(c) to provide common references to promote geographic, sectoral and professional mobility;
(d) to take into account all modes of learning in a lifelong learning perspective;
(e) to limit dead ends in learning routes.

International cooperation

The country's NQF is influenced by the European qualifications framework (EQF); in higher education, qualifications are influenced by Bologna principles. Tunisia is negotiating the Advanced and complete free trade agreement (ALECA, Accord de libre échange complet et approfondi) with the EU and referencing the NQF to the EQF would contribute greatly to the mobility of professionals in that context.

Levels and use of learning outcomes

Scope and structure of NQF

The NQF covers general, vocational education and training (VET) and higher education qualifications.

Alignment to other classification systems

The Bologna process influences reforms in higher education, in its cycles, quality assurance bodies and design of the diploma supplement.

NQF levels

The Tunisian NQF is designed as a classification of qualifications (hence the name CNQ, *classification nationale des qualifications*), based on previous classifications of occupations, public services labour regulation and sectoral collective agreements.

The CNQ has an overarching character covering general education, VET and higher education; it is a seven-level grid.

Level descriptors
The NQF has six descriptors: four cover the levels of occupations targeted: complexity, autonomy, responsibility and adaptability; and two describe the resources needed to ensure qualifications are at that level: knowledge, know-how and behaviour.

Use of learning outcomes

New qualifications are outcomes-based. Article 1 of the NQF decree specifies that 'the qualifications corresponding to each of the seven levels of the NQF are defined by the six descriptors based on learning outcomes.'

Definition of qualification

There is no explicit definition in law; the descriptors provide information on meaning of qualifications.

Access, progression and credit

The Tunisian education and training system is hampered by a lack of pathways between vocational training, general education and higher education. A law in 2008 set out plans to link these qualifications but has not been applied since. A commission involving the three departments concerned was created in 2015, in charge of coordinating strategies and reforms between the three subsectors of education, along with pathways and progression. The national strategy for vocational training in Tunisia for 2016-20 plans to transform this commission (project 1) into a permanent national authority.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The NQF legal act (decree) was adopted in 2009.

Governance and institutional arrangements for the NQF

The National Commission for Management of the CNQ, under the National Council for Human Resources Development, was established to take charge of the implementation and monitoring of the NQF. It met only once, in 2012.

Roles and functions of actors and stakeholders

In recent years, sectoral federations have taken the lead in developing a register of occupations and competences (*Répertoire des emplois et des compétences*). This should act as terms of reference for training providers to develop qualifications and curricula; for example, the agriculture sector has contributed to developing occupational standards for its industry.

During the design phase, stakeholders were involved at two levels in a process steered by the former Ministry of Education and Vocational Training; now, there are the respective Ministries of Vocational Training and Employment and of Education. It created two working groups:

(a) a technical team, comprising managers from the DG in charge of standards and assessment (*Direction Générale de la Normalisation et de l'Évaluation*) and from the Training engineering and trainers' training centre (*Centre National de Formation des Formateurs et de l'Ingénierie de Formation*, CENAFFIF), coordinating various technical works, with the support of an expert from the ETF;
(b) a national steering group, comprising representatives of the Ministry of Education and Training, the Prime Minister's Office as well as all ministries that are training providers (such as agriculture and tourism), the social partners (employers and employees), the Building Federation and the Tourism Federation, which contributed in the pilot phase to checking the feasibility of the proposals.

Social partners have been reluctant to take an active role in the implementation. The new focus on the NQF mentioned in the strategic document may relaunch their involvement, since they are mentioned as partners in the strategic document.

Resources and funding

So far, funding of CNQ implementation is planned against ministry budgets. The technical assistance planned should, however, examine financial sustainability of the NQF in the long run.

Quality assurance of qualifications

Influenced by the Bologna principles, Tunisia's higher education system is developing quality assurance measures similar to those required in the European higher education area.

The 2008 vocational training law also provides for setting up of quality assurance commission and

assessing the vocational training system at all levels; this has not yet been implemented. The first project of the vocational training strategy for 2016-20 foresees the creation of a transversal HRD authority, which may take over the quality assurance function for the whole system. Missions and functions of each body are yet to be determined.

Recognising and validating non-formal and informal learning and learning pathways

The EU-funded PEFESE programme (*Programme d'appui à l'éducation, à la formation professionelle, à l'enseignement supérieur et à l'employabilité des diplômés* – programme to support education, VET, higher education and employability of graduates) concluded in 2015; it aimed to reinforce links between education and industry and employment. One specific aim was piloting a system of validation of informal and non-formal learning using a standards-based qualifications system in three sectors (agriculture, tourism and construction).

Previously, pilot initiatives, such as the project supported by the French AFPA (*Association pour la formation professionelle des adultes* – association for vocational education and training of adults), were carried out in the ready-made garment and automotive sectors. These pilots will be applied to support further reform of the national VET system, particularly development of a system for validation of informal and non-formal learning (VNFIL).

NQF implementation

Inclusion of qualifications in a register

There is no national register or database yet.

Monitoring, evaluation and review of the NQF

Mechanisms to monitor the effectiveness of the NQF's implementation have not yet been defined. The commission of the NQF is supposed to ensure this function.

Impact for end-users

None yet.

Referencing to regional frameworks

In higher education, a system similar to that of Bologna is being implemented.

Important lessons and future plans

Although legally established, implementation of the NQF has stalled completely. However, there has been reform of the technical vocational education and training (TVET) system (2014-18 and its implementation strategy 2016-20).

The CNQ has never really got off the ground because of the political context in Tunisia post 2011 and because the social partners and wider stakeholders were not engaged sufficiently by ministries.

An NQF would support the country's reform and international ambitions. Tunisia and 10 EU countries have signed a mobility partnership, which includes skills and qualifications components. Mobility partnership agreements are a framework to regulate legal migration of skilled labour between EU and non-EU countries. Tunisia's agreement explicitly mentions relevant qualifications projects. An operational NQF would contribute to better understanding and trust by other countries in Tunisian qualifications. The operational NQF will also contribute to the implementation of the ALECA (Advanced and complete free trade agreement) under negotiations between the EU and Tunisia.

However, a new EU project, IRADA – *Initiative régionale d'appui au développement économique durable* (regional initiative to support sustainable economic development) – signed in December 2015, includes an NQF component. Recognising the insufficient participation/adhesion of social partners and other stakeholders in the early design of the NQF, it seeks to revive the framework. It aims to:

(a) engage social partners and other actors;
(b) support curricula and training agencies in developing qualifications described in learning outcomes;
(c) define a levelling procedure to place qualifications in the NQF;
(d) establish necessary quality assurance systems and procedures;
(e) develop information tools, such as databases and manuals on functions of the NQF and to guide users.

Abbreviations

AFPA	*Association pour la formation professionnelle des adultes* (French adult education and training organisation)
ALECA	*Accord de libre-échange complet et approfondi* (Advanced and complete free trade agreement)
CENAFFIF	*Centre National de Formation des Formateurs et de l'Ingénierie de Formation* (National training engineering and trainers' training centre)
CNQ	*classification nationale des qualifications* (national classification of qualifications)
IRADA	*Initiative régionale d'appui au développement économique durable* (regional initiative to support sustainable economic development, an EU project)
NQF	national qualifications framework
PEFESE	*Programme de soutien à l'éducation, la formation professionnelle, l'enseignement supérieur et l'employabilité des diplômés* (EU programme to support education, VET, higher education and employability of graduates)

Prepared by:
the European Training Foundation (ETF).

TURKEY

Introduction and context

NQF snapshot

The Regulation on the procedures and principles concerning the implementation of the Turkish qualifications framework (TQF Regulation) and the Description of the Turkish qualification framework (TQF Document) were adopted by a ministerial decision of the Ministry of Labour and Social Security in 2015 and published in the *Official journal* in November 2015 and January 2016 respectively.

The Turkish qualifications framework (TQF) has eight levels and includes all types and levels of qualifications and certification.

The three-member TQF Coordination Council is the decision-making body of the TQF. Its members are high-level representatives of the three main responsible bodies of the TQF: the Ministry of National Education (MoNE), the Council of Higher Education (CoHE) and the Vocational Qualifications Authority (VQA).

Turkey is EU candidate country and participates in the EQF advisory group. It referenced to the EQF at the March 2017 EQF advisory group meeting.

Educational, social, economic and political context

Turkey is an upper middle-income country, the 17th largest economy in the world with a gross domestic product (GDP) of USD 799.54 billion. It is a member of the OECD and the G20, and an increasingly important donor to bilateral official development assistance (ODA).

The EU accession process has been a significant anchor for reforms in Turkey. The EU is the country's largest economic partner, accounting for around 40% of Turkish trade; 70-80% of foreign direct investment into the country comes from the EU. Turkey has benefited significantly from deepening integration with the EU through the growing sophistication of both exports and imports and access to financing. The economy expanded 4.8% in January-March 2016, higher than foreseen, though slowing from a five-year high of 5.7% growth in the previous period. The economic slowdown is being affected by three developments which need to be taken into account in any overall picture of the Turkish economy: outside competition affecting sectors previously considered to be safe for Turkish production (such as textiles); the reduction in visits by foreign tourists due to the security situation (however temporary it may be); and problems related to the arrival of refugees.

Turkey continues to achieve positive developments against the EU 2020 targets. Progress has been made especially on the EU 2020 twofold target on education (reducing the early leavers and increasing tertiary attainment), adult participation in lifelong learning (albeit from relatively low levels) ([531]) and school-to-work transition (young people aged 15 to 24 who are neither in employment nor in education and training (NEETs)). The government has taken many measures to increase participation in education. In 2012, it extended compulsory education to 12 years, divided in three blocks of four years each, after which choices can be made for different pathways. VET graduates from upper secondary education (ISCED 3 and 4 combined) are highly employable, 59.3% (2015) compared to 47.4% of graduates from general upper secondary programmes. However, gender-related difference in the employability of VET graduates in Turkey remains a challenge: males have better employment prospects (71.4%, close to the 2015 EU average of 75%) than women (47.5%, EU average 70.6%). Government and its institutions (including the Ministry of National Education and the Turkish Employment Agency (İŞKUR) ([532]) and other private

([531]) IPA II (2014-2020) will provide support to lifelong learning and vocational education and training (VET) strategies.

([532]) The Turkish Employment Agency (İŞKUR) plays a leading role in upgrading the skills of jobseekers and facilitating their access to productive employment by providing vocational training and other employment support services. İŞKUR has come a long way since 2008, significantly expanding the coverage of vocational training and undertaking reforms to improve its quality and effectiveness.

sector suppliers have increased the number of training initiatives, and helped employers and workers recognise the importance of continuous skills development. Efforts have increased with the signature of the Riga declaration and the Alliance for apprenticeship (June 2015) and apprenticeship memorandums with global apprenticeship network (GAN) Turkey members.

However, results from the Programme for the international assessment of adult competencies (PIAAC) 2016 Turkey country profile ([533]) are mixed. Although the young in Turkey are becoming more educated and skilled, half of the working age population still has less than basic education, while the demand for skills in formal non-agricultural sectors continues to increase. Turkey can be inspired by the Skills agenda to modernise its education and training systems, to help low-skilled adults acquire basic literacy, numeracy and digital skills and advance towards an upper secondary qualification. The Skills guarantee on traineeship or apprenticeship for improving the skillset of the young and reaching out to the regions and young people most in need can also help.

National and international studies and surveys confirm that acquiring the right skills remains a challenge in Turkey; this is also stated strongly by employer organisations. Nearly 46% of adults attain only level 1 or below in literacy (well above the OECD average of 19%) and half attain level 1 or below in numeracy (OECD average is 28%). Some 38% of adults in Turkey (compared with about 15% of adults in all PIAAC participating countries/economies) indicated that they had no prior experience with computers or lacked basic computer skills, while about 35% score at or below level 1 in problem-solving in technology-rich environments. Workers in Turkey use information-processing skills at work and in their daily lives much less than do workers in other countries. Adults are considerably less likely to read, write, work with mathematics, solve problems and use computers in their jobs and in everyday life than is the case across other participating OECD countries. However, the match between worker literacy skills and the literacy demands of their jobs is similar to other participating OECD countries. Some 13% of workers in Turkey are more proficient in literacy than their job requires (overskilled) while 2.5% are less proficient than their job requires (underskilled). By comparison, across OECD countries, an average of 11% of adults are overskilled in literacy and 4% are underskilled. Educational attainment and literacy proficiency are not associated with labour market status. The employment rate remains well below the OECD average, despite a rise from its pre-crisis level, while unemployment remains well above the OECD average. However, the returns on education in Turkey are high: an increase of one standard deviation in years of schooling (around 3.4 years) is associated with a 20% increase in wages.

Turkey's rising prosperity has been shared. Between 2002 and 2015, consumption of the bottom 40% increased at around the same rate as the national average. Over the same period, extreme poverty fell from 13% to 4.5% and moderate poverty from 44% to 21%, while access to health, education and training and municipal services vastly improved for the less well off. In less than a decade, per capita income in the country has nearly tripled and now exceeds USD 10 500 ([534]).

However to realise its underlying growth potential, Turkey needs to accelerate structural reforms in education and training and employment, and improve trust in its institutions. The Economic reform programme, covering the period 2015-17, and other related HRD strategic documents at national, EC and international level, all recognise the need for structural and governance reform in the HRD sector. The country is particularly advised to upgrade and make better use of its human capital through the pursuit of the education agenda and the deepening and widening of labour market reforms. The qualifications of low-skilled workers should be improved through training and female labour force participation should be stimulated through flexible working conditions. In order to address these challenges, Turkey is invited to implement strategies to align education and training policies with labour market needs.

Policy objectives

Education and training reforms

Turkey has adopted the Lifelong learning strategy and a Vocational education and training (VET) strategy (2014-18).

The VET strategy focuses on broadening access to vocational training, with improved system capacity and better employment outcomes for graduates. The latter is also the goal for the Higher education strategy of Turkey (2007-25).

([533]) OECD, Skills Matter: Further Results from the Survey of Adult Skills (Country Note). http://www.oecd.org/skills/piaac/Skills-Matter-Turkey.pdf

([534]) World Bank, April 2016: http://www.worldbank.org/en/country/turkey/overview

The Employment strategy of Turkey (2014-23) and its action plan ([535]) focuses on the national framework for qualifications with the aim of covering university and non-formal education qualifications and entrepreneurship. There is a whole chapter on the role of the Turkish qualifications framework (TQF) in strengthening the link between education and employment, focusing on VET system quality. Its objectives include delivering qualifications as part of the TQF, designing curricula in compliance with occupational standards, developing information, guidance and counselling, and accrediting VET institutions.

Turkey's new lifelong learning strategy pays particular attention to improving access to lifelong learning beyond the formal education system and promotes validation of non-formal and informal learning (VNFIL) ([536]).

Use of the learning outcomes approach is an essential part of the implementation of the NQF for higher education. However, current arrangements inhibit the validation of non-formal and informal learning in higher education.

International cooperation

As an EU candidate country Turkey receives financial assistance from the EU via IPA (Instrument for pre-accession). IPA II (2014-20) will provide support to implementation of the Turkish qualifications framework, lifelong learning and VET strategies.

Turkey has adopted the Riga 2015 conclusions on a new set of medium-term deliverables (MDT) in VET for 2015-20 (Riga is a follow-up of the Bruges process). MTD 3 is related to the NQF: 'Enhance access to VET and qualifications for all through more flexible and permeable systems, notably by offering efficient and integrated guidance services and making available validation of non-formal and informal learning'.

Levels and use of learning outcomes

Scope and structure of NQF

The TQF is designed as an inclusive, comprehensive framework for classification of all quality-assured qualifications. The TQF primarily includes:

(a) qualifications awarded under the mandate of the Ministry of National Education (MoNE);
(b) qualifications awarded under the mandate of the Vocational Qualifications Authority (VQA);
(c) higher education qualifications awarded under the coordination and supervision of the Council of Higher Education (CoHE).

In time, the TQF will include other qualifications awarded under the mandate of certain responsible institutions.

Alignment to other classification systems

The TQF is the national instrument for classification of qualifications in Turkey. The higher education qualifications framework, which is a sub-framework within the TQF, is already functioning ([537]).

A qualifications database will record and update information about all qualifications included in the TQF. According to the TQF Regulation, procedures and principles for the establishment, management and updating of the qualifications database and for the use of information in the database shall be developed by the Council. The database is already established and will be populated with the qualifications defined in learning outcomes until the end of 2018.

NQF levels

The TQF has eight levels. In addition to levels, the TQF uses qualification types and qualification categories.

(a) Qualification types distinguish among qualifications that are at the same level but differ significantly in terms of their functions, learning outcomes, volume and/or orientations. Examples of qualification types are associate degree and level 5 vocational qualification certificate, at level 5; vocational upper secondary education diploma and skilled worker certificate, at level 4.
(b) Qualification categories classify qualifications according to their purposes:
    (i) principal qualifications reflect comprehensive sets of learning outcomes achieved as a result of assessment after completion of a learning process, training programme or vocational training; as example, the vocational and technical high school diploma, marking the end of vocational and technical secondary education;

([535]) http://g20.org.tr/wp-content/uploads/2014/12/g20_employment_plan_turkey.pdf
([536]) Lifelong learning action plan 2014-18: http://hbogm.meb.gov.tr/str/files/LLL_ACTION_PLAN.pdf
([537]) See the website of the higher education qualifications framework: http://tyyc.yok.gov.tr/

Table 96 The Turkish qualifications framework level descriptors			
Level	**Knowledge**	**Skill**	**Competence**
1	Have a general knowledge of self and environment	Have basic skills required to carry out simple tasks	Carry out simple tasks under guidance and supervision
2	Have elementary factual knowledge in a field of work or study	Have basic skills required to use necessary information in order to carry out tasks and to solve potential simple problems	Carry out simple tasks under supervision with limited autonomy Have awareness of own learning needs within the scope of a lifelong learning approach
3	Have elementary theoretical knowledge and moderate factual knowledge in a field of work or study	Have skills required to select and apply data, methods, tools and materials in order to carry out tasks and solve problems	Take responsibility in carrying out tasks Complete tasks in consideration of changing situations Identify and meet own learning needs under guidance within the scope of a lifelong learning approach
4	Have moderate theoretical and operational knowledge and good factual knowledge in a field of work or study	Have cognitive and practical skills required to perform procedures and generate solutions to problems specific for a field of work or study	Take full responsibility in completing tasks within predictable, but changeable contexts Supervise the ordinary tasks of others, and take limited responsibility in evaluating and improving such tasks Meet own learning needs, and define proactive learning goals under guidance within the scope of a lifelong learning approach Have awareness of the relationship of knowledge, skills, behaviours and attitudes in a field of work or study with moral issues and responsibilities
5	Have comprehensive, theoretical and factual knowledge in a field of work or study, including awareness of the boundaries of that field	Have comprehensive, cognitive and practical skills required to develop creative solutions to abstract problems, whose limits are defined, and concrete problems	Carry out management and supervision tasks in contexts with unpredictable changes Evaluate and improve own and others' performance level Be interactive in operations in contexts of work or study, including the management of projects Have general awareness of the scope of a lifelong learning approach for a field of work or study as well as the relationship of this scope with formal, non-formal and informal ways of learning Have awareness of the relationship of knowledge, skills, behaviours and attitudes in a field of work or study with moral issues and responsibilities

Level	Knowledge	Skill	Competence
6	Have advanced theoretical, methodological and factual knowledge in a field of work or study, including inquiring thinking	Have advanced skills, including the quality of mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Make decisions by taking responsibility in unpredictable work or study contexts, and manage complex technical or professional activities or projects Take responsibility in managing the professional development of individuals and groups Have experience in the concepts, policies, tools and practices of a lifelong learning approach for a field of work or study as well as their relationship with formal, non-formal and informal ways of learning Have awareness of social and moral issues in assessing work or study
7	Have advanced specialised knowledge, some of which is at the forefront of a field of work or study, as the basis for original ideas and/or research Have an inquiring approach for knowledge issues in his/her field and at the interface between different fields related to his/her field	Have advanced problem-solving skills required in research and/or innovation activities that are carried out to develop new knowledge and methods in a field of work or study and to integrate knowledge from different fields Have skills required to understand, design, apply and adapt advanced research operations as a team member or partially autonomously	Manage and transform unpredictable and complex work or study contexts that require new strategic approaches Have experience in managing changes within a complex context Take responsibility in contributing to professional knowledge and practice and/or evaluating the strategic performance level of teams Show leadership in the concept, policy, tools and practices of a lifelong learning approach for knowledge in a field of work or study and the interface between different fields as well as the relationship of them with formal, non-formal and informal ways of learning Integrate knowledge and make judgements in a field of work or study in consideration of social and moral issues and responsibilities
8	Have the most advanced systematic knowledge and inquiry analysis capacity in the theory, practice, method and techniques of a field of work or study Have the most advanced interface knowledge in different fields of work or study related to a particular field of work or study	Have the most advanced and specialised skills, including synthesis and evaluation, that require the use of knowledge, methods and techniques, required to solve critical problems in the most advanced research and/or innovation within a field of work or study and to extend and redefine existing knowledge or professional practice Have skills required to understand, design, apply and adapt advanced research processes autonomously Have problem-solving skills, including the use of methods and approaches from different fields, required to solve new and complex problems in his/her field	Demonstrate competence in the development of new ideas and processes at the forefront of work or study contexts, including strong competence, innovation, autonomy, scientific and professional consistency and research Show leadership in developing new and original approaches to redefine or extend existing knowledge or professional practice in a field of work or study Develop original policies and practices for the promotion of a lifelong learning approach for knowledge in a field of work or study as well as the interface between different fields in unpredictable and complex contexts that require innovation, and for the promotion of this approach through formal, non-formal and informal ways of learning Create new knowledge in a field of work or study in consideration of social and moral issues and responsibilities

Source: Vocational Qualifications Authority.

(ii) supplemental qualifications are awarded for learning achievements additional to a previous principal qualification. They relate to updating and refreshing of knowledge or skills, or to continuing professional development and they can only be achieved on condition that a principal qualification is previously achieved as example level 6 vocational qualification certificate in Job and occupational counselling, achieved in addition to any bachelor degree;
(iii) unit qualifications provide recognition for the achievement of a coherent set of learning outcomes that forms part of the combination of the overall requirement for a principal qualification. Unit qualifications are usually associated with modular learning programmes;
(iv) special purpose qualifications are awarded for sets of learning outcomes that form a distinct, coherent achievement that may be used alone (such as license to work, license to start up business). These qualifications involve fewer learning outcomes compared to a principal qualification but they can be used as a license to operate. For example, level 3 vocational qualification certificate for Roller operation in the construction sector or level 5 vocational qualification certificate for Computer hardware in the IT sector.

Level descriptors

The TQF level descriptors are described in terms of learning outcomes and use the following domains: knowledge, skills, competence.

(a) knowledge is defined as theoretical and/or factual knowledge requiring comprehension of facts, principles, theories and practices related to an area of work or learning;
(b) skill is defined as 'utilisation of knowledge' and 'problem solving', which requires the ability to use logical, intuitive and creative thinking and dexterity, method, material, tools and instruments acquired in an area of work or learning;
(c) competence is defined as use of knowledge and skills in an area of work or learning by taking responsibility and/or displaying autonomy, determination and satisfaction of learning requirements.

Use of learning outcomes

Learning outcomes are the backbone of the TQF. According to the Regulation, the TQF is to ensure that qualifications are prepared based on learning outcomes. However, the shift to learning outcomes takes time.

National qualifications developed by VQA are based on learning outcomes. By mid-2016, VQA had published 327 national qualifications in 13 sectors ([538]).

For all of the VQA qualifications, modules used in the VET training programmes of MoNE are defined by learning outcomes. However, there are no separate qualification specifications of MoNE defined by learning outcomes. This situation created a challenge while populating the qualifications database with qualifications. General education qualifications of MoNE are also not readily identified as defined by learning outcomes: in higher education, some universities have identified the qualifications they offer by learning outcomes but it is not easy to give an exact number. The process of transformation continues and the plan is to have all qualifications of MoNe and HEIs (higher education institutions) defined by learning outcomes until the end of 2017.

Definition of qualification

The Vocational Qualifications Authority (VQA) Law no 5544 defines a qualification as the formal certification of knowledge, skill and competence possessed by an individual and recognised by the competent authority (VQA Law, Article 2-(1) h).

The TQF Regulation defines a qualification as the official document obtained when a competent body, at the end of a process of assessment and validation, recognises that an individual has accomplished the learning outcomes according to certain criteria (TQF Regulation, Article 3- (1) r).

Qualification standards

Turkey does not use the term qualification standard ([539]) but the TQF Regulation and TQF document define the term 'Qualification type specification' to describe the features of a qualification type. A qualification type specification includes:

([538]) http://www.myk.gov.tr/index.php/tr/ulusal-yeterlilikler
([539]) The document which corresponds to qualification standard is national qualification in VQA context. Unfortunately this is causing a misunderstanding since the term 'qualification' alone stands for the formal outcome of an assessment process. Eventually, there is an invisible 'standard' or 'specification' word in the term national qualification. National qualification (specification) gives all the information about the LOs, performance criteria, assessment procedure, assessor competences, etc.

(a) qualification type title;
(b) awarding body;
(c) orientation;
(d) level;
(e) category;
(f) credit range and typical duration programme;
(g) programme profile;
(h) learning environment;
(i) learning outcomes;
(j) key competences;
(k) assessment and evaluation methods;
(l) quality assurance;
(m) entry requirements;
(n) requirements for obtaining the qualification;
(o) progression paths;
(p) legal basis of the qualification.

Turkey is planning to have these qualification type specifications for all types such as bachelor diploma and level 3 vocational qualification certificate. The plan is to use these specifications while developing qualifications in specific types, so that the qualification bachelor in BA should be consistent with the qualification type specification of bachelor diploma.

Development process of qualifications

The Ministry of National Education (MoNE) is responsible for developing qualifications under its mandate. MoNE has launched secondary education curriculum reform for both general and vocational and technical schools. Vocational curricula are modularised and MoNE has a database of more than 4 000 modules that are also used for the licensing and certification of adult learning. There are also plans to establish a national credit system for VET. Although curricula are advanced, most initial vocational qualifications are not yet utilised and fully learning outcomes-based. Modules based on learning outcomes are used for learning, but they are not separately assessed and often lack an assessment component.

The Vocational Qualifications Authority (VQA) is responsible for development of qualifications under the national vocational qualifications system. Qualifications under the mandate of VQA are based on occupational standards and learning outcomes. Assessment, evaluation and certification for these qualifications is carried out by Voc-Test centres, authorised by VQA. These qualifications are classified under the qualification types vocational qualification certificate.

The Council of Higher Education (CoHE) coordinates and supervises the development of higher education qualifications awarded by higher education institutes. For the higher education qualifications framework, which is a sub-framework within the TQF that is already functioning, for different fields of learning, national working groups have been established that define common outcomes as a guideline for qualification and curriculum developers. Links to specific programmes have been established that can be explored through a common register on the website of the higher education NQF ([540]).

Access, progression and credit

According to its Regulation, facilitating access to qualifications and progress between qualifications are main principles of the TQF.

The TQF Council shall prepare the principles and procedures for horizontal and vertical progression between the qualifications in the TQF, credit transfer and accumulation.

The TQF proposes an evaluation and credit system associated with the workload, that will allow credit accumulation and transfer. The proposed metric for the qualifications to be included in the TQF is 60 credits as the value ascribed to a learning period of 1 500 to 1 800 hours. This approach is compliant with both of the transnational credit systems in use in Europe, ECTS and ECVET. The regulating bodies will determine the credit range of the qualification types and the credit values of the qualifications. The principle and procedure for the credit transfer systems will be prepared by the end of 2017.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

The Regulation on the procedures and principles on the implementation of the Turkish qualifications framework (TQF Regulation) entered into force via Decision 2015/8213 of the Council of Ministers and publication in the *Official journal* dated 19.11.2015 and numbered 29537.

According to the Regulation, development of a three-year action plan for the implementation of the TQF is the responsibility of the TQF Council. The action plan has been developed by the TQF secretariat and approved by the TQF Council.

([540]) http://tyyc.yok.gov.tr/

Governance and institutional arrangements for the NQF

The TQF Coordination Council is assisted by the 22-member TQF Council, representing MoNE, CoHE, VQA and social partner organisations. The TQF Council addresses technical issues.

VQA is the responsible body for implementation and execution of the TQF. The TQF Department of VQA carries out secretariat services for the TQF Council and TQF Coordinating Council.

TQF Coordination Council, TQF Council and the TQF Department have been established and are operational. The TQF Regulation defines duties and responsibilities for NQF implementation.

Main duties and responsibilities are described below.

The TQF Coordination Council:

(a) evaluates and approves procedures, principles, decisions, suggestions and opinions submitted by the TQF Council;
(b) collaborates with responsible bodies and institutions, international organisations, and the bodies and institutions of other countries.

Members of the Coordination Council are responsible for ensuring collaboration and coordination in the implementation of Coordination Council decisions within their bodies.

The TQF Council:

(a) prepares a three-year action plan for the implementation of the TQF and a communication strategy to raise national and international awareness of it;
(b) prepares principles, procedures, and criteria for a wide range of issues such as quality assurance of the qualifications to be included in the TQF, qualifications database, progress routes, credit accumulation and transfer, recognition of prior learning, updating, modification and cancellation of qualifications.

TQF Secretariat: secretariat services in relation to the Turkish qualifications framework are carried out by the TQF Department of the VQA.

The Secretariat:

(a) provides assistance to all the technical and administrative works of the Coordination Council and Turkish Qualifications Framework Council;
(b) drafts an action plan, annual work plan and activity report under the management of the Council;
(c) ensures the implementation of the Turkish qualifications framework communication strategy;
(d) establishes the qualifications database and ensures its update;
(e) prepares all kinds of research and analysis reports requested by the Chairman of the Council, or to conduct work and procedures for its preparation;
(f) performs other duties to be assigned by the Chairman of the Council.

Roles and functions of actors and stakeholders

The TQF Regulation foresees establishment of a consultation committee, with broad stakeholder participation, to evaluate issues and submit opinions regarding the framework. The committee will meet at least once a year. The VQA and the TQF Council are identifying which stakeholders should sit on the consultation committee; they plan to convene the Committee for its first meeting in December 2017.

Turkey has a system of sector committees, which is one of the cornerstones of the sustainability of the national vocational qualification system under the authority of the VQA. Sector committees are tripartite structures with State, employer and employee representatives; their establishment, duties and operation are regulated by law. By 2016, VQA had defined 26 sectors; 23 sector committees ([541]) were operational. These committees perform tasks related to development and maintenance of occupational standards and qualifications for their sector.

Resources and funding

The TQF Regulation stipulates that all expenditures arising from drafting, updating and roll out of the framework are covered by VQA. The Ministry of National Education, Council of Higher Education, and VQA designate personnel to work permanently at the TQF Department of VQA (Secretariat).

Quality assurance of qualifications

The TQF has three regulating bodies: MoNE, CoHE and VQA. Each is responsible for QA of the qualifications under its authority.

Quality assurance for the qualifications outside the scope of MoNE, CoHE, higher education institutions and VQA responsibility will be ensured by the

([541]) http://www.myk.gov.tr/index.php/tr/sektor-komiteleri

institutions and organisations specified in related legislation.

TQF Coordination Council shall monitor continuous improvement of all quality assurance processes.

The qualifications under the responsibility of MoNE and CoHE mostly focus on academic and key competences, while the qualifications under the responsibility of VQA focus on employment and skills. This means that the quality assurance systems of the institutions responsible for qualifications follow different procedures.

Recognising and validating non-formal and informal learning and learning pathways

The TQF Regulation and TQF document include provisions for recognition of prior learning, stipulating that all qualifications included in the TQF can be attained via recognition of prior learning.

Learners will have the following possibilities through the recognition of prior learning:

(a) access to programmes;
(b) access to exams;
(c) exemptions;
(d) certification of units;
(e) credit accumulation and transfer;
(f) recognition of qualifications.

The TQF Coordination Council will prepare guidelines for principles and procedures on recognition of prior learning. The responsible bodies shall manage application of these principles and procedures for the qualifications under their authority. The principles and procedures are planned to be prepared by June 2018.

VQA and the lifelong learning department of the Ministry of National Education are actively working to widen the validation of non-formal and informal learning. In addition to the 53 authorised certification bodies (October 2016) that function under the responsibility of VQA, validation of non-formal and informal learning is one of six priorities for the lifelong learning strategy 2014-18.

The country has an operational system to assess, evaluate and certify adult skills against national vocational qualifications. Assessment, evaluation and certification are carried out by certification bodies authorised by VQA (so-called Voc-Test centres). By June 2016 the country had 45 authorised centres and numbers are increasing. VQA certification has become compulsory for 40 hazardous occupations, which puts a strain on the capacity of the system.

The 2014-18 Lifelong learning strategy document from MoNE promotes extensive use of validation of non-formal and informal learning (VNFIL). MoNE has adopted a national RPL framework and operational guidelines for RPL and has supported three pilots, currently expanded with eight new pilots.

VNFIL was established in the higher education system in 2011 but is still in its early stages.

Turkey has a highly developed system of distance learning. Most stages in formal and non-formal education can be reached by distance learning and open education options.

NQF implementation

Inclusion of qualifications in a register

The TQF does not yet include qualifications since realisation of the QA is a priority for qualifications to be included into TQF. However, the qualifications database is newly established. Principles and procedures for quality assurance of qualifications to be included in the TQF, the process of including qualifications in the TQF and the qualifications database are yet to be developed. July 2017 is the estimated time for starting allocation of qualifications to the TQF levels.

Monitoring, evaluation and review of the NQF

Monitoring the effectiveness of TQF implementation will be the task of the TQF Coordination Council. Monitoring mechanisms have not yet been defined.

Impact for end-users

Legal arrangements for the TQF are in place but it is not yet implemented. Principles and procedures for inclusion of qualifications in the TQF have yet to be developed and a qualifications database has to be established.

The Voc-Test centres that assess, evaluate and certify adult skills have impact for end-users. To date these centres have issued some 85 000 certificates to individuals that now have a recognised national vocational qualification.

Referencing to regional frameworks

Turkey is an EU candidate country and participates in the EQF advisory group. The EQF referencing of the TQF was completed in the spring of 2017.

Important lessons and future plans

The institutional arrangements for the TQF have been very much focused on and around VQA. Coordination of the TQF will be shared between stakeholders, in a similar way that the VQA executive board has been functioning. The VQA experience has greatly contributed to the developments so far. MoNE and the CoHE will play a more prominent role in the implementation of the TQF. VQA is supporting the implementation of the TQF, but is also one of the three regulating bodies and will establish a system for quality assurance of provision. The accumulation of these different tasks within a single institution is not easy to manage, particularly if the system is starting to grow more rapidly. The numbers of authorised certification bodies, providers and qualifications is increasing, as VQA certification is becoming compulsory for certain qualifications.

Development of the TQF as an integrated structure is a huge step forward from the previous position where the national vocational qualifications system operated as a parallel structure, focusing on the certification of adults. The responsibilities of VQA, MoNE and CoHE are becoming clearer but quality assurance issues will be decisive in determining the ultimate division. Sectors have been actively involved in developing national occupational standards and qualifications and are volunteering to become authorised certification bodies, but there is a need to support the establishment of these bodies, to allow the system to grow fast enough to meet the expectations. Training which can lead to qualifications is a next challenge. The role of the sectors in initial and post-secondary VET (MYOs) and possibly HE has to be clarified. There is interest from the private sector in using the TQF to make qualifications more relevant. Many training providers provide adult learning courses that are yet outside the qualifications planned to be part of the TQF. The Istanbul municipality, as an example, is offering hundreds of courses, free of charge, for more than one million participants. These courses are based on programmes of MoNE, with a MoNE course completion certificate awarded. The municipality is doing this through a protocol with MoNE. Bringing such courses into the TQF by mapping them against the outcomes of units of VQA or MoNE qualifications is one process currently being considered to quality assure and certificate them within the framework of the TQF.

Abbreviations

CoHE	Council of Higher Education
IPA	Instrument for Pre-Accession, the EU's support programme for candidate and potential candidate countries
İŞKUR	Turkish Employment Agency
MoNE	Ministry of National Education
MYOs	post-secondary colleges, offering VET and general education; offer higher education short-cycle qualifications; administered by CoHE
NEETs	young people aged 15 to 24 who are neither in employment nor in education and training
ODA	official development assistance
QF-EHEA	qualifications framework in the European higher education area
TURKAK	Turkish Accreditation Agency
TQF	Turkish qualifications framework
Voc-Test centres	certification bodies that are authorised by VQA
VQA	Vocational Qualifications Authority

Prepared by:
the European Training Foundation (ETF).

UGANDA

Introduction and context

The Ugandan vocational qualifications framework (UVQF) was officially introduced through the Business, Technical and Vocational Education and Training (BTVET) Act of 2008 as a part of the BTVET's overarching 10-year strategic plan, *Skilling Uganda* (Ministry of Education and Sports, 2011).

The most important subsectors of the Ugandan labour market are the informal economy and the agricultural sector. Some 70% of the Ugandan workforce continues to work in agriculture. Employment in the non-agricultural informal sector (comprising mainly microenterprises, own account workers and unpaid family workers) accounts for 18% of total employment and 58% of non-agricultural employment.

Technical and vocational education and training (TVET) in Uganda is beset with problems. Chief among these is the perceived insignificance of TVET programmes, which mars the productivity and employment chances of an estimated 800,000 school leavers annually (Heitmann, 2012). Less than 40% of large and medium firms regard the course content and methodologies of BTVET institutions as relevant. At the level of advanced technical qualifications, the limited coverage of practical and soft skills (such as communication, computer literacy, customer care, problem solving, work attitudes and ethics) in training programmes makes for low performance in modern work environments (Ministry of Education and Sports, 2011).

Only a narrow range of occupations is covered in BTVET programmes which do not address the skills requirements of modern and emerging sectors such as hospitality, ICT, business management and finance, mining and engineering, oil and gas, and environmental technologies. Employers are rarely represented in the rigidly supply-oriented BTVET system. The lack of a systematic labour market information system further reduces the system's responsiveness to demand.

Policy objectives

The UVQF's objectives are to:

(a) align BTVET programmes and qualifications with the needs of the labour market, to produce graduates with employable skills;
(b) allow employers and industry experts to play a significant role in defining occupation standards and training content;
(c) safeguard against the institutionalisation of supply-driven, academically focused formal training programmes, which in the past failed to equip graduates with skills relevant to labour market needs;
(d) develop formal and (where possible and appropriate) non-formal programmes based on UVQF standards to support progression within the BTVET system (Ministry of Education and Sports, 2011).

Section 3 (5) of the 2008 BTVET Act highlights the following aims:

(a) improve the relevance, accessibility, quality and affordability of BTVET for progression and employment;
(b) increase worker capabilities for employment and self-employment;
(c) monitor gaps between skills supply and demand;
(d) establish financial sustainability and funding mechanisms.

Section 3 (3) of the BTVET Act defines the following aims of the UVQF:

(a) determine the scope and levels of BTVET programmes and the roles of different stakeholders in designing programme content;
(b) separate training and delivery from quality assurance functions;
(c) establish an institutional framework for BTVET coordination;
(d) establish an authority to regulate qualifications (standards, assessment and certification) and training delivery in formal and non-formal institutions.

Table 97 Generic descriptors of competence levels in Uganda's vocational qualifications framework (UVQF)

Level	Level descriptor	Comparable qualifications
5	Candidate can apply a broad range of specialised knowledge and skills to interpret technical information, modify concepts, practices and procedures, and perform complex technical operations in unpredictable contexts. Can undertake activities with a high degree of autonomy when results are checked on by superiors. Shows a high degree of control of resources and managerial performance.	Higher diploma (HD)
4	Candidate can apply a substantial range of specialised knowledge and skills to interpret technical information and perform and modify complex operations in a variety of contexts. Can undertake activities with a substantial degree of autonomy when results are checked on by superiors. Shows a substantial degree of control of resources and managerial performance.	Ordinary diploma (OD)
3	Candidate can apply a broad range of knowledge and skills to perform complex work in varied contexts. Can undertake activities as a 'working supervisor' with a substantial degree of autonomy when results are checked on by superiors. Can find technical solutions and make proposals to modify technical operations. Shows a moderate degree of control of resources and managerial performance.	Certificate III
2	Candidate can apply a moderate range of knowledge and skills to perform less complex work in non-routine and occasionally varied contexts. Can undertake directed activities with some degree of autonomy while working in a team, and can find simple technical solutions unaided. Shows a limited degree of control of resources.	Certificate II
1	Candidate can apply a basic range of knowledge and skills to perform simple work in routine contexts. Can work with others under direct supervision. If self-employed, shows a limited ability to find technical solutions.	Certificate I
Elementary/ Entry level (partial qualification)	Candidate can apply a limited range of knowledge and skills to perform specific and simple tasks in routine contexts. Can work with others under direct supervision. If self-employed, shows a limited ability to find technical solutions. Note: elementary/entry level abilities will be awarded a partial qualification based on modular assessment and certification.	Worker's PASS Transcript

Source: Ministry of Education and Sports, 2011..

Levels and use of learning outcomes

The UVQF has five levels. The level descriptors form a continuum in which the preceding levels are subsumed within those that follow.

Stakeholder involvement and institutional arrangements

A task force set up by the BTVET department of the Ministry of Education and Sports (MoES) began work on a comprehensive qualifications framework for Uganda in 2000; however, the government-approved Promotion of employment-oriented vocational education and training (PEVOT) programme later shifted focus to the development of a subsector framework for vocational qualifications only. The original idea to establish an autonomous vocational qualifications authority was abandoned due to resistance from parliament and the MoES (Heitmann, 2012). Nevertheless, the development of occupation profiles, item banks and modular curricula started in 2003 in a number of pilot projects.

Recognising and validating non-formal and informal learning and learning pathways

The BTVET Act of 2008 makes provision for the assessment of prior learning (APL). Regulations promoting APL are supported by both stakeholders and TVET graduates who have expressed an interest in higher education via APL. This is catered for by Section 20 (5) of the UVQF, under which graduates of community polytechnics, vocational schools and training centres are offered the opportunity to

progress to the next level of learning. Individuals are encouraged to undergo evidence-based assessments to determine the appropriate level for them. In this way, learners who have acquired skills in the informal economy will have the chance to rejoin the formal system. To meet the needs of APL learners, occupation qualifications programmes on the UVQF are characterised by competence-based education and training (CBET) and flexible learning modules delivered in the form of assessment and training packages (ATPs).

In 2009, the Directorate of Industrial Training (DIT) assessed roughly 2,000 applicants on the basis of the old trade testing regulations using an item bank developed under UVQF. However, these numbers must be seen in relation to the much larger numbers of students (around 18,000 annually) who appear for examinations in formal TVET schools (Heitmann, 2012, p. 22).

NQF implementation

The BTVET Act revitalised the DIT, which was made obsolete in 1998 when all education and training functions were transferred from line ministries to the MoES. The DIT is now in charge of quality assurance and assessment. Learners with employable skills are encouraged to apply to the DIT for assessment irrespective of the duration and type of learning (formal, informal or non-formal) and of their gender and social background. The DIT started issuing UVQF qualification certificates in 2009, phasing out the award of trade test certificates. It assures employers that every UVQF-certified individual is able to perform the relevant tasks to the level of competence indicated on the qualification certificate.

The DIT is supervised by the Industrial Training Council (ITC), which devises policies for technical and vocational skills development (TVSD) with representation from industry.

The qualifications standards department is responsible for developing occupational standards, training modules, and compiling and distributing assessment and training packages that are occupation-based.

The department currently has an estimated 70 occupation profiles, training modules for 80 occupations, assessment instrument banks for 83 occupations, and assessment and training packages for 80 occupations (Ministry of Education and Sports, 2016).

Referencing to regional frameworks

A technical paper on Harmonisation of Education Systems and Training Curricula in the East African Community (EAC Secretariat, April 2012) made several recommendations on the proposed overarching qualifications framework for the East African region. The most important of these for the UVQF are:

(a) a regional qualifications framework for TVET should be developed. It should feature guidelines and regulations for instruction, curriculum management and examination and assessment in the regional TVET subsector;
(b) a regulatory body should be established to accredit institutions and programmes, set and control standards, standardise awards, and ensure the quality and relevance of TVET programmes and assessment centres in the region;
(c) an intergovernmental body should be created to deal with TVET-related issues in the region. The East African Community Secretariat should schedule regular meetings of TVET experts to develop guidelines for harmonisation of the regional TVET subsector.

Important lessons and future plans

The Ugandan Government's vision for the future is to give all learners the opportunity to progress their education to tertiary level via an overarching national qualifications framework (NQF) covering general and higher education as well as TVET. The UVQF is seen as a forerunner to this framework, which will make education and training in Uganda truly democratic.

The first step towards this goal will be to expand the UVQF to diploma level. This responds to the urgent request of employers to produce more diploma-level BTVET graduates with relevant practical skills. Curriculum development will be accelerated based on UVQF standards (Ministry of Education and Sports, 2016), and the quality and profile of vocational training will be improved by strengthening links between TVET and the private sector.

Further sources of information

BTVET (Business, Technical and Vocational Education and Training): http://www.btvet-uganda.org/legal-framework/btvet

EAC (East African Community) portal: http://www.eac.int/about-eac.html

Abbreviations

APL	assessment of prior learning
ATPs	assessment and training packages
BTVET	business, technical and vocational education and training
CBET	competence-based education and training
DIT	Directorate of Industrial Training
EAC	East African Community
HD	higher diploma
ITC	Industrial Training Council
MoES	Ministry of Education and Sports
NQF	national qualifications framework
PEVOT	promotion of employment-oriented vocational education and training
PAS	practically acquired skills
TVET	technical and vocational education and training
TVSD	technical and vocational skills development
UVQF	Ugandan vocational qualifications framework

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UKRAINE

Introduction and context

NFQ snapshot

The national qualifications framework (NQF) was established in 2011. The NQF has 10 levels and tries to link the European qualifications framework (EQF) descriptors and ISCO 2011. It has not been tested widely. The NQF resolution itself was not enough to ensure wider implementation: other legislative changes were needed.

In 2014 the Law on Higher Education regulated the use of the NQF in higher education. Additional legislation in 2017/2018 is expected to make the NQF an effective tool for qualification and education reform, particularly through the Law on Education and the Law on Vocational Education.

An open issue is the use of NQF levels for qualifications in parallel with the wage levels of the tariff qualification system, as labour legislation has not yet been reformed.

Occupational standards are not yet covered by law but their number is growing gradually through the voluntary efforts of employers; more efforts are needed.

The New Ukrainian School concept boosts the idea of competence-based education and the wider use of learning outcomes and key competences in primary, secondary general and secondary vocational education.

New outcomes-based standards and curricula are being developed for higher education, vocational education and general education, but they are not yet aligned nor part of a national register.

Validation of non-formal and informal learning has been regulated and implementation has started under the responsibility of the Ministry of Social Policy and the State Employment Service, albeit only for three occupations (cook, guard and welder) in three locations (Odessa, Rivne and Kiev).

A detailed and comprehensive NQF implementation plan 2016-20 has been adopted by the Cabinet of Ministers, providing a clear road map for implementation.

Ukraine is in early implementation stage: it is in the process of passing key legislation, has a concrete implementation plan and is advancing in a relatively coordinated and coherent manner, although it still lacks pieces of key legislation and effective implementing and coordinating institutions.

Educational, social, economic and political context

Ukraine faces major socioeconomic challenges. Its population is over 44 million and is predominantly (close to 70%) urban. The country is aging, and the population is in decline. Labour force aging is worse in the rural areas. Big enterprises still play an important role in the economy and in employment, which has a very sizeable industrial and mining sector, next to a large number of small and medium enterprises. There are significant economic, social and cultural regional differences in the country ([542]).

The conflict in Eastern Ukraine has aggravated the situation. GDP plummeted by almost 10% and the number of internally displaced persons grew significantly. There are close to two million internally displaced persons (IDPs) while an estimated three million Ukrainians left the country, mainly for Russia and the EU. Since the conflict started, there has been an increase in the number of people with disabilities; a sharp decline in industrial production; contraction of foreign direct investment (FDI) inflows; termination of business ties with enterprises in the occupied territories; declining rates of economic activity; an increase in forced part-time work; a decline in disposable incomes due to growing wage arrears; and increased migration of employable population.

The employed in Ukraine fell from 18.07 million in 2014 to 16.4 million in 2015. With a reducing labour

([542]) Data from the ETF Torino process report 2016-17, Ukraine.

force, unemployment has not seen a big increase: in 2015 it was 9.1%, with youth unemployment at 22.4%. More people have become unemployed due to dismissal for economic reasons recently.

Ukrainians are well educated. The gross enrolment rate in tertiary education is close to 80% and educational attainment of the working population is high. In 2015, 45% of the adult population have completed or are engaged in tertiary education.

More education did not translate in better labour market outcomes. Over-education has become a widespread phenomenon. Most higher education graduates cannot find employment at the appropriate level and many have to accept skilled worker jobs. Ukraine has the lowest labour productivity in the Europe and Central Asia (ECA) region (IMF, 2015). Skill gaps significantly constrain firms' performance. In a 2014 survey ([543]), four firms out of 10 reported a significant gap between the type of skills their employees have and those they need to achieve business objectives. Skill gaps limit a company's efficiency, service quality, and ability to retain and grow its client base. It also impedes firms in finding the right candidate for the job when hiring. Despite dissatisfaction with the results of learning, businesses mainly rely on formal education to train the workforce, as formal workplace training is scarce.

The current qualification system builds on the tariff qualification system inherited from the Soviet Union that regulated both education and labour market requirements. This system mechanically linked the classifier of occupations, with qualification characteristics, education standards, and curricula, and qualifications with labour registration, career development and working conditions, using a common set of wage levels. This system was developed for the command economy and has not been able to keep up with the changing needs of the labour market. Many of the 6000 statements of qualification characteristics have become obsolete, as have job titles and occupations included in the State classifier of occupations of 2003.

Stakeholders including employers, the Ministry of Social Policy and the Ministry of Education and other experts have been in discussions on qualifications for the past 10 years. In order to improve the efficiency of the education system a new strategic, legislative and regulatory base for education and training was needed. Since 2008, employers have been lobbying to introduce legislation for independent assessment of professional qualifications based on occupational standards, so far without success. However, they have established their own Institute for Professional Qualifications and develop occupational standards based on identified labour market needs to support the training and retraining and assessment of existing and prospective employees.

The Ministry of Education led the development of the NQF, which was adopted in 2011 to support the Bologna process and lifelong learning. The Ministry of Social Policy, in cooperation with employers and the Ministry of Education, developed legislation for a system of validation of non-formal and informal learning. Pilot competence-based vocational qualifications have been developed from the first occupational standards, but neither the occupational standards nor the new vocational education standards have been put into law, barring a new system-wide approach.

Policy objectives

The objectives of the NQF have been evolving over time. Initially the focus was on the need for more relevant qualifications and quality assurance through European standards. They also showed the desire for European integration and, especially, the link to the Bologna process.

With articulation of the education reforms, the NQF is gradually becoming more an instrument to support reform. The NQF aids reform of higher education, of general and vocational education, and of lifelong learning, plus better coordination between education and labour market policies.

The NQF supports competence-based education, through reform of education standards and curricula, and can ensure safeguards for equity, access and progression and quality assurance in a decentralised education system in which providers are more autonomous.

For the labour market, development of occupational standards and introduction of validation of non-formal learning and independent assessment of candidates are crucial; they are seen as the most important tools in ensuring that the workforce acquires and keeps up to date with identified skill needs.

The desire to link qualifications with European frameworks, and ensure more transparent qualifications that will be recognised abroad, is still important but not the top priority at this stage. Self-certification against the QF-EHEA will gain importance when we move closer to 2020.

([543]) Ukraine STEP employer survey 2014; World Bank report: Skills for modern Ukraine: overview, World Bank Group, November 2015.

Education and training reforms

Current education reforms are trying to address the contents of education, preparing young people better for the 21st century. More systematic change started in 2014 with the new Law on Higher Education in 2014 to bring Ukrainian higher education in line with the Bologna process. That law excluded colleges and the junior specialist programmes from higher education, abolished the Soviet specialist degree and provided the basis for more autonomous higher education providers. A consolidated list of higher education standards was adopted that was no longer linked to the classifier of occupations. Programme and institutional accreditation and external quality assurance by an independent quality assurance agency was introduced. Different types of higher education qualification were linked to the NQF levels and learning outcomes were given more emphasis.

Two new laws – the Framework Law on Education and the Law on Vocational Education and Training – are currently under preparation and of key importance. The draft Law on Education provides a framework for a more decentralised, competence-based education system that is labelled the New Ukrainian School and has four main components:

(a) development and introduction of new, modern education standards in secondary education with a competence-based approach;
(b) revision of the national curriculum according to new education standards;
(c) introduction of the teachers' certification procedure and new certified programmes for enhancing professional qualifications;
(d) systemic de-bureaucratisation of education system management and introduction of a transparent and effective governance system, including a qualifications agency and independent assessment/qualification centres.

Key competences play a central role in the new school concept. Pupils and students are expected to play a more active role in their learning. All secondary school graduates need to develop 10 key competences to become responsible citizens, patriots and critical thinkers. The first phase of education is focused on developing basic skills, with key competences gradually gaining in importance after the sixth grade. After the ninth grade students can choose different options for 'profiled education' which includes secondary and post-secondary vocational education.

The draft Law on Vocational Education and Training (VET) sets the main principles of VET system reform: decentralisation of vocational education and training; establishment of regional stakeholders boards for VET; VET school network optimisation and introduction of region-led funding of VET; and the development of modern VET standards. VET providers will have more autonomy to adapt the curriculum to local and regional needs. The NQF has an important role in balancing the increased autonomy of providers and ensuring achievement of minimal learning outcomes throughout education and training. This is important to ensure equity, progression and labour mobility throughout the country. The NQF is principally a quality assurance tool.

The new education standards and curricula needed to reshape the contents of secondary education will be part of the national qualifications framework register and developed in line with the learning outcomes descriptors. Key competences development will need to continue to play an important role across vocational education and training, higher education and adult learning.

A critical issue for the implementation is the training and retraining of teachers so that they are able to introduce the new standards and curricula. The Ministry of Education aims to establish a framework of excellence for teachers that could be used as well as a tool for career development. This requires the development of new teacher standards, continuing professional development and new assessment approaches for teachers.

International cooperation

In contrast to the other Eastern Partnership countries, Ukraine has not benefitted from substantial EU, international or bilateral projects for implementing its reforms. The ETF, the Council of Europe and the British Council have been the main international partners. The ETF has been supporting the development and implementation of the NQF since its conception, with particular attention to stakeholder involvement, the development of standards and curricula and quality assurance. The ETF carried out several background studies on the existing qualification system and facilitated dialogue between stakeholders. Since 2016 it has focused on support for a new implementation plan and the development of a new approach for education standards and curricula for vocational education. Both the ETF and the British council supported the piloting of occupational standards. The British Council assisted in piloting a new competence framework for language teachers. The Council of Europe has monitored developments in higher education in the framework of the Bologna process and also provided legal advice on the Law on Higher Education; the ETF provided comments

on the draft legalisation for education and vocational education.

The EU has funded many Tempus projects piloting new approaches to higher education standards and curricula, and a twinning project for VET reform with a small component on the NQF and TAIEX ([544]) expert support for the legislative initiatives. A recently started bilateral project with Estonia for VET in the region of Volyn is expected to provide additional opportunities but these are all small initiatives that do not provide sufficient support for systemic change. More substantial international support is needed to ensure that systemic changes can be implemented.

The Bologna process is one of the main drivers for the development of the NQF. It should ensure an NQF that is in line with the qualifications framework for the European higher education area. The Law on Higher Education is being put into practice. A quality assurance agency was recently established and new higher education standards and curricula are under development. These need to be evaluated urgently with international support to check their quality and applicability, in line with international principles and practices. There is currently no international support for this. Ukraine is not yet ready for self-certification.

The Association Agreement between Ukraine and the European Union includes a number of elements that are relevant for implementing qualifications reform. The agreement promotes convergence in higher education deriving from the Bologna process; establishing a national framework to improve the transparency and recognition of qualifications and skills, drawing where possible on EU experience; and helping young people acquire knowledge, skills and competences outside education systems, including through volunteering, and recognising the value of such experiences.

Levels and use of learning outcomes

Scope and structure of NQF

The NQF is described in the annex of Resolution No1341 of the Cabinet of Ministers of 23 November 2011 ([545]). The NQF Decree is relatively short: it asks for the implementation of the NQF by different stakeholders and institutions, development of rules for its implementation, an action plan and the establishment of an interdepartmental committee. The annex explains what the NQF is, its purpose, and key concepts; it is followed by a table with the NQF descriptors. The NQF has 10 levels from 0 to 9 that have a general outcome descriptor for each level as well as four outcomes statements for knowledge, skills, communication, autonomy and responsibility.

Alignment to other classification systems

The NQF levels are not aligned with the tariff qualification system, nor with wage levels (розряди), but are a genuine break with the past. This poses a number of problems. Wage levels have been abolished for higher education qualifications but still play a role in vocational qualifications and in definition of education standards. They are not reflected in modern occupational standards. However, decoupling qualifications from wage levels has consequences for the way wages are defined.

With the introduction of learning outcomes in ISCED 2011 and the adoption of eight ISCED levels, including level 0 for preschool education, there has been an attempt to align ISCED with the EQF. This has found resonance in Ukraine, but has also created a unique set of level descriptors.

Level descriptors

The 10-level framework is seen as a mechanism for recognising lifelong learning from pre-school education level up to Doctor of Sciences. It has attempted to unify the approaches introduced by ISCED 2011, introduced in the year that the NQF was adopted, and the EQF to create a truly lifelong learning framework from the cradle to the grave. The idea was promoted by the Ukrainian National Academy of Pedagogy. Levels 0 and 9 were preserved in spite of critical comments by the CoE and the ETF. Level 9 is seen as essential support to the scientific and research leadership in the country, building on a strong academic tradition that goes back to the Soviet period; it is seen as important to innovation and scientific discovery. Level 0 is the first stage in the lifelong learning system and should ensure basic values on which the education system is built. The descriptors for knowledge, skills, communication and autonomy and responsibility are complemented by integrating professional competences, bringing the essence of the different categories together. Among the other essential social dimensions of the NQF are the need to enhance democratisation and social partnership in education.

([544]) Technical assistance and information exchange instrument of the European Commission; supports public administrations in the approximation and application of EU legislation and facilitates sharing of EU best practices.

([545]) http://zakon2.rada.gov.ua/laws/show/1341-2011-%D0%BF

Currently the levels are only applied for higher education, as the NQF has been referred to in the Law on Higher Education (2014). Allocations of qualification types below are provisional. The laws on education and on vocational education that are now in the Verkhovna Rada are expected to provide further guidance for the indicative allocation of qualification types to NQF levels. The recently adopted NQF Implementation Plan 2016-20 provides practical steps to bring qualifications (supported by State education standards) and curricula in line with the NQF. There is currently discussion on whether the junior specialist (a post-secondary vocational qualification that is awarded to graduates of technicums and colleges, until recently part of higher education) and junior bachelor (a new short cycle higher education degree), should be at the same level, and whether the creation of sublevels would be needed to distinguish between them. Employers are resisting this distinction but the higher education sector is lobbying for it. The status of professional qualifications is still not decided. It is expected that active use of the NQF may lead to additional changes.

Use of learning outcomes

Under the concept of the New Ukrainian School ([546]) a new 12-year education system has been introduced. It comprises a basic nine-year secondary education, followed by a profiled three-year specialisation, bringing Ukrainian education closer to common practices in other industrialised countries. The reform focuses on renewing the contents of education. Students should be trained to become responsible citizens, patriots, innovators, and critical thinkers. The education system has been too much disconnected from society and the country's economy. Education needs to be more strongly embedded in society, and schools will need to work closer with parents and communities.

All secondary school graduates need to develop 10 key competences: communication in the State language and in foreign languages; mathematical literacy, sciences and technology, and digital competences; the ability to learn and adapt; social and civic competences for

([546]) http://mon.gov.ua/%D0%9D%D0%BE%-D0%B2%D0%B8%D0%BD%D0%B8%20 2017/02/17/book-final-eng-cs-upd-16.01.2017.pdf

Table 98 Types of qualifications in the national qualifications framework of Ukraine

NQF levels	Formal education qualifications			Other qualifications
	General education	Primary vocational education	Higher education	Professional qualifications
0				
1	Specialised secondary school certificate			Professional qualification level 1
2	Basic general secondary education certificate	Skilled labour certificate		Professional qualification level 2
3		Skilled labour certificate		Professional qualification level 3
4	High school diploma ENA certificate	Skilled labour diploma		Professional qualification level 4
5		Junior specialist diploma	Junior bachelor	Professional qualification level 5
6			Bachelor	Professional qualification level 6
7			Master	Professional qualification level 7
8			PhD	Professional qualification level 8
9			Doctor of Science	Professional qualification level 9

Source: Ministry of Education.

effective and constructive participation in society; entrepreneurship; general cultural literacy to understand works of art, express ideas artistically, and help to understand cultural diversity; and environmental and health competences. The following skills are also seen as indispensable to developing key competences: reading abilities, oral and written expression, critical thinking, ability to give one's opinion logically, the ability to constructively manage one's emotions, initiative, creativity, problem-solving skills, evaluating risks and decision-making, the ability to work in teams.

The first phase of general education will be focused on developing basic skills, which should normally last six years depending on the learning outcomes obtained. During the next phase, the focus should be much more on developing key competences, hence the extensive work under way to redevelop the secondary education curriculum. The past three years of secondary education is proposed to take place in academic lyceums for specialisation in arts and humanities, maths and sciences or other academic fields, and professional lyceums, or in professional colleges or technicums that can provide a qualified worker or junior specialist diploma.

The new education standards and curricula needed to reshape the contents of secondary education will be part of the national qualifications framework register and developed in line with the learning outcomes descriptors. The key competences development will need to continue to play an important role across vocational education and training, higher education and adult learning.

Traditionally the State education standards for vocational education and higher education started from a description of the qualification characteristics derived from one of the 92 sectoral handbooks on qualification characteristics. This qualification characteristics system contains more than 6 000 entries for different occupations but is only partially maintained and many descriptions of labour market needs are out of date.

This has been a serious concern of the employers in Ukraine, who are faced with growing skill shortages and skill gaps. The production of occupational standards developed independently by actors in the labour market is seen as a solution. These occupational standards should be used to certify workers against professional qualifications and inform learning outcomes for future labour market entrants graduating from VET. The development of occupational standards started after the adoption of the NQF. A methodology was initially developed by the Ministry of Social Policy, and has been adapted by the Federation of Employers, which develops the standards with support from sectoral committees. The methodology is available on the website of the Institute for Professional Qualifications established by the Federation of Employers ([547]). There is also a repository of existing occupational standards ([548]), which contained 67 occupational standards at the time of writing.

A similar public database for State education standards does not yet exist officially, but most can be found in the repository published by the employers

The Ministry of Education has started to use occupational standards for the development of competence-based modular State education standards for VET. More than 30 such education standards exist to date. Approximately four different methodologies have been used to develop new standards; some remain close to the traditional structures and wage levels, others completely change the approach.

The ETF is working with the Ministry of Education and the Institute for the Modernisation of Education in evaluating, improving and testing the methodologies; the objective is to establish a single methodology. The laws on education and on vocational education will regulate the new approach to education standards. In the coming years these standards will need to be translated into curricula and will also be the basis for new approaches to summative assessment. In 2018, the Ministry of Education plans to pilot independent assessment for five vocational profiles.

Standards in higher education have been adapted to the NQF as a new Law on Higher Education was adopted in 2014 and referred to the NQF. A new list of academic fields has been adopted for which higher education standards are being developed in line with a new methodology. According to the Council of Europe, the new standards will need to be evaluated in terms of their status, nature and effectiveness. The key issue will be if they are actually used and have a positive impact on curriculum review and development. The new HE standards already produced may conflict with accepted norms of university academic autonomy. They appear to be very detailed and their status and nature might need to be further clarified. Another aspect that should be clarified is the exact relationship between subject/discipline standards and higher professional and occupational standards. In principle, higher education standards should

([547]) http://ipq.org.ua/ua/library/methodological-development
([548]) http://profstandart.org.ua/

consider occupational standards if they exist, but it is not clear how.

For adult learning, the introduction of modular standards, allowing part qualifications, is expected to be confirmed by the Law on Education. Occupational standards, developed by employers, are expected to be used as well to introduce competence-based qualifications directly developed from them. These are often referred to as professional qualifications. A study carried out by the ETF in 2015 ([549]) shows that there is a wide variety of lifelong learning qualifications that could be considered as professional qualifications. Apart from the competence-based qualifications developed from occupational standards there are non-formal 'corporate' qualifications developed by professional bodies, branches and big companies, and international qualifications introduced in Ukraine. Different terms are used to describe them in Ukrainian- професійні та фахові кваліфікації; literally, in English, professional and trade qualifications.

The development of standards and curricula needs to be followed up by implementation. Learning and assessment practices need to change. There is limited experience so far with moving from traditional subject based programmes to interdisciplinary competence-based modular curricula. Validation of non-formal and informal learning based on occupational standards has already started for cooks and welders in three cities in Ukraine, organised by the State Employment Service. This practice is expected to be widened during the coming years. The Ministry of Education will test the independent assessment of five VET competence-based VET profiles next year. For teachers, new outcome-based student-centred approaches have been successfully tested among English language teachers and the Ministry of Education is preparing a framework of excellence for all teachers.

The developments so far have been carried out in different silos. There is now a new implementation plan for the NQF that foresees better coordination. This implies that any newly created education standards (general, VET, higher education and adult learning) should be aligned. This needs to be done or there is a danger of creating a fractured system of standards where students move through different sectors of the education system and experience a disjunction (confusion) as to what is expected of them. Some integration and overlap between sector standards is imperative if the NQF is to create smooth, seamless, logical progression consistent with its level descriptors and stated purposes. It is foreseen that a national register of qualifications will be established.

Definition of qualification

In the NQF resolution qualification is described as the official result of evaluation and recognition obtained when an authorised competent authority finds that a person has achieved competences (learning outcomes) in accordance with a given set of standards.

Qualification standards

For formal qualifications issued in the education system the standards that regulate the award of the qualification (so-called documents of education) are education standards.

Employers are proposing also to introduce the term professional qualifications for qualifications based on occupational standards. In the Law on Education there is also reference to part qualifications that could be issued after completing a module.

Development process of qualifications

See above.

Access, progression and credit

In terms of progression between NQF levels, there is a need for further analysis of existing pathways. The current qualifications are mainly aimed at young people and partial recognition, and transfer is not yet supported. This may change after the adoption of the Law on Education. Access to qualifications is still determined by formal entry qualifications. However, there are no obvious dead ends in the formal system, with most young people already going to higher education.

It is unlikely that the NQF will become a national credit and qualifications framework, as in Scotland. Credit is not very popular. There is no mention of the use of credit outside higher education in the draft Law on Education, neither does the draft Law on Vocational Education foresee the introduction of credit.

In higher education, experimentation with the European credit transfer and accumulation system (ECTS) has been in process since 2004; in 2009, the credit system became compulsory. There has been much protest against additional administrative workload caused by the compulsory

([549]) Melnik, S. *Lifelong learning Qualifications*/ Квалификации в сфере обучения на протяжении всей жизни. (ETF, 2015). http://ipq.org.ua/upload/files/files/03_Novyny/2015.12.10_LLL_qualifications_seminar/Analytic%20Report_Qualifications%20in%20LLL_Mr.%20Melnik_RUS.pdf

introduction. After adoption of the Law on Higher Education granting more autonomy to universities, the Ministry of Education informed universities that a more pragmatic approach could be followed at the discretion of each establishment, although ECTS remained a compulsory part of the higher education system.

For vocational education, an amendment to the Law on VET was adopted in November 2012 (Law No 5498-VI (5498-17)) that introduces the concept of 'input control', based on assessment of learning outcomes. This should allow higher education graduates to get access to those courses of secondary VET that will give them additional knowledge, skills and competences, while providing exemption from those parts of the qualification and the curriculum that they have already covered. Introduction of this system is under way and depends very much on the availability of appropriate VET standards based on learning outcomes, and modular provision.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

Since the NQF is meant to be an instrument for regulating the quality and relevance of qualifications, the NQF Decree was only a first step in a legislative process. In January 2012 the Law on Professional Development of Employees (Law No 4312) was adopted, stipulating that the State employment service will establish recognition centres for validation of non-formal and informal learning.

The Higher Education Law (Law No 1556-VII, 1.7.2014), and the draft Laws on education and on vocational education have been described above. Apart from the new concepts of lifelong learning and of competence-based education, the draft Law on Education contains many new elements to support the implementation of the NQF, such as the introduction of partial qualifications, professional qualifications, independent qualification centres, sectoral qualifications frameworks, and a national qualifications agency. It will be a breakthrough if the law is adopted with these elements included.

Governance and institutional arrangements for the NQF

The Ministry of Education is the main policy body, in cooperation with the Ministry of Social Policy (validation of non-formal and informal learning, occupational standards, guidance and counselling). A formal interdepartmental committee that includes other non-governmental stakeholders, particularly the Federation of Employers, has been monitoring and supporting the implementation of the NQF. The Ministry of Education is responsible for reporting annually on progress of the NQF action plan 2016-20. In that capacity it has a coordinating role but lacks the capacity for active coordination. Currently the interdepartmental committee is being re-established after the adoption of the new implementation plan. Different working groups have also been operating in the past, with employers always involved.

The establishment of the National Agency for Qualifications (as foreseen in the draft Law on Education) would mean an enormous step forward to a more coordinated approach. However, during interservice consultations on the NQF action plan in 2016 the Ministry of Finance objected to a new agency for financial reasons. The Quality Assurance Agency for Higher Education has recently become operational and it is too early to say if it will have an active role in implementing the NQF. It is likely to start with programme accreditation procedures soon that will be linked to the new competence-based higher education standards.

The State employment service plays a key role in the implementation of the validation of non-formal and informal learning.

Roles and functions of actors and stakeholders

The Federation of Employers promoted the idea of a NQF for several years and has looked for alliances with other stakeholders to develop legislation. However, legislative proposals developed by employers have been rejected four times. The last attempt was a draft Law on a Professional Qualifications System (No 9625, 2012) which addressed the need for qualifications for people who are already proficient in their field, rather than for labour market entrants. In spite of the support of the Ministry of Education, the law was not adopted in Parliament.

The NQF itself succeeded due to the fact that the government took the initiative through the Ministry of Education, rather than the employers. A NQF Commission was established in December 2010, consisting of high level officials from different ministries and the social partners. A more operational working group developed technical proposals. This group initially comprised officials of the Ministry of Education, the National Academy of Pedagogical Science and other representatives from the education sector but was extended to involve employers in the spring of 2011.

The Law on Organisation of Employers, Their Organisations, Rights, Guarantees and Activities, (22.6.12) and the methodological recommendation for the elaboration of occupational standards based on competences (Ministry of Social Policy January, 2012) have created a legal basis for the voluntary establishment of sector skill councils. The System Capital Management organisation supported the development of the first pilot occupational standards, in cooperation with the Ministry of Social Policy and the British Council. In 2014, the Federation of Employers established the Institute for Professional Qualifications to support the development of occupational standards. The institute works with six sectoral committees and has developed 67 occupational standards. It continues to play an important role but, due to a change of leadership, it is no longer directly subordinate to the Federation of Employers. This may jeopardise its future position, although it is mentioned explicitly in the NQF action plan 2016-20. Trade unions have not been active, in spite of many attempts to get them involved. During the past two years we have seen increased interest from professional bodies and, recently, from the Chamber of Commerce.

Quality assurance of qualifications

According to the NQF decree, the national qualifications framework is intended to introduce European standards and principles of quality assurance of labour market requirements in respect of specialists` competences. Quality assurance has, therefore, been one of the main objectives of the NQF in aiming to strengthen confidence in qualifications. The focus has been on bringing standards more in line with European practices, moving from a curriculum-focused subject-oriented approach to an outcome-based approach, strengthening the relevance of standards, assessment processes and programme accreditation of providers. There is consensus that qualifications/education standards should become part of a single national register of qualifications; establishment of such a register is foreseen in the NQF Action Plan 2016-20. Another register is also foreseen for occupational standards. Both registers would have a filtering function as repositories of validated relevant qualifications and standards. However, these registers are not yet established and there is no coordination between the standard-setting processes in general education, vocational education, higher education and adult learning. First discussions on these processes have just taken place, showing a need for continuous review of new initiatives, and consolidation and coordination of approaches. Dissemination of practices beyond a small group of experts is needed to mobilise those implementing new standards and explain the benefits to final beneficiaries (learners, employers).

The education system needs to become more relevant in terms of labour market outcomes. The Law on Higher Education has broken with the tariff qualification system and its outdated qualification characteristics but it has not really established mechanisms to ensure the relevance of higher education qualifications.

Occupational standards are seen as part of the solution and are being developed by the employers; the plan is for future vocational qualifications to be based on occupational standards. The draft Law on Education also foresees in the introduction of competence-based professional qualifications directly developed from occupational standards. Higher education standards should consider existing occupational standards; this is mentioned in the current methodology for developing standards. Employers already validate vocational education standards and, in the past, qualification characteristics ensured a link to labour market needs, but these qualification characteristics are no longer current. The number of occupational standards needs to grow more quickly to support these processes; both prioritisation and funding of the development processes need to be reviewed. Currently, the largest employers develop occupational standards as they see fit for their own needs, but this needs to change into a more shared responsibility. The Ministry of Social Policy is developing legislation to regulate occupational standards, which is a first step.

There are also plans to move to independent assessment. The draft Law on Education foresees the establishment of qualification centres, to some extent comparable to the authorised certification bodies in Turkey and the professional awarding bodies in Estonia. An experiment in independent assessment in vocational education is scheduled for five profiles next year. Validation of non-formal and informal learning is already being implemented for three occupations in three locations, organised by the State employment service. Existing training providers are expected to play a role in these processes. Assessment has been the weak link in the existing system of education standards, with limited indications of how competences should be demonstrated. There is a need to experiment with new assessment approaches, with the increased involvement of stakeholders from the world of work in assessment, and to train assessors and verifiers to ensure that candidates can demonstrate that they have reached the learning outcomes in the standards. This becomes increasingly important

within a decentralised education system with more autonomy for providers to adapt provision to local and learner needs.

Programme accreditation is foreseen for higher and vocational education, verifying that programmes are in line with the State education standards. But this does not mean that summative assessment can be left completely to providers, without external validation. It has been mainly the lack of trust in qualifications and the poor performance of the education system in terms of labour market outcomes that has promoted the introduction of the NQF.

The roles of the new agencies for quality assurance are critical in promoting new quality assurance practices. The Quality Assurance Agency for Higher Education has just become operational. For vocational education, different bodies at regional, national or sectoral level are foreseen in the draft Law on Vocational Education that deal with the quality assurance of qualifications. It is important that there is coordination among these different bodies.

Recognising and validating non-formal and informal learning and learning pathways

The Law on Professional Development of Employees (Law No 4312, January 2012) introduced the establishment of recognition centres by the State employment service. In order to verify an employee's professional qualification, recognition centres should work with State employment service training centres, VET institutions, enterprises, and other providers licensed to carry out educational activities for certain occupations. The certificate to be awarded could be for specific professional skills or for improvement. The procedure for evaluation is determined by the Ministry of Social Policy in consultation with the Ministry of Education.

In 2012 a new Law on Employment was adopted that stated that the unemployed are entitled to have their skills assessed. This legislation was followed by other regulations providing further guidance for implementation. In May 2013, the Cabinet of Ministers adopted the Resolution On the procedure for validation of blue-collar occupations non-formal and informal learning outcomes, No 340. This was followed in December 2013 by Ministry of Social Policy order 875/1776 which sets criteria for (private) assessment centres and the ministerial order 886 which sets a list of occupations for assessment. During 2013/2014 a first pilot in validation of non-formal and informal learning for cooks was undertaken with support of the ETF.

In spite of the rapidly advancing legislation, the pilot showed this alone is not enough to kick-start a validation system and there are still many aspects related to preparation of candidates, assessors, availability of standards and appropriate certification processes that need additional work. Through the Order No 695 of 26.9.2014, the Ministry of Social Policy established an interagency working group to determine how enterprises, institutions and organisations could become compliant with the needs to validate non-formal and informal learning in blue-collar occupations.

The system became operational through Order No 256 of 2016 of the Ministry of Social Policy, starting assessment of guards, cooks and welders. The Odessa and Rivne training centres of the State employment services and the Higher Commercial College and the National Trade and Economic University in Kiev were appointed assessment centres. The work with cooks is also under way in other regions. There is a need for more assessment centres, trained assessors, verifiers and standards that can support the assessment to extend these first pilots to a truly national system.

NQF implementation

In 2012 a first implementation plan for the NQF was adopted and an interdepartmental committee established to oversee implementation. There has been progress in various areas during these first years: testing new approaches and developing methodologies for standards, and development of a concept for the NQF (which was not approved); development of occupational standards by employers in cooperation with other stakeholders and in developing the legislation for the validation of non-formal and informal learning; and preparation of a new Law on Higher Education.

In 2014/2015, discussions in the parliamentary committee on the Law on Education and the Law on Vocational Education, brought the NQF back as a tool to support lifelong learning, with a stronger focus on competences, and on more relevant qualifications. The Association Agreement also mentioned the need to development a functioning NQF. But the NQF was not mentioned as a priority in the new government coalition agreement. Higher education had become the priority for the Ministry of Education in 2014/2015 after the adoption of the new Law on Higher Education and the NQF vanished from the radar.

A self-evaluation of the first NQF implementation plan 2012-15, presented by the ETF in early 2016, showed that most planned activities had not, or only partially, been implemented. There was least

progress in legislative developments (in spite of higher education and VNFIL), the communication on the NQF to stakeholders and the public at large, capacity building, and the allocation of resources and international support. These were all essential for operationalising the NQF; it was doomed to fail without stronger commitment and a new plan for implementation.

In 2016, under the responsibility of a new government, the situation changed. A new plan was developed with ETF support by a team of experts from different stakeholders and the Ministry of Education; it included consultations with almost 200 stakeholders and all ministries. A thorough stakeholder analysis took place and feedback was received from more than 160 different organisations, including many private sector and NGO stakeholders as well as the already active employers, professional associations (17 out of an estimated 115 associations contributed to the plan) and student representatives. On 14 December 2016 the Cabinet of Ministers of Ukraine (Governmental Order No 1077) adopted the NQF implementation plan for 2016-20 ([550]). The plan is the result of constructive cooperation between stakeholders from the world of work, and from vocational and higher education, under the leadership of the Ministry of Education, Science, Youth and Sports and with participation by the Federation of Employers.

The plan foresees work in seven areas.

(a) coordinate activities and provide legislative and regulatory support for the formation and development of the national qualifications system;
(b) modernise the system for skills needs anticipation and occupational standards development;
(c) develop qualifications of different types (education standards and curricula based on learning outcomes) in line with the national qualifications framework;
(d) develop a system for validation of VET learning outcomes (awarding professional qualifications);
(e) improve processes for qualifications quality assurance;
(f) improve communication on the implementation of the national qualifications framework;
(g) ensure international recognition of the national qualifications framework and national qualifications.

For each strand there are defined actions, tasks, responsible bodies, deadlines and measurable results.

([550]) http://zakon3.rada.gov.ua/laws/show/1077-2016-%D1%80

Inclusion of qualifications in a register

A register has not yet been established.

Monitoring, evaluation and review of the NQF

After adoption of the Action plan for the implementation of the NQF 2016-20, a new interdepartmental committee is foreseen to monitor progress. The Ministry of Education, as the responsible policy body, will report annually to the Cabinet of Ministers; a first report is being prepared. After adoption of the Law on Education, the Agency for Qualifications may assist in this role. It is also foreseen that a web site will soon be established on the NQF that will provide regular reports on progress. The ETF is providing local expert support in monitoring NQF implementation. No evaluation has yet been conducted, given the early stage of development.

Impact for end-users

The NQF has not yet been used by end-users.

Referencing to regional frameworks

Self-certification to the qualifications framework of the European area for higher education has not yet started.

Important lessons and future plans

The first five years after the adoption of the NQF decree have shown that successful implementation needs commitment and concerted action. The new Action plan for the implementation of the NQF 2016-20 provides a clear staged path towards implementation that can support continuing education reforms bringing provision more in line with the needs of the labour market, focus on the development of learning outcomes and change learning and assessment practices.

Most stakeholders are aware of the current challenges and are ready to engage in the implementation. However, effective progress requires coordination of their efforts, pooling available national resources and mobilising more international support, passing key legislation and ensuring the formation of dedicated institutions that can communicate, coordinate and quality assure the development and use of qualifications. The diversity of institutions under development or proposed to operate in a decentralised system, that will be responsible for different aspects of quality assurance, creates new challenges.

The establishment of a National Agency for Qualifications as foreseen in the draft Law on Education could particularly strengthen coordination of all processes. The laws on education and vocational education are needed to regulate many aspects of the new competence-based education system and bring it in line with the NQF.

The new qualification system needs to be populated with new standards and curricula. This starts with occupational standards replacing outdated qualification characteristics. There need to be more occupational standards developed than are produced so far voluntarily by employers, requiring shared responsibilities and joint funding for their development. Regulation of the occupational standards is a necessary step in this development. The use of occupational standards for developing education standards for vocational and higher education and for adult learning needs to be clarified.

Development of standards for general education, vocational education, higher education and adult learning needs to be aligned. Some integration and overlap between sector standards is imperative if the NQF is to create a smooth, seamless, logical progression consistent with its level descriptors and stated purposes. One common issue to be addressed is the use of key competences. It is important that registers of occupational standards and qualifications are established as soon as possible. The development processes involve many different actors and there is a need for continuous review of new initiatives, and consolidation and coordination of approaches. To mobilise those implementing the new standards and explain the benefits to final beneficiaries (learners, employers), guidance materials and dissemination of practices beyond selected groups of experts are needed.

New standards should be used to change learning and assessment practices. A critical implementation issue is training and retraining of teachers. Providers will have more autonomy to adapt provision to the needs of local companies and learners. The NQF has an important role in balancing the increased autonomy of providers and ensuring achievement of minimal learning outcomes throughout education and training.

Summative assessment cannot be left completely to providers. There is a need to experiment with new assessment approaches, with the increased involvement of stakeholders from the world of work in assessment, and train assessors and verifiers to ensure that candidates can demonstrate that they have reached the learning standards outcomes in independent external assessment settings. Current pilots in validating non-formal and informal learning should be widened.

Development of standards and curricula and the establishment of effective quality assurance procedures have priority in higher education, taking into account institutional autonomy. Ukraine is not yet ready for self-certification against the qualification framework of the European area for higher education, but preparations will have to start sooner or later.

An open issue with no solution yet is the use of NQF levels for vocational and adult qualifications in parallel with wage levels (розряди), as NQF levels are not aligned with the tariff qualification system.

Abbreviations

CoE	Council of Europe
EQF	European qualifications framework
IDPs	internally displaced persons
ISCED 2011	international standard classification of education, statistical framework for organising information on education maintained by the United Nations Educational, Scientific and Cultural Organisation (UNESCO)
ISCO	international standard classification of occupations
QF-EHEA	qualifications framework in the European higher education area
NQF	national qualifications framework
TAIEX	Technical assistance and information exchange instrument of the European Commission; supports public administrations in the approximation and application of EU legislation and facilitates sharing of EU best practices
VET	vocational education and training

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UNITED KINGDOM

Until 2015, five different qualifications frameworks were operational in the UK. In England and Northern Ireland the framework for higher education qualifications (FHEQ), the qualifications and credit framework (QCF) and the national qualifications framework (NQF) operated in parallel, partly overlapping each other. The Scottish qualifications framework (SCQF) and the credit and qualifications framework of Wales (CQFW) are comprehensive frameworks covering all levels and types of qualification.

In October 2015 a new regulated qualifications framework (RQF) was introduced for England and Northern Ireland, replacing the QCF and the NQF ([551]). The RQF covers all academic and vocational qualifications regulated by the Office of Qualifications and Examinations Regulation (Ofqual) ([552]) and by the Council for Curriculum Examinations and Assessment Regulation (CCEA) ([553]). The most significant change introduced by the RQF is the lifting of standardised requirements for the design of qualifications. RQF uses the same eight levels (plus three entry levels) as the QCF but introduces some changes in the way qualification size is calculated.

While these developments show that frameworks develop and change continuously, they also show that the visibility and overall impact of frameworks depends on the political context they operate within. This is particularly visible in England and Northern Ireland where the existence of parallel frameworks may have partly contradicted their ability to support transparency and learning progression.

The introduction of the RQF addresses this problem. The new framework will, however, require time and stability to establish itself as a well-known and visible reference point for citizens, education providers and employers. The Scottish and Welsh frameworks contrast developments in England and Northern Ireland, operating as comprehensive frameworks and setting themselves ambitious targets for lifelong learning. Evaluation of the Welsh framework, published in 2014, pointed to the importance of better integrating it into mainstream education and training policies. While the CQFW is considered a useful tool, it tends to operate on the margins of the education and training system, not as a central entry and focal point. The Scottish framework, on the other hand, is considered a key tool for stakeholders and is increasingly emerging as the most visible and consistent of the UK frameworks.

([551]) Relevant documents: https://www.gov.uk/government/news/ofqual-to-introduce-new-regulated-qualifications-framework
([552]) Register of regulated qualifications: http://register.ofqual.gov.uk/
([553]) CCEA: http://ccea.org.uk/about_us/what_we_do

England and Northern Ireland

Introduction and context

In October 2015 a new regulated qualifications framework (RQF) was introduced for England and Northern Ireland, replacing the qualifications and credit framework (QCF) and the national qualifications framework (NQF). The RQF covers all vocational and academic qualifications regulated by the Office of Qualifications and Examinations Regulation (Ofqual) ([554]) in England and the Council for Curriculum Examinations and Assessment Regulation (CCEA) ([555]) in Northern Ireland.

The RQF uses the same eight levels (plus three entry levels) as the QCF. Levels 5 to 8 of the RQF are equivalent to those used by the framework for higher education qualifications (FHEQ). The RQF builds on the descriptors used by the QCF, partly adjusted by using EQF descriptors.

The main difference between the QCF and the RQF lies in their respective regulatory roles and functions. While the QCF took on a clear regulatory role as regards the design and accreditation of qualifications, the role of the RQF is to provide a transparent description of existing qualifications, not to regulate them.

([554]) Register of regulated qualifications: http://register.ofqual.gov.uk/
([555]) CCEA: http://ccea.org.uk/about_us/what_we_do

The relationship between the RQF and the EQF (the 2010 referencing was linked to the QCF) will require clarification. The FHEQ was self-certified to the QF-EHEA in 2007. The Office of Qualifications and Examinations Regulation (Ofqual) is responsible for the daily running of the framework.

Policy objectives

The aim of the 2015 reform is to introduce a simple, descriptive framework replacing the QCF (and the NQF). The RQF should provide an overview of qualifications and show how they relate to each other. Transparency will be achieved by setting consistent measures of size (how long, typically, a learner takes to study and be assessed for a qualification) and level of difficulty (see below for further detail).

The new framework will include all qualifications regulated by Ofqual and CCEA Regulation and will not (unlike the QCF) be used to set qualification design rules. The existing (Ofqual) General conditions of recognition ([556]) set a wide range of requirements for qualifications and will replace the regulatory functions previously forming part of the QCF. This change can be seen as part of a policy to devolve responsibility from national level to awarding organisations and learning providers. As stated by Ofqual, 'lifting the rules means that high quality vocational qualifications can be designed around the needs of employers, rather than fitting to the prescriptive QCF rules' ([557]).

The introduction of the RQF reflects experiences gained with the QCF following its formal adoption in 2008. Evaluation carried out in 2013-14 ([558]) concluded as follows:

(a) the QCF provides a structure within which the relative size and value of qualifications can be expressed using consistent terminology;
(b) the existing level structure seems to work well and the current eight levels and three entry levels are suggested to be kept;
(c) the qualifications framework makes it possible to explain to learners how qualifications relate to each other and it also ensures that awarding institutions design and market their qualifications accurately. This function needs to be continued.

While the transparency functions of the QCF were seen as positive, its regulatory role was criticised:

(a) though the structure of the QCF was designed to support credit transfer, in practice there have been very low levels of take up for credit transfer and the projected benefits of a credit system have not been realised;
(b) unit sharing ([559]) has not contributed to reducing the number of qualifications; after the introduction of the QCF, the number of qualifications has increased;
(c) there is a feeling that the requirements for awarding organisations to unit share has damaged innovation and development;
(d) the regulatory arrangements impose an approach to assessment which requires students to satisfy all assessment criteria. This leads to over-assessment;
(e) the overall validity of qualifications is not sufficiently addressed; the focus on unit assessment draws attention away from overall validity.

The introduction of the RQF in October 2015 means that the main conclusions of the evaluation have been accepted. The new framework retains key transparency functions but will play a limited role in regulation and design of qualifications. The following principles, following a consultation carried out in spring 2015, apply to the RQF:

(a) the levelling approach introduced by the QCF is continued: all qualifications should have a level; this level should be under review; and this revision should take place through a managed process;

([556]) Ofqual (2016). *General conditions of recognition* (Ofqual/16/6023): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/529394/general-conditions-of-recognition-june-2016.pdf

([557]) UK Government web page of the consultation on *After the QCF: a new qualifications framework* (go to Consultation description): https://www.gov.uk/government/consultations/after-the-qcf-a-new-qualifications-framework

([558]) Ofqual (2014). *Consultation on withdrawing the regulatory arrangements for the qualifications and credit framework* (Ofqual/14/5490): http://webarchive.nationalarchives.gov.uk/20140813095715/http://www.ofqual.gov.uk/ofdoc_categories/consultation-docs/withdrawing-the-regulatory-arrangements-for-the-qualifications-and-credit-framework-july-2014/

([559]) To reduce the overall number of qualifications, the QCF introduced the principle of 'unit sharing', requiring awarding organisations to share units adding up to qualifications. Shared units were supposed to be available in a 'unit bank' to be used as building blocks by awarding organisations. Ofqual reports that organisations are reluctant in engaging in the development of these shared units and that this lack of commitment has a negative impact on development and innovation. Whether this point of view is shared by stakeholders remains to be seen in consultation responses.

(b) the level descriptors of the QCF are simplified, not including a separate section on autonomy and accountability (see below);
(c) all qualifications registered in the framework will be assigned a measure of size, expressed in total qualification time (TQT) and guided learning hours (GLH) ([560]);
(d) if recognition of prior learning (RPL) is allowed, awarding organisations should be required to have and to publish a policy on it;
(e) a new condition regarding credits is introduced ([561]).

The concepts of 'guided learning hours' and 'total qualification time' are important for the RQF and will be applied to all qualifications. Guided learning ([562]) (GLH) is made up of activities completed by the learner under the direct instruction or supervision of a lecturer, supervisor or tutor, whether through physical presence or electronic means. Total qualification time (TQT) is made up of the GLH plus all other time taken in preparation, study or any other form of participation in education or training but not under the direct supervision of a lecturer, supervisor or tutor. TQT will be indicated for all RQF qualifications by the end of 2017.

The RQF downplays the role to be played by credits. Awarding organisations can attribute credits to qualifications, but are not obliged to do so. The credit value of a qualification is calculated by dividing TQT by 10. If credits are calculated these should be included in the qualification specification. Any qualification component to which credit is assigned should also be levelled. The unit-bank introduced by the QCF (allowing for unit sharing between different awarding organisations and qualifications) is closed, reflecting the 2014 evaluation findings.

([560]) Size in the RQF refers to the estimated total amount of time it could typically take to study and be assessed for a qualification. This can be anything from a matter of hours to several years of study; different students can take different amounts of time to study the same qualification. Size is expressed in terms of total qualification time (TQT). The part of this TQT that is spent being taught or supervised is known as guided learning hours (GLH).
([561]) Credit will be calculated by dividing TQT by 10.
([562]) Guided learning hours were also used by the QCF.

Levels and use of learning outcomes

The RQF includes an entry level (subdivided into entry 1 to 3) and levels 1 to 8. The level descriptors provide a general, shared understanding of learning and achievement at each of the nine levels. The level descriptors are designed for across a wide range of learning contexts. Levels 5 to 8 are consistent with the levels of the FHEQ in England, Wales and Northern Ireland.

The RQF level descriptors build on, but simplify, the descriptors used by the QCF. While the QCF operated with three categories – knowledge and understanding; application and action; autonomy and accountability – the RQF operates with two categories – knowledge and skills. This is illustrated in Table 97.

Stakeholder involvement and institutional arrangements

The QCF was jointly developed, tested and implemented by the Qualifications and Curriculum Authority (QCA) in England; the Council for Curriculum, Examinations and Assessment in Northern Ireland; and the Welsh Assembly Government in Wales. These qualifications regulatory bodies were responsible for regulating qualifications within the QCF and NQF. When QCA was disbanded following the change of government in 2011, Ofqual took over main responsibility for framework developments and is now responsible for the implementation of the

Table 99 New descriptors for level 1 of the RQF

Level	Knowledge descriptor (the holder….)	Skills descriptor (the holder can….)
Level 1	Has basic factual knowledge of a subject and/or knowledge of facts, procedures and ideas to complete well-defined routine tasks and address simple problems; and is aware of aspects of information relevant to the area of work.	Use basic cognitive and practical skills to complete well-defined routine tasks and procedures. Select and use relevant information. Identify whether actions have been effective.

Source: Ofqual (2015). *Qualification and component levels: requirements and guidance for all awarding organisations and all qualifications* (Ofqual/15/5774). https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461637/qualification-and-component-levels.pdf

RQF. The introduction of the RQF took into account the opinions from key stakeholders responding to a consultation launched March 2015. A total of 119 responses were registered ([563]).

Recognising and validating non-formal and informal learning and learning pathways ([564])

There are a number of routes through which learners can have their non-formal and informal learning recognised and validated in England and Northern Ireland. Recognition of prior learning (RPL) is used in relation to formal, regulated qualifications. In vocational education, RPL is mainly used to tailor the learning offer; in higher education (HE), it can be used for access, exemption and award. In England, progress and achievement in non-regulated learning (non-accredited learning) can be recognised through a five-stage process known as RARPA (recognising and recording progress and achievement), though this does not lead to any form of certification. National vocational qualifications (NVQs) offer an opportunity to validate workplace learning. They are aimed mainly at people in work and lead to a nationally recognised qualification, proving the ability to perform an occupation to a nationally recognised occupation standard. There are also separate validation initiatives in the third sector. However, there is no system in place to coordinate validation activities taking place in the different sectors.

There is no specific national strategy devoted to RPL but it is referenced in both the Skills Funding Agency and Ofqual policies for funding and qualifications, respectively. This means that the actual offer of RPL depends on the awarding organisations and providers themselves. The process is designed to be self-governing and allow for RPL validation where it is relevant, but not to impose an overly rigid model on those who deliver qualifications. The advantage is that each validation process, and even each individual procedure of validation, can be tailored to the learner(s) in question; the potential disadvantage is that, without a greater drive at national level, it is likely that the numbers of people actually benefiting from RPL opportunities will remain low.

Where qualifications are awarded through RPL, these are the same as those earned through formal learning opportunities, although it may not be possible to achieve the same graded outcomes; instead, the outcomes of RPL are either 'pass' or 'fail'. As such, there is no question of whether the outcomes of validation are 'trusted' by stakeholders and in society, since they are the same outcomes.

There is no data to show the extent to which RPL takes place in England and Northern Ireland, but it is thought that, in practice, it is relatively small-scale. Nevertheless, it is worth noting that for vocational qualifications (referring here mainly to regulated qualifications), it is generally accepted practice to assess a learner to determine the training s/he requires to achieve a qualification. This process of initial assessment, leading to a tailored learning opportunity, is not generally referred to or understood as a specific process of RPL but, where it happens, it is a recognised practice and leads to the discounting of funding so that government only pays for the activity that is delivered. In the higher education (HE) sector, RPL is more commonly used for access into university programmes; data is not collected to show the extent to which this takes place. For the application of RPL to increase, further support and awareness-raising amongst providers and other practitioners involved in working with learners would be needed. This includes resources in terms of staff numbers and staff development, as well as a funding methodology which supports the process and makes it a viable option for providers to offer.

NQF implementation

Three different qualifications frameworks were operational in England and Northern Ireland until October 2015: the qualifications and credit framework (QCF), the national qualifications framework (NQF), and the framework for higher education qualifications (FHEQ). After extensive consultation throughout 2014 and 2015, and following a review of the QCF ([565]), Ofqual – the

([563]) UK Government web page of the consultation on *'After the QCF: a new qualifications framework'*: https://www.gov.uk/government/consultations/after-the-qcf-a-new-qualifications-framework. Specific information on the analysis of the consultation: Ofqual (2015). *Analysis of responses to our consultation 'After the QCF: a new qualifications framework'* (Ofqual/15/5770): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461400/analysis-of-responses-to-our-consultation-after-the-qcf-a-new-qualifications-framework.pdf

([564]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al.,2016).

([565]) Ofqual (2014). *A consultation on withdrawing the regulatory arrangements for the qualifications and credit framework* (Ofqual/14/5490): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381547/2014-07-24-a-consultation-on-withdrawing-the-regulatory-arrangements-for-the-qualifications-and-credit-framework.pdf

qualifications regulator – withdrew the regulatory arrangements for the QCF and introduced the regulated qualifications framework (RQF). The RQF is a simple, descriptive framework which requires all regulated qualifications to have a level and size. It is supported by Ofqual's General conditions of recognition ([566]) and statutory guidance ([567]).

A total of two years is foreseen for the full implementation of the RQF. The operational activities closely associated with framework implementation include: accreditation of certain types of qualifications; auditing of awarding organisations against regulatory requirements, including their use of framework level descriptors and the way they describe the size of their qualifications; recognition of awarding organisations to offer certain types of qualifications; and policy development ([568]). All qualifications registered in the framework are required to have total qualification time assigned by the end of 2017.

Ofqual's work on qualifications is promoted through its website and publications ([569]), and the framework level is displayed on all certificates for qualifications referenced to the framework ([570]). Except for a few cases, EQF levels are generally not displayed on certificates and there are currently no plans to introduce this requirement. There is no requirement for issuing certificate and diploma supplements for qualifications regulated by Ofqual. The EQF level is, however, displayed along with the RQF level for each qualification in the register of regulated qualifications ([571]). The register includes GCSE, A level, AS level and vocational qualifications from England and Northern Ireland. According to Ofqual ([572]), knowledge of the framework among its users is not an end goal in itself. The aim is for users of qualifications to be aware of the nature of qualifications and the relationships between them, a goal that the framework supports. Most students become aware of the qualifications framework through their school, course provider or self-directed research.

Referencing to regional frameworks

The QCF was referenced to the EQF in February 2010 as a part of the overall UK referencing process (Qualifications and Curriculum Development Agency et al., 2010).

The FHEQ is not referenced to the EQF. While this option was discussed during the referencing process, agreement was not reached. As the five upper levels of the QCF were consistent with the FHEQ, an implicit and indirect link was established.

The replacement of the QCF and NQF with the RQF means that the UK referencing report, for England and Northern Ireland, is outdated. An update is being planned but it is not clear when (and if) this will go ahead.

Important lessons and future plans

The changes introduced in England and Northern Ireland in the past couple of years aimed to increase the validity, flexibility and value of regulated qualifications. The review of the QCF, and the related public consultations in 2014 and 2015, brought agreement that the rules governing the design of qualifications should be abandoned, devolving responsibility for qualification design to awarding organisations and learning providers. At the same time, the transparency function of the framework was maintained in the newly introduced RQF. The updated General conditions of recognition, that all awarding organisations have to comply with, are outcome-focused: they focus on what the awarding bodies and their qualifications should achieve, and not how they should achieve it. The key requirements of the RQF are that the size and the level of all regulated qualifications are described in a consistent way ([573]).

Awarding organisations are expected to review their existing qualifications to ensure that they

([566]) Ofqual (2016). *General conditions of recognition* (Ofqual/16/6023): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/529394/general-conditions-of-recognition-june-2016.pdf

([567]) Ofqual (2016). *Guidance to the general conditions of recognition* (Ofqual/16/6068): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/538339/guidance-to-the-general-conditions-of-recognition-July_2016.pdf

([568]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs* [unpublished].

([569]) Ofqual 'postcards' outlining the work Ofqual is doing, with an emphasis on current reforms to qualifications in England: https://www.gov.uk/government/publications/your-qualification-our-regulation-gcse-as-and-a-level-reforms

([570]) Across England, Wales and Northern Ireland approximately 15.5 million certificates are issued annually. All of these have a national framework level displayed.

([571]) Register of regulated qualifications: http://register.ofqual.gov.uk/Qualification

([572]) Cedefop (2015) Survey on the Sustainability and Visibility of NQFs [unpublished].

([573]) Ofqual (2015). *Withdrawing the qualifications and credit framework and introducing the regulated qualifications framework: regulatory impact assessment: summary of analysis* (Ofqual/15/5776): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/470056/withdrawing-the-qcf-and-introducing-the-rqf-impact-assessment-summary.pdf

have a correct total qualification time by the end of 2017. For many qualifications this process can be addressed as part of their existing review cycle as more than 75% have their review date between 2015 and 2017 ([574]).

The introduction of the RQF could be interpreted as a change in approach in line with the trends in NQF development in other European countries: a move towards comprehensive frameworks, less prescriptive in nature, and with a strong role of communication, as opposed to regulation.

Qualifications frameworks have existed for a number of years in England and Northern Ireland, and it is expected that the RQF will remain a permanent feature of the skills and education system in England. The country has a qualifications market with a diverse range of qualifications for users to choose from, and the RQF provides a good basis for understanding the relationship between them ([575]).

Further sources of information

Ofqual acts as EQF national coordination point: http://www.accreditedqualifications.org.uk/office-of-qualifications-and-examinations-regulation-ofqual.html

The Council for the Curriculum Examinations and Assessment Northern Ireland acts as national coordination point for Northern Ireland: http://www.rewardinglearning.org.uk/

Abbreviations

CQFW	credit and qualifications framework of Wales
EQF	European qualifications framework
CCEA	Council for Curriculum, Examinations and Assessment
FHEQ	framework for higher education qualifications
GCSE	general certificate of secondary education
NQF	national qualifications framework
NVQ	national vocational qualifications
Ofqual	Office of Qualifications and Examinations Regulation
QAA	Quality Assurance Agency for Higher Education
QCA	Qualifications and Curriculum Authority
QCF	qualifications and credit framework
RARPA	recording progress and achievement in non-accredited learning
RPL	recognition of prior learning
RQF	regulated qualifications framework
VET	vocational education and training

([574]) Ibid.

([575]) Cedefop (2015). *Survey on the sustainability and visibility of NQFs* [unpublished].

Table 100	Regulated qualifications framework (RQF) for England and Northern Ireland and FHEQ	
Qualifications levels	**Qualification types**	**EQF levels (*)**
8	• doctorate, for example doctor of philosophy (PhD or DPhil) • level 8 award • level 8 certificate • level 8 diploma	8
7	• integrated master degree, for example master of engineering (MEng) • level 7 award • level 7 certificate • level 7 diploma • level 7 NVQ • master degree, for example master of arts (MA), master of science (MSc) • postgraduate certificate • postgraduate certificate in education (PGCE) • postgraduate diploma	7
6	• degree apprenticeship • degree with honours – for example bachelor of the arts (BA) hons, bachelor of science (BSc) hons • graduate certificate • graduate diploma	6
5	• diploma of higher education (DipHE) • foundation degree • higher national diploma (HND) • level 5 award • level 5 certificate • level 5 diploma • level 5 NVQ	5
4	• certificate of higher education (CertHE) • higher apprenticeship • higher national certificate (HNC) • level 4 award • level 4 certificate • level 4 diploma • level 4 NVQ	5
3	• A level - grade A, B, C, D or E • access to higher education diploma • advanced apprenticeship • applied general • AS level • international Baccalaureate diploma • level 3 award • level 3 certificate • level 3 diploma • level 3 ESOL • level 3 national certificate • level 3 national diploma • level 3 NVQ • music grades 6, 7 and 8 • tech level	4

RQF levels	Qualification types	EQF levels (*)
2	• CSE - grade 1 • GCSE - grade A*, A, B or C • intermediate apprenticeship • level 2 award • level 2 certificate • level 2 diploma • level 2 ESOL • level 2 essential skills • level 2 functional skills • level 2 national certificate • level 2 national diploma • level 2 NVQ • music grades 4 and 5 • level - grade A, B or C	3
1	• first certificate • GCSE - grade D, E, F or G • level 1 award • level 1 certificate • level 1 diploma • level 1 ESOL • level 1 essential skills • level 1 functional skills • level 1 national vocational qualification (NVQ) • music grades 1, 2 and 3	2
Entry level 3	• entry level award • entry level certificate (ELC) • entry level diploma • entry level English for speakers of other languages (ESOL) • entry level essential skills • entry level functional skills • skills for life	1

(*) These levels are indicative as the 2010 referencing report referred to the QCF, not the RQF.

Source: UK Government, education and learning web page: What qualification levels mean: https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels

References

European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report UK England and Northern Ireland*. http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

Qualifications and Curriculum Development Agency et al. (2010). *Report: referencing the qualifications frameworks of the United Kingdom to the European qualifications framework*. http://scqf.org.uk/content/files/europe/QFUK_Joint_Report_-_Updated_March_2010.pdf

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Scotland

Introduction and context

The Scottish qualifications framework (SCQF) was originally introduced in 2001 and has since been gradually revised and refined. The Scottish credit and qualifications framework partnership (SCQFP) was set up as a company (and charity) in 2006, formally independent of national education and training authorities. This independence has allowed for active engagement with a broad group of stakeholders, including qualification authorities, quality assurance bodies, universities and colleges as well as employers. The 12-level framework, which is fully operational, covers all types of qualification and seeks to provide people of all ages and circumstances with better understanding of Scottish qualifications and the role they play in lifelong learning and workforce development. While not a regulatory framework, the SCQF is a fully integrated part of the Scottish education, training and qualification landscape. Apart from providing a set of levels and level descriptors, the SCQF is defined through its qualification database ([576]), the SCQF credit system ([577]), arrangements for recognition of prior learning ([578]) and extensive guidance and support material for employers ([579]). SCQF-levels are indicated in all qualifications-documents awarded. While playing an important role in promoting transparency of national (and international qualifications), the SCQF is increasingly focusing on level descriptors as a product in their own right and as a tool for development, for example supporting recruitment and workforce developments.

Policy objectives

The objectives pursued by the SCQF are:

(a) to support lifelong learning;
(b) to clarify entry and exit points for qualifications and programmes of learning at whatever level;
(c) to show learners/others possible routes for progression and credit transfer;
(d) to show the general level and credit (size) of the different types of Scottish qualifications;
(e) to enable credit links to be made between qualifications or learning programmes to assist learners to build on previous successes.

The SCQF addresses these objectives by making the overall system of qualifications and relevant programmes of learning easier to understand, and by providing a national vocabulary for describing learning opportunities. As one of the oldest comprehensive national qualifications framework (NQF) in Europe (and the world), the SCQF illustrates the potential of frameworks as instruments for development and, to some extent, reform. The SCQF has gradually moved beyond a simple 'communication' role (Raffe, 2009 and 2011) and established itself as a reference for revision and renewal of education and training (curricula and standards) and for human resource development.

The SCQF is an 'open framework' in that it explicitly addresses the private sector and employers, and encourages these to have their training provisions accredited and included under the framework. The benefits of inclusion are presented as follows ([580]):

(a) it gives in-house training national recognition and a comparison with nationally recognised qualifications;
(b) it helps employees to map their learning pathways and gain personal recognition for what they have achieved. It also allows them to progress into more advanced learning programmes whether in-house or via an external learning or training provider;
(c) it encourages employees to undertake learning, raises morale and increases company loyalty;
(d) it promotes skills development and helps support effective skills utilisation.

As is also the case in the other UK countries, the Scottish approach is unit-based (supported by credit points) and allows for the inclusion and levelling of qualifications of differing character and size. This also explains the high number of qualifications included in the database (more than 11 000).

Levels and use of learning outcomes

It is a requirement of the framework that all qualifications and units of qualifications included in it are described in terms of learning outcomes. The SCQF has 12 levels ranging from access

([576]) SCQF qualification database: http://scqf.org.uk/the-framework/search-database/
([577]) SCQF credit system: http://scqf.org.uk/the-framework/scqf-credit-points/
([578]) Arrangements for the recognition of prior learning: http://scqf.org.uk/more/rpl/
([579]) Guidance and support material for employers: http://scqf.org.uk/employers/

([580]) See the guide *Maximise workforce potential: an employer's guide to the SCQF: assisting employers with recruitment and selection, learning and development, and recognising in-house training:* http://scqf.org.uk/wp-content/uploads/2014/03/SCQF-Employer-Guide.pdf

(entry) at SCQF level 1, up to doctorate at level 12. The different levels indicate the level of difficulty of a particular qualification and increases in levels relate to factors such as:

(a) the complexity and depth of knowledge and understanding;
(b) links to associated academic, vocational or professional practice;
(c) the degree of integration, independence and creativity required;
(d) the range and sophistication of application/ practice;
(e) the role(s) taken in relation to other learners/ workers in carrying out tasks.

The Scottish level descriptors were revised in 2012. Not a radical departure from the past, revision can be seen as part of continuous evolution of the framework based on experiences gained. The three access (entry) levels are seen as important in addressing the needs of individuals with particular learning needs and as an important part of an overall lifelong learning strategy. For some, the access level can function as a way back to formal education and training.

Stakeholder involvement and institutional arrangements

The framework is maintained by the Scottish Credit and Qualifications Framework Partnership (SCQFP) which is a company limited by guarantee and also a Scottish charity. The partnership is made up of the Scottish Qualifications Authority, Universities Scotland, Quality Assurance Agency, Association of Scotland's Colleges, and Scottish Ministers. Employers are furthermore represented in the SCQF partnership board.

A degree of ownership can be observed with the SCQF, in all sectors of education and training as well as by labour market stakeholders. This reflects how the framework has been able to address different types and levels of qualifications, covering higher education institutions, Scottish vocational qualifications, and the national and higher national qualifications.

The SCQF employed 10 staff in 2015 (of which six are full time). Budget is provided by the Scottish Government and the Scottish Funding Council and amounted in 2015 to approximately GBP 700 000. Additional income was generated through consultancy work and through European qualifications framework (EQF) subsidies.

Recognising and validating non-formal and informal learning and learning pathways ([581])

Scotland's approach to validation of non-formal and informal learning (referred to as recognition of prior learning or RPL) covers prior formal, non-formal and informal learning in all sectors and can be used for both formative and summative outcomes.

Centralised guidance on RPL is provided by a number of organisations, including the Scottish Credit and Qualifications Framework Partnership (SCQFP), the Quality Assurance Agency for Higher Education in Scotland (QAA Scotland) and the Scottish Qualifications Authority (SQA). Most RPL activity currently appears to be in relation to higher education. The national RPL framework for higher education (QAA Scotland et al., 2014) remains the key framework for RPL in this sector. The framework attempts to locate RPL within broader developments linked to establishing more flexible and efficient learner journeys, a more flexible and accessible curriculum, and enabling greater participation in higher education by learners from a wide range of backgrounds. In 2014, there were two national RPL networks: one run by the SCQFP, and the Scottish Higher Education RPL Network, supported by QAA Scotland and Universities Scotland. The SCQFP RPL Network is no longer active. Little has changed in Scottish RPL in recent years and there has been limited progress in RPL policy or practice.

One of the barriers to take-up is a perception among providers that RPL is expensive and time-consuming: it can seem easier and cheaper to include a person in a course rather than to carry out a one-to-one RPL process. Lack of explicit resourcing is also an important barrier, particularly in the college sector. For instance, if a learner uses RPL to reduce the learning he/she needs to undertake to acquire a qualification, this can affect their 'status' and the funding they are entitled to. This might mean that the learner is required to pay for the learning him/herself. Another issue is that there is no 'centre' for validation in Scotland; instead validation is the responsibility of providers with support and guidance from SCQFP, QAA Scotland and SQA. This means that the trust in RPL procedures and achievements will depend on the provider in question.

Guidance and advice is provided nationally but there is no national policy or strategy on RPL that obliges

([581]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

providers to offer RPL opportunities or that sets out a single set of practices or procedures. Providers offering RPL opportunities have a wide variety of practices and procedures, which can be confusing to learners. A national strategy would be needed to improve the current arrangements, setting out the responsibilities of the different stakeholders involved. At the same time, SCQFP has limited capacity to promote RPL and to offer advice and guidance.

A strength of the Scottish approach is the speed and flexibility with which RPL procedures can be implemented. Different sectors and employers are able to participate if they wish. A potential enabler of increased use of RPL is to link it to other policy agendas:

(a) developing the young workforce (Scotland's youth employment strategy);
(b) outcome agreements (setting out what colleges and universities plan to deliver in return for their funding from the Scottish Funding Council);
(c) closing gaps in educational attainment;
(d) putting learners at the centre (wide-ranging reform of the full range of government-funded post-16 education in Scotland);
(e) widening access to higher education.

NQF Implementation

The SCQFP systematically uses evaluations to inform developments. The 2013 evaluation of awareness among end-users (learners and their parents) and the 2015 evaluation of the use of the SCQF by higher education institutions and colleges are of particular interest.

The 2013 evaluation looked at the level of awareness, perception and understanding of the SCQF among learners, parents, teaching staff and management (Ashbrook, 2013). This evaluation, based on a combination of focus groups (27), on-line questionnaires (1444 responses), face-to-face interviews (250) and in-depth interviews (16), gives a valuable insight into the level of implementation of the framework. The results are encouraging and demonstrate that the SCQF is widely recognised by learners, parents and education professionals in Scotland. The evaluation is also important outside Scotland as it provides research-based documentation on the impact of the framework at the level of end-users.

The following main findings were reported for the learners:

(a) 53% of all learners reported that they are aware of the SCQF. The level of knowledge varied between the different parts of education, with the highest levels found in schools (63%) and the lowest in community adult education. Some learners are aware of the qualifications levels, but do not associate them with the SCQF as such, indicating that the actual level of awareness is higher than 53%;
(b) half of the learners aware of the framework have actively used it. Learners at schools are most likely to use it, supporting them in planning future education and training careers. The framework is used less in further education and in community adult education, reflecting low levels of awareness.

Among parents, the following findings were reported:

(a) around a third of the parents interviewed have heard of the SCQF. Most had developed their awareness through an education institution (53%); 47% reported that they had become aware of the framework through their children;
(b) virtually everybody participating in the interviews recognised the added value of the SCQF and supported that parents should be more actively informed about the framework and its potential role in supporting their children's educational choice.

The findings of the evaluation pointed to a number of areas for future development of the framework.

Some of the recommendations were:

(a) the role of the SCQF levels in providing a reference for all qualifications must be further promoted;
(b) the SCQF brand should be strengthened;
(c) toolkits should be developed for different purposes; supporting the practical use of the different elements of the framework.

The 2015 evaluation ([582]) looked at the use of the SCQF among higher education institutions and colleges (Kerson Associates Ltd, 2015). The purpose was to establish if, and how, higher education organisations are using the framework, and how that use is impacting on their provision and strategic

([582]) This is a follow-up to an evaluation carried out in 2012 addressing the same institutions. The 2015 report looks at progress made since the initial evaluation (Kerson Associates Ltd, 2015).

direction, including credit transfer and recognition of prior learning. Recommendations were given in three main areas: credit rating (of core and non-core provision), work-based qualificators and apprenticeships, as well as recognition of prior learning (including credit transfers).

The evaluation shows that the SCQF is well embedded into course development and quality assurance procedures in colleges and is used as part of internal quality assurance to inform course/programme approval and course/curriculum reviews. Feedback from college online surveys confirmed that the most popular activities that the SCQF is used for are completing course approval/validation documentation, developing national qualifications with SQA, and determining learning, teaching and assessment methods for module/units. The SCQF is used to support curriculum planning to ensure a balance of provision at different SCQF levels across college curriculum portfolios. Colleges that have merged reported that they have used the SCQF to inform curriculum mapping and development of merged curriculum portfolios. The SCQF has assisted them, to ensure that their curriculum provision offers progression pathways across different SCQF levels. This was evident at both school/department level and institutional level.

In the design and development of curriculum and credit bearing programmes leading to qualifications, however, the use of the SCQF level descriptors and other resources continues to vary across higher education. The majority of colleges reported that the use of SCQF documentation and resources are widespread and embedded in curriculum decision making, especially in relation to the development of progression pathways and highlighting gaps in curriculum provision. A few colleges reported that the SCQF is used infrequently, with some stating that merger and cutbacks in the sector have resulted in loss of experienced staff and expertise to use the SCQF. As the core qualifications offered by colleges continue to be awarded by the SQA, teaching staff are not designing programmes regularly and, as a result, use SCQF level descriptors infrequently.

Referencing to regional frameworks

The SCQF was referenced to the EQF in February 2010 as a part of the overall UK referencing process (Qualifications and Curriculum Development Agency et al., 2010).

Important lessons and future plans

The SCQF is one of the oldest comprehensive NQFs in Europe. It has gradually evolved from an instrument for transparency and communication of qualifications to a reference tool for revision of education and training and for human resource development. Given the government's focus on articulation of progression pathways, the interest in promoting, valuing and recognising all types of learning, and the full buy-in of stakeholders, the SCQF has a secure position as a permanent feature of the national qualifications system. Its success factors include regular evaluations of the framework, helping to ensure its relevance; and its governance, based on a partnership model with collaboration and good links to the government and other networks. The SCQFP is seen as a completely neutral organisation, allowing engagement of a wide range of stakeholders.

A 2013 evaluation of the framework revealed that the level of awareness about the SCQF among learners, parents, teaching staff and management is high and its added value is well recognised. The next steps recommended following this evaluation include continued promotion of the SCQF levels as a reference for all qualifications, strengthening of the SCQF brand, and supporting the practical use of the different elements of the framework by developing toolkits for different purposes.

According to the 2015 evaluation of the use of the SCQF by higher education institutions and colleges, SCQF documentation and resources are well embedded in curriculum decision-making processes, aiding the development of progression pathways and highlighting gaps in provision. The framework is also used in quality assurance processes to inform course/programme approval and course/curriculum reviews. However, use of the SCQF level descriptors is not uniform across the higher education sector.

The opportunities and challenges for the future implementation of the framework in the coming years include the need to ensure continuation of funding at the same rate, an emphasis on employer engagement, and the further development of an RPL system.

Table 101 Scottish qualifications framework (SCQF)

SCQF levels	SQF qualifications			Higher education qualifications	SVQ, modern apprenticeships	EQF levels
12	Some SQA qualifications have changed between 2013-16. See http://www.squa.org.uk/readyreckoner			Doctoral degree	Professional apprenticeships	8
11				Master degree	Professional apprenticeships/ SVQ 5	7
10				Honours degree	Professional apprenticeships	6
9			Professional development award	Bachelor/ ordinary degrees/ graduate diploma, graduate certificate	Technical apprenticeship/ SVQ 4	
8		Higher national diploma		Diploma of higher education	Technical apprenticeship/ SVQ 4	5
7	Advanced higher Scottish baccalaureate	Higher national certificate		Certificate of higher education	Modern apprenticeship/ SVQ 3	
6	Higher				Modern apprenticeship/ SVQ 2	4
5	National 5, intermediate 1				SVQ 1	3
4	National certificate 4, access 3					2
3	National 3, access 3					1
2	National 5, access 2					
1	National 5, access 1					

Source: QAA Scotland et al., 2014.

Further source of information

Scottish credit and qualifications framework partnership acts as national coordination point for Scotland. http://www.scqf.org.uk/

Abbreviations

CQFW	credit and qualifications framework of Wales
EQF	European qualifications framework
CCEA	Council for Curriculum, Examinations and Assessment
FHEQ	framework for higher education qualifications
GCSE	general certificate of secondary education
NQF	national qualifications framework
NVQ	national vocational qualifications
Ofqual	Office of Qualifications and Examinations Regulation
QAA	Quality Assurance Agency for Higher Education
QCA	Qualifications and Curriculum Authority
SCQFP	Scottish credit and qualifications framework partnership (SCQFP)
SCQF	Scottish qualifications framework
RPL	recognition of prior learning
VET	vocational education and trainingn

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Wales

Introduction and context

The credit and qualifications framework for Wales (CQFW) was adopted in 2002 and launched in 2003. Its purpose is to act as an overarching structure to provide clarity for the existing education systems; it includes all formal and regulated qualifications (including higher education) as well as quality-assured lifelong learning (QALL). The framework has no regulatory functions, but helps to bring together the main stakeholders involved in regulating Welsh qualifications.

The CQFW is operational and can be seen as a second generation framework, departing from sector frameworks established from the 1990s onwards. Following evaluation of the CQFW in 2014 (Welsh Government, 2014) ([583]) a number of changes have been introduced, partly reflecting the setting up of Qualifications Wales ([584]), a new government body responsible for regulated qualifications (outside higher education). Changes were also introduced to the quality-assured lifelong learning pillar of the framework, seeking to clarify the way non-formal and informal learning is recognised.

Abolition of the qualifications and credit framework (QCF) in England and Northern Ireland has also influenced the CQFW. From 2015 all regulated qualifications will refer to the new Ofqual level descriptors introduced for the regulated qualifications framework (RQF) in England and Northern Ireland ([585]). Non-regulated qualifications will continue to refer to the original CQFW descriptors.

Policy objectives

The CQFW is seen as an 'enabling tool' in relation to Welsh Government's economic and skills policies and goals. It should therefore:

(a) offer a national qualifications framework for learners in Wales of all ages and abilities;
(b) provide a common currency for learning achievement;
(c) support the recognition of credit and qualifications across all levels, enabling learners to progress;
(d) support providers in articulating pathways of progression that are easily understood and are transferable and consistent within Europe and the wider international community.

The CQFW embraces three common principles:

(a) expression of achievement as learning outcomes;
(b) the demands made by that learning on the learner (level);
(c) the volume of learning achievements (credit).

Together, these principles underpin all styles/types of learning in all sections of education and training. The CQFW is positioned as a key part of Wales' lifelong learning policy and strategy. The framework operates according to five key goals, to:

(a) enable everyone to develop and maintain essential skills;
(b) encourage people to become lifelong learners;
(c) exploit the knowledge in business and education institutions;
(d) encourage business and workers to gain new skills;
(e) help people within their communities to develop new skills.

For formal education and training, the framework supports all recognised, credit-based learning within:

(a) higher education;
(b) regulated general and vocational qualifications.

The system for quality-assured lifelong learning (QALL) forms a third and integrated pillar of the CQFW. It takes as its starting point that all learning, wherever and whenever it takes place, should be valued and recognised. In the last few years much effort has been invested in putting this system of validation into practice. While enjoying some success, the number of individuals actually using this opportunity has been limited and a discussion on its future development continues (see below).

The CQFW can be considered an 'open framework' in the sense that its unit-based approach at the outset is oriented towards a multitude of awarding bodies and education and training formats. This aids inclusion of units developed (for example) by the private sector and as part of continuing and enterprise-based education and training.

([583]) See the relevant web page of the Welsh Government: http://wales.gov.uk/statistics-and-research/evaluation-impact-credit-qualifications-framework-wales/?lang=en
([584]) Welsh Government web page on qualifications and their regulation, including the establishment of Qualifications Wales: http://gov.wales/topics/educationandskills/qualificationsinwales/?lang=en
([585]) See chapter on UK England and Northern Ireland.

Levels and use of learning outcomes

There are nine levels in the CQFW: entry plus eight levels. There are common level descriptors which apply to all types of learning programme and qualification.

All qualifications and learning programmes within the CQFW are based on learning outcomes and must have quality-assured assessment of these outcomes. The CQFW uses two measures to describe qualifications:

(a) the level of the outcomes of learning;
(b) the volume of outcomes, described by the number of CQFW credit points.

With effect from 1 December 2015, Qualifications Wales (which has oversight of the regulated pillar) adopted the revised Ofqual level descriptors following the withdrawal of the QCF in England (see chapter on UK England and Northern Ireland). These set out knowledge and skills at each level and are broadly the same as the CQFW knowledge and understanding descriptors. The category of 'autonomy and accountability' has been removed from regulated qualifications.

The Ofqual level descriptors adopted by Qualifications Wales apply to vocational and general qualifications within the regulated pillar only. All other learning must comply with the CQFW level descriptors (2009) which set out application/action and autonomy/accountability, as these categories remain important within the higher education and quality-assured lifelong learning pillars.

Table 100 shows how the 2009 descriptors have been structured and designed (level 1).

Stakeholder involvement and institutional arrangements

The Credit and Qualifications Framework for Wales (CQFW) is managed by a strategic operational partnership comprising the Welsh Government, Higher Education Funding Council for Wales (HEFCW) and Qualifications Wales.

The 2014 evaluation notes that the CQFW is particularly well established in certain sectors: higher education and adult and community learning. For other sectors, however, engagement was lower. Stakeholders generally perceived engagement with the framework to be low among employers and most learners, and that there is a need to increase awareness of – and buy-in to – the framework across education and training sectors. This mixed assessment was balanced by the fact that stakeholders are generally aware of the CQFW and its roles and it is considered a useful information tool, providing coherent understanding of the Welsh qualifications system. The governance structure applied for the CQFW following the 2014 evaluation is illustrated in Figure 27.

Recognising and validating non-formal and informal learning and learning pathways ([586])

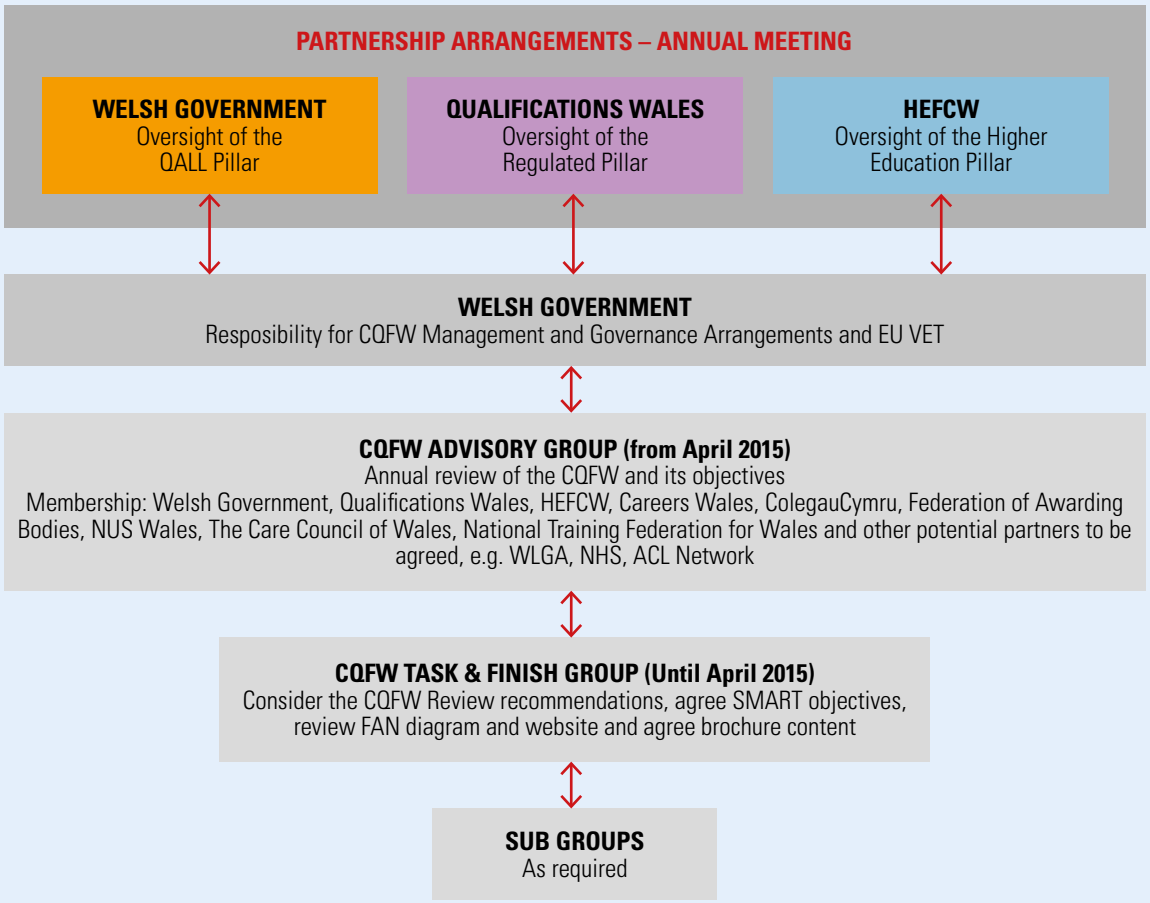
Non-formal learning can be recognised in a number of ways in Wales. First, recognition of prior learning (RPL) is possible for individuals using their

([586]) This section draws mainly on input from the 2016 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., 2016).

Table 102 Structure and design of the 2009 descriptors (level 1)

Level	Summary	Knowledge and understanding	Application and action	Autonomy and accountability
Level 1	Achievement at level 1 reflects the ability to use relevant knowledge, skills and procedures to complete routine tasks. It includes responsibility for completing tasks and procedures subject to direction or guidance.	Use knowledge of facts, procedures and ideas to complete well-defined routine tasks. Be aware of information relevant to the area of study or work.	Complete well-defined routine tasks. Use relevant skills and procedures. Select and use relevant information. Identify whether actions have been effective.	Take responsibility for completing tasks and procedures subject to direction or guidance as needed.

Figure 27 CQFW governance structure



previously acquired learning to obtain or access formal qualifications on the CQFW, including higher education (HE) and vocational qualifications. Access to higher education courses includes opportunities for recognition of prior learning. Second, the quality-assured lifelong learning (QALL) pillar of the CQFW is intended to recognise non-formal learning provision as a unit on the CQFW. Third, national vocational qualifications (NVQs) offer an opportunity to validate workplace learning.

Opportunities for RPL are developed from a sectoral perspective, with different approaches for VET, HE and adult learning. A bottom-up approach is taken, with awarding organisations and learning providers developing their own policies (and practices in the case of providers) for RPL. There are no systems to coordinate validation across the different sectors of learning in Wales and no sectors are given priority. The question of trust in the outcomes of RPL is not really an issue, since outcomes (access, award of credits/qualifications) are not usually different to those acquired by learners who have pursued a formal route; an exception is the case of Agored Cymru ([587]) qualifications, where certificates and/or credit transcripts awarded by Agored Cymru identify RPL credits specifically. However, the QALL pillar of the CQFW serves to increase trust in and recognition of non-formal learning provision, which is acknowledged through this pillar.

The CQFW is a potential enabler for validation in Wales. One of the main impacts identified by stakeholders is greater recognition of prior learning through the QALL pillar, with particular benefits for disadvantaged learner groups, helping to raise aspirations and promote progression opportunities. Stakeholders identified the flexibility created by the CQFW as a benefit and, through RPL, the framework is said to have helped employers and employees to avoid duplication of training.

([587]) Agored Cymru (https://www.agored.cymru/) is an awarding organisation approved to operate in the qualifications and credit framework. It creates nationally recognised, quality-assured qualifications and units across a diverse range of subjects.

Nevertheless, in Wales, as in the other countries of the UK, use of RPL remains at the discretion of individual providers. Data are not collected at national level, except in the HE sector, where they are only collected in relation to RPL provision (APEL ([588]) modules) and not in relation to access aided via RPL. Aside from this, evidence of the use of RPL can only be found in relation to individual examples of initiatives, such as those put forward in this report.

According to stakeholders interviewed in 2014 and 2016, potential obstacles to further development include the lack of strategic drive to promote RPL at national level, lack of awareness amongst learners of RPL opportunities, lack of expertise among providers, or lack of confidence to carry out RPL or trust in RPL processes (in the HE sector). It is also possible that the lack of dedicated funding for RPL (except in the HE sector) is a disincentive to what can be perceived as a process that is difficult to administer and time-consuming (for both individual applicants and providers). In relation to non-formal provision, Agored Cymru is in the early stages of working on ways to break down barriers to utilising/incorporating RPL; to date it has not found a successful mechanism to upskill tutors or reduce costs.

While RPL is possible 'on paper', it is not clear how much it is actually offered and taken up in practice; it appears that implementation is low. In the HE sector, for instance, the RPL Wales project found that, although there is good practice in some (departments of) universities, this is limited. A more uniform approach, which can be applied across all qualifications and situations, is called for in the progress report for the RPL Wales project, to help to ensure that the Welsh workforce is able to face the changes taking place in the country's labour market (Treadwell, 2014).

NQF implementation

When adopted in 2002, a ten-year implementation plan (2003-14) was agreed. This reflected the view that framework implementation takes time and requires a long-term development perspective. The 2014 evaluation offers a good insight into the challenges involved in setting up national qualifications frameworks. The main strengths of the CQFW were summarised as follows:

(a) stakeholders from all sectors consider the CQFW to have played a main role in allowing for greater validation of non-formal and informal learning (recognition of prior and informal learning). The quality-assured lifelong learning (QALL) pillar of the framework is considered to have had an impact on disadvantaged learners and contributed to overall lifelong learning strategies. The framework was generally seen to have raised learner aspirations and contributed to promoting progression. The opportunity to add new units to the QALL pillar of the framework is seen as beneficial to the flexibility of the framework and as a condition for addressing the needs of special-needs groups;
(b) stakeholders considered the CQFW to have supported recognition of non-mainstream provisions, enabling providers to extend their overall offers to the benefit of learners. It was stated that the framework made it possible to develop these non-mainstream provisions in a consistent way, referring to the levels and the descriptors of the framework;
(c) the CQFW was seen as supporting a 'common currency' of credit that has made it easier to articulate and communicate achievements across sectors, levels and geographic areas. The levels descriptors are considered to support consistency and trust between stakeholders; consistency, it is argued, allows learners to understand better what their qualifications are worth and to map various progression pathways;
(d) a broad range of stakeholders appreciated the flexibility offered by the unit-based approach. These stakeholders, including awarding bodies, sector skills councils, training providers and third sector organisations, noted this approach as a major benefit, allowing for rapid renewal of provisions and for meeting the needs of a diverse groups of learners. The framework, by providing an overview, also made it possible to avoid duplication of units and qualifications, delivering economic benefit;
(e) several stakeholders note the role played by the framework for supporting transfer and progression outside Wales, in particular in relation to the rest of the UK.

The main weaknesses of the CQFW were considered to be the following:

(a) most stakeholders consider that potential of the CQFW has not been used in practice as much as originally hoped. Despite having been used in some sectors, the 'concept has not taken off in a great scale'. Despite some work carried out by the Welsh government, the framework has yet to reach the general public, employers and learners. Arrangements for recognition of prior learning (see also below) are considered by some to be too complicated and run the risk of discouraging potential users;

([588]) APEL: accreditation of prior experiential learning.

(b) it was generally concluded that too few employers engage in or are aware of the framework. While this reflects a general lack of visibility of the CQFW, some stakeholders point to the fact that the English-Northern Irish QCF is the dominant framework in the UK and that some employers may prefer to relate to this and not limit themselves to Wales;
(c) some stakeholders pointed out that credit accumulation and transfer has not played the role originally expected; learners and employers seem to be more focused on full qualifications than credits in the current situation;
(d) the most important criticism of implementation of the framework was directed to the Welsh Government and the lack of 'strategic investment' in it. It is noted that recent policy documents and statements place little emphasis on the role of the framework in the wider Welsh education and training landscape.

Referencing to regional frameworks

The CQFW was referenced to the EQF as a part of the overall UK referencing process in February 2010 (Qualifications and Curriculum Development Agency et al., 2010). As with England and Northern Ireland, no link was established between the FHEQ and EQF. This was based on the argument from the HE-sector that no additional benefit of such a link could be observed. This decision can be reviewed in the future, depending on the developments of the EQF and feedback from potential users of the frameworks.

Important lessons and future plans

In the 2014 evaluation of the framework, commissioned by the Welsh Government, stakeholders pointed out that the increasing divergences between the Welsh and the English education and training systems offers an opportunity for the CQFW to present the Welsh qualification landscape and to inspire its further development and reform.

Overall, stakeholders responding to the evaluation recognised the role played by the CQFW as a unifying framework; there was general support for its further development and implementation. In 2015, based on the findings of the evaluation, the following recommendations were made ([589]):

(a) to support CQFW as a meta-framework that underpins future qualification strategies;
(b) to revise the aims and objectives so that it evolves to become a 'functional' national qualifications framework which acts as a vehicle for describing the qualifications system in Wales;
(c) to simplify and raise the levels of understanding and profile of the CQFW;
(d) to maintain relationships with other UK nations to ensure alignment of frameworks across the UK and Europe;
(e) to redesign the QALL pillar to allow separation of lifelong learning that is formal from the non-formal;

([589]) Welsh Government (2016): http://gov.wales/topics/educationandskills/qualificationsinwales/creditqualificationsframework/?lang=en

Figure 28 Credit and qualifications framework for Wales – Learning and progression routes

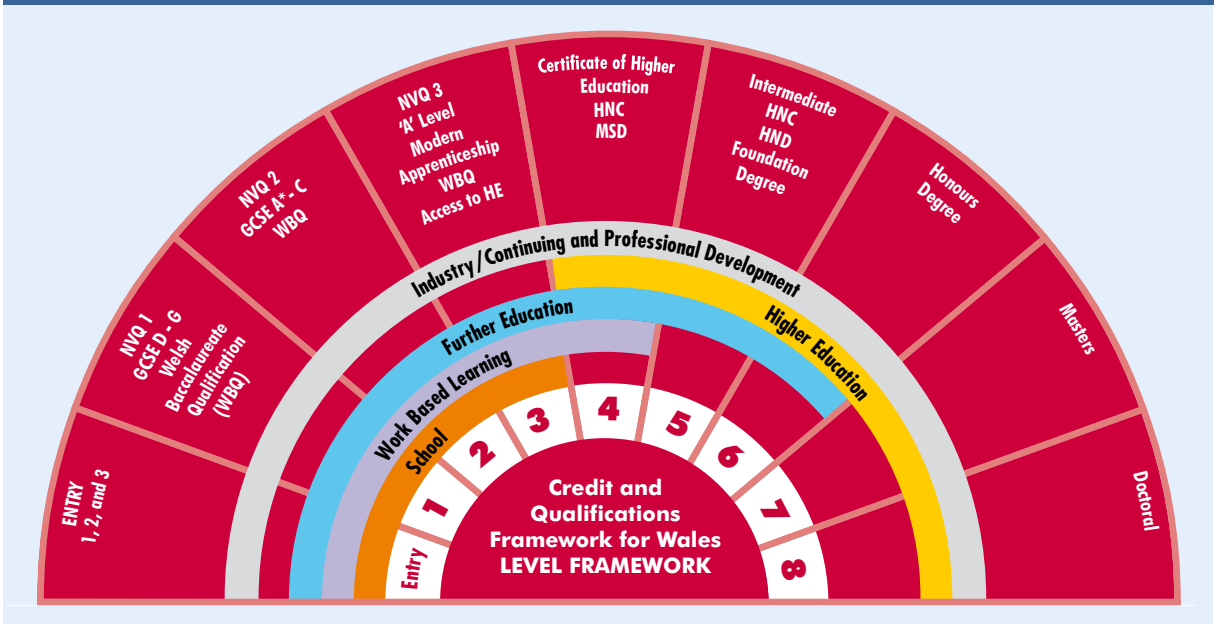


Table 103	Credit and qualifications framework for Wales (CQFW)	
CQFW levels	**Qualification types**	**EQF levels**
8	Doctoral degree	8
7	Master degree Integrated master degree Postgraduate diploma Postgraduate certificate in education	7
6	Bachelor and Honours degrees Professional graduate certificate in education Graduate diploma	6
5	Diplomas of higher education Higher national diploma (HND) Foundation degree	5
4	Foundation degree Higher national certificates (HNC) Certificates of higher education	
3	Vocational qualifications level 3, GCSE and 'A' level, Welsh baccalaureate qualification (WBQ) advanced	4
2	Vocational qualification level 2, Welsh baccalaureate qualification (WBQ) intermediate, General certificate of secondary education (GCSE) (grades A-C)	3
1	Vocational qualification level 1, General certificate of secondary education (GCSE) (grades D-G) Welsh baccalaureate qualification (WBQ) foundation	2
Entry level	Entry qualification, ESW	1

Source: QAA Scotland et al., (2014.) *Qualifications can cross borders: a guide to comparing qualifications in the UK and Ireland*: http://www.qaa.ac.uk/en/Publications/Documents/qualifications-can-cross-boundaries.pdf

(f) to move ownership of the QALL pillar from government back to the sector, with a view to making formal and non-formal learning less bureaucratic and more accessible;
(g) to revise existing publicity materials and use them to promote and raise the profile of the CQFW. Existing electronic communication and marketing mechanisms will also be utilised;
(h) to establish a CQFW advisory group, with membership drawn from wider key stakeholders;
(i) for Qualifications Wales to provide oversight of the regulated qualifications pillar.

Further sources of information

The Welsh Government - CQFW web page: http://gov.wales/topics/educationandskills/qualificationsinwales/creditqualificationsframework/?lang=en

CollegesWales (ColegauCymru) is the EQF NCP: http://www.collegeswales.ac.uk/

Abbreviations

CQFW	credit and qualifications framework for Wales
EQF	European qualifications framework
FHEQ	framework for higher education qualifications in England, Wales and Northern Ireland
HEFCW	Higher Education Funding Council for Wales
NQF	national qualifications framework
NVQs	national vocational qualifications
QALL	quality-assured lifelong learning
QCF	qualifications and credit framework
RPL	recognition of prior learning
VET	vocational education and training

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European Commission; Cedefop; ICF International (2016). *European inventory on validation of non-formal and informal learning 2016: country report UK Wales.* http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory#country

Qualifications and Curriculum Development Agency et al. (2010). *Report: referencing the qualifications frameworks of the United Kingdom to the European qualifications framework*. http://scqf.org.uk/content/files/europe/QFUK_Joint_Report_-_Updated_March_2010.pdf

Treadwell, P. (2014). *Valuing work based learning and recognising experience: a progress report of the recognising prior learning Wales project.*

Welsh Government (2014). *The credit and qualifications framework for Wales: a qualitative review of its impact.* http://gov.wales/docs/caecd/research/2014/140717-credit-qualifications-framework-qualitative-review-impact-en.pdf

Prepared by:

The European Centre for the Development of Vocational Training (Cedefop) in collaboration with national experts.

UNITED REPUBLIC OF TANZANIA

Introduction and context

The 1995 education and training policy provided for the coordination of education and training in Tanzania through the establishment of quality assurance bodies for different levels. The law has mandated different bodies to undertake quality control and certification. In 1971 the National Examinations Council of Tanzania was established to determine achievement in primary and secondary education, as well as teacher and technical education. In 1995, the Vocational Education and Training Authority (VETA) was established to oversee the provision, coordination and certification of vocational education. In 1997 the National Council for Technical Education (NACTE) was established to oversee and coordinate technical education provided by non-university tertiary education and training institutions. In 1995, the then Higher Education Accreditation Council (currently the Tanzania Commission for Universities, TCU) was established to coordinate and regulate the quality of inputs, processes and outputs of and qualifications conferred by universities and their constituent colleges. Several professional bodies, such as the National Board of Accountants and Auditors, the National Board of Materials Management and Engineers Registration Board, have been established and mandated to assure the quality of graduates for the purpose of professional registration as competent practitioners.

The Tanzania qualifications framework (TzQF) was proposed in 2009 by the Ministry of Education and Vocational Training and the TCU (TCU, 2010; SADC and UNESCO, 2010, p. 20). The TzQF builds on experience gained from the development of the existing sub-framework for technical and vocational education and training (TVET). Although implementation of the TzQF is still in progress, the government is confident that the framework will be a catalyst for systemic change in education and training.

The proposed TzQF is expected to serve as an important component of the already conceptualised Southern African Development Community (SADC) regional qualifications framework (RQF). The SADC framework subscribes to the principle of inclusiveness for educational, vocational and higher education sectors, with links between countries and plans to harmonise qualifications and learning programmes with the goal of supporting learner and worker mobility throughout the region.

Policy objectives

Following the review of experiences outside and inside Tanzania, the TzQF has been specifically designed to:

(a) create an integrated national framework for learning achievements;
(b) improve and coordinate the quality of education and training in the country by setting quality standards and moderation across fields of learning and levels of qualifications;
(c) contribute to the full personal development of each learner and the social and economic development of the nation at large;
(d) ensure linkage and coherence within the existing fragmented system of education, training and certification;
(e) generate qualifications that are comparable with those in the international scene;
(f) promote competence-based assessment practices and qualifications;
(g) encourage learners (workers and others) to continue learning and sharpening and modernising their skills and knowledge to respond to the changing needs of education and the labour market;
(h) integrate academic and vocational training, formal and informal, theoretical and practical education and training and professional qualifications within the framework of the expectations of a globally competitive workforce;
(i) promote recognition of prior learning (RPL) to bring on board acquired experiential learning and work experience.

Levels and use of learning outcomes

The 10 levels of the TzQF cover the Tanzanian education and training system in its entirety (TCU, 2010). As well as targeting all areas of formal

Table 104 Tanzania qualifications framework (TzQF)

TzQF levels	School sector	TVET sector		University education sector	Professions
		Vocational	Technical		
10				Doctorate	
9			Master (technology) degree	Master degree Postgraduate certificate Postgraduate diploma	Professional level IV
8		Vocational bachelor degree	Bachelor (technology) degree)	Bachelor degree	Professional level III
7		Higher vocational diploma	Higher diploma	Higher diploma	Professional level II
6		Ordinary vocational diploma	Ordinary diploma		Professional level I
5	Advanced certificate of secondary school	Advanced vocational certificate	Technical certificate		Technical level II
4	Certificate of secondary school	Vocational certificate	Basic technical certificate		Technical level I
3		Basic vocational certificate			
2		VET level 1			
1	Certificate of primary school				

Source: TCU, 2010.

education and training, the TzQF also makes provision for out-of-school or non-formal education; open and distance learning; and e-learning. TzQF qualifications are classified into categories of schools, TVET, universities and professions. Levels are differentiated according to the breadth, depth and complexity of the knowledge and skills imparted. These are described in terms of learning outcomes, which are designed to give both learners and employers a clear understanding of what the holder of a particular qualification can be expected to know and do; course content is kept maximally relevant to the needs of the labour market. All TzQF qualifications are linked to aid learner mobility and progression. Mechanisms are provided for RPL.

Stakeholder involvement and institutional arrangements

The TzQF was established through a participatory process which brought together a wide range of stakeholders involved in the provision of education and training and awarding certificates (TCU, 2010). In line with international best practice, Tanzania intends to establish a national qualifications authority, the TzQA, which will create and maintain an electronic register for all TzQF qualifications and providers. Establishment of the TzQA will be enacted by parliament. The TzQA Act will stipulate the responsibilities of existing bodies such as the National Examinations Council of Tanzania, VETA, NACTE, the TCU and professional bodies with respect to the TzQF (TCU, 2010).

VETA was established as an autonomous government agency to promote access to vocational

education and training for disadvantaged groups, including women and people with disabilities (SADC and UNESCO, 2010). NACTE coordinates institutions that deliver TVET courses leading to certificates at technician, semi-professional and professional levels (excluding universities and affiliated colleges) (TCU, 2010), VETA and NACTE will together be responsible for quality control and assurance, accreditation of institutions and approval of programmes (Mulugo, 2012). TzQA will establish standards-setting committees for all TzQF programmes in collaboration with the regulatory bodies under its jurisdiction.

Recognising and validating non-formal and informal learning and learning pathways

The TzQF incorporates horizontal and diagonal pathways to support movement within and between both academic and vocational streams (TCU, 2010). Special attention will be given to helping education and training institutions to articulate better their entry requirements, awards of credits and qualifications. Institutions will be required to declare publicly their entry requirements for qualifications programmes to register them on the TzQF. The adoption of credit accumulation and transfer is expected to open doors for progression at all levels of education and training; a student following a university path will be able to switch to a technical path and vice versa (TCU, 2010). Access to qualifications in Tanzania is still very much determined by formal entry requirements. However, the creation of progression pathways and RPL mechanisms through the TzQF is intended to facilitate access to training courses for learners who do not meet the full entry requirements. The TzQF draft proposes a number of RPL assessment methodologies, including interviews, challenge examinations, assignments or projects, skills demonstrations, validation of previous qualifications, and combinations of the above. The RPL process usually entails: identifying the qualifications, unit standards or learning outcomes for which a candidate believes they will meet the requirements; matching the candidate's skills, knowledge and experience with those requirements; assessing the candidate using appropriate methods; and crediting the candidate for the skills, knowledge and experience they have attained (TCU, 2010).

Referencing to regional frameworks

Tanzania is committed, as a member of SADC, to promoting regional cooperation and integration. The 1997 protocol on education and training (SADC, 1997) was signed to support harmonisation and standardisation of education and training systems as well as equivalence and comparability of qualifications within the SADC region for easy mobility of students and trained labour.

In line with other NQFs in the SADC region, particularly the South African and Namibian NQFs, the TzQF embraces and recognises the contribution made by lifelong learning and work experiences translated into credits comparable with those obtained through formal schooling. It is expected that individuals will progress academically upwards along training and career paths and across occupations if the lifelong learning approach is adopted.

Important lessons and future plans

The development of the TzQF represents a big step forward from the previous framework which focused on technical and vocational education and training (TVET) only. The division of responsibilities between TCU and the Ministry of Education and Vocational Training is becoming clearer, but still needs fine-tuning. The TCU believes that the TzQF now needs to do the following to be successful:

(a) learn from international best practice;
(b) respond to national policy objectives regarding the structure of the education and training system;
(c) gradually evolve into a comprehensive system while continuing to allow for differences between sectors;
(d) audit and accredit education and training institutions to ensure the quality of educational provision.

The TCU further recommends that the TzQF should serve the social and economic needs of the nation at large, taking into account the diversity in learning needs, qualification types and learning contexts. To do this, the framework must remain flexible enough to allow access and progression, yet robust enough to remain coherent and unified (TCU, 2010).

Abbreviations

NACTE	National Council for Technical Education
NECTA	National Examinations Council of Tanzania
RPL	recognition of prior learning
RQF	regional qualifications framework
SADC	Southern African Development Community
TCU	Tanzania Commission for Universities
TVET	technical and vocational education and training
TzQF	Tanzania qualifications framework
VETA	Vocational Education and Training Authority

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SADC; UNESCO (2010). *National TVET monitoring report for Tanzania* [unpublished].
Mulugo, P.A. (2012). Education for employment, developing skills for vocation. Presentation at *Innovation Africa, Cape Town, South Africa, 5 to 7 October 2012.*

Prepared by:
UNESCO in collaboration with national experts.

UNITED STATES OF AMERICA

Introduction and context ([590])

The credentials framework (CF) has been developed by an independent private foundation as a voluntary reference tool and not as an official government instrument. This is due to constitutional restrictions and traditional perceptions in the USA of regulatory government interventions. Nevertheless, the CF is a promising tool for addressing the country's education policy and economic domains to increase accountability at post-secondary level. Like qualifications frameworks for lifelong learning in Europe and other highly industrialised areas, the CF has the potential to promote transparency, comparability and portability, as well as quality assurance of credentials (cf. European Parliament and Council of the European Union, 2008; Raffe, 2003).

In 2010, the Lumina Foundation, an independent private foundation, initiated the development of a degree qualification profile (DQP) framework for higher education to define education quality in terms of student learning in the USA. The Lumina Foundation is committed to increasing the proportion of Americans with degrees, certificates and other high-quality credentials to 60% by 2025. Lumina's outcomes-based approach focuses on helping to design and build an equitable, accessible, responsive and accountable higher education system while fostering a national sense of urgency for action to achieve its Goal 2025 ([591]).

In early 2014, Lumina began developing an overarching sector-wide qualifications framework for lifelong learning to address both degree and non-degree credentials; one year later, the CF was launched. The framework is designed to promote transparency, comparability and connectivity, as well as quality assurance and quality development of credentials in terms of competences and learning outcomes achieved in formal and non-formal learning. This countrywide competency-based qualifications framework focuses on all post-secondary education and training credentials, regarded as the key to individual self-sufficiency, greater civic participation, higher levels of family wellbeing, and the catalyst for local, regional and national economic growth.

The CF is a response to a number of higher education challenges in the USA.

The first challenge is that only 40% of the country's adults have earned a two-year or four-year college degree in the past 40 years compared to more than 50% of young adults in other OECD (Organisation for Economic Cooperation and Development) countries.

The second challenge relates to labour market and education projections. By 2018, about two-thirds of job openings in the USA will require at least some post-secondary education and training, with an increasing number in middle-skill occupations covered by workers with an associate degree or an occupation certificate. A further issue is that over 7.7 million of the country's citizens participate in non-credit programmes that are not certified even though they correspond to credit-bearing programmes (Carnevale et al., 2010).

The diversity of sectors and providers represents the third challenge. Sub-baccalaureate post-secondary workforce education and training is a diverse part of the country's education system. It comprises a wide range of providers, including public two- and four-year institutions, for-profit colleges, universities and training programmes, and labour management partnerships. Another issue is that post-secondary career and technical education (CTE), internationally classified as advanced vocational education and training (VET),

([590]) This text summarises the essential contents of two publications:
Rein, V. (2012). US Degree Qualifications Profile: a catalyst for transparency, quality and permeability? Reflections on a work in progress. *European Journal of Qualifications*, 1, pp. 5-12.
Rein, V. (2016). Making an American credentials framework: intentions, construction, challenges and perspectives: https://bibb.academia.edu/VolkerRein and https://connections.etf.europa.eu/blogs/f062de46-649f-4ccf-80a9-190ab49938fe/entry/A_Credentials_Framework_for_the_US_A_beta_version_has_been_launched_for_tests_and_further_developments?lang=en_us

([591]) https://www.luminafoundation.org/goal_2025

is predominantly in community colleges (US Department of Education, 2005). Nationwide standards for academic degrees at community colleges, at four-year colleges and at universities do not exist in US higher academic education.

Another challenge relates to the different value and portability of certificates. While associate degrees are generally portable and are designed to articulate towards the next higher education credential, the portability of certificates within education is limited and depends on institutional articulation and transfer policies, and on their value in the labour market, particularly on employer requirements for hiring and promotion. A further problem is the diversity of non-credit programmes that have varying degrees of value in the labour market. Some non-credit programmes are non-credit courses; others are industry certification and licensures; still others are those programmes offered by government, business employers and other training providers or vendors and include a diverse number of certification, apprenticeship training, adult education, job readiness and dislocated worker training (Bird et al., 2011).

The fifth and final challenge is the lack of common definitions and standards underlying occupation credentials, especially related to middle-skilled jobs. This contributes to considerable confusion about their value in the labour market and how they relate to academic credentials (Bird et al., 2011).

Policy objectives

In response to these challenges, the Lumina Foundation proposed the development of a new system of quality credentials and credits. These were to be defined by learning outcomes and competences, rather than the time taken for completing a qualification, and offer clear and transparent pathways to students, assuring high-quality learning, aligned with workforce requirements (Lumina Foundation, 2012). The credentials framework tries to promote the following major objectives:

(a) transparency: to ensure that education and training stakeholders understand the competency-related learning outcomes associated with any sort of credentials, clarifying the meaning of these credentials and supporting learning assessment;
(b) comparability: to support stakeholders in comparing the value of various competency- and learning outcomes-oriented credentials related to the same or different education and training;
(c) portability: to support translation of the learning achieved from one credential towards another credential and support recognition of learning acquired across institutions, e.g., via credit transfer;
(d) communication and connection: to serve as a system for communicating and connecting diverse credentials (both degrees and non-credit credentials like certificates, industry certifications, licenses, apprenticeships and badges), aiding student progression and supporting a common language to improve understanding and comparison of the levels and types of knowledge and skills underlying the credentials.

Levels and use of learning outcomes

The CF focuses on knowledge and skills regarded as complementary learning domains of competency. 'Competency' is defined as the key term of the CF. In practice, competency reflects a person's ability to learn and apply a combination of knowledge and skills (Figure 29).

The learning domain 'knowledge' is described in terms of depth, breadth and dimension. The learning domain 'skills' is described in terms of types and complexity, and includes cognitive, technical, communication, interpersonal and practical skills. In the CF, skills are subdivided into specialised skills, personal skills and social skills. Knowledge and skills are to be seen in their combined and complementary functions.

The CF is structured into eight levels indicated by the degree of adaptability, range, complexity and selectivity of learning achievement. The complementarity of knowledge and skills are stressed across all levels of the CF and provide an overarching orientation for credential referencing. The eight levels are related in practice to the existing major levels of credentials in the US education and training system.

Although the comprehensive CF and the degree qualifications profile (DQP) share the same major objectives – to promote transparency, comparability, portability, quality assurance and quality development of credentials in terms of learning outcomes – they differ from each other with regard to key features.

The DQP approach is firmly set in the context of higher academic education, providing learning domains as reference points for what students should know and be able to do to address the requirements of associate, bachelor and master degrees across all fields of study (Table 104). The

Figure 29 Credentials framework matrix in the USA

Levels	Knowledge	Skills			
The level requirements in study and work are described in terms of the degree of adaptability, range, complexity, and selectivity	Knowledge describes what a learner knows, understands and can demonstrate. The requirements and competencies are described in terms of depth, breadth and dimension.	Skills describe what an individual can do in applying knowledge, completing tasks, and solving problems (involving the use of logical, intuitive and creative thinking).	**Specialised skills** The requirements and competencies are described in terms of: • critical thinking and judgement; • integrative applications • systems thinking	**Personal skills** The requirements and competencies are described in terms of: • autonomy • responsibility • self-awareness and reflection	**Social skills** The requirements and competencies are described in terms of: • communication • involvement • teamwork and leadership
Levels 1-8	Levels 1-8	Levels 1-8	Levels 1-8	Levels 1-8	Levels 1-8

Source: Lumina Foundation, 2015.

CF is designed as an overarching, comprehensive framework. It offers an integrated way for learners, employers and those responsible for measurement and assessment to understand the levels and types of competences and learning outcomes represented by diverse types of credential including degrees, industry certifications and certificates.

The DQP focuses on proficiency as the instrument's guiding principle and a set of demonstrations of knowledge, understanding and skills that satisfy the levels of mastery sufficient to justify the award of an academic degree. The CF goes beyond the DQP by using 'competency' in terms of a holistic and comprehensive understanding of behaviour and capability, but also implicitly includes the credential achievement perspective of the DQP.

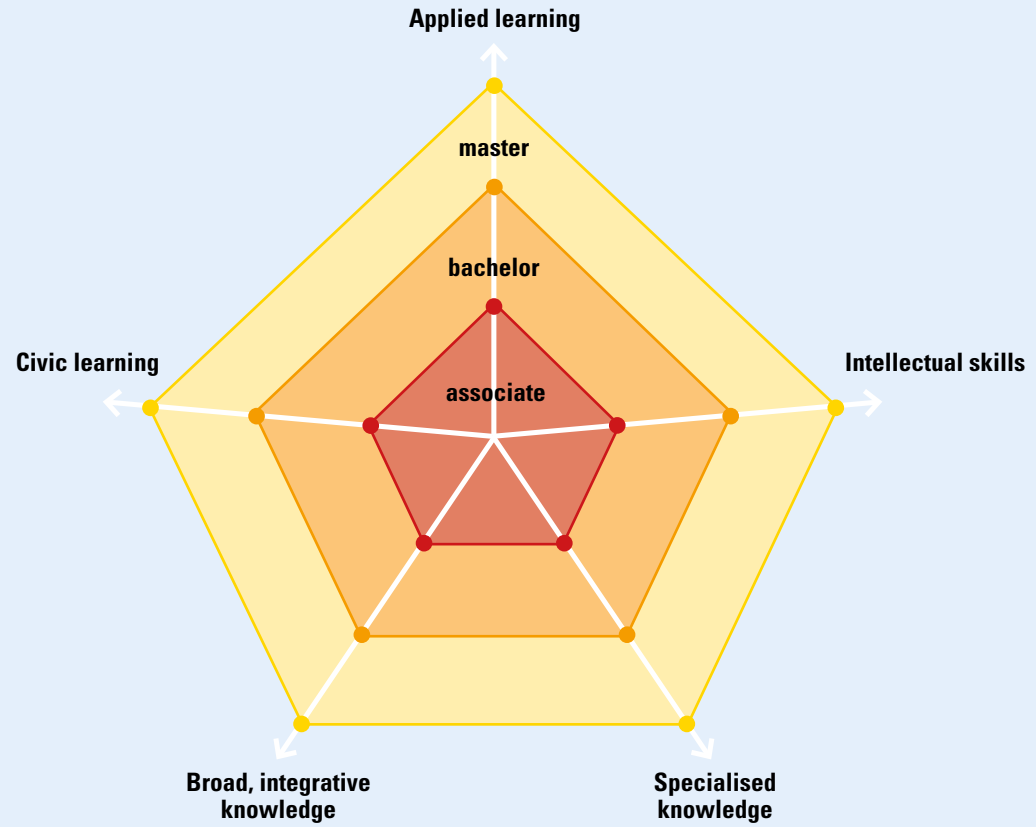
In contrast to the CF, the DQP does not describe levels across the learning domains. However, the domain requirements and competences of the DQP, demonstrating levels of learning outcomes to be achieved in associate, bachelor and master

Table 105 Degree qualification profile matrix in the USA

Intellectual skills	Specialised knowledge	Broad and integrative knowledge	Applied and collaborative learning	Civic and global learning	Institution-specific emphases
Analytic inquiry					
Use of information resources					
Engaging in diverse perspectives					
Ethical reasoning					
Quantitative fluency					
Communicative fluency					
Programme-specific intellectual and practical skills					

Source: Lumina Foundation, 2014.

Figure 13 The degree qualifications spider web in the USA



Source: Lumina Foundation, 2014.

programmes, can be interpreted as implicit levels. Compared with the requirements and competences of CF levels 5 to 7, these implicit DQP levels can be regarded as compatible, but they are not the same. Both instruments avoid the term 'equivalency of credentials' because the DQP focuses exclusively on associate, bachelor and master degrees and the CF encompasses both degrees and non-degree credentials. Up to now, the DQP has not included an implicit level description for doctorate programmes to address compatibility with the highest CF level, 8.

The CF domain 'knowledge' includes implicitly broad, integrative and specialised knowledge, two of the DQP categories. However, in contrast to the CF, the DQP definition of knowledge focuses exclusively on study requirements. In addition to knowledge and skills, the domain 'learning' in the DQP describes applied and collaborative learning, as well as civic and global learning. All CF learning descriptors cover implicitly, and to a lesser extent, the content of the DQP domain learning. The DQP's civic and global learning cut across learning outcomes and are reflected in the CF both in knowledge and skills.

The DQP provides no specific indicator structure to describe learning outcomes with the exception of the indicators' breadth and depth, whereas the CF uses descriptor indicators that are well embedded in US education (Bailey and Matsuzuka, 2003). The CF descriptors cover academic, occupation and professional learning outcomes on all levels whereas the DQP only provides this overarching descriptor approach for the associate learning outcomes. Due to the CF's overarching and credential-neutral purpose, the CF descriptors express more general statements on required learning outcomes and competences; these are not as detailed and concrete as the predominantly academic-oriented DQP descriptors.

In contrast to the European qualifications framework (EQF), the CF:

(a) introduces a domain-overarching description of levels based on competences and requirements;
(b) contains an integrated descriptor designed to address both academic and occupation requirements and competences, promoting parity between academic and work routes;

(c) includes all different types of quality-assured and certificated credentials: does not prioritise formal qualifications or credit-based learning.

Stakeholder involvement and institutional arrangements

The current CF version draws on both US and international expertise in education and training and in qualifications frameworks. Education and training experts from colleges, industry, certification and accreditation agencies and policy organisations have provided input. Panels of educators and industry representatives also contributed to the process by exploring credentialing in selected industries and identifying cross-sectoral patterns.

The major stakeholders of post-secondary education, such as federal and State government agencies, education providers and employers, are involved in the development process of CF (Birtwistle and McKierman, 2010). The intention is to create a US version of a zone of mutual trust in terms of transparency and portability of achieved learning outcomes, which might be joined by a rising number of states and education stakeholders (Adelman, 2009). A pilot alignment of credentials of all terms and types to test the validity and applicability of the descriptors, levels and domains is being carried out (Lumina Foundation, 2016).

Recognising and validating non-formal and informal learning and learning pathways

In 2005, the US Government Commission on education concluded that students must have clearer pathways between education levels. Institutions and colleges should remove barriers to student mobility and promote new learning paradigms (such as distance education, adult education workplace programmes) to accommodate a far more diverse student cohort (US Department of Education, 2005).

Clarity on the required learning outcomes and education and career pathways is expected to motivate students to enrol and to assist them in persisting in study courses progressing toward a degree. The number of credits required for a degree varies across institutions and federal states, and the opportunity for students to take their learning from one institution to another and to receive credit is still limited. Higher academic education institutions in the US are under increasing pressure to be accountable for the quality of their degrees (Bird et al., 2011).

Learners acquire competences based on non-credited forms and levels of post-secondary learning that are of value on the labour market. At many community colleges, more students enrol in non-credit education than in credit programmes such as occupational education and training programmes (Van Noy et al., 2008). Therefore, the credential framework serves as a useful reference point for the recognition of prior learning and work experience.

The USA prior learning assessment (PLA) is located almost exclusively within higher education; it is used not for access but to assign academic credit towards a degree for learners who have been admitted by taking into account their prior learning and work experience. Over the last 40 years, PLA has been applied for adult learners, and PLA opportunities for students have increased (Bamford-Rees, 2008). Leading organisations include the American Council on Education (ACE) and community college boards (the latter are non-profit associations of colleges). Key partners in this area include the Council for Adult and Experiential Learning (CAEL), employers, labour organisations and regional accreditation commissions. US institutions primarily target adult learners returning to school and employed, unemployed and underemployed workers.

The USA already has a well-developed system of recognition, validation and accreditation (RVA) of non-formal and informal learning. There are formalised and less formalised methods of assessing non-formal and informal learning. Formal standardised means of evaluating non-formal and informal learning include tests designed to measure the general academic skills and knowledge normally acquired through a four-year high school programme.

Less formalised PLA methods include individualised student portfolios and programme evaluations of non-credit instruction. The expectations for RPL applications, especially written portfolios, are substantial (Michelson, 2012). In most RPL institutions, students must frame their learning within the content or learning outcomes of a particular module or course. Some flexibility is an inherent characteristic of a module, and some institutions grant students credit for interdisciplinary clusters of knowledge rather than specific content of a module.

NQF implementation

The CF has the potential to be implemented as a national qualifications framework (NQF) in the US, although it is not officially acknowledged

as such an instrument. The US Departments of Education and Labour will monitor efficiency for education and labour market purposes and its acceptance by stakeholders.

Referencing to regional frameworks

Development of the CF is embedded in a worldwide trend in education and training politics to develop and to implement qualifications frameworks. A joint international comparative study by UNESCO, the European Training Foundation (ETF) and the European Centre for the Development of Vocational Training (Cedefop) in 2015, showed that qualifications frameworks differ in terms of their conceptual and structural organisation concerning domains, descriptors, and key terms, and with regard to their regional, national, or sector orientations. They also differ in terms of whether they include non-formal and informal learning or a credit transfer system. Some frameworks, such as the Scottish credit and qualifications framework ([592]), are more regulated than others, such as the German qualifications framework ([593]), which serves more as an orientation for the education and training system.

During the CF development process, analysis of the conceptual approaches of other frameworks being implemented in the European Union was undertaken; the European qualifications framework (European Parliament and Council of the European Union, 2008) was found to be particularly relevant as it had been designed to compare the different qualifications frameworks and systems of the EU member states.

Whereas CF uses the domains 'knowledge and skills' in an integrated sense under the overarching notion of 'competency', the EQF uses the term 'competence' as the third learning domain alongside knowledge and skills. The latter use has resulted in a variety of different interpretations by EU member states in the referencing of their national qualifications to the EQF up to now.

Important lessons and future plans

The recent UNESCO survey on qualifications frameworks worldwide (Keevy and Chakroun, 2015) classified the CF as an example of the most progressive framework type (fourth generation) because of its conceptual clarity in the learning domain descriptors and its inclusion of credentials (non-credit and degrees), which are understood as quality-assured and certified learning outcomes in the broadest sense. But there are lessons to be learned.

The credential framework uses a language that can be understood and used by educators, employers and learners. The competences describe what learners should do to demonstrate mastery at increasing levels of difficulty or complexity.

Stakeholders in the education and business sectors and in government organisations have been involved in development and implementation from the beginning. To increase acceptance, the Lumina Foundation started a national dialogue on how to create a more seamless and comprehensive system of credentials. This includes the major stakeholders of post-secondary education such as federal and State government agencies, education providers and employers.

Further sources of information

Federal Ministry of Education (Germany): German qualifications framework for lifelong learning: http://www.dqr.de

Lumina Foundation, Degree qualifications profile: http://degreeprofile.org

Scottish Credit and Qualifications Framework Partnership: Scottish credit and qualifications framework: http://www.scqf.org.uk/

Abbreviations

ACE	American Council on Education
CAEL	Council for Adult and Experiential Learning
CF	credentials framework
DQP	degree qualification profile
EQF	European qualifications framework
NQF	national qualifications framework
OECD	Organisation for Economic Cooperation and Development
PLA	prior learning assessment
RPL	recognition of prior learning
RVA	recognition, validation and accreditation

([27]) See the Scottish credit qualifications framework partnership 2001: http://www.scqf.org.uk/

([28]) See the German Federal Ministry of Education, 2011.

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Prepared by:
UNESCO Institute for Lifelong Learning (UIL) in collaboration with national experts.

UZBEKISTAN

Introduction and context

NQF snapshot

A national qualifications framework (NQF) has not yet been adopted. Instead, there are structures in higher education similar to the Bologna framework and vocational education and training (VET) qualifications and occupations classifiers.

Qualifications initiatives lie with the Ministry of Public Education (MPE) and the Ministry of Higher and Secondary Specialised Education (MHESSE).

Educational, social, economic and political context

Uzbekistan has a very young and rapidly growing population. The share of young people from 15 to 29 years of age was 61.7% of the population in 2008. As a result of demographic trends, Uzbekistan is experiencing a rapid increase in the working age population, significantly increasing the number of the population overall.

The labour market workforce grew by 23.9% in 2004-09, reaching 16 million people, while the number of people in employment increased by 26.1%, totalling 11.3 million in 2009. According to official data, 95% of the population of working age was employed in 2010. The highest employment rates have been registered in construction, the housing and communal sector, domestic services, trade and public catering, transport and communication.

Differences between rural and urban experiences are important in terms of ensuring that the benefits of vocational education are evenly distributed. The agricultural sector of the economy covers about 34% of employment, while over 60% of the population lives in rural areas.

The government acknowledges that the quality of the workforce is important in meeting the occupation and qualification requirements of employers (Republic of Uzbekistan, 2007). VET school curricula need to strengthen their relevance to labour market needs. The involvement of private sector businesses in curriculum development is important in ensuring that graduates obtain practical skills and the capacity to work independently.

Policy objectives

While a formal NQF per se does not exist, there are NQF-type instruments such as the State education standards and national classifiers. These provide a structure of defined and validated qualifications, awarded at defined levels and specify how qualifications relate to each other and thus how a learner can progress between them. In higher education, level structures are similar to the Bologna framework.

International cooperation

Developments in the country's education system take into account consideration of the European qualifications framework (EQF) and Bologna discussions, but currently there is no explicit intention to emulate neighbouring countries in pursuing a full NQF.

Levels and use of learning outcomes

Scope and structure of NQF

No decision has yet been made on the scope of any NQF.

Alignment to other classification systems

The State education standards (SES) define requirements for the quality of personnel training and education content; ensure a sufficient and necessary level of student training and qualification requirements of graduates of education establishments; determine academic workload and the procedures and mechanisms for evaluating the activities of education establishments and the quality of personnel training. SESs are a basis for preparing other normative documents, regulating the education process and evaluating the activities of education establishments.

The Classifier of directions and specialties of higher education is a part of the unified system of classification and coding of information. The renewed classifier is being developed in accordance with the Decree of the President of the Republic of Uzbekistan #1553 issued on the 20 May 2011: On measures for strengthening the material and technical base of higher education institutions and the fundamental improvement of the quality of training of qualified specialists. The Classifier is based on the Law on Education and the National programme of personnel training and constructed in accordance with the principles of international standard classification of education (ISCED) adopted by UNESCO in March 1997.

The Renewed classifier of the main working and serving profession' is the instrument used for systematising the main titles of working and serving professions, determining the range of tariff ranks and position categories for working and serving professions, and requirements for the level and area of education.

The national classifier code assigns codes to all exit qualifications.

SESs and the Classifier of directions and specialties of higher education currently provide a structure of defined and nationally accredited qualifications, which are awarded at defined levels, indicate the interrelationships of the qualifications and how one can progress from one level to another. The SESs and higher education classifier are, therefore, the route through which the country brings education and training together in a single unified system. Moreover, they provide a framework, which assures a nationally recognised quality standard and consistent training standards and provide a way of structuring existing and new qualifications.

NQF levels

The State education standards have implicit levels, including secondary, bachelor, master, and graduate. No numeric values are yet assigned to levels.

Level descriptors

The Decree of the Cabinet of Ministers On the development and introduction of education standards in the system of continuous education, is related to State education standards, which set the subject area-specific qualifications framework for all specialties listed in the Renewed classifier of main working and serving professions and in the Classifier of directions and specialties of higher education. This document sets clear descriptors of what graduates at bachelor and master level should possess in terms of skills and knowledge. This document can be compared to the level descriptors used in other European countries, but the main difference is that it addresses only exit level descriptors rather than each level within the programmes.

Use of learning outcomes

Qualifications and curricula are adopting learning outcomes approaches. An example is the State education standard for foreign languages, already implemented in schools and colleges.

Definition of qualification

A general definition is included in the qualification requirements, which set out descriptions of the general knowledge and level of professional readiness of graduates at corresponding stages of continuous education.

Access, progression and credit

There is not yet sufficient development of the NQF to say that there is easier access to qualifications or clear progression routes. However, the SESs provide links between higher education and VET and thereby some progression. There is no credit system yet.

Stakeholder involvement and institutional arrangements

Legal basis of NQF

There is no NQF law at present.

Governance and institutional arrangements for the NQF

The Ministry of Public Education and the Ministry of Higher and Secondary Specialised Education are responsible for qualifications.

Higher education and VET are closely linked , so there is movement and exchange of students between them.

Roles and functions of actors and stakeholders

Stakeholders are involved in the country's qualification system, contributing particularly to the development of qualifications. In addition to ministries, actors include providers, students, parents, employers and professional associations. Examples of stakeholder influence include updates to VET provider curricula, on the advice of employers and others. VET colleges are also usually well-linked to local employers.

Resources and funding

All MHSSE activities are funded by the State or through other sources not prohibited by law. Funding of NQF development is currently limited, due to the plans for introducing the full NQF not being finalised. An NQF will need donor support.

Quality assurance of qualifications

The process of developing and approving State education standards, qualification requirements and other normative documents, internal quality control and monitoring is implemented under the coordination of the Ministry of Higher and Secondary Specialised Education. At the same time, the external quality control, attestation and accreditation of education establishments are implemented by the State testing centre (STC) under the Cabinet of Ministers of the Republic of Uzbekistan. A review is done periodically by the STC and as a result a recommendation for each education establishment is issued. In general, the main task of the STC in this is to determine the comparability of existing potential, experience, level of qualification and preparedness and other capabilities of the education establishment under review to qualifications awarded to its graduates. Education establishments that fail to pass attestation or fail to receive accreditation within the framework of existing legislation can be closed.

One element of quality assurance, referred to above, is strong employer input to curricula and qualifications, so that this provides some degree of labour market relevance to new qualifications. The ministries are careful to consult employers and also bring in foreign experts to advise on some aspects of qualification design.

Recognising and validating non-formal and informal learning and learning pathways

No validation system yet applies.

NQF implementation

Inclusion of qualifications in a register

All State education standards, classifiers and qualification requirements are available in open access through relevant ministry websites and can be obtained using the e-government portal ([594]). New services, registers and databases are constantly being developed and become available through the internet. However, these services or registers are not linked to an NQF.

Monitoring, evaluation and review of the NQF

Given the limited progress of NQF plans, there are no mechanisms to monitor the NQF's development.

Impact for end-users

The NQF is at an ad hoc stage, so has had no impact yet on citizens or institutions.

Referencing to regional frameworks

None. The country is not part of any wider grouping of countries.

Important lessons and future plans

While links between employers and colleges are relatively strong, and the State education standards and various classifiers provide NQF-type functions, no NQF concept has been developed. Currently, ministries are considering whether to go down the full NQF route.

Abbreviations

EQF	European qualifications framework
MHSSE	Ministry of Higher and Secondary Specialised Education
MPE	Ministry of Public Educationy
NQF	national qualifications framework
SESs	State education standards
STC	State testing centre
VET	vocational education and training

Prepared by:
the European Training Foundation (ETF).

([594]) www.my.gov.uz

ZAMBIA

Introduction and context

The Zambian education system consists of a lower education system with three levels – primary, junior, secondary and upper secondary – and a higher education system composed of universities and colleges. This higher sector has improved in recent years due to an increase in private universities and colleges. Currently Zambia has six public universities, of which three are relatively new but with university councils inaugurated in 2014. The Higher Education Authority (HEA) enacted under the Higher education Act No 4 of 2013 is responsible for quality assurance. The HEA registers and regulates private universities. The HEA Act repealed and replaced the University Act of 1999.

The Government of Zambia enacted the establishment of the Zambian Qualification Authority (ZAQA) in 2011 to provide for the development and implementation of the national qualifications framework (NQF), with measures to ensure that standards and registered qualifications are compatible globally. The Zambia qualifications framework (ZQF) comprehensively covers all learning achievements and pathways. It provides a basis for improving the quality, accessibility, linkages, and public and labour market recognition of qualifications within Zambia and internationally.

The ZQF is a single integrated system comprising three coordinated qualifications frameworks:

(a) general and further education and training, covered by the Education Act No 23 of 2011;
(b) trades and occupations, contemplated in the Technical education vocational entrepreneurship training (TEVET) Act No 13 of 1998 and Apprenticeships Act, Cap 275;
(c) higher education, contemplated in the University Act No. 11 of 1999 and the Higher Education Act No 4 of 2013.

The ZQF rests on three main pillars:

(a) qualifications and awards;
(b) quality assurance (provision);
(c) quality assurance (assessments and learner achievement records).

All three are rooted in established standards. The determination of standards and their design and implementation through quality assurance regulations are expected to be done by the respective quality assurance bodies. In the context of the education and skills training system in Zambia, these bodies are shown in Table 105.

Policy objectives

The main aims are to:

(a) create a single integrated national framework for learning achievements;
(b) support access to, and mobility and progression within, education, training and career paths;

Table 106 Quality assurance bodies in Zambia

ZQF sector	Quality assurance body	Legal basis
Schooling	Department of Standards and Examinations Council of Zambia Curriculum	Education Act
TVET	Technical Education Vocational Entrepreneurship Training (TEVET) Authority	Technical, vocational and entrepreneurship training Act No 13 of 1998
Higher education	Higher Education Authority	Higher education Act No 4 of 2013

Source: ZAQA (2016).

(c) enhance the quality of education and training;
(d) promote education, training and employment opportunities;
(e) contribute to the full personal development of each learner and the social and economic development of the nation;
(f) develop, foster and maintain an integrated and transparent national framework for the recognition of learning achievements; and ensure that educational qualifications meet appropriate criteria, and are internationally comparable.

Levels and use of learning outcomes

The ZQF is organised into 10 qualification levels, from the grade 7 certificate at level 1 through to doctorate at level 10. Each level is described by a statement of learning achievement known as a level descriptor.

Stakeholder involvement and institutional arrangements

The ZAQA Board comprises stakeholders in education, training and industry involved at all levels of the ZQF. All other implementing authorities are involved and form part of the technical committees in ZAQA. Industry and civil society are co-opted onto the governance structures. The boards and committee of quality assurance and awarding bodies consist of representatives from stakeholder institutions.

Recognising and validating non-formal and informal learning and learning pathways

The Zambian Government has developed a recognition of prior learning (RPL) policy to cater for learners who have not been able to attend formal education but have some level of experience in a particular field. This process will provide an opportunity for learners to earn a qualification or to upgrade an existing qualification.

The following types of learning are be considered for RPL:

(a) formal: learning obtained through organised training in a school system from pre-school to university, leading to an award;

Table 107 Qualification levels and the sub-frameworks of the ZQF

ZQF level	General education		Trades and Occupations (TVET)	Higher education
10				Doctorate
9				Master degree
8				Postgraduate diploma
7				Bachelor degree
6			Diploma	
5			Level 5 certificate	
4			Level 4 certificate	
3			Level 3 certificate	
2	B	Senior secondary education certificate (grade 12)		
	A	Junior secondary education certificate (grade 9)		
1	Primary education certificate (grade 7)			

Source: ZAQA (2016).

(b) non-formal: learning obtained through organised training not leading to an award (agricultural training, college, faith-based institution);
(c) informal: learning obtained through experience.

Referencing to regional frameworks

As a member of Southern African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA), Zambia actively works with regional bodies and references to frameworks within the region by engaging other countries on matters of mutual interest. Zambia has provided inputs to the development of the proposed SADC regional qualifications framework (RQF), is signatory to the 1981 Arusha Convention and is currently considering ratifying the revised Addis Convention.

Important lessons and future plans

The following documents are currently in the public domain for public comments:

(a) qualification descriptors for the Zambia qualifications framework;
(b) guidelines for the registration and accreditation of qualifications in the Zambia qualifications framework;
(c) policy and criteria for recognition of prior learning in Zambia;
(d) determining national occupational standards.

Abbreviations

NQF	national qualifications framework
RPL	recognition of prior learning
RQF	regional qualifications framework
SADC	Southern African Development Community
ZAQA	Zambian Qualification Authority
ZQF	Zambia qualifications framework

References

Zambian Qualifications Authority (2016). *Guidelines for the registration and accreditation of qualifications on the Zambia qualifications framework* [unpublished].

Prepared by:
UNESCO in collaboration with national experts.

ZIMBABWE

Introduction and context

As a member of Southern African Development Community (SADC), Zimbabwe committed to harmonising and standardising its TVET system with that of other member States. Zimbabwe is, therefore, expected to formulate a national qualifications framework (NQF) as a way of facilitating standardisation and transferability of qualifications. Consequently, the Ministry of Higher and Tertiary Education (MHTE) developed the Zimbabwe examinations and qualifications framework which is currently still in its draft form.

Zimbabwe developed a 10-level NQF aligned with the SADC regional qualifications framework (RQF). Execution of the NQF is currently segmented into primary and secondary levels (managed by the Zimbabwe Schools Examination Council, ZIMSEC), technical and vocational education and training (TVET) level (managed by Standards Development and Quality Assurance, SDEQA) and higher education level (managed by the Zimbabwe Council for Higher Education, ZIMCHE). ZIMSEC is a State enterprise under the Ministry of Primary and Secondary Education, while SDEQA is a department and ZIMCHE a State enterprise both under the MHTE Science and Technology Development. Plans are under way to assign one consolidated entity that will administer the NQF nationally. Earlier plans had been to establish a new body, the Zimbabwe Examinations and Qualifications Authority (ZIMEQA), and the ZIMEQA bill had been discussed in parliament.

Coordination and planning remains decentralised, with the Higher Education and Examination Council (HEXCO) in charge of polytechnics, industrial training centres, youth training centres, some secondary schools and private colleges. The Apprenticeship Authority is responsible for certifying skilled workers, and the Nurses Council oversees the certification of nurses under the Ministry of Health and Child Welfare. A number of other ministries ensure certification in their specific fields.

TVET is offered at five qualification levels:

(a) pre-vocational certificate (PVC);
(b) national foundation certificate (NFC);
(c) national certificate (NC);
(d) national diploma (ND);
(e) higher national diploma (HND).

It appears from the literature that, in 2009, Zimbabwe was expected to table a draft Qualifications Authority bill. The new legislation was to create a Zimbabwe Qualifications Authority which will oversee the development and administration of a Zimbabwe qualifications framework. The new authority will be overseen by a board comprising between 15 and 28 members (Pesanai, 2013).

According to Pesanai (2013) the following systems and structures are in place:
(a) ZIMSEC: 1994;
(b) HEXCO: MPD Act 1996 Cap 28:02;
(c) ZIMCHE: 2006 (replacing NCHE, 1990);
(d) Public Service Commission (PSC);
(e) various external examining bodies;
(f) professional bodies and councils;
(g) National Manpower Advisory Council (NAMACO): MPD 1996 Act;
(h) Standards Development and Research Unit (SDERU).

Policy objectives

The overall objectives are:

(a) to improve education quality through competence-based learning;
(b) to establish education standards and qualifications.

The objectives of ZIMEQA are to:

(a) standardise and harmonise learning achievements under an integrated and articulated national framework;
(b) facilitate access to, and vertical and horizontal mobility and progression within, education and career paths;

(c) enhance the quality of education and training through competence-based learning;
(d) strengthen the link between education and training and the employment market and thereby contribute to the fulfilment of individual learners' career aspirations through the development of their potential;
(e) realise national social and economic goals.

Stakeholder involvement and institutional arrangements

Stakeholders have been involved in:

(a) setting up the ZQF steering committee (Bronte, 2003 in Pesanai, 2013);
(b) meetings of the sub-committees (2003–05);
(c) stakeholder consultative meetings and verification meetings and workshops, such as those at the Sheraton (2003), Wild Geese Lodge (2004) and St. Lucia Park (2005);
(d) conferences and meetings of the SADC regional qualifications framework (RQF) committee (2002-09);
(e) study of other country qualifications frameworks (2006-07);
(f) participation in the SADC intra-regional skills development programme in (2004, 2006 and 2009);
(g) development of the principles of the bill establishing the ZIMEQA, 2005, 2006, 2009.

Referencing to regional frameworks

As a result of Zimbabwe not having a full NQF system, there has not been any reference of its framework to the regional framework.

Important lessons and future plans

- There is an ever-changing Zimbabwean qualifications landscape in response to demand.
- It is the intention to determine equivalences between locally obtained qualifications.
- Equivalences also need to be determined between local and foreign qualifications.
- Criteria need to be agreed for registration and accreditation of both public and private education and training providers.
- Criteria and procedures need to be agreed for accrediting cross-border education and training providers (including online open and distance modes and others without walls).
- It is important to eliminate overlaps and duplication of responsibilities and the attendant confusion.

Abbreviations

HEXCO	Higher Education and Examination Council
NQF	national qualifications framework
SADC	Southern African Development Community
ZIMCHE	Zimbabwe Council for Higher Education
ZIMEQA	Zimbabwe Examinations and Qualifications Authority
ZIMSEC	Zimbabwe Schools Examination Council
TVET	technical and vocational education and training
ZQF	Zimbabwe qualifications framework

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Prepared by:
UNESCO in collaboration with national experts.

SECTION II

Inventory of regional qualifications frameworks

Abbreviations

AMS	ASEAN member States
AQRF	ASEAN qualifications reference framework
ASEAN	Association of Southeast Asian Nations
CANTA	Caribbean Association of National Training Agencies
Caricom	Caribbean Community
CQF	Caricom qualifications framework
EQAP	educational quality and assessment programme
EQF	European qualifications framework
GCC	Gulf Cooperation Council
GQF	Gulf qualifications framework
MRA	mutual recognition arrangement
NQF	national qualifications framework
PQAF	Pacific quality assurance framework
PQF	Pacific qualifications framework
PRQS	Pacific register of qualifications and standards
QF-EHEA	Qualifications framework in the European higher education area
RQF	regional qualification framework
SADC	Southern African development community
SPC	the Pacific Community
TEVET	technical, entrepreneurial, vocational education and training
TQF	transnational qualification framework
TVET	technical and vocational education and training
UAE	United Arab Emirates
VUSSC	Virtual university of small States of the Commonwealth

The Association of Southeast Asian Nations framework arrangement

10 member States:

Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam

Background

The Association of Southeast Asian Nations (ASEAN) is a political and economic organisation of 10 southeast Asian countries, which was formed on 8 August 1967 by Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Since then, its founding membership has expanded to include Brunei Darussalam, Cambodia, Laos, Myanmar/ Burma and Vietnam. Its aims include accelerating economic growth, social progress, and sociocultural evolution among its members, protection of regional peace and stability, and provision of opportunities for member States to discuss differences peacefully.

The basis for an ASEAN qualifications reference framework (AQRF) is derived from the ASEAN charter, signed by the 10 ASEAN leaders in Singapore on 20 November 2007. The charter reinforces aspirations for a single ASEAN Community that aims, among other things, to develop human resources through closer cooperation in education and lifelong learning and in science and technology, to strengthen the ASEAN Community, empower its peoples and enhance their wellbeing and livelihood by providing equitable access to opportunities for human development, social welfare and justice. In the same year, the member States signed the *2007 ASEAN economic community blueprint* (ASEAN, 2007), which called for multiple areas of cooperation, one being recognition of professional qualifications (ASEAN, 2007). In addition to mutual recognition arrangements (MRAs) in engineering and nursing, completed in 2005 and 2006 respectively, five additional MRAs were finalised between 2007 and 2009 (in architecture, surveying, medical practitioners, dental practitioners and accountancy) with tourism added in 2012. Another important component of the blueprint was the creation of the

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level descriptors cover two domains: knowledge and skills; and application and responsibility.

Level of development

In 2011 a process was initiated to develop a concept design for the AQRF. A task force on AQRF, comprising representatives from ASEAN ministries of trade, education, and labour/manpower, as well as representatives of qualification, accreditation and other agencies, was created in 2012. The task force was created under the auspices of the economic cooperation and work programme of the ASEAN-Australia-New Zealand free trade agreement, with the mandate of developing the AQRF in consultation with stakeholders in the different AMS. By 2015, the framework was completed and the document containing its principles and structure was endorsed by ASEAN economic, education and labour ministers. Subsequently, the AQRF governance and structure document was endorsed by ASEAN labour and education ministers in May 2016; and by economic ministers in August 2016. This document provided for the establishment of the AQRF committee, which is tasked with overseeing the referencing process and further development of the framework.

The AQRF committee was convened for the first time in February 2017. This meeting launched the implementation of Phase IV of the NQF project on referencing NQFs to the AQRF. Assisted by the ASEAN-Australia-New Zealand free trade agreement economic cooperation support programme, the project aims to aid referencing of the AMS NQFs or qualifications systems to the AQRF. The project will see at least two AMS undertake this referencing. Earlier phases of this project included support for the work of the task force on AQRF and the provision of planned, tailored and practical technical assistance for NQF development and implementation to AMS through exchanges of offici xperts.

The progress of the AMS' NQFs is uneven. Most have been endorsed, but are at different stages of implementation (Bateman and Coles, 2015).

The future of AQRF

At least four AMS have expressed their intention to begin/complete the referencing process in 2018. Other AMS that intend to reference may commence at any time. Referencing requires member States to describe their education and training and quality assurance systems. The referencing process also requires each AMS to set up a national referencing panel of key stakeholders that includes at least one observer from another member State.

In the long term, the AQRF is expected to serve as a meta-framework to support recognition of its levels against other regional qualifications frameworks (RQFs) as well as support inter-regional recognition.

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Prepared by:
UNESCO

Annex 1 Level descriptors for the ASEAN qualifications reference framework (AQRF)		
Levels	**Knowledge and skills**	**Application and responsibility**
	Demonstration of knowledge and skills that:	**The contexts in which knowledge and skills are demonstrated:**
8	• is at the most advanced and specialised level and at the frontier of a field • involve independent and original thinking and research, resulting in the creation of new knowledge or practice	• are highly specialised and complex involving the development and testing of new theories and new solutions to resolve complex, abstract issues • require authoritative and expert judgment in management of research or an organisation and significant responsibility for extending professional knowledge and practice and creation of new ideas and/or processes
7	• is at the forefront of a field and show mastery of a body of knowledge • involve critical and independent thinking as the basis for research to extend or redefine knowledge or practice	• are complex and unpredictable and involve the development and testing of innovative solutions to resolve issues • require expert judgment and significant responsibility for professional knowledge, practice and management
6	• is specialised technical and theoretical within a specific field • involve critical and analytical thinking	• are complex and changing • require initiative and adaptability as well as strategies to improve activities and to solve complex and abstract issues
5	• is detailed technical and theoretical knowledge of a general field • involve analytical thinking	• are often subject to change • involve independent evaluation of activities to resolve complex and sometimes abstract issues
4	• is technical and theoretical with general coverage of a field • involve adapting processes	• are generally predictable but subject to change • involve broad guidance requiring some self-direction, and coordination to resolve unfamiliar issues
3	• includes general principles and some conceptual aspects • involve selecting and applying basic methods, tools, materials and information	• are stable with some aspects subject to change • involve general guidance and require judgment and planning to resolve some issues independently
2	• is general and factual • involve use of standard actions	• involve structured processes • involve supervision and some discretion for judgment on resolving familiar issues
1	• is basic, general • involve simple, straightforward and routine actions	• involve structured routine processes • involve close levels of support and supervision

Source: ASEAN, 2016

The Caricom qualifications framework

15 member States:

Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago

Background

Established in 1973, the Caribbean Community (Caricom) is an organisation comprising 15 Caribbean nations, which are full members, as well as an additional five overseas British territories, as associates. Caricom's mission is to develop resilient societies that promote economic integration and cooperation among its members, to ensure that the benefits of integration are equitably shared, to facilitate social development and cohesion, and to coordinate foreign policy.

In 1990, Caricom developed a regional strategy for technical and vocational education and training (TVET). In 2002, a corresponding 'competence model for TVET' was developed and adopted, which laid the basis for a Caricom TVET strategy. The Caribbean Association of National Training Agencies (CANTA) was established in 2003 and endorsed by Caricom as the 'implementation arm' of the regional coordinating mechanism for TVET. The key purpose of CANTA was to establish and govern a regional training and certification system, called Caribbean vocational qualifications (CVQs), to ensure standard and uniform delivery of competence-based training (TVET) within the Caricom single market and economy (Caricom, 2007, 2009). The Caribbean vocational qualifications act as the basis of an articulation and accreditation system that allows seamless transfer of students between one institutional system and another. National training agencies, TVET councils and apex bodies support development of Caribbean vocational qualifications through various institutional arrangements and industry engagement. The qualifications are reviewed at a regional level by CANTA.

Level of development

In 2012 Caricom developed a draft regional qualifications framework (CQF) (Caricom, 2012). The CQF was designed as a 'reference point' to support mobility of learners and recognition and accreditation of qualifications within the region. The CQF also aims to provide sufficient independent data to improve the transparency of qualifications, both regionally and internationally.

The draft Caricom qualifications framework (CQF) is informed by the principles of the 'ideal Caribbean citizen' and is based on 10 generic level descriptors (Caricom, 2012). Five domains are used at each level:

(a) knowledge and understanding;
(b) application and practice;
(c) communication, numeracy and ICT;
(d) life skills;
(e) autonomy, accountability and working with others.

Several countries have established national qualifications frameworks (NQFs): Barbados, Belize, Guyana, Jamaica and Trinidad and Tobago. Other countries are still in the initial stages of developing their NQFs: Saint Kitts and Nevis, and Suriname. The CQF will only be successful when all 15 member States establish their own N QFs. These NQFs must be articulated to the draft CQF and have harmonised delivery mechanisms. Guidelines for development of NQFs have been produced by the Caricom Secretariat.

The future of the CQF

In October 2016, a regional meeting of stakeholders ratified the draft CQF and agreed to corresponding recommendations for adoption and implementation. Looking forward, Caricom will seek formal approval of the CQF and its recommendations at an Educational Ministry meeting of the Council of Human and Social Development in 2017. Thereafter, member States will be required to adopt the CQF and use its guidelines to develop and/or adapt their own NQF. It is anticipated that this will eventually lead to all regional and national education and training providers conforming to their respective NQF and, in turn, the CQF.

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Prepared by:
UNESCO

Annex 2 CQF domains and descriptors

Domain	Descriptors
Knowledge and understanding	Theoretical and/or factual knowledge; possesses ability to recall and present information; demonstrates knowledge and understanding of specific facts, concepts, principles, procedures and theories
Application and practice	Cognitive (logical, intuitive and creative thinking) and practical (manual dexterity and use of methods, materials, tools and instruments) competences to achieve results
Communication, numeracy and information and communication technology	Literacy in verbal and non-verbal communication, in numerical and graphical tasks and in ICT applications demonstrated through ability to use a range of skills in context to access, process, produce and respond appropriately to information
Life skills	Problem-solving; decision-making; critical and creative thinking; interpersonal relationships; empathy; emotional and self-awareness; coping with stress and effective communication skills
Autonomy, accountability and working with others	From working alone on simple and routine tasks under direct supervision to becoming increasingly autonomous and accountable within a work role; greater independence and focus on management and leadership; becoming more self-critical and reflecting ethical and professional issues

Source: Caricom, 2012.

Annex 3 Level descriptors for the Caricom qualifications framework (CQF)

Level 10	
Level summary	• achievement at level 10 demonstrates the ability to generate new ideas/knowledge and understanding and expand on an area of knowledge and professional practice. • it demonstrates the ability to address complex issues through initiating and designing research, development and strategic activities. • it reflects profound understanding of complex theoretical and methodological principles and analysis to bring about change in the profession and/or workplace. • it indicates an ability to exercise autonomy, judgement and leadership in taking/sharing responsibility in the development of an area of work or study or in influencing substantial change in a profession, organisation or society.
Knowledge and understanding	• develop innovative practical, conceptual or technological understanding to create ways forward in contexts that lack definition and where there are many complex interacting factors. • critically analyse, interpret and evaluate complex information concepts and theories to produce new knowledge and theories. • reconceptualise the wider contexts in which the field of knowledge is located. • extend the field of knowledge or work by contributing original and creative insights. • significantly contribute to the body of existing knowledge in the subject area or discipline through personal research or equivalent work. • exercise critical understanding of different theoretical and methodological perspectives and how they affect the field of knowledge and work.
Application and practice	• use a comprehensive range of the principal skills, techniques, practices and resources associated with a subject, discipline or profession. • formulate, use and add to a range of complex skills, techniques, practices and materials at the forefront of one or more specialities. • apply a range of standard and specialised research or equivalent instruments and techniques of enquiry. • conceptualise and address problematic situations that involve many complex interacting factors. • demonstrate originality and creativity in the development and application of new knowledge, understanding and practices. • critically evaluate actions, methods and their results and long- and short-term consequences for society, the environment and the field of work or study their wider context. • demonstrate the ability to address intended and unintended consequences of one's professional practice.
Communication, numeracy and ICT	• use a significant range of advanced and specialised skills and competencies as appropriate in the work/study to communicate appropriately to a range of audiences and adapt communication to the context and purpose. • communicate through scholarly presentations and publications and engage in critical dialogue and review with peers, experts and practitioners within the field. • develop, use and specify a range of software to support and enhance work at this level. • critically evaluate qualitative and quantitative data. • devise new communication methods and techniques to enhance work and study environments.

Life skills	• respect self, others and environment. • use experiences and data to make decisions. • guide and support others in making decisions. • assign responsibilities and tasks based on decisions made. • accept responsibility for outcomes of decisions made. • develop creative and original responses to problems and issues. • use communication technology in a socially appropriate manner. • express self effectively, verbally and non- verbally, recognising individual and cultural differences. • deal with very complex and or new issues and make informed judgements in the absence of complete or consistent data. • create an environment conducive to free interaction and expression. • demonstrate tolerance and temperance when interacting with others. • recognise and reward good performance. • promote and build consensus while maintaining personal integrity. • make and promote healthy lifestyle choices. • make and defend morally appropriate choices. • guide and support others in making decisions. • make decisions using knowledge of relevant laws and conventions, experience and related empirical data. • use emotional awareness to inform decisions in multicultural situations. • resolve conflicts positively and confidently.
Autonomy, accountability, working with others	• exercise a high-level of initiative, autonomy and judgement at the professional or equivalent level. • take responsibility for leading, developing and planning courses of action that have a significant impact on a field of work or knowledge or result in a substantial organisational or professional change. • demonstrate originality in tackling and solving problems and issues. • engage in critical reflection for enhanced decision-making. • work in ways which are reflective, self-critical and based on research/evidence. • take full responsibility for own work and/or significant responsibility for the work of others. • be accountable and responsible for original research and high-level performance on several specialised projects. • lead with authority in a specialised field or work/study. • take responsibility for the advancement of professional practice/field of expertise. • demonstrate personal social responsibility for making identifiable change or impact on their environment.
Level 9	
Level summary	• achievement at level 9 demonstrates the ability to apply knowledge and understanding to real life situations. • it reflects the responsibility for planning and developing courses of action that impact organisational change within the working environment. It reflects broad autonomy and judgement. It also reflects an understanding of the relevant theoretical and methodological area of study or work.
Knowledge and understanding	• reformulate and use practical, conceptual or technological knowledge and understanding to sustain or improve contexts where there are many interacting factors. • critically analyse, interpret and evaluate complex information concepts and theories to produce original and creative modifications to conceptions, their features, boundaries terminology and conventions. • demonstrate understanding of the wider context in which the area of study or work is located. • demonstrate originality or creativity in understanding and/or practice working with knowledge that covers and integrates most, if not all, of the main areas of a subject discipline. • demonstrate understanding of different theoretical and methodological perspectives and how they affect the area of study or work.
Application and practice	• demonstrate originality and creativity in the application of knowledge, understanding and or professional practice. • apply skills, practices, procedures and methods which are specialised, advanced, or at the forefront of a subject, discipline or profession. • practice in a range of professional level contexts which include a degree of unpredictability. • design and undertake research, and develop strategic activities to inform the area of work or study, or produce organisational or professional change. • critically evaluate actions, methods and consequences and their short- and long-term implications. • plan and implement mitigation strategies where necessary.

Communication, numeracy and ICT	• make use of a broad range of advanced and specialised skills and competencies in support of established practices in the discipline or field of work to: - make formal, specialised presentations to informed audiences. - make formal and informal presentations on a variety of topics in the subject or discipline to a range of audiences. - communicate to peers, senior colleagues, specialists and practitioners. • use and adapt a range of software and media to support and enhance work to increase effectiveness. • interpret, use and evaluate a wide range of qualitative and quantitative data to set and achieve goals.
Life skills	• respect self, others and environment. • accept responsibility for decisions made. • diagnose and solve problems in collaboration with others. • develop creative solutions and original responses to solve problems and issues. • deal with very complex and or new issues and make informed judgements in the absence of complete or consistent data. • use communication technology in a socially appropriate manner. • express self effectively, verbally and non-verbally, recognising individual and cultural differences. • create an environment conducive to free interaction and expression. • demonstrate tolerance and temperance when interacting with others. • recognise and reward good performance. • promote and build consensus while maintaining personal integrity. • make and promote healthy lifestyle choices. • guide and support others in making decisions. • make decisions that will positively impact organisations and others. • make decisions using knowledge of relevant laws and conventions, experience and related empirical data. • use emotional awareness to inform decisions in multicultural situations. • resolve conflicts positively and confidently.
Autonomy, accountability, working with others	• exercise substantial initiative, autonomy and judgement at the professional or equivalent level. • work effectively with peers and professionals. • take substantial responsibility for leading and developing courses of action that initiate or underpin substantial changes or development. • take responsibility for a significant range of resources. • initiate and lead complex tasks and processes. • take substantial responsibility, where relevant, for the work and roles of others. • engage in critical reflection for improved decision-making. • deal with complex professional issues and make informed judgements on issues not addressed by current professional practice. • be accountable and responsible for original research and performance on projects. • demonstrate personal and social responsibility for making identifiable change or impacting the environment.
Level 8	
Level summary	achievement at level 8 demonstrates the ability to take responsibility to refine, integrate and apply advanced knowledge and skills to solve complex problems with limited data; initiate and develop courses of action for change and improvement utilising applicable theories; continue to advance knowledge and understanding and develop new skills to a high level.
Knowledge and understanding	• modify and use practical conceptual or technological knowledge and understanding to sustain or improve contexts where there are many interacting factors. • critically analyse, interpret and evaluate complex information concepts and ideas. • demonstrate critical knowledge and understanding of theories and principles within the context in which the area of study is located. • demonstrate knowledge and understanding of the ways in which the subject or discipline is developed including a range of established techniques of enquiry or research methodologies. • demonstrate an understanding of different perspectives and approaches and the theories that underpin them and demonstrate awareness of current developments in the area of study or work.

Application and practice	• determine, refine, adapt and use appropriate methods, skills, techniques, practices and or resources associated with a subject, discipline or profession. • practice methods of enquiry and/or research. • use some specialised or advanced skills, techniques, practices, and resources in a range of complex contexts. • demonstrate appropriate practice in a range of professional level contexts that include a degree of unpredictability. • anticipate and evaluate actions, methods and results and their consequences and propose and implement mitigation strategies.
Communication, numeracy and ICT	• use a range of advanced and specialised skills and competencies in support of established practices in the discipline or field of work to make formal and informal presentations on a variety of topics in the subject or discipline to a range of audiences. • use a range of it applications to support and enhance work. • interpret, use and evaluate numerical and graphical data to measure progress and achieve goals and targets.
Life skills	• respect self, others and environment. • guide and support others in making decisions. • accept responsibility for decisions made. • diagnose and solve problems in collaboration with others. • anticipate problems and initiate preventive action. • use communication technology in a socially appropriate manner. • express self effectively, verbally and non-verbally, recognising individual and cultural differences. • create an environment conducive to free interaction and expression. • demonstrate tolerance and temperance when interacting with others. • recognise and reward good performance. • promote and build consensus while maintaining personal integrity. • make and promote healthy lifestyle choices. • make decisions using experience and empirical data. • use emotional awareness to inform decisions in multicultural situations. • assign responsibilities and tasks based on decisions made. • engage in stress reducing activity.
Autonomy, accountability, working with others	• exercise significant initiative, autonomy and judgement at the professional or equivalent level. • take significant responsibility for planning and developing courses of action that are capable of underpinning substantial changes or developments. • consult with professional experts to obtain advice and guidance. • work in a manner that is consistent with current professional practices and deal with complex professional issues in accordance with current professional codes or practices. • take significant responsibility for the performance of others and a range of resources.
Level 7	
Level summary	achievement at level 7 recognises the application of relevant knowledge, methods and skills for the workplace and for further learning; planning, assessing, developing courses of action in response to a broad range of situations; exercising judgment and autonomy; communicating to varied audiences; reflecting understanding of different perspectives and schools of thoughts and the reasoning behind them.
Knowledge and understanding	• demonstrate comprehensive specialised, practical, theoretical or technological knowledge and understanding to inform practice in broadly defined complex contexts. • analyse, interpret and evaluate relevant information, concepts and ideas. be aware of the nature and scope of the area of study or work. • demonstrate knowledge and understanding of the difference between explanations based on evidence and/or research and other forms of explanation and the importance of this difference within the area of study or work.
Application and practice	• determine, adapt and use appropriate methods, resources, tools, procedures and skills to solve complex non-routine problems. • carry out lines of enquiry, development, or investigation into professional level problems and issues. • use relevant research or development to inform actions. • evaluate actions, methods and results and take responsibility for consequences.

Communication, numeracy and ICT	• use a wide range of advanced and specialised skills and competencies associated with the discipline or field of work or study to convey complex information to a range of audiences for a range of purposes. • use a range of applications and media to process and to obtain a variety of information and data. • use and evaluate numerical and graphical data to measure progress and achieve goals and targets.
Life skills	• respect self, others and environment. • guide and support others in making decisions. • analyse the outcomes of decisions made to inform future actions. • practise evidence-based decision-making. • make decisions that reflect sensitivity to issues of diversity. • accept responsibility for decisions made. • diagnose and solve problems in collaboration with others. • anticipate problems and initiate preventive action. • use communication technology in a socially appropriate manner. • express self effectively verbally and non-verbally, recognising individual and cultural differences. • create an environment conducive to free interaction and expression. • demonstrate tolerance and temperance when interacting with others. • negotiate positions and build consensus while maintaining personal integrity. • make and promote healthy lifestyle choices. • make and defend morally appropriate choices. • recognise and reward good performances. • diffuse conflict.
Autonomy, accountability, working with others	• exercise initiative, autonomy and judgement in some activities at the professional or equivalent level. • take significant responsibility for planning and developing courses of action in familiar or defined contexts, and for the work of others where relevant. • take some account of roles, responsibilities and the contribution of others in carrying out, completing and evaluating tasks. • exercise initiative, autonomy and judgement at some activities at the professional or equivalent level. • manage a range of resources within defined parameters of work. • work in a manner that is consistent with current professional practice.
Level 6	
Level summary	achievement at level 6 reflects the ability to identify, select and use relevant and appropriate knowledge, skills and technology to complete tasks and procedures and to address problems that are complex and non-routine. Within these parameters, it includes the ability to demonstrate leadership, to engage in teamwork and apply critical thinking skills, and to exercise autonomy and judgment while appreciating different perspectives and approaches in an area of study or work.
Knowledge and understanding	• demonstrate practical theoretical or technical knowledge and understanding to address problems that are well-defined, but complex and non-routine in broad context within a field of study or work. • analyse, interpret and evaluate relevant information and ideas. • demonstrate an awareness of the theories and principles in the area of study or work. • demonstrate an informed awareness of different perspectives or approaches within the area of study or work.
Application and practice	• select, adapt and use appropriate professional methods, resources, procedures and skills in non-routine and complex contexts. • review the effectiveness and appropriateness of methods, actions, and results. • initiate and use appropriate investigation to inform actions. • recognise and acknowledge the consequences of actions on self, others and the environment and take action to limit negative impact.
Communication, numeracy and ICT	• use a wide range of skills and competencies associated with work/study to: - convey complex ideas in a well-structured and coherent form. - use a range of communications in both familiar and new contexts. - select and use a range of applications and media to obtain a variety of information and data. • apply a range of numerical and graphical skills to assigned tasks in routine and non-routine contexts. • use numerical graphical data to measure progress and achieve goals and targets.

Life skills	• respect self, others and environment. • make informed decisions. • guide and support others in making decisions. • analyse the outcome of decisions made to inform future actions. • use evidence-based decision-making. • accept responsibility for decisions made. • identify and solve problems in collaboration with others. • use communication technology in a socially appropriate manner. • express self effectively, verbally and non- verbally, recognising individual and cultural differences. • demonstrate temperance and tolerance when interacting with others. • promote and build consensus/diffuse conflict. • make and promote healthy lifestyle choices. • make and defend morally appropriate choices. • interpret cause and effect of emotional responses. • recognise and manage emotions.
Autonomy, accountability, working with others	• take some managerial responsibility for the work of others within a defined and supervised structure. • take some responsibility for implementing courses of action, exercising some initiative and independence in carrying out defined activities at a professional or equivalent level. • manage resources within defined areas of work or study. • take account of roles and responsibilities of self and others in carrying out, completing and evaluating tasks.
Level 5	
Level summary	achievement at level 5 reflects the ability to identify, select and use relevant and appropriate knowledge, skills and technology to complete tasks and procedures and address problems with a measure of complexity with autonomy and judgment. Within these parameters, it includes the ability to demonstrate leadership, teamwork and critical thinking skills.
Knowledge and understanding	• demonstrate knowledge of factual procedural and theoretical understanding to complete tasks and address problems which may be complex and non-routine. Interpret and evaluate relevant information and ideas. • demonstrate an awareness of facts, ideas, properties, materials, terminology, practices and techniques associated with an area of study or work.
Application and practice	• apply knowledge and understanding in contexts that may be complex and non-routine. • select and use relevant skills, resources, methods and procedures in non-routine contexts that may have complex elements. • be aware of consequences of actions on self, others and the environment and take action to limit any negative impact. • use skills and adapt specified procedures to resolve challenges in simple non-routine contexts.
Communication, numeracy and ICT	• produce and respond to detailed and relatively complex written and oral communication. • select and use appropriate applications and media to obtain, process, combine and communicate a variety of information and data. • integrate a range of numerical and graphical skills in routine and non-routine contexts.
Life skills	• respect self, others and environment. • make informed decisions. • make independent choices. • solve routine problems independently. • use communication technology in a socially appropriate manner. • demonstrate tolerance and temperance when interacting with others. • negotiate positions and build consensus while maintaining personal integrity. • make and promote healthy lifestyle choices. • express self effectively, verbally and non-verbally. • justify/defend choices. • anticipate consequences as related to choices made. • differentiate between/among options. • make morally appropriate choices. • identify emotional states of others.

Autonomy, accountability, working with others	• interact with the immediate work or study environment at one's own initiative and lead teams established in the implementation of initiatives. • take substantial responsibility for initiating and completing tasks and procedures where the overall goal is clear. • exercise responsibility for supervising or guiding others. • manage assigned resources within defined and supervised areas of work or study. • play a significant role in the evaluation of work and the improvement of practices and processes.
Level 4	
Level summary	achievement at level 4 recognises the ability to select and use relevant knowledge, ideas, skills and procedures to complete well-defined tasks in a range of contexts, some of which are complex and non-routine. It includes the ability to communicate ideas and information, using appropriate communication tools and representation. It also includes taking responsibility for completing tasks and procedures and involves some level of autonomy, teamwork and guidance.
Knowledge and understanding	• demonstrate understanding of facts, procedures and ideas to complete well-defined tasks and address simple problems. • demonstrate awareness of the type of information that is relevant to the area of study or work.
Application and practice	• select and use relevant skills and procedures in familiar contexts. • apply knowledge and understanding in familiar, practical contexts. • use simple tools, techniques and/or resources associated with a subject/discipline in routine contexts, which may have non-routine elements. • develop, adapt and implement plans to use tools and techniques to address set situations and/or problems.
Communication, numeracy and ICT	use a wide range of skills to: • produce and respond to well-defined written and oral communication in routine and non-routine contexts. • select and use appropriate applications and media to obtain, process, combine and communicate information. • utilise a wide range of numerical and graphical data in routine and non-routine contexts.
Life skills	• respect self, others and environment. • make simple choices. • justify/defend choices. • differentiate/among between options. • anticipate consequences as related to choices and problems. • solve routine problems with minimal supervision. • use communication technology in a socially appropriate manner. • relate positively with others. • demonstrate temperance and tolerance when interacting with others. • negotiate positions and build consensus while maintaining personal integrity. • make and promote healthy lifestyle choices. • have a sense of identity and display socially appropriate behaviour. • make morally appropriate choices. • express self effectively, verbally and non-verbally. • follow instructions. • use emotional awareness in decision-making.
Autonomy, accountability, working with others	• work alone or with others on tasks with minimum supervision. • take responsibility for completing assigned tasks, exercising autonomy and judgement, subject to overall direction and guidance. • show an awareness of roles and responsibilities of others. • contribute to the evaluation and improvement of practices and processes.
Level 3	
Level summary	achievement at level 3 recognises the ability to use relevant knowledge, skills and procedures, to complete basic and routine tasks with direct supervision and support. It includes the ability to communicate simple information using appropriate communication tools. Collaboration with others, through work groups or teams, may often be a requirement.

Knowledge and understanding	• demonstrate knowledge of facts, procedures and ideas to complete well-defined tasks. • demonstrate awareness of information relevant to the area of study or work including basic processes, materials and terminology.
Application and practice	• apply knowledge of facts, procedures and ideas to complete well-defined, tasks in predictable and structured contexts. • use tools and resources with guidance when necessary. • use relevant skills and procedures. • determine whether or not actions have been effective. • review completed tasks to ensure that specified standards have been met and negative consequences are minimised.
Communication, numeracy and ICT	• demonstrate a range of skills to: - produce and respond to detailed written and oral communication. - select and use appropriate applications and media to process and obtain information. - use a range of numerical and graphical data in contexts that have some complex features.
Life skills	• respect self, others and environment. • follow instructions. • make simple choices with guidance. • differentiate between/among options. • solve routine problems with supervision. • use communication technology in a socially appropriate manner. • demonstrate temperance and tolerance when interacting with others. • negotiate positions and build consensus while maintaining personal integrity. • make and promote healthy lifestyle choices. • express self effectively, verbally and non-verbally. • have a sense of identity and display positive social behaviour. • express emotions appropriately. • make morally appropriate choices.
Autonomy, accountability, working with others	• work alone or with others on straightforward tasks requiring minimal supervision. • contribute to the setting of goals, and timelines, and offering suggestions for improving practices and processes. • take responsibility for completing tasks and procedures subject to direction or guidance as needed. • identify, given simple criteria, own strengths and weaknesses relative to the work.
Level 2	
Level summary	achievement at level 2 reflects the ability to use skills, knowledge and understanding to carry out structured tasks and activities with appropriate support and guidance when required.
Knowledge and understanding	• demonstrate knowledge and understanding of the steps needed to complete structured tasks and activities in familiar contexts. • demonstrate knowledge and understanding of the purpose for carrying out structured tasks and activities.
Application and practice	• relate knowledge to personal and everyday contexts after some prompting. • use, with guidance, basic tools and materials safely and effectively. • use a few basic, routine skills to undertake familiar and repetitive tasks. • use relevant skills and procedures, with guidance, to complete pre-planned tasks. • identify, with some prompting, appropriate methods for addressing simple, emerging challenges. • recognise and respond appropriately to the consequences of actions for self and others.
Communication, numeracy and ICT	• use simple skills to: respond to and produce basic written and oral communication in familiar and/or routine contexts. • use a limited range of basic numerical and graphical data in everyday contexts. • carry out a limited range of very simple tasks to process data and access information.

Life skills	• respect self, others and environment. • follow simple instructions. • communicate the decision to say no effectively. • be self-aware. • recognise non-verbal signals of emotional states. • make simple choices with guidance. • differentiate between/among options. • solve routine problems with supervision. • express self effectively, verbally and non-verbally. • use communication technology in a socially appropriate manner. • relate positively to others. • have a sense of identity and display socially appropriate behaviour. • demonstrate temperance and tolerance when interacting with others. • make and promote healthy lifestyle choices. • negotiate positions while maintaining personal integrity.
Autonomy, accountability, working with others	• work alone, or with others, to take responsibility for the outcomes of structured activities, under frequent and direct supervision. • identify, given simple criteria, some successes or failures of the work.
Level 1	
Level summary	achievement at level 1 reflects the ability to use elementary skills, knowledge and understanding to carry out simple tasks and activities with support and close guidance.
Knowledge and understanding	• demonstrate knowledge of the steps needed to complete simple activities. • demonstrate knowledge and understanding of the purpose for simple, familiar activities.
Application and practice	• relate knowledge to a few simple, everyday or personal contexts when prompted. • use, under supervision, basic tools and materials. • use a limited range of very simple skills to carry out a few familiar tasks with guidance. • follow rehearsed stages in solving problems. • respond appropriately, when prompted, to identify consequences of action.
Communication, numeracy and ICT	• use very simple skills with guidance to: - respond to and produce basic written and oral communication in familiar and/or routine contexts. - use a limited range of basic numerical and graphical data in everyday contexts. - carry out a limited range of very simple tasks to process data and access information.
Life skills	• respect self, others and environment. • follow simple instructions. • communicate the decision to say no effectively. • be self-aware. • recognise non-verbal signals of other persons' emotional states. • make simple choices with guidance. • differentiate between/among options. • solve routine problems with supervision. • express self effectively, verbally and non-verbally. • use communication technology in a socially appropriate manner. • relate positively with others. • have a sense of identity and display socially appropriate behaviour. • demonstrate temperance and tolerance when interacting with others. • make healthy lifestyle choices. • negotiate positions while maintaining personal integrity.
Autonomy, accountability, working with others	• work alone or collaborate with others, with appropriate guidance, to take some responsibility for the outcomes of simple, routine and familiar tasks with varying levels of support.

Source: Caribbean Community (2017).

The European qualifications framework

39 countries (May 2017):

European Union (EU) Member States: Belgium, Bulgaria, the Czech Republic, Denmark, Germany, Estonia, France, Ireland, Greece, Spain, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Hungary, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden and the UK
Not members of the EU: Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Iceland, Kosovo, Liechtenstein, Montenegro, Norway, Serbia, Switzerland and Turkey

Background

The European qualifications framework (EQF) was created in 2008 (European Parliament; Council of the EU, 2008) to enhance the transparency and comparability of qualifications in the EU and to improve their portability across countries, systems and sectors, both for study and working purposes. It is a translation grid, organised with eight common European levels of learning outcomes, ranging from basic (level 1) to most advanced (level 8), to which each national framework can relate or 'reference'. Given the diversity of education and training systems across Europe, each level is defined in terms of knowledge, skills and competence (learning outcomes) that need to be acquired to reach it. The EQF applies to all types and levels of education, training and qualifications, from general education, vocational education and training and higher education. Each level is attainable by a variety of education or career pathways and qualifications, including qualifications awarded through validation of non-formal and informal learning. Individual qualifications are not directly referenced to the EQF but have to be initially included in a national qualification framework (NQF). NQF levels are referenced to EQF levels based on a comparison of NQF level descriptors to the EQF level descriptors.

In May 2017, the revised EQF recommendation was adopted by the Education Council ([1]).

Level of development

The EQF has acted as a catalyst for development of learning-outcomes-based NQFs in Europe. In the 39 countries currently cooperating on EQF implementation, 43 NQFs based on explicit levels of learning outcomes have been established. Most countries are working towards a comprehensive national framework including all levels and types of qualifications from formal education and training (general education, vocational education and training and higher education) and in some cases opening up to qualifications awarded in non-formal contexts.

By December 2017, 34 countries had formally referenced their national qualifications levels to the EQF: Austria, Belgium (Flanders and Wallonia), Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, the former Yugoslav Republic of Macedonia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, the Netherlands, Norway, Poland, Portugal, Slovenia, Slovakia, Sweden, Switzerland, Turkey and the UK (England, Scotland and Wales). One country (Romania) is currently discussing the referencing report with the EQF advisory group ([2]), which is responsible for overall monitoring and coherence of the process.

The remaining countries are expected to follow in 2018, which means that the first stage of EQF referencing is nearly finished. Completion of this first stage will be followed by regular updates in the event of major changes by the countries, demonstrating that EQF implementation is

([1]) One important change foreseen in this revision is the change of the headline of the third descriptor pillar from 'competence' to 'autonomy and responsibility'.
([2]) All 39 countries taking part in the EQF process are represented in the EQF advisory group, as are the European social partners (trade unions and employers) as well as representatives of the non-governmental sector.

a continuing process. Estonia, Malta and Poland presented updates in 2015-16, starting this phase.

Development of the EQF is closely coordinated with the Bologna process and the agreement to implement qualifications frameworks in the European higher education area (QF-EHEA). This means that levels 5 to 8 of EQF are compatible with the 'cycles' of the Bologna process and the 'Dublin descriptors' underpinning these.

A total of 29 countries have formally self-certified their higher education qualifications to the QF-EHEA. Countries are increasingly combining referencing to the EQF and self-certification to the QF-EHEA ([3]). Austria, Bulgaria, Cyprus, Croatia, Estonia, Finland, the former Yugoslav Republic of Macedonia, Hungary, Iceland, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Norway, Poland, Portugal, Slovenia and Turkey have all produced joint reports on both processes, reflecting the priority given to the development and adoption of comprehensive NQFs covering all levels and types of qualifications. This development reflects the increasingly close cooperation between the two European framework initiatives, also illustrated by regular meetings between EQF national coordination points and Bologna framework coordinators.

Increasingly, NQF and EQF levels are becoming visible to citizens. Many countries now systematically indicate NQF and EQF levels on the qualifications documents they award (certificates and diplomas, and also Europass certificate and diploma supplements). It is also important that national (and European) qualifications databases contain this information and ideally structure information on qualifications in line with their framework. By April 2017, 21 countries had introduced level references in national qualifications documents or databases: Czech Republic, Denmark, Estonia, France, Germany, Greece, Iceland, Ireland, Italy, Lithuania, Latvia, Luxembourg, Malta, Montenegro, Norway, the Netherlands, Poland, Portugal, Slovenia, Switzerland, and the UK. Several countries have indicated their intention to do so in 2017, including Belgium (Flanders and Wallonia), Bulgaria, Hungary and Austria.

The future of EQF

The EQF is at the core of the EU transparency tools and relates to all other transparency and recognition tools that have been created over recent decades. It is generally considered a success and an important instrument for increasing transparency of national qualification systems and qualifications, and promoting mutual trust between European countries. Visible progress has been made in the last eight years. Despite important progress achieved by the EQF in promoting the comparability of national qualification systems, many challenges remain. A Eurobarometer carried out in Spring 2014 ([4]) showed that only 56% of EU citizens thought that their qualification would be recognised in other EU Member States and it further revealed that individuals do not have sufficient information on whether qualifications obtained in one Member State are recognised in another. Lack of trust and understanding also relates to skills and qualifications of non-European migrants.

The revised EQF recommendation aims to address the challenges and improve transparent and coherent EQF referencing, in light of the changing nature of qualification systems in a continuous and iterative process. It also aims to strengthen the link between qualifications referenced to the EQF and quality assurance and clarify the role of the EQF in relation to international and third country qualifications.

There is also agreement that a key priority in the coming period is to make the EQF more visible to end users and show its contribution to wider objectives of lifelong learning, employability, and worker and learner mobility and social integration.

([3]) Self-certification reports verify the compatibility of the national framework for higher education with the QF-EHEA.

([4]) *European area of skills and qualifications.* http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_417_en.pdf

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Prepared by:
Cedefop

Annex 4 Reference levels in the European qualifications framework

Each of the eight levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications

Level	Knowledge	Skills	Autonomy and responsibility
8	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research
7	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups
5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others
4	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
3	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems
2	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy
1	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context

Source: Council of the European Union, 2017.

The Gulf qualifications framework

6 member States

the members of the Gulf Cooperation Council (GCC): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE)

Background

The Cooperation Council for the Arab States of the Gulf, known as the Gulf Cooperation Council, is a regional intergovernmental political and economic union consisting of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE. These countries are often referred to as the 'GCC States'. The unified economic agreement between the countries of the GCC was signed on 11 November 1981 in Abu Dhabi. The six Gulf nations that make up the GCC region have considerable global influence but small populations. They all share similar socioeconomic challenges and visions. A common market was launched on 1 January 2008, with plans to realise a fully integrated single market. It eased the movement of goods and services.

In January 2015 the common market was further integrated, allowing full equality among GCC citizens to work in the government and private sectors, social insurance and retirement coverage, real estate ownership, capital movement, access to education, health and other social services in all member States. However, some barriers remained in the free movement of goods and services. Coordination of taxation systems, accounting standards and civil legislation is currently in progress.

On behalf of the GCC, the UAE National Qualifications Authority developed the Gulf qualifications framework (GQF); it was approved in Riyadh, Saudi Arabia in May 2014. The GQF will enable GCC countries to relate their national qualifications and systems to a common reference framework. It will have reference levels describing what a learner knows, understands and is able to do.

Level of development

Following approval of the Gulf qualifications framework, the Gulf States, (excluding UAE and Bahrain, which already have their own frameworks), started development of their national frameworks. The GQF is intended to be a translation device for:

(a) referencing the national frameworks of the Gulf States to the GQF;
(b) referencing the national frameworks between the Gulf States (a project is currently underway for the referencing of UAE NQF to the Bahrain qualifications framework);
(c) the potential future reference between the GQF and the EQF;
(d) the development and mutual recognition of qualifications, in particular vocational and professional qualifications, within and between the Gulf States;
(e) facilitating transfer of students and mobility of labour force among Gulf States for the purposes of education/training progression and employment;
(f) promoting the principle of lifelong learning, particularly through recognition of informal and non-formal learning;
(g) fulfilling the needs and requirements of the Gulf labour market for a highly skilled labour force.

The future of the GQF

Pending formal approval of the GQF 10-level descriptors, work will commence on development of the GQF glossary and the referencing criteria, together with its legislation, philosophy, vision, and mission. Though integrated to cover the three sectors of general, vocational, and higher education and training, the referencing with the GQF is primarily intended to serve VET and professional qualifications of the Gulf States. These qualifications will then be linked to and based on occupational skills standards.

On completion of the above, the proposal to establish the Gulf Qualifications Authority will be submitted to be the custodian of the GQF. The

proposed Gulf Qualifications Authority will be responsible for:

(a) development and approval of GQF governance and its management;
(b) maintaining the GQF and development and approval of its associated procedures and criteria;
(c) establishing and maintaining the GQF database;
(d) coordination with stakeholders within the Gulf States, including ministries of labour, ministries of education and training, and industry entities;
(e) capacity building;
(f) coordination of the work with relevant international organisations.

This is planned to be achieved within a five-year period, as proposed by the GQF team in its meeting held in Oman in November 2016.

References

National Qualifications Authority, UAE: www.nqa.ae
Special thanks to Malik Althuwaini (UAE National Qualifications Authority) for reviewing and providing input to this document.

Prepared by:
UNESCO

Annex 5 The level descriptors in the Gulf qualification framework	
Level 10	
Knowledge	Comprehensive, overarching, and leading knowledge at forefront of a discipline/field or professional practice and at the interface between different fields or disciplines Critical understanding of the most advanced research methodologies, and techniques in a discipline/field which includes independent research, resulting in new knowledge or reinterpretation/redefining existing knowledge or professional practice as judged by independent experts applying international standards
Skill	A broad range of mastered skills and techniques to analyse, evaluate, and synthesise new and complex ideas and information Highly specialised skills and expertise to solve critical problems in research and or innovation with incomplete or limited information and in unfamiliar environment Highly specialised skills to redefine, design, implement, and reflect on new and existing knowledge and/or innovative processes
Aspects of competence	
Autonomy and responsibility	Can exercise high level of autonomy, authority, creativity, originality, and independence in learning and professional activities Can take full responsibility for own work and significant responsibility for the work of others in sustained commitment to the development of new ideas, research or applications within highly complex and unpredictable contexts professionally, and ethically Can demonstrate leadership in solving problems, prove substantial scholarly and professional integrity to define objectives of new research or applications, and lead actions reflecting on sociocultural norms and relationships
Role in context	Can demonstrate leadership, innovation, and or authority in a specialised field of work or learning Can lead highly professional groups or teams in complex and multi-disciplinary contexts Can initiate and deploy research leadership and promote professional development of peer groups and teams in a sustained manner
Self-development	Can systematically understand a considerable amount of knowledge about the latest scientific achievements or a field of professional practice Can analyse and critique the state of learning in a field and contribute to its advancement

Level 9	
Knowledge	Comprehensive and highly specialised knowledge in a discipline/field with specialist knowledge in an area at the forefront of the discipline/field of professional practice, including a coherent and critical understanding of the theory, research methodologies, and techniques relevant to the discipline/field Critical awareness of current issues of a discipline/field, redefining existing knowledge and/or professional practice
Skill	Specialised skills required to identify, conceptualise, and define new and abstract problems, to develop and use original and creative research, analysis, evaluation and/or innovation of complex ideas, information, concepts and/or activities Specialised skills to perform critical evaluation and analysis to solve problems with incomplete or limited information and in unfamiliar environment Develop and use new knowledge and skills to critically consolidate and extend such knowledge and skills in response to emerging thinking, practices, techniques and technologies in a discipline or field
Aspects of competence	
Autonomy and responsibility	Can take responsibility for learning/work processes or systems within highly complex and unpredictable contexts autonomously, professionally, and ethically Can define and draw objectives for new research or applications reflecting on economic and sociocultural norms and relationships Can manage and transform complex and unpredictable work or learning contexts sometimes through new strategic and operational approaches Can take significant responsibility for the work of others and responsibility of a significant range of resources
Role in context	Can demonstrate leadership and or initiative in managing professional activities, and contributing significantly to the development of learning or work environments Can take responsibility for leading the (strategic) performance of others within the scope of complex contexts Can effectively reflect on and respond to the changing environment of work or learning alone or in interaction with others
Self-development	Can systematically and thoroughly evaluate one's own learning and take responsibility for contributing to professional knowledge and practice
Level 8	
Knowledge	Advanced specialised, systematic and integrated knowledge in a discipline/field with coherent and critical understanding of the principles, concepts, and principal theories, including a depth of knowledge at the interface between disciplines/fields
Skill	Advanced cognitive, technical, and creative skills appropriate to undertaking critical analysis and evaluation of concepts and information Effective selection and application of essential procedures and processes to conceptualising and solving specialised problems associated with a field of work or discipline Drawing upon a range of sources in making judgment, devising and sustaining arguments, and implementing appropriate research tools and strategies associated with the field of work or discipline

Aspects of competence	
Autonomy and responsibility	Can define, reflect on, and assess own learning and work objectives and processes autonomously Can operate effectively in complex and undefined learning/work contexts autonomously, professionally and ethically Can manage complex technical, supervisory, and professional activities with responsibility in unpredictable contexts Can take significant responsibility for the work of others and for coordinating a range of resources
Role in context	Can assume responsibility in working with highly professional or expert teams for initiating the strategic performance of the teams and self Can exercise autonomously and independently professional levels and in technical and supervisory contexts Can demonstrate creativity and initiative in developing team performance, managing teams and processes, training others and setting and achieving own or groups' outcomes Can work effectively in peer relationships to bring about change
Self-development	Can critically judge and define own learning needs Can manage self-development tasks independently and professionally, in complex and sometimes unfamiliar learning contexts
Level 7	
Knowledge	Well-rounded, specialised, and systematic factual and theoretical knowledge and an understanding of the major discipline/field with depth in some relevant areas and the underlying principles, terminology and theoretical concepts
Skills	Advanced cognitive, technical, and creative skills appropriate to undertaking analysis and evaluation of concepts and information Effective selection and application of essential procedures and processes to solving specialised problems associated with a field of work or discipline Drawing up a range of sources in making judgment, devising arguments, and implementing appropriate research tools and strategies associated with the field of work or discipline
Aspects of competence	
Autonomy and responsibility	Can define, reflect on, and assess own learning and work objectives and processes autonomously Can operate in variable and unfamiliar learning/work contexts, requiring responsibility and initiative Can manage technical, supervisory, and design processes in unpredictable contexts Can take some responsibility for the work of others and for a range of resources
Role in context	Can assume responsibility in working with highly professional or expert teams Can exercise autonomously and independently at para-professional levels and in technical and supervisory contexts Can demonstrate creativity and initiative in developing team performance, managing teams and processes, and setting and achieving own or groups' outcomes
Self-development	Can judge and define own learning needs Can take initiative to address self-development needs and function independently within learning groups
Level 6	
Knowledge	Comprehensive, substantial depth, and specialised knowledge and an understanding of the scope, and theoretical and abstract concepts, defining the boundaries and features in the main area of work or discipline
Skill	A comprehensive spectrum of specialised cognitive, technical, and creative skills appropriate to identify, formulate responses, and solve well-defined concrete or abstract problems and multiple, complex tasks associated with a field of work or discipline A wide range of specialist scholastic and practical skills and approaches to effectively plan and evaluate work processes across work areas and to formulate evidence-based solutions or responses to complex problems and issues

Aspects of competence	
Autonomy and responsibility	Can exercise autonomy, initiative, and take responsibility for their own learning within a less familiar environment Can deploy supervision responsibilities for the work of others within a defined structure with some level of autonomy Can identify and evaluate their own learning needs within a structured learning environment Can manage resources within defined areas of work or learning
Role in context	Can interact or instruct others to plan and structure work processes, to formulate and convey theoretical and practical solutions to problems within a field of work or learning, and to assess the work of own or others to establish team performance Can function independently and in a supervisory role within multiple, complex groups Can assist others identify their learning needs, and take account of own and other's roles and responsibilities in carrying out tasks Can take leadership in familiar and structured contexts
Self-development	Can recognise the gaps in one's own knowledge, skills, and competences and takes necessary actions in a familiar environment
Level 5	
Knowledge	Fundamental and/or comprehensive and specialised knowledge base of the main areas of one or more fields or disciplines including some theoretical and abstract concepts
Skill	A wide range of cognitive, technical, and creative skills to carry out complex tasks and to generate solutions to well-defined, non-routine or specific problems within a field of work or study Use a range of approaches to facilitate autonomous preparation of tasks and to adjust an application of a solution within relevant parameters to meet the required needs at the work environment
Aspects of competence	
Autonomy and responsibility	Can exercise autonomy and take responsibility for their own learning within a less familiar environment Can take supervision and oversee responsibility for the work of others within a defined structure Can coordinate the implementation of appropriate approaches to complex work procedures and processes, resources or learning, including leading teams within a technical or para-professional activity Can coordinate limited resources within structured areas of work or learning
Role in context	Can act alone or interact with others to generate solutions to problems within less familiar and sometimes immediate environment in a specified field of work or study Can supervise with responsibility the work of self or others under indirect guidance sometimes Can evaluate own or others' performance against given criteria Can show some leadership and offer on-going support to define or shape objectives of various tasks
Self-development	Can take decisions and responsibility about own learning and future career development within a managed environment Is aware of further learning opportunities
Level 4	
Knowledge	Broad spectrum of theoretical and concrete knowledge, including facts, principles, concepts, and processes in a field of work or learning
Skill	A spectrum of developed cognitive and practical skills required to identify and accomplish routine tasks in unfamiliar and occasionally unpredictable contexts Use factual and theoretical information, and apply basic methods, tools, equipment, and materials to solve defined problems or make generalisations

Aspects of competence	
Autonomy and responsibility	Can take responsibility to carry out and complete a range of activities under limited guidance or supervision Can use own initiative with established autonomy to implement appropriate approaches to different work procedures and processes, or learning within less familiar contexts Can take limited supervisory responsibility for the work of others Can organise limited resources within defined areas of work
Role in context	Can participate proactively in multiple groups and adapt own behaviour to solving problems within less familiar environments or in changing circumstances Can show awareness and take account of the roles and responsibilities of self and others within routine learning or work contexts Can occasionally facilitate or offer support for defining generic objectives or shaping familiar learning or work environments
Self-development	Can take decisions about own learning and future career development under supervision Can self-evaluate own competences and needs under guidance Is aware of the possibility of continuing learning
Level 3	
Knowledge	Basic factual and theoretical knowledge in a subject or discipline or a field of work
Skill	General cognitive and practical skills required to carry out moderate range of tasks in a familiar and established context, use established information and apply routine solutions to predictable and limited unpredictable problems using prescribed constructs, rules, techniques, instruments and tools
Aspects of competence	
Autonomy and responsibility	Can work or learn with some responsibility in familiar contexts and under some or indirect guidance Can exercise some autonomy in well-defined tasks within a managed environment
Role in context	Can act alone or within groups on tasks with minimum or indirect supervision Can be proactive and use selective information to achieve specified tasks Can participate in defining some goals and timelines of specified tasks Can demonstrate awareness of the roles, responsibilities and requirements of others in work or learning contexts
Self-development	Is aware of the possibility of continuing learning Acknowledges the need to acquire some key competences Can undertake self-development within a managed environment
Level 2	
Knowledge	Basic general and cognitive knowledge in a subject or discipline
Skill	Basic cognitive and practical skills to carry out a limited range of simple, pre-programmed and routine tasks and problems
Aspects of competence	
Autonomy and responsibility	Can work or learn in structured contexts under direct guidance and within simple defined timeframe Can take some responsibility for completing straightforward tasks with limited responsibility
Role in context	Can function alone or within groups on straightforward tasks under supervision Can follow instructions and complete some well-defined tasks
Self-development	Can undertake self-development within a structured and supervised environment Can learn and work with structured groups to gather and exchange information

Level 1	
Knowledge	Elementary general knowledge
Skill	Basic practical skills required to carry out a limited range of simple, repetitive, and pre-planned tasks
Aspects of competence	
Autonomy and responsibility	Can work or learn in highly structured contexts under direct guidance and within simple defined timeframe
Role in context	Can function alone or within structured groups on simple tasks under direct supervision
Self-development	Can access and use a range of well-supported learning resources

Source: UAE.

The Pacific qualifications framework

15 member States:

Cook Islands, Micronesia, Fiji, Kiribati, Nauru, Niue, Marshall Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu and Tokelau

Background

The Pacific Community (SPC) includes the 22 Pacific Island countries and territories as well as four of the original founders (the Netherlands and the UK withdrew in 1962 and 2004 respectively when they relinquished their Pacific interests). The Council of Regional Government and Administrations, which meets once per year, is the governing body of the SPC. The SPC works in a wide range of sectors with the aim of achieving three development goals:

(a) Goal 1: Pacific people benefit from sustainable economic development;
(b) Goal 2: Pacific communities are empowered and resilient;
(c) Goal 3: Pacific people reach their potential and live long and healthy lives.

The notion of a Pacific qualifications register was first raised in 2001 at the Pacific Islands Forum Ministers of Education meeting in Auckland, New Zealand. In the meetings that followed, officials reaffirmed their commitment to developing a regional qualifications register; they proceeded to establish a dedicated unit within the South Pacific Board for Educational Assessment (SPBEA) in February 2009 to champion the development of the Pacific qualifications register. The education ministers' initial expectation of a Pacific qualifications framework (PQF) was a regional commitment to continuous improvement of the quality of all forms of Pacific education and training (basic and primary, secondary, TVET and tertiary) that would culminate in the award of internationally recognised qualifications.

Level of development

The Pacific qualifications framework (PQF) is a common reference framework that is linked to the *Pacific register of qualifications and standards* (PRQS). The PQF supports the current international move to outcomes-based learning. It includes a set of 10 level descriptors (see Annex 6). The 10-level framework encompasses all forms of education and training, including general, adult education and community programmes; the school sector; TVET; and tertiary or higher education. The level descriptors include three domains: knowledge and skills; application (deconstructed to type and problem solving) and autonomy (deconstructed to level of support and degree of judgement). The PQF level descriptors have been compared with the descriptors used in the Australian and New Zealand frameworks in 2012, as well as with NQFs in Pacific Island countries: Fiji, Papua New Guinea, Samoa, Tonga and Vanuatu. Individual countries have also carried out comparative assessment of their frameworks against the PQF.

The governing body for the PQF and PRQS is the Pacific Board for Educational Quality (PBEQ), a specially mandated subcommittee of the Council of Regional Government and Administrations. An advisory board for the PRQS was established in 2014 that provides advice, and helps guide the administration and operations of the register. Members of the advisory board are the heads of national and regional accrediting agencies from Pacific countries, including representatives from Australia and New Zealand.

The register and the framework are underpinned by a set of quality assurance standards for agencies (including the registration of providers and accreditation processes of qualifications), minimum standards for providers and programmes. The quality assurance standards are supported by various policies and procedures, guidelines and criteria. These are contained in the Pacific quality assurance framework (PQAF). The PQAF is intended to serve two important purposes. First, it provides broad quality principles on the roles and functions of accrediting agencies in monitoring and sustaining

quality within post-school education and training institutions; and, second, as the educational quality and assessment programme's (EQAP) internal quality system.

The PQAF is not intended to standardise the quality assurance practices in the Pacific; however, it provides a broad base for accrediting agencies and institutions to compare and inform their own quality assurance policies and processes. Where the opportunity arises to relate to regional initiatives such as the PQF and the PRQS, the PQAF provides a common standard for mutual understanding and implementation.

The Pacific, Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu have made progress in the development of their national qualifications agencies and NQFs. Cook Islands and Niue are aligned with the New Zealand qualifications framework. The Northern Pacific Countries (Federated States of Micronesia, Palau and Republic of the Marshall Islands) are seeking accreditation from the Western Association of Schools and Colleges of the United States. Kiribati and Tuvalu have adopted the PQF and PQAF as their national qualifications and quality assurance frameworks and are working with EQAP to progress the quality assurance of their post-secondary education and training. Solomon Islands has commenced work on the establishment of its qualifications and quality assurance system. Nauru now offers qualifications that are accredited by the Queensland Curriculum and Assessment Authority.

Future of the PQF

The Qualifications Unit, which oversees the PRQS is planned to:

(a) develop the professional licensing and occupational standards domain. This domain hosts information on national and regional professional associations, occupational standards, licensing criteria and other related aspects that support the various Pacific trade agreements that have labour mobility components;
(b) develop procedures for regional and international qualification recognition;
(c) explore an external quality assurance function for maintaining the integrity and credibility of the PRQS;
(d) support national and regional accrediting agencies;
(e) assist smaller island States (such as Kiribati and Tuvalu) in exploring best options for their frameworks and quality needs;
(f) assist countries in developing their qualifications and quality assurance frameworks;
(g) support the development, accreditation and delivery of regional qualifications;
(h) support the development and accreditation of micro-qualifications;
(i) review the PRQS database over the next two-year period.

The unit will continue to work with countries and stakeholders to ensure that the PQF and PQAF become fully operational, and their benefits are realised, across the region.

References

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Pacific Community: about us: http://www.spc.int/about-us/

Prepared by:
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Annex 6 Level descriptors of the Pacific qualifications framework

Level	Knowledge and skills	Application	Autonomy
10	Demonstrated knowledge and skills that: • involve critical understanding of a substantial and complex body of knowledge at the most forefront of a discipline or area • involve high-level critical analyses, reflection and independent and original thinking • involve the creation and interpretation of new knowledge or practice, through original advanced research that satisfies formal academic review	Applied in contexts that: • are subject to change with some complexity • involve the formulation of or adaptation of processes to resolve complex and sometimes abstract issues	In conditions where there is: • minimal guidance and high-level autonomy, initiative, adaptability and self-direction • authoritative judgement and high-level planning, management and innovation required
9	Demonstrated knowledge and skills that: • involve mastery and integrated understanding of a complex body of knowledge some of which is at the forefront of one or more disciplines or areas • involve high-level critical analyses • involve research as the basis for extending or redefining knowledge or practice in one or more disciplines or areas	Applied in contexts that: • are complex and specialised, generally involving some new or evolving aspects • involve the formulation and testing of theories and processes to resolve highly complex, abstract and emergent issues	In conditions where there is: • minimal guidance and substantial autonomy, initiative, adaptability and self-direction • expert judgement and high-level planning, management and innovation required
8	Demonstrated knowledge and skills that: • are highly advanced, theoretical and technical, within one or more disciplines or areas • involve critical, analytical and independent thinking	Applied in contexts that: • are complex with some specialisation • involve the formulation of processes to resolve highly complex and abstract issues	In conditions where there is: • minimal guidance and demonstrated self-direction or autonomy • significant judgement, planning, coordination and organisation required
7	Demonstrated knowledge and skills that: • are highly theoretical and/or technical with significant underpinning knowledge, within one or more disciplines or areas • involve critical and analytical thinking	Applied in contexts that: • are subject to complex change • involve the formulation of or substantial adaptation of processes to resolve complex and abstract issues	In conditions where there is: • broad guidance and demonstrated self-direction • significant judgement and high-level planning, management and innovation required
6	Demonstrated knowledge and skills that: • are highly theoretical and/or abstract or technical within a broad field or with depth in one area	Applied in contexts that: • are subject to change with some complexity • involve the formulation of or adaptation of processes to resolve complex and sometimes abstract issues	In conditions where there is: • broad guidance or direction • well-developed judgement planning required
5	Demonstrated knowledge and skills that: • are mainly technical and theoretical, within a broad field or with depth in one area	Applied in contexts that: • are both known and changing • involve unfamiliar issues that are addressed using a range of processes	In conditions where there is: • general guidance or direction • both judgement and planning required

Level	Knowledge and skills	Application	Autonomy
4	Demonstrated knowledge and skills that: • are broadly factual, within a broad field in one area	Applied in contexts that: • are stable but sometimes unpredictable • involve familiar and unfamiliar issues	In conditions where there is: • routine guidance or direction • judgement and some planning required
3	Demonstrated knowledge and skills that: • are factual or procedural, technical, with some theoretical aspects	Applied in contexts that: • are stable and predictable • involve familiar issues that are addressed by selecting from known solutions	In conditions where there is: • routine supervision and guidance and direction • some judgement and discretion required
2	Demonstrated knowledge and skills that: • are factual or manual or operational	Applied in contexts that: • are structured and stable • involve straightforward issues that are addressed by set, known solutions	In conditions where there is: • close support and guidance or direction • minimal judgement or discretion required
1	Demonstrated knowledge and skills that is: • basic, foundational and explicit	Applied in contexts that: • are highly structured, defined and repetitive • involve straightforward and everyday issues that are addressed by simple and rehearsed procedures	In conditions where there is: • immediate support and guidance or direction • almost no judgement and planning required

Source: SPBEA, 2011.

Southern African Development Community regional qualifications framework

15 member States:

Angola, Botswana, the Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe

Background

The main objectives of the Southern African Development Community (SADC) are to achieve development, peace and security, and economic growth, to alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa, and support the socially disadvantaged through regional integration, built on democratic principles and equitable and sustainable development.

In this context, SADC countries adopted in 1997 the *Protocol on education and training* (SADC, 1997) which seeks to promote a regionally integrated and harmonised education system, especially with regard to issues of access, equity, relevance, and quality of education interventions. In 2015, SADC countries adopted the SADC industrialisation strategy 2015-26 to promote regional integration and focus on industrialisation economies of the region through enhancing factor accumulation (labour, capital and technology) to raise total productivity.

The SADC regional qualifications framework (RQF) is considered an important support to the Protocol on education and training and the SADC industrialisation strategy, contributing to harmonisation of education and training and aiding the movement of the labour in the region.

Level of development

The SADC RQF was adopted by SADC Ministers for Education in September 2011 as a regional mechanism for comparability and recognition of full qualifications, credit transfer, creation of regional standards and support for quality assurance at regional level. It consists of a set of agreed principles to promote comparability and common understanding of qualifications, credits and quality assurance across borders in the SADC region. It is a reference framework consisting of 10 levels, each defined by a set of descriptors, a qualification portal (currently in a pilot stage) and quality assurance guidelines. The SADC RQF was originally conceptualised by a technical committee on certification and accreditation, established to oversee harmonisation and standardisation of education and training systems in the SADC region, including the development of an RQF to be implemented by a SADC Qualifications Agency (SADCQA). The agency was intended to oversee the development and implementation of the SADC RQF and provide technical services and expert guidance via two substructures:

(a) a regional steering committee to oversee and spearhead the development of SADCQF;
(b) an implementation unit (IU) that will be the executing arm of the SADC Qualifications Agency and will perform tasks as specified by the regional steering committee.

However, in 2011, Ministers approved the technical committee on certification and accreditation to continue working on the RQF. The aim was to improve it and to include quality descriptors and qualification types, strengthening of the education and skills development unit at the SADC Secretariat, as well as increasing advocacy and consultations on the SADC RQF with key stakeholders.

To progress implementation of the SADC RQF, a proposal was made to establish thematic working groups and coordination points in each of the member States. SADC member States were also encouraged to upload their qualifications to the SADC qualifications portal, which has been piloted with a few of them. Regional guidelines for the recognition of prior learning in SADC were also developed and approved in 2016.

SADC member States are involved in NQF development and/or implementation at different levels. The Democratic Republic of the Congo and Zimbabwe are at the earliest stages of NQF

development. Although proposals to implement an NQF have been discussed, neither of these countries has yet formalised the decision within approved policy and legislation, so their future development and trajectories are not yet entirely clear. Four other countries are beginning to develop an NQF, having already established a framework of qualifications for the TVET sector: Botswana (BNVQ), Malawi (TQF), Tanzania and Zambia (TEVET QF). With policy and a pilot for a framework for technical and professional qualifications, Mozambique may be considered to fall into this 'developmental pathway', albeit at an earlier stage than other countries in the group. Other SADC member States, such as Angola, Lesotho, Madagascar and Swaziland, are also at an early stage of NQF development. Four countries have already been implementing an NQF for a decade or more: South Africa (since 1995), Namibia (since 1996), Mauritius (since 2001), and Seychelles (since 2005). These four countries have followed a developmental pathway based on establishing a comprehensive NQF from the outset.

Future of SADC QF

Although the SADC RQF is still not yet operational, all 15 SADC member States are involved and making progress toward the development and/or implementation of NQFs, albeit at different levels.

References

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Input received from James Keevy, CEO, The Education Hub and Lomthie Mavimbela, Senior Programme Officer, Education and Skills Development (SADC).

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Annex 7 Level descriptors for the SADC qualifications framework

Level	Knowledge	Skills	Autonomy and responsibility
10	Makes a substantial and original contribution to knowledge in the field through research and scholarship	Conducts original research which is evaluated by independent experts against international standards; demonstrates problem-solving ability and critical evaluation of research findings for academic discussion	Demonstrates full responsibility and accountability for all aspects of advanced research work
9	Demonstrates mastery of theoretically sophisticated subject matter, showing critical awareness of current problems and new insights at the forefront of the discipline area	Conducts original research deploying appropriate research methods and processes primary and secondary source information using rigorous intellectual analysis and independent thinking and applies knowledge in new situations; demonstrates independent thinking, problem-solving, critical evaluation of research findings and ability to make judgements based on knowledge and evidence	Shows independence, initiative and originality and the ability to manage own and group outcomes in complex and unpredictable situations

Level	Knowledge	Skills	Autonomy and responsibility
8	Demonstrates critical understanding of the principles, theories, methodologies, current research and literature of the discipline	Demonstrates capacity to use a coherent and critical understanding of the principles, theories and methodologies of a particular discipline. Selects and applies appropriate research methods and techniques, and critical analysis and independent evaluation of information	Operates within the context of a strategic plan with complete accountability for management of resources and supervision of others
7	Demonstrates knowledge of a major discipline with possible areas of specialisation, including command of the ideas, principles, concepts, chief research methods and problem-solving techniques of the recognised discipline	Demonstrates intellectual independence, critical thinking and analytical rigour, and advanced communication and collaborative skills in complex and variable contexts	Designs and manages processes and works with broad accountability for determining, achieving and evaluating personal and group outcomes
6	Demonstrates specialist knowledge in more than one area and ability to collate, analyse and synthesise a wide range of technical information	Demonstrates ability to apply specialist knowledge and skills in highly variable contexts and formulate responses to concrete and abstract problems	Manages processes and works with complete accountability for personal and group outcomes
5	Demonstrates a broad knowledge base with substantial depth in some areas, ability to analyse information and construct a coherent argument	Applies a wide range of technical and/or scholastic skills in variable contexts using standard and non-standard procedures, often in combination	Works independently under broad guidance and can take some responsibility for supervising the work of others and group outcomes
4	Demonstrates a broad knowledge base, incorporating some abstract and technical concepts, and ability to analyse information and make informed judgements	Applies a moderate range of technical and/or scholastic skills which are transferable in familiar and unfamiliar contexts, using routine and non-routine procedures	Shows ability for self-direction, requiring little supervision, and complete responsibility for own outcomes and some responsibility for group outcomes
3	Demonstrates basic operational and theoretical knowledge and ability to interpret information	Demonstrates a range of well-developed skills and ability to apply known solutions to familiar problems	Works under general supervision with some responsibility for quality and quantity of output
2	Demonstrates recall and a narrow range of knowledge and cognitive skills	Can carry out processes that are limited in range, repetitive and familiar	Applied in directed activity under close supervision
1	Demonstrates basic general knowledge and numeracy and literacy for everyday purposes	Can follow simple instructions and perform actions required to carry out simple concrete tasks requiring no special skills	Works under close supervision in familiar surroundings and structured contexts

Source: SADC, 2011.

Transnational qualifications framework for the virtual university of small States of the Commonwealth

32 member States:

Antigua and Barbuda, Bahamas, Barbados, Belize, Botswana, Brunei, Cyprus, Dominica, Fiji, The Gambia, Grenade, Guyana, Jamaica, Kiribati, Lesotho, Maldives, Malta, Mauritius, Namibia, Papua New Guinea, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Seychelles, Sierra Leone, Solomon Islands, Swaziland, Tonga, Trinidad and Tobago, Tuvalu and Vanuatu

Background

The Commonwealth of Nations, commonly known as the Commonwealth, is an intergovernmental organisation of 53 member States that were mostly territories of the former British Empire. The Commonwealth operates by intergovernmental consensus of the member States, organised through the Commonwealth Secretariat, and non-governmental organisations, organised through the Commonwealth Foundation.

On request of Commonwealth Heads of State, the Commonwealth of Learning initiated the development of a virtual university of small States of the Commonwealth (VUSSC) in 2003, premised on a virtual mode for distance education. This was expected to improve access to educational opportunities, enhance the quality of teaching and reduce costs. All participating VUSSC countries are small States that share at least some common challenges in the face of globalisation and the increased mobility of highly skilled professionals. Participating VUSSC countries are located across the globe and represent a unique initiative that does not rely on geographical proximity.

After approval of the VUSSC concept in 2003 by ministers, the Commonwealth of Learning was asked to assist countries to collaborate and strengthen the capacity of their national education institutions through VUSSC. Following a period of four years of course development through the VUSSC 'boot camps', the small States proposed establishing a qualifications framework as a mechanism to support the development, international recognition, comparability and understanding of the VUSSC courses.

The transnational qualification framework (TQF) is defined as: 'a translation instrument for the classification of VUSSC qualifications according to set criteria for specified levels of learning achieved, to improve credit transfer and promote common accreditation mechanisms between participating VUSSC countries'.

The proposed architecture of the TQF includes a set of level descriptors (see Annex) with three domains: knowledge and understanding; skills; and wider personal and professional competences.

Level of development

The first management committee for the TQF was appointed in October 2008, comprising two representatives from each of the three main regions in which the 32 countries are located. The committee developed an implementation plan for the TQF in 2010 (COL and SAQA, 2010). In 2016 the second TQF management committee was elected.

The TQF was officially launched in 2010 in Namibia. In 2011 work was initiated to register the first qualifications on the framework. Standards for VUSSC courses have subsequently been developed in tourism, agriculture and ICT through consultative workshops held since 2010 in the Bahamas and Samoa, and in 2012 in the Seychelles. In 2015, the TQF management committee approved the registration of six VUSSC programmes.

The TQF relies for quality assurance entirely on the mechanisms in countries where courses originate and/or are offered. The TQF design excludes accreditation of providers, which is done at national and regional levels, but includes registration of qualifications: a qualification that meets the transnational qualifications criteria will be registered on the TQF and is referred to as a 'TQF registered qualification'. Any education and training provider within a participating VUSSC country that meets the broad quality-assurance criteria, and is accredited

on a sectoral, national and/or regional level, will be able to offer such a registered qualification. Guidelines have been approved for higher education institutions, regional bodies, external quality assurance bodies and students. The TQF can provide guidance on national quality assurance processes, based on existing international guidelines.

To date, 86 institutions have participated in VUSSC activities and more than 53 000 individuals have been trained through VUSSC activities. A total of 10 institutions in eight countries have started to offer VUSSC courses and programmes. Institutions are offering these through a variety of means, but mainly through conventional, online or blended modes. More open courses are now available. VUSSC has developed more than 13 courses and programmes, all of which were identified by the small States themselves. These courses are now being shared as open educational resources.

The TQF was revised by the management committee in 2016. This is significant because the Commonwealth of Learning initially sought the help of the South African Qualifications Authority to help develop the TQF. The small States are now taking the lead in implementation of VUSSC.

When senior officials met in Malaysia in March 2016 they also approved the referencing of the TQF against national and regional qualifications frameworks, which included the European qualifications framework. A qualification emanating from any participating State can now be recognised throughout the Commonwealth, provided it has met all the quality assurance criteria of the national, regional and transnational qualifications frameworks.

NQF development among the 32 small States involved in the TQF varies greatly, but is mostly still at an early stage. Only Malta, Mauritius, Namibia and Samoa have moved into more advanced stages.

The future of VUSSC

The Open University of Malaysia hosted a meeting during the first week of March 2015 to finalise the review of the TQF, the referencing of NQFs against the TQF, and approve the registration of six VUSSC programmes on the TQF. Announcement of the completed TQF is expected to provide small States with more up-to-date procedures and guidelines and a referencing tool for alignment of qualifications to the TQF.

References

COL; SAQA (2010). *Transnational qualifications framework for the virtual University of small States of the Commonwealth.* Procedures and Guidelines. Pretoria: Commonwealth of Learning; South African Qualifications Authority. http://www.vussc.info/

Prepared by:
UNESCO

Annex 8 Level descriptors for the VUSSC transnational qualifications framework

Level	Descriptors
10	Acquire and possess a systematic understanding of a substantial body of knowledge which is at the forefront of an academic discipline, field of study or area of professional practice; be able to create and interpret new knowledge at a most advanced frontier of a field of work or study through original and advanced research of a quality to satisfy peer review, extend the forefront of the discipline and merit publication; possess the most advanced and specialised skills and techniques to be able to conceptualise, design and implement a project for the generation of new knowledge or to solve critical problems or to refute or redefine existing knowledge; demonstrate authority, innovation, autonomy, integrity and personal responsibility in the production or development of innovative ideas or processes in the context of an academic discipline, field of study or area of professional practice.

Level	Descriptors
9	Have a logical understanding of a body of highly specialised knowledge, some of which is at the forefront of their academic discipline, field of study, or area of professional practice, as a basis for original thought and/or the conduct of research and/or enquiry; have a comprehensive understanding of the research skills and/or relevant established techniques applicable to their own research or to advanced scholarship that can be used to create and interpret knowledge; demonstrate originality in the application of knowledge to solve problems, together with a practical understanding of how knowledge can be managed to transform work or study; possess a conceptual understanding of how to analyse and critically evaluate current research in their academic discipline, field of study or work and to apply, where appropriate, to solve problems.
8	Have systematic, extensive and comparative knowledge of the key aspects of their academic discipline, field of study or work; possess an ability to deploy accurately established analytical tools and/or techniques and enquiry within their academic discipline, field of study or work; be able to use their knowledge, understanding and skills of a wide range of concepts, ideas and information to devise and sustain arguments and/or to solve problems; display a critical understanding of the uncertainty, ambiguity and limits of knowledge and how it is developed; possess the ability to manage their own learning and to make use of scholarly reviews and primary sources (e.g. refereed research articles and/or original materials appropriate to the discipline).
7	Have advanced knowledge of a field of work or study, involving a critical understanding of the well-established principles and including an understanding of some advanced aspect(s) of their area(s) of their field of work or study; where appropriate, the application of those principles in an employment context; have an understanding of the limits of that knowledge and how this influences analysis and interpretation based on that knowledge; possess advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in their specialised field of work or study; be able to manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts.
6	Possess an in-depth knowledge and critical understanding of the ideas, concepts and principles in their field of work or study; have knowledge of the methods of enquiry in the subject, and use a range of techniques to initiate and undertake critical analysis of information, proposing solutions to problems arising from that analysis; demonstrate an ability to evaluate critically and apply the appropriateness of different approaches to solving problems; apply those concepts and principles more widely; have an understanding of the limits of their knowledge, and how this influences analyses and interpretations; effectively communicate information, arguments and analysis, in a variety of forms, to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively; have the qualities necessary for employment in situations requiring the exercise of personal responsibility and decision-making.
5	Have broad knowledge and understanding of the main underlying ideas, concepts and principles in a field of work or study; be able to use their knowledge, understanding and skills to evaluate critically and determine appropriate methods and procedures to respond to a range of problems of a generally routine nature; display qualities and transferable knowledge and skills necessary for employment in situations requiring the exercise of some personal responsibility; communicate the results of their field of study or work accurately and reliably using a range of different modalities; identify and articulate their own learning needs within defined contexts and undertake guided further learning in new areas.
4	Have a broad knowledge and understanding of the main underlying concepts and principles in a field of work or study; demonstrate a basic understanding of the major theories, principles, ideas and concepts of their particular area of study; be able to use different approaches to identify, evaluate and solve problems of a generally routine nature; be able to use their knowledge, understanding of a particular subject area to communicate accurately and reliably with structured and coherent arguments; use their knowledge, understanding and skills to undertake further learning within a structured and managed environment; possess the qualities and transferable skills needed for employment in situations requiring the exercise of some personal responsibility.
3	Demonstrate a knowledge of basic concepts and principles in a field of work or study; have command of analytical interpretation of information; express informed judgement; be able to display a range of known responses to familiar problems.
2	Demonstrate a narrow range of applied knowledge and basic comprehension in a field of work or study; display a narrow range of skills in a field of work or study; be able to use known solutions to familiar problems.
1	Demonstrate basic literacy and numeracy skills.

Source: COL and SAQ, 2010.

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