Global inventory of regional and national qualifications frameworks 2017

Volume I:
Thematic chapters

United Nations
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GLOBAL INVENTORY OF REGIONAL AND NATIONAL QUALIFICATIONS FRAMEWORKS 2017

Volume I:
THEMATIC CHAPTERS

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The European Centre for the Development of Vocational Training (Cedefop) is the European Union's reference centre for vocational education and training. It provides information on, and analyses of, vocational education and training systems, policies, research and practice. Cedefop was established in 1975 by Council Regulation (EEC) No 337/75.

The European Training Foundation (ETF) is a European Union agency which helps 29 countries in the European neighbourhood maximise their human capital by supporting reform of their vocational education and training systems. Its partner countries span from the Balkans, to Eastern Europe, from Central Asia to the Middle East and North Africa.

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Table of contents

List of tables and figures

TABLES

FIGURES

LIST OF ABBREVIATIONS

ABE	adult basic education
ABET	adult basic education and training
ALE	adult learning and education
AQF	Australian qualifications frameworks
AQRF	ASEAN Qualifications Reference Framework
ASEAN	Association of Southeast Asian Nations
AU	African Union
CARICOM	Caribbean Community
CAT	credit accumulation and transfer
CQFW	credit and qualifications framework for Wales
CPD	continuing professional development
CVET	continuing vocational education and training
DQR	German qualifications framework
EAS	East Asia summit
EFA	education for all
EQAVET	European quality assurance for vocational education and training
ESCO	European classification of skills, competences, occupations and qualifications
EQF	European qualifications framework
GAML	global alliance to monitor learning
HE	higher education
HVET	higher vocational education and training
IVET	initial vocational education and training
ISCED	international standard classification of education
MDG	Millennium development goal
NACE	statistical classification of economic activities in the European Community
NDP	national development plan
NFQ	national framework of qualifications
NQA	national qualifications authority
NQAI	National Qualifications Authority of Ireland
NQF	national qualifications framework
NVQ	national vocational qualifications
NZQF	New Zealand qualifications framework

PLA	prior learning assessment
PLAR	prior learning assessment and recognition
QA	quality assurance
QF	qualifications framework
QCF	qualifications and credit framework
RECs	regional economic communities
RPL	recognition of prior learning
RQF	regional qualifications framework
RQF	regulated qualifications framework (UK-England and Northern Ireland)
RVA	recognising, validating and accrediting
SADC	Southern African Development Community
SAQA	South African Qualifications Authority
SCQF	Scottish credit and qualifications framework
SDG	sustainable development goal
TVET	technical and vocational education and training
UAE	United Arab Emirates
VET	vocational education and training
VNFIL	validation of non-formal and informal learning
VQA	vocational qualifications authority
WRLs	world reference levels

Introduction

The third edition of the *Global inventory of regional and national qualifications frameworks* is published at a time when political attention to national and regional qualifications frameworks is increasing. UNESCO has adopted the Education 2030 agenda as a framework for action that supports implementation of the sustainable development goal 4 (SDG 4), focusing on promoting inclusive and equitable education as well as lifelong learning opportunities for all. Learning-outcomes-based qualifications frameworks can contribute directly to this goal. In June 2016, the European Commission has adopted the *New skills agenda for Europe* with actions aiming to improve the quality and relevance of skills for citizens and the labour market. The *Skills agenda* underlines the need to continue developing the European qualifications framework (EQF), noting the progress made after 2008. The revised EQF (adopted 22 May 2017) is expected to play a key role in taking forward EU skills and lifelong learning strategies, directly aiding transparency and portability of qualifications in Europe. New regional frameworks are now becoming operational. The Association of Southeast Asian Nations (ASEAN) qualifications reference framework (AQRF) is the first regional qualifications framework (after the EQF) to attain operational status (2017). Initiatives in Africa, the Caribbean and the Pacific area also illustrate this tendency.

More than 150 countries worldwide are now developing and implementing qualifications frameworks. The number of frameworks has not grown much from the last edition of the global inventory in 2015, but, although scattered, there has been a certain deepening of activities. Many countries around the globe see learning-outcomes-based national qualifications frameworks (NQFs) as instruments for supporting reforms, as a way to improve transparency and relevance of qualifications, and as a way to open opportunities to validation of wider access to learning opportunities and pathways. Being developed in different contexts and for varying purposes, qualifications frameworks are not a panacea for all the problems that countries face. Country case studies outline several key factors that shape successful development and implementation. While the technical, conceptual and legal bases of NQFs are important, country cases demonstrate that commitment and ownership are crucial preconditions for success; stakeholders need to buy into the frameworks and use them.

Scope of the inventory

The global inventory 2017 further strengthens the knowledge base on developments in national and regional qualifications frameworks, as implemented by countries and regions, by end of 2016. It acts as an observatory of progress in establishing NQFs, as well as the challenges and success factors in implementation. The thematic chapters (Volume I) discuss key trends and policy issues emerging from qualifications frameworks and learning outcomes reforms and developments. Volume II consists of NQF case studies of 100 countries from all continents and seven regional qualifications frameworks (RQF).

The case studies look at the educational, social, economic and political context in which an NQF is embedded, main policy objectives, implementation of learning outcomes, stakeholder involvement and institutional arrangements. They also show how NQFs open for and link to validation arrangements, support recognition and learning pathways. They conclude with important lessons and future plans.

The global inventory draws on inventories from four agencies: the European Centre for the Development of Vocational Training (Cedefop), the European Training Foundation (ETF), the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the UNESCO Institute for Lifelong Learning (UIL), working and communicating with country officials and experts. It also draws on extensive international research in qualifications reforms, comparability of qualifications, and use of learning outcomes.

Thematic focus

The 2017 inventory shows that countries around the globe are reforming their national qualification systems to improve the readability, quality and relevance of qualifications. Learning-outcomes-based national qualifications frameworks (NQFs) are playing an increasingly important role in these reforms. The thematic chapters are structured around the three strands related to the purposes and impact of frameworks, the role of frameworks as catalysts for lifelong learning, and the role of frameworks in promoting international and global communication and cooperation.

The purposes and impact of qualifications frameworks

Qualifications frameworks function within dynamic and complex national education and training systems and labour markets. They are embedded in, and shaped by, broader developments and objectives and their success and impact depends on their ability to engage with these. This perspective is pursued by Borhene Chakroun (Chapter 1) exploring the role of qualifications frameworks in addressing the Sustainable development agenda adopted by the United Nations in 2015. Chakroun argues that NQFs cannot be defined according to a narrow set of economic objectives but need to be understood as instruments facing a multifaceted reality and contributing to objectives of economic growth, social equity and sustainable development. The author argues that the learning outcomes perspective is of particular importance in addressing this multifaceted reality. Learning outcomes introduce a common language allowing for communication, cooperation and coordination between diverse stakeholders across institutional, sectoral and national borders. This is a precondition for improving the quality and relevance of qualifications and qualifications systems and lifelong learning opportunities for all (as stated in sustainable development goal 4).

Referring to the experiences of the 29 ETF partner countries in the Western Balkans and Turkey, Eastern Europe and Central Asia and the Middle East and North Africa, Michael Graham and Arjen Deij (Chapter 2) point to conditions to be met for an NQF to become operational and take on the roles and functions targeted by a country. For an NQF to become an integrated and operational part of the national qualifications system a legal basis has to be established, stakeholder involvement must be ensured, and institutional structures and quality assurance mechanisms must be in place. Politically and institutionally isolated frameworks will not be able to engage with stakeholders and established structures and will fail to achieve their potential or add value.

Building on European experiences and taking into account international experiences during the past decade, Slava Pevec Grm and Jens Bjørnåvold (Chapter 3) address the challenge of measuring the impact of NQFs. The chapter identifies several areas where NQFs in Europe are starting to make a difference but also areas where impact is less visible. They argue that institutional robustness, use of the frameworks by powerful stakeholders and visibility to end-users are critical preconditions for a framework to add value. A key challenge is related to setting an assessment baseline reflecting the multifaceted character of the NQFs and the contexts and reality in which they operate. The authors argue that the future of NQFs depends on their proven ability to add value, placing impact assessment at the core of future NQF developments.

Qualifications frameworks as catalysts for lifelong learning

A key purpose of national qualifications frameworks is to support learning across different areas and throughout life. Madhu Singh (Chapter 4) discusses what this entails in practice elaborating what is required, in terms of adaptation and flexibility, by a 'quality lifelong learning system'. Singh argues that such a system must be able to support diverse learning forms (formal, non-formal informal) and address the needs of a wide variety of users. The chapter lists and discusses several elements necessary for making such a diverse system operational. It also details how national qualifications frameworks, the learning outcomes principle, qualifications standards and mechanisms for recognition (validation) of non-formal and informal learning can interact to open up to more flexible, lifelong-learning-oriented-pathways for learning.

A lifelong learning strategy must make visible and attribute value to the learning taking place outside formal education and training systems. National qualifications frameworks play a role in aiding these efforts. Ernesto Villalba and Jens Bjørnåvold (Chapter 5) show how validation of non-formal and informal learning is gradually becoming an integrated part of national lifelong learning arrangements in Europe. Although most European countries now officially have clear policy intentions in this field, this is not always translated into practical arrangements giving citizens access to validation. The chapter explores the main conditions that must be fulfilled for validation to be 'mainstreamed', notably focusing on stable institutional arrangements, sufficient human and financial resources and trusted validation methodologies.

Quality assurance can be seen as an important lifelong learning building block and is intrinsically linked to the development and implementation of qualifications frameworks. This topic, particularly how quality assurance can support the development of learning-outcomes-based qualifications, is covered by Borhene Chakroun and George Kostakis (Chapter 6). The chapter presents recent trends in this area and discusses some of the main challenges when developing effective and trustworthy quality assurance of qualifications. The authors note that a broad consensus ex-

ists around the idea that quality assurance is crucial for ensuring trust in qualifications. Based on experiences from technical and vocational education and training, the chapter addresses the implications of a shift from an input- to an outcome-oriented quality assurance perspective.

Qualifications frameworks promoting international and global communication and cooperation

It is commonly argued that qualifications frameworks play a key role in increasing the cross-border transparency of qualifications. This directly supports student and worker mobility, learning and careers. Jens Bjørnåvold and Borhene Chakroun (Chapter 7) discuss the challenges and opportunities involved in comparing technical and vocational education and training (TVET) qualifications. The chapter summarises the outcomes of joint research carried out by Cedefop, the ETF and UNESCO (in 2015-16) comparing the content and profile of four vocational qualifications in 26 countries worldwide, using the European classification of skills, competences, occupations and qualifications (ESCO) as a reference point. The authors note the usefulness of levelling through qualifications frameworks, but underline that comparability of qualifications requires in-depth studies like the one tested by Cedefop, the ETF and UNESCO.

The thematic chapters are concluded with a presentation (Chapter 8) of continuing work, initiated by UNESCO, on world reference levels to support cross-border mobility of learners and workers. Written by Borhene Chakroun and Katerina Ananiadou, this discussion is informed by a series of studies that are expected to clarify the character and function of these reference levels and define their rationale and ecosystem.

CHAPTER 1.
QUALIFICATIONS FRAMEWORKS IN A SUSTAINABLE DEVELOPMENT CONTEXT: REFLECTIONS AND PERSPECTIVES

Borhene Chakroun, UNESCO

Summary

This chapter explores the relationship between the Sustainable development agenda and qualifications frameworks. It aims at demonstrating the mutually reinforcing nature of the Education 2030 agenda and qualifications frameworks goals. The chapter starts with a presentation of the Sustainable development agenda including the Education 2030 agenda and the place of qualifications in this context. It shows that the agenda proposes new perspectives for defining and analysing national qualifications frameworks (NQFs) development objectives. It also considers that sustainable development goals (SDGs) offer a fresh look at how we measure and assess the impact of NQFs both for individual learners and for societies. Finally, we demonstrate that the use of learning outcomes stands out as one of the most important convergence features of both the Education 2030 agenda and NQFs.

Keywords: qualifications; sustainable development; learning outcomes

1.1. Introduction

The international community has set an ambitious 2030 agenda for sustainable development. This agenda is a plan of action for people, the planet and prosperity. All countries from all income levels, acting in partnership, are expected to implement this plan. The 17 sustainable development goals: (Table 1-1) and 169 targets adopted demonstrate the scale and ambition of this new universal agenda. They focus on five key elements: people, planet, peace, prosperity, and partnership. They seek to build on the Millennium development goals and complete what these did not achieve. They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental (United Nations, 2015).

In this context, sustainable development goal (SDG) 4 seeks to 'ensure inclusive and equitable quality education and promote lifelong learning for all'. Looking across the 17 goals and 169 targets there are numerous areas where, in addition to SDG 4, education and training have a role to play if the SDGs are to be achieved. They include poverty reduction (goal 1), agricultural productivity (goal 2), clean energy (goal 7), sustained, inclusive and sustainable economic growth with full and productive employment and decent work for all (goal 8) and the promotion of inclusive and sustainable industrialisation and fostering innovation (goal 9).

1.2. Qualifications in the context of Education 2030

A framework for action supports the implementation of SDG 4. It includes targets, indicative strategies and a series of indicators helping policy-makers and national stakeholders to relate to the challenges at hand (Table 1-2).

Five of the 10 targets are concerned with improving the quality of education for individual children, young people and adults, and to give them better and more relevant knowledge and skills. This emphasis on learning outcomes is a timely step forward from the Education for all (EFA) and the Millennium development goals (MDG), which focused mainly on ensuring access to primary education.

Qualifications are also at the centre of the targets related to vocational and tertiary education. The emphasis is on increasing the relevance and flexibility of education and training programmes, enhancing lifelong learning, improving the transparency of qualification systems, creating possibilities for credit accumulation and transfer, or developing quality assurance systems. It is also significant that not only national developments are considered in SDG 4; cross-border recognition of qualifications and worker and learner mobility are also highlighted (see Table 1-3 for related indicative strategies). Improving the transparency of qualifications and lifelong learning are two fundamental elements of efforts to bring education and training into line with SDG 4 and more broadly the SDGs.

While the indicative strategies emphasise that qualifications need to fit in a country's own context, they are also suggesting that national qualifications frameworks cannot

Table 1-1. Sustainable development goals

NUMBER	SUSTAINABLE DEVELOPMENT GOAL
1	End poverty in all its forms everywhere
2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3	Ensure healthy lives and promote well-being for all at all ages
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5	Achieve gender equality and empower all women and girls
6	Ensure availability and sustainable management of water and sanitation for all
7	Ensure access to affordable, reliable, sustainable and modern energy for all
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
10	Reduce inequality within and among countries
11	Make cities and human settlements inclusive, safe, resilient and sustainable
12	Ensure sustainable consumption and production patterns
13	Take urgent action to combat climate change and its impacts (*)
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17	Strengthen the means of implementation and revitalise the global partnership for sustainable development

(*) Acknowledging that the *United Nations framework convention on climate change* is the primary international, intergovernmental forum for negotiating the global response to climate change.

Source: United Nations, 2015.

be developed in isolation from those in other countries. The increased transparency – and underlying trust – should also serve the international mobility of students and workers and the increasingly linked labour markets.

The focus on NQFs is important because, according to the present global inventory, around 150 countries are now involved in some way in reforming their qualifications systems. Most of these countries see an NQF as a way of improving the quality of their education and training provision and raising the skill levels of their workforce (Allais, 2010) which they expect will lead to work becoming more productive and decent and their economies becoming more competitive and sustainable.

In this context, national qualifications systems are increasingly associated with the Sustainable development agenda, particularly SDG 4. These could lead to a more generalised form of NQFs, including common characteristics such as the use of learning outcomes, quality assurance, recognition and validation policies, but this does not necessarily imply conformity of NQFs across countries.

Table 1-2. SDG 4 targets

TARGET NUMBER	DESCRIPTION OF THE TARGET
TARGET 4.1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
TARGET 4.2	By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education
TARGET 4.3	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
TARGET 4.4	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent work and entrepreneurship
TARGET 4.5	By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
TARGET 4.6	By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
TARGET 4.7	By 2030, ensure that all learners acquire knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
TARGET 4.A	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all
TARGET 4.B	By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries
TARGET 4.C	By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small-island developing States

Source: UNESCO, 2015a.

The presentation, so far, of the place of qualifications in SDG 4 can be used both to open up the scope of possibilities for the NQFs ('what is an NQF for?'), and offer an exploratory analysis of the catalyst role of learning outcomes for systemic reforms ('can learning outcomes act as a common language for lifelong learning?'). The next two sections explore these issues and demonstrate that SDG 4 and NQF efforts can be mutually reinforcing. NQFs can support progress in achieving SDG 4. In turn, SDG 4 can reinforce the role of NQFs as tool for stakeholder cooperation and systemic lifelong learning reform.

1.3. What is an NQF for? A shift from neoliberal to sustainable development paradigm

From a study of policy documents, Allais (2010) noted that NQFs are seen as a solution to many of the problems within education and training systems. The author considers that NQFs can contribute to achieving two significant development goals and rationales: social equity (by encouraging participation in raising educational achievement and developing more diverse learning pathways); and economic development (by linking qualifications more strongly to the labour market and com-

Table 1-3. Indicative strategies focusing on qualifications in SDG 4

TARGET 4.3: BY 2030, ENSURE EQUAL ACCESS FOR ALL WOMEN AND MEN TO AFFORDABLE AND QUALITY TECHNICAL, VOCATIONAL AND TERTIARY EDUCATION, INCLUDING UNIVERSITY
Develop cross-sector policies for and between vocational skills development, TVET and tertiary education and strengthen links between science and policy development to keep pace with changing contexts and remain relevant; develop effective partnerships, in particular between the public and private sectors, and include employers and unions in their implementation.
Ensure quality assurance, comparability and recognition of tertiary education qualifications and facilitate credit transfers between recognised tertiary education institutions.
Develop policies and programmes for the provision of quality distance learning in tertiary education, with appropriate financing and use of technology, including the Internet, massive open online courses and other modalities that meet accepted quality standards to improve access.
Develop policies and programmes that reinforce the research function in tertiary and university education through the early uptake of the STEM fields, particularly by girls and women. Strengthen international cooperation in developing cross-border tertiary and university education and research programmes, including within the framework of global and regional conventions on the recognition of higher education qualifications, to support increased access, better quality assurance and capacity development.
Promote TVET, tertiary education and university as well as adult learning, education and training opportunities for young people and adults of all ages and sociocultural background so as to enable them to continue to improve and adapt their skills, with particular attention to gender equality including the elimination of gender-based barriers, and to vulnerable groups such as those with disabilities.
Tertiary institutions, including universities should support and foster the development of policies for and provision of equitable quality lifelong learning opportunities.
TARGET 4.4: BY 2030, SUBSTANTIALLY INCREASE THE NUMBER OF YOUTH AND ADULTS WHO HAVE RELEVANT SKILLS, INCLUDING TECHNICAL AND VOCATIONAL SKILLS, FOR EMPLOYMENT, DECENT WORK AND ENTREPRENEURSHIP
Gather and use evidence about changing skills demand to guide skills development, reduce disparity and respond to changing labour market and societal needs and contexts, as well as to the needs of the 'informal economy' and rural development.
Engage social partners in designing and delivering education and training programmes that are evidence-based and holistic. Ensure that TVET curricula and training programmes are of high quality and include both work-related skills and non-cognitive/transferable skills, including entrepreneurial, basic and ICT skills, and that TVET institutions' leaders and teaching staff, including trainers and companies, are qualified/certified.
Promote the development of different forms of work-based and classroom-based training and learning where appropriate. Ensure transparent and efficient TVET quality assurance systems and develop qualifications frameworks.
Promote collaboration on enhancing transparency and cross-border recognition of TVET qualifications to raise the quality of TVET programmes and enable workers' and learners' mobility, and to ensure that TVET programmes keep pace with the changing labour market demands.
Promote flexible learning pathways in both formal and non-formal settings; enable learners to accumulate and transfer credits for levels of achievement; recognise, validate and accredit prior learning; and establish appropriate bridging programmes and career guidance and counselling services.

Source: UNESCO, 2015a.

petitiveness) (idem, p. 17). However, as noted by Coles and colleagues (Coles et al., 2014, p. 21), economic drivers clearly dominated the pressures for creating an NQF and using it to improve the volume, focus and quality of training. According to the authors (idem), linked to this was the need for enterprises to be competitive globally and for countries to be attractive as places to invest in business infrastructure.

The economic emphasis of NQFs was forcefully criticised and linked to neoliberal public sector reform. Philipps (2003), for instance, considers that qualification reform in New Zealand had an economic focus from the start, resulting directly from the public sector reforms that emphasised a market-based economy. Young (2003, p. 232 cited in Allais 2010, p. 24) strongly suggests that qualifications frameworks represent an 'almost paradigm case of government intervention in a neoliberal economy', as they are attempts both to gain greater central control and to give greater choice to individuals. The response to economic demands should not be at the expense of the other categories of demands as this can result in an unbalanced and distorted education and training system, particularly TVET (see UNESCO, 2015a). It is necessary to ensure that the analysis is not overly dominated by one demand or another; if it is, this should be a strategic choice rather than an omission (idem).

National qualifications frameworks are increasingly marked by the interest of governments in integrating education and training, developing lifelong-learning-oriented frameworks that incorporate qualifications from different education and training sectors (general, vocational and academic) and that are often open to the learning taking place in different settings (Cedefop, 2016; UNESCO, 2015a). They go beyond the economic dimension and aim at redefinition of the way qualifications are valued and eventually put into use in societies. NQFs, as Bjørnåvold and Coles note in European Commission 2009, can be expected to act as 'instruments with a vision'.

Renewed attention to the purpose and relevance of education for human development and economic, social and environmental sustainability is a defining feature of the SDG 4 –Education 2030 agenda. This is embedded in its holistic and humanistic vision, which contributes to a new model of human development (UNESCO, 2015a). In this context, the vision of NQFs should be related to the wider Sustainable development agenda. This means that economic growth and, more broadly, prosperity must be conceived in ways that leave no one behind. Closer integration of education, economic and employment policies are essential for that change to happen (UNESCO, 2016).

SDGs provide an opportunity for better measuring the impact of NQFs building on existing efforts and taking into consideration the sustainable development three key pillars: economic growth; social equity; and environmental sustainability. The three pillars offer a fresh look at how we can measure and assess the impact of NQFs both for individual learners and for societies.

UNESCO (2015b) proposed a new, integrated, analytical approach to analysing education and training policies that combines economic growth, social equity and sustainability concerns in a balanced and strategic manner. Each of these three development areas is conceived as an 'analytical lens' through which to view a country's education and training systems, including national qualifications frameworks. In summary these 'lenses' (UNESCO, 2015b, p. 149) are:

(a) economic growth lens, incorporating productivity and growth, employability, employment creation and new modes of work;
(b) social equity lens, incorporating redistribution of both material and intangible wealth and inclusion;
(c) sustainability lens, incorporating greening economies, intergenerational rights and global citizenship.

The three lenses approach provides a strong analytical framework for considering the purpose of education and training, particularly TVET, including qualifications system reform efforts. The relative 'success' of NQF policy and systems reform can be assessed by the extent to which such reform achieves positive outcomes related to these three lenses. The benefit of the analytical approach proposed here is that it provides a holistic way of assessing how a particular policy tool such as NQFs is related to wider development demands. The most recent attempt to evaluate NQF impact in South Africa has paid great attention to the broader development context of the country (SAQA, 2017). The evaluation has been framed in the country's National development plan 2030 (NDP) and the Human resource development strategy for South Africa (HRD-SA), 2013-30.

However, the multisectoral character of NQFs and their capacity to respond simultaneously to the external demands of economic growth, social equity and sustainability, is often hampered by the lack of complementarity and alignment

with other policies (Mukora 2006; Raffe, 2009; Chakroun and Jimeno, 2010). They tend to lack what Raffe (2009) refers to as 'policy breadth', and are insufficiently linked with other education policy measures that need to be addressed in the process of reform, such as funding, teacher training, and the autonomy of education institutions.

While a fragmented approach to policy-making and a lack of coordination across ministries has been identified as a contributory factor to the 'failure' of NQFs to achieve their potential, a more fundamental problem is the absence of a suitable, shared and intersectoral approach which could help to connect the analysis of NQFs with intended development outcomes.

UNESCO's new recommendation on TVET (UNESCO, 2015c) suggests that countries should develop TVET policies that are consistent with a broad range of policy fields, including employment, industry development, and agriculture, as well as the overall strategic objectives of governments, particularly their economic, social and environmental objectives. This applies as well to NQFs as a policy tool for reforming education and training systems.

These policy objectives (economic, social and environmental) each have a role to play in shaping national skills systems. However, as noted by UNESCO (2015b, p. 172), each of the three areas has its own group of stakeholders. These groups have developed their own outlooks, theories, methodologies, and specialised languages. They also have distinctive priorities, needs, interests and positions, which may or may not coincide, and which can bring politics and power games into education and training policy processes (ibid).

Hence, the implementation and impact of a framework will depend on its alignment with national policy, institutional priorities and other contextual pressures, plus cooperation among national stakeholders. This is what the Sustainable development agenda and Education 2030 are bringing. SDGs are integrated and indivisible and balance the three dimensions of sustainable development. They emphasise the importance of partnership, coordination and cooperation and interlinkages of public policies and what OECD calls 'whole government approach' (OECD, 2011).

The integrated nature of the sustainable development goals are of crucial importance for NQF 'policy breadth' and coordination. Those governments which are moving ahead with the implementation of the Sustainable development agenda and which are able to establish coordination and coherence between policy domains so that they inform and complement each other should be inherently better placed to drive NQFs implementation and achieve more impact on individuals, economies and societies than where these domains conflict and operate in isolation (UNESCO-ILO, forthcoming).

Placing discussion of NQF objectives in the context of SDGs provides an opportunity for better balancing the economic, social equity and environmental sustainability rationales of NQFs. This, in turn, will have an influence on the way NQF impact is assessed. The attention SDGs give to cooperation and partnership, monitoring and evaluation, including definition of targets and indicators and adoption of reliable systems that collect and provide access to timely, comprehensive and forward looking data, are promising for NQF impact analysis.

The global effort to monitor learning achievements is another aspect that can reinforce the application of a learning outcomes approach promoted by NQFs and the way they are considered in education and training.

1.4. Can learning outcomes act as 'common language' for lifelong learning?

Learning outcomes are increasingly used in describing curricula, qualifications, assessment processes and NQF levels (Cedefop, 2016). Internationally the use of different forms of level descriptors shows diverse and contemporary learning-outcomes-based developments from across education, training and work (Keevy and Chakroun, 2015; Coles, 2017).

Several factors put learning outcomes high on the policy agenda: the shift from focus on access to outcomes in the international education agenda and the attention to whether students are learning and acquiring relevant skills; adoption of lifelong learning strategies; development of national qualifications frameworks; and the introduction of mechanisms for recognising and accrediting non-formal and informal learning.

The term 'learning outcomes' is embedded in the vocabulary of the Education 2030 agenda. The definitions of the concept, however, vary across contexts and education subsectors, although common elements can be identified: the totality of information, knowledge, understanding, attitudes, values, skills, competencies or behaviours an indi-

vidual is expected to master upon successful completion of an education programme (ISCED, 2011); and statements of what a learner knows, understands and is able to do on completing learning (Cedefop, 2009). In both cases, learning outcomes include three major domains: knowledge (learning to know), skills (learning to do) and competences (learning to be and to live together).

Compared with Education for all (EFA), Education 2030 marks a shift towards learning outcomes. Yamada (2016, p. 30) notes three significant shifts. First, the quality of education, which used to be monitored by access as well as the amount of inputs to education and training systems such as facilities, textbooks, and teachers, is now measured by the amount and the type of knowledge, skills and abilities of learners. Second, the outcomes of learning are considered to be the improved capacities of learners to adapt knowledge to daily contexts and to solve problems, not simply the abilities to recite the contents of curriculum. Third, the domains of learning outcomes are not restricted by the framework of curricular subjects, but are cross-cutting and broad in nature.

NQFs reforms have paved the way for attention to learning outcomes and for learning in different settings: formal, non-formal and informal. NQFs also reinforce the validation of learning gained outside formal education provision. Learning-outcomes-based qualifications challenge assumptions that the location of learning is only in formal education and training providers. It reinforces the idea that learning occurs in work and social life. This strengthens the link between education provision and the labour market and offers greater lifelong learning opportunities for those who have faced barriers in accessing and completing formal education and training programmes.

As illustrated by this global inventory, there are indications that the learning-outcomes-based national qualifications frameworks are playing an increasingly important role in education and training system reform (Cedefop 2016; Keevy and Chakroun, 2015; UNESCO, 2015b). An increasing number of countries report that they use the frameworks to check the consistency of qualifications, seeking to clarify levels, avoid overlaps and aid linkages and progression.

However, outcomes-based qualifications frameworks and qualifications reforms based on learning outcomes might interact with the systems differently in different contexts, for example in developed and developing countries (Young, 2011). The former normally have strong education institutions, well trained teachers and established partnerships between education and the labour market while the latter are, in many cases, struggling with reforming curricula, establishing new institutions and changing governance to include new stakeholders such as the social partners. It is also wrong to assume that all aspects and facets of learning can be captured through learning outcomes. Cedefop's handbook on learning outcomes (Cedefop, 2017) notes that learning outcomes cannot stand alone; their potential can only be released when interacting with teaching, learning and assessment.

1.4.1. Improving learning assessment

SDG 4 and NQF efforts can be mutually reinforcing in improving learning assessment. Both point to attention to develop appropriate standards, to map and compare the actual achievements of learners demonstrated through assessments. NQFs focus further on the use of skills at work, which is also covered in target 4.4 of SDG 4 (Table 1-2).

In the context of SDG 4, the current spotlight on learning assessments (national, regional and international) opens up an important window of opportunity to discuss the deeper transformations needed in assessment systems worldwide.

Qualifications frameworks, with their emphasis on learning outcomes, have the potential to advance the Agenda for sustainable development and may provide the reference point and baseline required for measuring progress in accompanying this shift. This includes review of the assessment criteria and methods, responsibility for defining assessment criteria, the stakeholders involved, including internal and external dimensions of assessment, centralisation/decentralisation of assessment, and the involvement of private sector and civil society representatives.

Concurrent with the rise of learning outcomes is the increasing use of cross-national and national learning assessments such as PISA, PIAAC, TIMSS, PIRLS, SACMEQ and PASEC. While these surveys focus mainly on foundation skills, mathematics and sciences, they have also attempted to assess other transferable skills, such as problem solving. Attention is also being paid to digital skills. This drive to benchmark global progress in improving education outcomes, and to increase the evidence base for education policy-making reinforces NQF attention to learning outcomes.

Global dialogue may help emphasise the need for more inclusive, and lifelong-learning-oriented, assessment policies in education and training, enabling a greater diversity of learners to have their skills recognised and validated, including through validation of prior learning processes.

1.4.2. Expanding the domains of learning-outcomes

There is growing international evidence that a new set of transversal skills, more suited to the needs of knowledge-rich and digital economies, are emerging (OECD, 2016). Typically, these include creativity, critical thinking, collaboration, and communication. Added to them is the fact that market-driven economies increasingly value entrepreneurship. Yet, SDGs highlight that skills formation should not be driven exclusively by economic needs but by the constant quest of individuals and societies to live better in a much more complex world where sustainability, equity, and global citizenship are key. This has implications for descriptors for defining learning outcomes in NQFs and may shift the emphasis from a behaviouristic approach to more socio-constructivist approach of defining levels descriptors and learning outcomes (Keevy and Chakroun, 2015; Cedefop, 2016).

The learning domains under SDG 4 encompass cognitive, non-cognitive and behavioural skills. Target 4 of SDG 4 highlights skills for the workplace, target 6 the literacy and numeracy skills, and target 7 the values and attitudes to live in a more sustainable world. Discussions on learning domains in the context of SDG 4 may contribute to the development of a broader spectrum of technical and transferable skills recognised as highly relevant in the world of work and for life, contrasting with a narrow focus on job-related skills (see Keevy and Chakroun, 2015 and Chapter 7 of this volume).

1.4.3. Learning outcomes as common language for lifelong learning and cooperation

Strengthening the linkages between education subsectors in a lifelong learning perspective is an explicit goal of Education 2030. The aim is to promote quality lifelong learning opportunities for all, in all settings and at all levels of education (UNESCO, 2016). Education 2030 goes beyond past attempts to ensure access to basic education, as set out in the goals of Education for all and the education-related Millennium development goal 2 (MDG 2) of 2000-15. It expanded scope and reaches from early childhood learning to youth and adult education and training; it aims to ensure quality learning outcomes for all, throughout life. Education 2030 considers that: 'lifelong learning for all, in all settings and at all levels of education, should be embedded in education systems through institutional strategies and policies, adequately resourced programmes, and robust partnerships at the local, regional, national and international levels' (p. 33).

The development of comprehensive national qualifications frameworks that include all education and training subsectors and qualifications has the potential to create a favourable policy environment in most countries for cooperation, communication and mutual learning between education subsectors (Cedefop, 2016). The attention of SDG 4 to learning outcomes and the importance given to them in qualifications reforms points towards a 'common language', allowing for dialogue between different subsectors and education and training institutions and external stakeholders, particularly the private sector, on skills needs and relevant responses.

Learning outcomes have also the potential to act as tools for cooperation and communication between teaching staff (for example TVET teachers and enterprise trainers in the context of apprenticeship), between education institutions (for example TVET and higher education institutions), and between education and the labour market institutions (for example career guidance and employment advisors).

1.4.4. Learning outcomes for education and training evaluation and accountability

The emergence of this 'common language' can support orienting existing resources to support capacity building for evaluating learning outcomes at national, regional and global scale. Standardised learning assessments are increasingly used for holding teachers, education and training institution leaders, institutions or entire systems accountable. A network is already in place to move this forward. The Global alliance to monitor learning (GAML), established by the UNESCO Institute for Statistics, provides methodological solutions to develop a new indicator on learning and to set standards for good practices on learning assessments. Member States and technical experts from around the world have come together to develop an innovative but pragmatic approach that recognises diversity while yielding internationally comparable measures of learning (Benveniste and Montoya, 2016).

1.5. Conclusions

This chapter started with presentation of the SDG agenda and the place of qualifications in SDG 4 on education. It

emphasised the shift of policy objectives of NQFs from a purely economic perspective to a holistic development paradigm. We suggested that the way learning outcomes are considered in education and training is of key importance to the achievement of SDG 4. In this context, SDG 4 has the potential both to reinforce the use of learning outcomes as 'common language' of education and training systems in a lifelong learning perspective and to connect the analysis of NQF systems with intended sustainable development outcomes.

Since the success of the learning-outcomes-centred approach depends on the capacity of decision-makers and practitioners, there is a clear need for international cooperation in this important area. The World reference levels platform mentioned in this inventory (see Chapter 8) could help advance this agenda. The efforts of Cedefop (2017) in producing guidelines and tools for the use of learning outcomes for the European context can be shared and expanded to other regions.

Considering the risks of uncritical international transfer of policies, it is important that the learning outcomes approaches presented in this chapter should be generally applicable to the wide diversity of education and training systems but should also be operationally flexible and adaptable enough to address demands that vary widely across spatial and temporal contexts. The learning outcomes approach should also be theoretically grounded (Keevy and Chakroun, 2015; Cedefop, 2016), yet at the same time it should be practical enough to be applicable by teachers and other stakeholders.

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CHAPTER 2.
ORGANISING TO DELIVER NATIONAL QUALIFICATIONS FRAMEWORKS

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Summary

As many as 154 countries worldwide are developing national qualifications frameworks (NQFs). However, many countries have difficulties in moving from conceptual development and official NQF adoption to implementation: frameworks with modern, outcomes-based qualifications. Since the previous inventory was published in 2015, few new NQFs have been developed and the number of countries that have moved towards full implementation is limited. In ETF partner countries, most NQFs are still only partially implemented. We examine why countries are blocked and suggest how they might speed up implementation. We argue that to put the NQF in place, you also need to look at the qualification system. We identify four elements common to all qualification systems in the partner countries, which shape and determine how well a system works: legislation, stakeholder involvement, institutions, and quality assurance. Partner country cases are examined, and we set out our analysis of what makes targeted and proportionate legislation, propose useful stakeholder platforms, identify the types of roles and functions specific institutions should perform and what set of quality assurance arrangements ensure quality qualifications. Then we set out some findings.

Keywords: national qualifications framework (NQF); system; legislation; stakeholders; institutions; quality assurance (QA)

2.1. Introduction: countries at the crossroads

The European Training Foundation (ETF) is an EU agency which works with 29 countries in the Western Balkans and Turkey, Eastern Europe and Central Asia, and the Middle East and North Africa. This third edition of the Global NQF inventory finds that most of these 29 countries have progressed to the implementation stages of their NQF. But while most have an NQF, true implementation – delivering new qualifications and in significant numbers – eludes the majority.

After an initial surge around 2010-12, momentum is slowing. Most countries have a consensus to proceed with an NQF, have laws, and have allocated roles to institutions. Some have implementation plans, designed quality assurance systems and have developed criteria for qualifications structure and content. A vanguard group has adopted methodologies for vetting qualifications to enter the national register and placed a range of new qualifications, including different types such as adult qualifications, in its NQF. In some countries, however, little has changed since the respective law was adopted.

Most countries are somewhere in the middle: their NQFs are partially in place. While it is progress that most have moved from concepts to implementation, some express frustration that they are not more advanced, a position which risks discouraging further work.

The ETF sees that NQFs can be useful tools in education and training reform. NQFs as classification systems bring order to the qualifications landscape; they are established as tools in the partner countries, in most cases, as vital to producing relevant lifelong learning qualifications. NQFs, crucially, establish outcomes as the conceptual paradigm for level descriptors, qualification and curricula design. Frameworks are also the entry point and international reference point for comparing qualifications across borders.

If countries agree, why are they experiencing difficulty in moving to the implementation stages? They have plans, laws and have produced some standards and new qualifications to equip their citizens for modern economies; these imply many jobs in an individual lifetime. They can write learning outcomes for the qualifications or drafting the NQF level descriptors. They either have this technical expertise or can hire it.

It seems their tougher challenge is in making the NQF work within the wider education and training systems and connecting it to society and the economy. The hard part seems to be building a sustainable infrastructure, making the challenge less technical than social and institutional.

The ETF, therefore, identifies the challenge for the countries as getting organised.

We cannot understand why countries are blocked in implementing an NQF until we look deeper than the framework. NQFs alone, are not enough: the goal is, simply put, to create good qualifications.

That requires a functioning qualification system. Let us make a simple and clear distinction: an NQF is an instrument used to classify qualifications in a hierarchy of levels, each level defined by a set of descriptors indicating the learning outcomes at that level. A qualification system is all the arrangements – schools, institutions, stakeholders, laws, quality assurance measures and the framework of qualifications – which ultimately deliver better qualifications for employability and lifelong learning.

In a recent article, Stephanie Allais (2011) criticised NQFs as ineffective and suggested that the ETF endorses NQFs. Our concern is that our 29 partner countries produce good qualifications. Individuals need quality and reliable qualifications to demonstrate their competence for work in an era when they change jobs more frequently, and qualifications which certify a broader range of skills. Qualifications link work to training and education, and so provide an understandable common language. NQFs are a tool to contribute to quality, reliability, transparency and comparability. In the countries where we work, we see evidence that the NQFs do contribute to the quality of qualifications: this is notable in Turkey, Kosovo, Montenegro and other countries which are advanced.

NQFs and qualifications are social constructs, having meaning only if society uses them. It follows that countries face social and institutional challenges in making an NQF work, that extend beyond the NQF technical specifications. To have impact, NQFs need to be part of functioning qualification systems. Therefore, in this chapter we place NQFs – the focus of this global inventory – in the context of the system around them. We look at the institutions, actors and processes involved and how regulation and legislation, stakeholder interaction, institutional arrangements and quality assurance mechanisms contribute to improved qualifications.

This chapter sets out to establish why countries sometimes stall in moving from planning to execution, proposes an analysis of the necessary components of a qualification system they need to prioritise to restart reform, and identifies commonalities found in successful systems.

2.2. Four components of a qualification system

Qualifications systems can only work effectively if their different organisational elements function together. The ETF is not an academic body or research institution; instead we advise the 29 countries on reform. Our observation is that integrated and coherent systems produce better qualifications.

We have identified four foundation components of a qualification system, which are common to all our partner countries, regardless of progress, economic diversity or any other specific local conditions (ETF, 2016). These are:

(a) the legal and regulatory framework;
(b) effective stakeholder dialogue;
(c) institutional arrangements;
(d) quality assurance systems.

Laws stipulate functions of the NQF and criteria for qualifications and allocate tasks to specified institutions. Effective dialogue with stakeholders is about relevance and ownership of qualifications and their acceptance in the education system and labour market. Institutions are needed to ensure professional processes in developing standards and qualifications, coordinating stakeholders, developing and maintaining tools and methodologies such as registers, and for levelling qualifications in the framework and quality assurance. Quality assurance provides confidence in the qualifications and those who hold them.

We now take each of these four elements in turn.

2.2.1. Legislation

Most partner countries start any public policy with a law, so getting the legislative and regulatory framework for the qualification system right is vital. Countries, broadly, use laws to regulate things they want to change. Reforming qualifications involves many issues, including developing qualifications based on learning outcomes, involving employers, quality assurance measures, and setting up an NQF.

Laws should support production of new qualifications but, too often, in practice they obstruct this aim. We looked at legislation in 11 EU countries and in our partner countries, uncovering a wide range of primary and secondary legisla-

tion applying to NQFs, establishing institutions, or creating new qualifications.

We found it helpful to examine legislation for qualification systems in two dimensions: substance and process. The former concerns the laws, regulations, and their scope and intentions. The latter looks at how law is conceived – its context in other strategies and laws – how it will be linked to these; how coherence and consistency in principle and objective is achieved between qualification systems, the wider education and training system and regulations applying to the labour market.

We found that reform aimed at better qualifications requires eight key parts of legislation. These can be subdivided into Parts 1 to 3 – which regulate the principles and institutional foundations of qualification systems – and parts 4 to 8 – which regulate more organisational aspects of qualification systems such as the NQF, stakeholder involvement, quality assurance, validation of non-formal learning and recognition of qualifications.

Key part 1: purposes and principles

Laws need a purpose, which sets out what the law will introduce or change. Laws need to be based on principles, which describe the context of the law and give the rationale for its introduction; they explain why the law is required. A law on an NQF will have as its purpose to regulate the structure, as in levels and descriptors. Its purpose might be to promote lifelong learning and improve relevance.

Key part 2: regulating institutional arrangements

Laws also establish the arrangements that regulate the roles and responsibilities of the competent bodies, including specifying which institutions must act to implement the law and achieve its purposes. Kosovo's 2008 Law on Qualifications stipulates matters such as the national qualifications authority's (NQA) status and relationship with its Governing Board, and its decision-making procedures. The NQA's functions are detailed: in regulating qualifications, maintaining the QF, regulating award of qualifications.

Key part 3: regulating stakeholder involvement

Laws can also regulate or formalise the role of stakeholders in implementing elements of a qualification system. Turkey's implementing regulation on sector councils defines procedures for setting up sector committees, their governance and work procedures and their functions. It foresees sector committees as collegial multipartite entities providing counselling, and executing review and quality assessment of occupational standards. Sector committees will provide the expertise and feedback of sectoral stakeholders in a more centrally organised national system of qualifications.

Conversely, legislation has been known to erect barriers to stakeholders. In Tunisia, pre-revolution legislation hinders, at least formally, engagement of employers and trade unions in continuing vocational training.

Key part 4: regulating development of qualifications

Laws should also address the qualifications themselves: their design, development and quality and delivery. Primary laws on NQFs are often used to specify the principles of qualification structure and content, such as basis in learning outcomes or requirement to use occupational standards as basis of VET qualifications. (However, it can be the case that design and award of qualifications is prescribed or provided for in other education and training legislation). By contrast, secondary legislation regulates methodologies, provides for quality assurance procedures such as specifying in detail criteria qualifications must meet to be entered in the national register or levelled in the framework.

Key part 5: specifying key issues for implementing the NQF

Some countries have a separate NQF law, while for others, such as Kosovo, the NQF is part of a broader law targeting other areas of the qualification system. Increasingly, this latter route is the most favoured; for example, Albania's new laws on HE and VET relate to the Albanian qualifications framework.

Issues related to the NQF usually included in legislation are:

- scope: types of qualification included in the NQF;
- structure: levels and level descriptors;
- management: both of the NQF itself and the implementing institutions;
- a register or database of qualifications;
- relationship with other instruments, such as existing classifiers (national classification systems of occupations), economic sectors, education programmes;
- access to qualifications, to the horizontal or vertical progress between qualifications and qualification levels, and to the transfer of credits;
- learning outcomes as the basis for qualifications;
- quality assurance both of the qualifications in the NQF and the framework itself;
- validation of non-formal and informal learning;
- EQF, linking to the wider European and international dimensions.

Key part 6: regulating quality assurance

Laws regulate quality of qualification standards, assessment, and certification; the bodies responsible for quality assurance of qualifications, and the coordination between these bodies; and procedures and criteria for the inclusion of qualifications in an NQF database or register.

For example, Albania's NQF Law specifies that 'a qualification is awarded when a competent body decides, by means of a quality assurance assessment process, that the individual has reached the specified standards'.

Key part 7: regulating validation of non-formal and informal learning (VNFIL)

An NQF of comparable qualifications based on learning outcomes, can support alternative access to qualifications and their recognition.

In the EU, NQFs and VNFIL systems are closely connected, a relationship which is strengthened by the 2012 EU recommendation on VNFIL, as its provisions explicitly link VNFIL implementation to countries' NQFs.

Key part 8: regulating recognition of qualifications

The terms 'validation' and 'recognition' are often used interchangeably, though they have different meanings. Validation is confirmation of an individual's knowledge, skills, and competences; recognition is the external recognition of a qualification, the certificate issued to that individual, including recognition of overseas qualifications.

The legislative process: drafting and developing legislation

The second broad area of law in qualification systems is process, the business of where countries should start, aligning old and new legislation, and linking framework legislation to more specific regulation. Countries have found they need to ensure consistency between laws aimed at the qualification systems and those on related policies, particularly the broader education and training systems and the labour market.

Countries, from our observations, do best when they start legislative processes only after first agreeing a strategy for qualifications reform, itself the product of broad stakeholder consensus. The law should address the aims of the strategy: to build more trust in qualifications; aid matching of qualifications supply from education and demand from the labour market; and identify measures to future-proof qualifications in emerging occupations.

The second issue to decide is where this new law sits with existing laws. Every country has laws already, so starting from a blank slate is not really possible. Inevitably, this means old and new laws coexist for the same targeted area. Qualifications are often part of both education legislation and labour legislation. There are two main options when aligning old and new laws: either adapt existing laws by amending them and adding some secondary regulations; or developing a new legislative framework. This requires first a mapping of existing legislation.

For example, Albania has recently revised the NQF law first adopted in 2010 but it was never properly implemented. Other relevant laws taken into account to create consistency with the revision of the NQF Law are the new Law on Higher Education (adopted in 2015); the new VET Law

(adopted in 2017); a new Law on Crafts (prepared in 2016); and the new Labour Code (revised in 2015) ([1]).

Primary and secondary legislation

In qualification systems, countries use primary law to set general principles, as with the Primary Law on the Vocational Qualifications Authority (VQA), 2006 in Turkey ([2]); these are adopted by the parliament. Secondary legislation defines detailed provisions, usually a decree or similar issued by the Ministry of Labour, for example implementing regulations on criteria for developing occupational standards.

Another case is Kosovo. Its 2008 law on qualifications is primary legislation, has broad scope, covering the establishment of a national qualification system based on an NQF; the law is supplemented by a range of secondary legislation regulating issues such as validation of non-formal learning and development of occupational standards.

In most countries, NQFs are being legislated by decrees; examples are Azerbaijan, Moldova and Ukraine. In contrast, Albania, and the Former Yugoslav Republic of Macedonia adopted their NQFs via primary laws.

Balancing tight and loose legislation

How prescriptive or liberal countries are in legislation is partly a matter of tradition. Most of the 29 partner countries have a mix of some laws that are more prescriptive in phrasing and intention and some legislation that is more empowering. Broadly speaking, most partner countries are heirs to the more directive, as opposed to permissive, law-making tradition.

By contrast, in English-speaking countries precedent and practice weigh more than legislation and regulation is limited compared to most EU countries. NQFs often perform a regulatory function of a market of qualifications.

Civil code-led legal systems typically apply tighter regulation. High-value qualifications here are the product of consensus and cooperation among actors, meeting compulsory criteria. Qualifications frameworks in such countries do not regulate a market of qualifications but establish principles for reliable qualifications. For example, in Germany, the *Ausbildungsordnungen* have the force of law and are agreed between social partners and the Federal Government. Ensuring that learners have access to well-defined and agreed broad-based qualifications means they will be better equipped for employability.

In the partner countries, central governments tightly regulate the roles of the actors in their qualification systems. They have State-regulated qualification systems, but social dialogue is weak. Countries lack experience with markets as well as consensus structures, because, in the past, the State decided what was good for everybody.

Stakeholder input to laws

In EU neighbourhood countries, Ministries of Education typically lead drafting of new laws or revision of existing legislation. But defining the content of a law applying to qualifications cannot be left only to lawyers and officials. Stakeholders need to inform legislation. If they are active in the qualification system strategy, they can generally expect to influence the law.

In some cases, the private sector has proposed the law. This happened in Ukraine, where employers pushed for an NQF, resulting in the NQF law of 2011. Employers are also central to current development of a new National Framework Law on Education. Here, as in other partner countries, employers' priorities are adult learning and relevant qualifications, while the Ministry of Education looks more at the needs of education institutions and broader education for citizens.

2.2.2. Stakeholder involvement

Employers in partner countries often lack confidence in the qualifications candidates offer, which they perceive as irrelevant or not understandable. Some stakeholders in our partner countries say that skills matter rather than qualifications. But qualifications are a proxy for skills, so countries prioritise them in VET reform. Plus, qualifications without stakeholder engagement lack credibility.

While the term stakeholder is common, we should distinguish it from its synonym, actor. Stakeholders are people, groups or entities with a specific role and a vested interest in the implementation, in this case, of qualification system-related policies. Actors are authorised agents who can exercise agency (the ability to effect change) in a context. Not all stakeholders have this agency so not all of them are actors. By contrast, all actors are stakeholders.

([1]) See national case of Albania in *Global inventory of regional and national qualifications frameworks*. Vol. 2.
([2]) See national case of Turkey in *Global inventory of regional and national qualifications frameworks*. Vol. 2.

Visually, we can think of interest and influence in this schema.

POWER		LOW	HIGH
	HIGH	KEEP SATISFIED Cabinet of Ministers Ministry of Economy Parliament Donors	KEY PLAYERS Ministry of Education Ministry of Labour Employers confederation Trades unions Chambers of industry and commerce Universities
	LOW	MINIMAL EFFORT Individual learners Individual employers Employment services Media channels	KEEP INFORMED International organisations Public TVET providers Methodological centres Consultants/experts Professional associations
		LOW	HIGH
LEVEL OF INTEREST			

Source: adapted from Johnson and Scholes (1999), *Exploring Corporate Strategy.*

Identifying and mapping stakeholders

Various typologies of stakeholders exist, but we have distilled them to five distinct groups: public authorities and the State, such as ministries and agencies; industry bodies and chambers of crafts and commerce; education and training providers; learners; and international donors, e.g. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the British Council, and NGOs.

However, it is usually the case that the lead body in the NQF (normally, at least initially, a ministry, then perhaps a specialised autonomous agency – see Section 2.2.3) engages with these various stakeholders with variable intensity, rather than uniformly. The lead will prioritise, from what we have observed, on relative levels of interest and influence attributed to the respective identified stakeholder.

How to engage stakeholders, and in what format, can be established via a four-stage process:

(a) identifying: listing and mapping relevant groups, organisations and people;
(b) analysing: understanding stakeholder perspectives and interests;
(c) mapping: visualising relationships, mapped to objectives and to other stakeholders;
(d) prioritising: identifying issues and ranking stakeholder relevance by likely impact.

Coordinating stakeholders

Given that responsibility for quality of qualifications rests with the government, the State normally initiates stakeholder mobilisation. But, too often, the mind set in ministries is that stakeholders are interest groups to be managed, rather than forming part of a common public interest. In Azerbaijan, development of a common interministerial approach to the NQF came first, so that contacts with stakeholders already started from a positive, common position. Designating one ministry as lead will help dialogue with stakeholders, who often complain of the complexity of State institutions or weak links between them.

Dialogue: platforms, types and topics

Stakeholders from various organisations convene to share a dialogue platform. Dialogue is about agreeing strategy: implementation is the technical work resulting from the strategy's agreed actions. While stakeholders most often discuss and advise and institutions implement, this distinction is rather blurred in practice. In countries such as Germany and Turkey, where employers strongly engage in the VET system, stakeholders have an implementing role.

One obstacle in getting stakeholder buy-in in partner countries is the shortage of major industrial companies with capacity for expert engagement with education or who can establish business representative groups as partners in addressing education and training issues. Most partner countries depend for their economic growth on numerous SMEs, not several big companies. As in any country, SMEs lack staff and time to delegate their people to participate in dialogue with government.

However, in some cases, partner countries bridge this gap by setting up sector representative bodies or turning to chambers of commerce, generally broader in the types of business than equivalents in EU countries. Kosovo's Chamber of Commerce sits on the National Qualifications' Authority board.

Formal platforms exist in several ETF partner countries and take various forms. Turkey has sector committees, which are tripartite structures with State, employer and employee representatives; their establishment, duties and operation are regulated by law; 23 are currently operational. Sector committees perform tasks related to development and maintenance of occupational standards and qualifications for their sector. This is an example of a stakeholder body discharging an implementation function.

Bosnia and Herzegovina has an intersectoral commission for its NQF, which has both political and geographic components. It comprises the State-level Ministry of Civil Affairs plus representatives of the different communities in the country: stakeholder elements such as employers and trades unions; experts from higher education institutions; plus experts from specialised agencies such as those managing quality assurance or VET systems.

In other cases, there may be only informal platforms, as in Ukraine, where dialogue continues among stakeholders who were involved in the previous NQF working group activities, and Azerbaijan, where ETF-chaired dialogue sought to increase social partner representation in the official NQF working group.

Moldova has both VET and HE stakeholders on its sectoral committees, working with public institutions and donors. Sectoral committees have a role in identifying which occupational standards and qualifications should be developed for the sector; this can be considered a form of sectoral dialogue. Their responsibility to develop occupational standards is an implementing task. Developing a partnership around a central qualifications agency to coordinate stakeholders is one option to bolster engagement efforts led by ministries. A coordinating agency can also be a neutral meeting place for stakeholders.

While informal dialogue may be useful in allowing participants to speak more freely than in more formal settings, without institutionalisation in the shape of sector committees or formal membership (for example, of NQF working groups), they risk having only marginal influence on the reform process.

There are various potential topics for dialogue: analysing problems in the current qualification system; developing an NQF implementation plan; formulating reform objectives; identifying need for new qualifications, reviewing institutional capacities and arrangements; and deciding on changes to qualifications.

We see four formats for dialogue with stakeholders, using their feedback to shape reform: informative, consultative, cooperative, and decisional. In informative dialogue, the public authorities only inform stakeholders about decisions already taken on qualifications; arguably, this is not dialogue at all. Consultative dialogue means authorities consult stakeholders and their feedback may or may not shape ministry decisions. Cooperative dialogue goes further, so that stakeholders sit on decision-making bodies and share in those decisions. Decisional dialogue hands decisions to stakeholders themselves, prioritising in the defined area where they lead.

Countries can use one or all of these formats, though in less inclusive social and political systems only the first format will be used. The format is usually influenced by the dialogue topic, so that, in practice, all four formats are used variably.

Stakeholders in the qualification development process

Three distinct stages can be identified in stakeholder engagement in the qualifications development process: policy, design and implementation.

The policy stage is concerned with the functions, procedures, and regulatory context of qualifications, as well as funding and support mechanisms. For example, there may be a national committee of various categories of stakeholder, some with donor participation. In Morocco, while employers worked with the State, trades unions and NGOs were not engaged.

The design stage is about establishing learning outcomes and agreeing assessment standards for qualifications.

The implementation stage concerns actual use of qualifications and their application via teaching and curricula and assessment. Stakeholders such as enterprises, may have an assessment role and an implementation function, a key element in the German dual system.

2.2.3. Institutions: moving from bureaucracy to service

All countries have institutions which manage qualification systems and exercise functions of design, implementation, coordination and regulation. Where countries reform their qualifications systems, typically using an NQF as the main instrument, these functions and roles, and the relations between institutions, will change.

Institutions in partner countries struggle to manage this transition from traditional qualification systems (dominated by the State and producing mainly school-leaver VET qualifications, issued under the aegis of the ministry of Education), to more of a lifelong learning system of diverse providers, aimed at young people, adults, professionals and job-changers.

These different qualifications may be based on differing principles and issued by different bodies, not under the control of the Ministry of Education. Bringing qualifications offered by diverse providers into a common framework based on learning outcomes should make such qualifications comparable. Countries are seeking to regulate the quality of qualifications. NQFs can bring some order by linking these qualifications but this alone is not enough. Rules, institutions and organised stakeholder involvement, to ensure quality and linkages, are also necessary. However, countries need also to ensure that these measures do not tip over into more bureaucracy, rather than offering a useful service to stakeholders.

Institutions differ from stakeholders in being specialised in qualification systems or exercising an allocated function, such as developing standards, conducting assessments or coordinating stakeholders.

Institutions' roles and functions in a qualification system

Institutions generally exercise design and implementation functions and transversal functions. This simplifies, as there is conceptual overlap.

There are various design and implementation functions: developing models for standards and qualifications, procedures for assessment, procedures for validation of non-formal and informal learning, and systems for recognition of learning outcomes; developing and maintaining occupational standards and qualifications; registering qualifications in a register; assessment and certification of learning outcomes and recognising learning outcomes. Transversal functions concern coordination and system review, communication, career information and guidance and quality assurance and regulation.

Many of the processes involved in managing and implementing a qualification system apply regardless of an NQF but a framework should act as a tool to link these functions and roles.

Types of institution

The complexity and range of which institutions or bodies discharge which of the above functions is considerable. Among our partner countries, we cannot see a standardised, common, set of institutional arrangements. Country practice varies widely, and categorisation is further complicated by overlaps in institutional roles, so that even detailed study cannot point to the exercise of mutually exclusive functions (or definitive solutions). Systems evolve, and so do arrangements. In some cases, countries devolve functions from ministries to specialised VET agencies or qualifications authorities. This process is not always without friction, as ministries may resent loss of authority and indeed budget.

However, we can identify broad categories of institutions, which we hope can aid understanding: the coordinating institution; sector skills councils or sector committees; bodies conducting assessment and certification; and institutions which regulate for quality of qualifications.

Coordinating institutions

Usually, NQFs are initiated and, in their early days, run, by ministries of education, sometimes of labour. At this ad hoc stage, governance is often by committee, or several technical committees and working groups. Institutionally, a critical stage is reached when committees pass the NQF

ball to the council or ministry office or agency to put the NQF in place.

In some partner countries, broad coordinating councils seek to manage implementation. However, when these are too big, they can meet too infrequently to make decisions. And because they are interministerial, their access to budgets can be limited.

A small executive committee can work well. Turkey has benefited from its agile five-member executive board of its Vocational Qualifications Authority (VQA), which collectively takes major decisions. It is linked, via the Turkish qualifications framework, to the TQF Higher Council, which is in charge of decision-making for the qualifications framework (QF) overall. The TQF Council advises rather than decides and can delegate technical issues to relevant experts. Kosovo's governing board is small and similarly efficient at decision-making, accelerating NQF implementation.

The ETF's experience over several years has been that the countries with dedicated authorities do best and go quickest. These authorities – autonomous agencies composed of professional, expert staff – exercise delegated real power. It matters less if their numbers are small, as expertise or other support can be subcontracted or cooperation with donors sourced, but political support is critical. Turkey's VQA is effective as its establishment was stakeholder-influenced and it is accountable to a representative board.

Common institutional roles performed by these new bodies include NQF coordination and communication, developing occupational standards (or commissioning them), developing and managing the qualifications register, and conducting QA functions.

Institutions regulating qualifications quality

Coordinating bodies often have formalised roles in quality-assuring qualifications. QA and regulation functions include accrediting and registering qualifications, accrediting providers, accrediting awarding bodies, developing guidelines for internal QA processes, defining national indicators, conducting external validation of summative assessment and reviewing the QA system as a whole.

VQA Turkey, for example, accredits and registers qualifications; the National Centre for Quality Enhancement in Education accredits providers in Georgia, while the National Qualifications Authority in Kosovo accredits awarding bodies and develops criteria for qualifications to enter the NQF.

Sector skills councils and sector committees

Many countries have set up sector skills councils to identify skills needs, to set principles and priorities for qualifications development, to develop occupational standards, develop and review qualifications, and to assess candidates. Sector skills councils or sectoral committees require labour market experts. When institutionalised and staffed by experts, such bodies are the best guarantee of vocational qualification relevance and of labour market acceptance of qualifications.

Sector skills councils are well established in Turkey, acting under the VQA umbrella. Tripartite committees define needed occupational standards and qualifications, and development of the standards is undertaken by bodies which sign agreements with the VQA. Funding for these is from sector bodies, which volunteer to develop the standards; the sector committee reviews the standards before validation by the VQA.

Russia and Ukraine are also establishing councils, but from a different starting point. Here, the initiatives to establish the councils came from the employers, rather than a ministry. Their main outputs so far have been occupational standards. Russia's National Qualification Development Agency (NARK) and Ukraine's Institute of Professional Qualifications also aspire to establish independent assessment systems to certify workers against the standards already developed.

New institutions for assessing and certifying learning outcomes

New qualifications need to be trusted. Partner countries are increasingly turning to external assessment, instead of purely school-based methods.

In Azerbaijan, the State Examination Centre acts as eternal examiner for HE admissions, and is now applying this function to post-secondary VET colleges; it also deals with the final examinations for secondary education. Crucially, such bodies are independent from ministries. The State Examination Centre develops assessment strategies, identifies and recruits assessors, ensures that summative assessment is based on the same standards, and ensures that results are secure so certification reaches successful candidates.

Montenegro's Examination Centre also leads in organising validation of non-formal learning.

Turkey has a sophisticated system for adult learner assessment. Its 60 VOC test centres (formally titled authorised certification bodies) assess and certify adult skills against 349 national vocational qualifications. These centres are authorised by the Turkish Vocational Qualifications Authority, and assess against approved occupational standards. To date, the VOC test centres have issued approximately 115 000 certificates. Their institutional roles include translating qualifications standards into assessment tools, developing assessment strategies, identifying assessors, ensuring security of assessment results, and offering guidance to unsuccessful candidates.

New awarding bodies

Private awarding organisations are found in some partner countries, responding to the diversifying market of qualifications. Turkey, Kosovo and Montenegro all accredit such organisations, while in Ukraine and Russia the potential is significant given the strength of industry.

Combining or separating roles

The dividing lines between sectoral bodies, awarding bodies, independent assessment bodies, coordinating institutions, and QA bodies are not clear-cut. Some both support quality of provision and ensure the quality of qualifications. There are clear advantages to these apparent grey areas and synergies in bringing different executive functions under one umbrella, including accelerating impact of new qualifications on programmes.

Although combining functions under one roof may blur boundaries among subsectors, we see more risk in hard separation into silos, which usually results in competing institutions, unclear remits, and inefficiency in sharing resources. Examples include where quality assurance bodies and qualifications bodies operate separately in HE, VET, and general education, or between ministries of education and labour.

Conversely, countries are seeing the gain in merging QA functions across VET and HE, matching and transparently implementing the Bologna and EQF (where applicable) requirements in quality assurance to support lifelong learning. Examples include the National Centre for Education Quality Enhancement (NCEQE) in Georgia. In Moldova, the authorities are establishing a new QA Agency for both HE and VET.

2.2.4. Quality assurance of qualifications

Quality assuring qualifications links laws, stakeholders and institutions as legislation prescribes criteria, stakeholders bring relevance and institutions perform the quality assurance functions.

Quality assurance is especially critical at the level where qualifications are delivered: the qualifications and the qualified individual. Concern here is with standards, assessment and certification. Our understanding and use of these terms is as follows: standards define the requirements for awarding qualifications; assessment is the process of verifying whether someone meets the learning outcomes specified; and certification is the process of awarding the qualification to the candidate.

Qualification standards, assessment and certification

In most partner countries, one national body designs and specifies assessment methods, and assessment is centralised or delegated to providers, so that qualifications are awarded against centrally designed exams. Emphasis is on control, via inspection and a culture of compliance. QA is still mainly focused on providers, less so on qualifications or ensuring the learner meets the outcomes. Both are required and, in partner countries, quality assurance of schools, teaching and curricula is necessary for modernisation.

Countries are experiencing an increase in the number and range of programmes and qualifications, including those offered by private providers or NGOs; occupational standards are generated by donors in high numbers. They are looking more for external QA, via VET agencies or QA bodies, and seek more relevance in the qualifications development stage by engaging stakeholders, such as through sector skills councils.

The advent of NQFs has provided a means to review QA arrangements and mechanisms to initiate reform in this area. In most partner countries, these changes are occurring in both VET and HE, influenced externally by the EQF and Bologna respectively; QA is also being pushed up the agenda. To some degree, a shift from the usual focus on inputs and providers to outputs such as qualifications and what learners can do with their qualifications is taking place.

More progress is observable in developing the standards behind the qualifications than in awarding qualifications, as in assessment and certification.

Quality qualifications: the quality chain

QA for qualifications comprises two broad processes: ensuring that qualifications have value; and that the people who are certified meet the conditions of the qualification award. Necessary elements are the standards behind the qualifications, placing qualifications in the NQF, learning pathways, assessment and certification.

Standards behind qualifications

Countries generally use two key criteria: labour market input, via the type of stakeholder dialogue process covered earlier, and learning outcomes. In this sense, who is as important as what in determining qualification quality. Qualifications without stakeholder input will not command trust. Labour market representation in processes and methodologies for developing qualifications is required by countries such as Kosovo and Turkey.

Outcomes-based standards allow assessment of competence. The Turkish QF and many other cases have advanced most in this direction in VET qualifications. The TQF distinguishes between qualifications in the national education and training system, those in the national vocational qualifications (NVQ) system and those awarded by other bodies. NVQs closely follow a similar pattern of units, derived from occupational standards; these are often one-to-one, standard to qualification. Each unit is described in learning outcomes and performance criteria and contains assessment guidance.

Placing qualifications in a register

Levelling individual qualifications in the framework is a key quality process, both internally, to encourage trust in the qualifications, and internationally, for comparison. NQFs drive quality improvement in qualifications by stipulating criteria in design, relevance and assessment. Criteria vary in partner countries, depending on the type of qualification, for example between those typically offered in initial VET and those aimed at jobseekers. Kosovo has unit-based qualifications in areas such as welding for adults undergoing reskilling. Non-formal qualifications – not part of formal, usually State, provision – may be regulated by differing criteria, and special levelling procedures.

In the Former Yugoslav Republic of Macedonia, the ETF worked with national authorities to conduct an inventory of existing VET qualifications, then analysed a sample against the NQF level descriptors to test their 'true' level in the NQF. The analysis compared outcomes of individual qualifications with level descriptors, relevance and demand on the labour market, the standards supporting the qualification and engagement of social partners in developing the qualification.

Learning pathways

Learning pathways can differ between qualifications. Countries are increasingly looking at certifying learners against standards rather than simply awarding certificates after completion of traditional schooling. While some partner countries such as Kosovo, Montenegro and Turkey have legislation in place to allow for validation of non-formal learning and have certificated learners via this route, in the Middle East and North Africa and most of Eastern Europe, validation is not yet practised. In many cases, lack of qualifications standards against which to assess and certify is delaying more extensive use of this potentially powerful tool.

Assessment

Assessment is the link between learner and qualifications content, vital in generating trust in the qualification offered to the individual. In the partner countries, assessment tends still to be traditional: school-based assessment by teachers and final written exams rather than practical tests. But there is change, driven by learning outcomes, so that assessment is more externalised, more modular over the course of a programme, and more practical.

The examination centre in Montenegro is the external QA body for exams. It prepares, organises and conducts exams, and advises institutions. It trains examiners to assess NVQs. Georgia, has the national Assessment and Examinations Centre; in Azerbaijan the State Student Admission Commission is similar.

The Federation of Employers in Ukraine is developing new VET qualifications derived from occupational standards. It is pushing for independent assessment bodies as in Montenegro and Turkey.

A different approach is applied in Kosovo: the NQA is too small to conduct assessments, so assessors at providers must meet professional criteria and the NQA samples assessments for consistency.

Certification

Certification can either be of units or combinations of units. In partner countries, certification can be decentralised – issued by the provider – or centralised and issued by a national body. In VET, the range of certifying bodies is

greater, including such as Montenegro's examination centre, or Turkey's VOC test centres.

NQFs usually allow these various categories of certifying institution, with the distinction in practice mainly in the type of qualification issued. QA should be aligned to account for these different types and certifying bodies, implying broad principles and criteria rather than more detailed control by the education ministry.

In some countries, there is a clear distinction between an assessing institution and the one issuing the certificate. Trust in qualifications depends on the reputation of the issuing body, arguably more than the institution that actually assesses the candidate.

In Turkey, under the authority of the VQA, all qualifications must meet its criteria to enter the register. However, they are issued by the authorised certification body or VOC test centre that has conducted the assessment; there may be eight different authorised certification bodies for the same NVQ. To ensure that these qualifications are still recognisable as national qualifications in the same field, all certificates have the same format, the logo of the authorised certification body (VOC test centre) and the VQA logo.

2.3. Findings

Countries are not blocked in implementing NQFs because they do not understand the technical issues. On the contrary, the NQF concept and principles are well understood. Instead, progress is slowed by a failure to get organised and build or modify the necessary infrastructure. We have identified its four shared fundamental components as legislation, stakeholders, institutions and quality assurance.

In the EU neighbourhood countries, legislation is usually necessary to effect qualification system reform, but the countries should first develop a broad reform strategy, identifying the NQF's role as catalyst for change, and then map existing legislation to target the proposed new legislation better. Primary legislation has too often been overly detailed. Where countries such as Kosovo have separated out principles – enacted via primary laws and operational arrangements, implemented through secondary regulation – the results have been better. Legislation should be comprehensive of all key NQF functions.

Countries face a double challenge in engaging stakeholders in the qualification system: the private sector is relatively weak and unorganised, and lacks capacity to engage in training issues. Countries progress faster where they compensate for these deficits by setting up sectoral bodies or looking to chambers of commerce with their broad membership. Stakeholder bodies need to be institutionalised and given formal roles in education and training systems. Countries such as Turkey, where employers contribute to qualifications design, evaluation and quality assurance, see higher levels of trust in their VET qualifications.

Institutional arrangements – allocation of functions and roles to official or formalised bodies – vary but we found similar challenges: building staff capacity to handle reform of the qualification system and managing strained budgets. Coordination is usually weak among the various institutions. Most countries have never mapped functions and roles, so a first step is a thorough review of these, plus appraisal of capacity needs. Institutions should professionalise and specialise. Countries benefit where they designate a lead body or, better still, create a specialised body: this has worked in Georgia, Kosovo, Montenegro and Turkey, which all concentrate functions and roles and expertise in a clear leading institution.

The ultimate outputs of a qualification system are trusted qualifications. The infrastructure described above only has value if it results in that intangible, trust. Quality assurance is found in the partner countries but is patchy, rarely is it integrated into a national QA strategy. As with stakeholder contribution and institutional readiness, capacity and expertise are often insufficient. Countries should adopt national QA strategies, align assessment to standards and – as indicated also in our analysis of legislation, and institutions – engage stakeholders. Long-term, engaging stakeholders in certification processes will contribute to a quality culture.

Making NQFs work means producing qualifications that have value for individuals in their career development. These modern qualifications need modern systems in place, in which an NQF can perform useful functions. So the 29 countries should concentrate on agreeing strategies, proportionate legislation, building sustainable institutions, coordinating, finding the right people, and dialogue and communication.

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CHAPTER 3.
MEASURING THE IMPACT OF NATIONAL QUALIFICATIONS FRAMEWORKS: LESSONS AND CHALLENGES

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Summary

As qualifications frameworks (QF) are increasingly introduced and implemented around the globe, consideration of their added value and impact on policies and practices is growing. Referring to European developments, but also taking into account the debates outside Europe, this chapter reflects on experiences and challenges in this area. Based on Cedefop's national qualifications framework (NQF) monitoring since 2009 and supported by a range of comparative studies, the chapter outlines not only several areas where NQFs in Europe are making a difference but also areas where impact is less visible. Several methodological and conceptual challenges in studying NQF impact are identified. Finally, we highlight some initial indicators for evaluating the impact of NQFs.

Keywords: national qualifications frameworks (NQFs); European qualifications framework (EQF); learning outcomes; evaluation and impact

3.1. Introduction

As qualifications frameworks (QF) are introduced all over the world, the question of their impact and added value is increasingly being asked. Do these frameworks, operating at sectoral, national and regional level, make a difference to policies and practices and to the learners and citizens they are supposed to benefit? This question is closely related to the challenge of measuring the impact of qualifications frameworks: what methods and reference point(s) can be used for measuring impact and how findings influenced by QFs interact and compete with numerous other initiatives in a broader policy context?

The pioneering national qualifications frameworks established during the 1980s and 1990s have increasingly been confronted with these questions. National qualifications frameworks (NQFs) in Australia, New Zealand, the UK and South Africa have all been challenged over their relevance to and impact on policies, practices and learners. Similar questions are being asked of the new qualifications frameworks set up during the past decade. These new frameworks, vastly outnumbering the 'early starters', now have to prove their added value.

The chapter first provides an overview of national qualifications framework developments in Europe. The subsequent sections examine two preconditions of key importance for judging the impact of NQFs in Europe: the institutional robustness and end-user visibility. Several areas where NQFs are making a difference are highlighted, as are areas where impact is limited. This impact alludes to monitoring of European NQFs carried out by Cedefop since 2009 and is also supported by various comparative research projects covering different aspects of framework development. The section on impact studies from different countries identifies several challenges involved in studying the impact of NQF. The final sections highlight some initial indicators for evaluating the impact of NQFs.

3.2. National qualifications framework developments in Europe

Developments in national qualifications frameworks in Europe have been rapid. Before 2005, frameworks were in place in 3 European countries: Ireland, France and the UK. By 2017, and directly triggered by the 2008 adoption of the European qualifications framework (EQF), NQFs have been introduced by all 39 countries ([1]) taking part in the EQF implementation ([2]).

([1]) The EQF covers the 28 EU Member States as well as Albania, Bosnia-Herzegovina, FYROM, Iceland, Kosovo, Lichtenstein, Montenegro, Norway, Serbia, Switzerland and Turkey.

([2]) By June 2017, the following 32 countries had formally linked ('referenced') their national qualifications frameworks to the EQF: Austria, Belgium (Flanders and Wallonia), Bulgaria, Cyprus, Croatia, the Czech Republic, Denmark, Estonia, the Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lichtenstein, Lithuania, Luxembourg, Kosovo, Malta, Montenegro, the Netherlands, Norway, Poland, Portugal, Slovenia, Sweden, Switzerland, Turkey and the United Kingdom (England, Scotland and Wales). Slovakia and Romania are currently discussing their referencing reports with the EQF advisory group.

Most European countries have completed the (initial) conceptual and technical development of their frameworks. A total of 33 out of 39 countries that form part of the EQF process formally adopted their NQFs, most recently in Austria, Poland, Slovenia and Finland. Of the EU countries, only Italy and Spain have yet to finalise developments and/or adoption ([3]). The Former Yugoslav Republic of Macedonia (FYROM), Kosovo and Montenegro, candidate or potential candidates for EU membership, also participate in the EQF, having already been referenced to the European framework. Albania, Bosnia and Herzegovina and Serbia, which joined the EQF process in autumn 2015, have legally adopted their NQFs in various ways, establishing social dialogue platforms, and having achieved some technical advance such as producing outcomes descriptors. A growing number of countries has reached what we may term an early operational stage. This is illustrated by frameworks in Austria, Croatia, Cyprus, FYROM, Greece, Hungary, Iceland, Kosovo, Luxembourg, Montenegro, Poland and Turkey. While still working on putting in place implementation structures and adopting relevant tools and measures, these frameworks are now gradually starting to make a difference at national level. Several European NQFs have reached a more mature operational stage: Belgium (fl), Denmark, Estonia, France, Germany, Ireland, Malta, the Netherlands, Norway, Portugal, Slovenia, Sweden, Switzerland the United Kingdom. Despite having put all major features of their framework into practice, the challenge is to strengthen involvement, acceptance and ownership by key stakeholders and visibility towards end-users. While different in focus and objectives, some key common characteristics of European NQFs can be identified:

(a) most frameworks in Europe have been designed as comprehensive frameworks, addressing all levels and types of qualifications from formal education and training (vocational education and training (VET), higher education (HE), general education) and, in some cases, opening up to qualifications awarded outside formal education and training. These frameworks can mostly be described as 'loose' in the sense that they have been designed to embrace a multiplicity of education and training institutions and provisions, reflecting a broad range of values, traditions and interests. Whether a framework is tight or loose depends on the stringency of conditions a qualification must meet to be included (Tuck, 2007, p. 22). Loose frameworks introduce a set of comprehensive level descriptors to be applied across subsystems but allow, at the same time, substantial 'differentiation' within and between sub-frameworks ([4]). Tight frameworks are normally regulatory and define uniform specifications for qualifications to be applied within and across sectors. The comprehensive frameworks dominating in Europe can be understood as 'loose' in the sense that they integrate sub-frameworks (and their specific legislation) but refrain from introducing uniform rules for the design and award of qualifications. This is illustrated by the Polish qualifications framework where generic, national descriptors are supplemented by more detailed and targeted descriptors addressing general, vocational and higher education. In many countries, this institutional diversity and the need to address a wide range of interests and concerns has put stakeholder mobilisation and commitment at the forefront of developments;
(b) while technical and conceptual design is important, creating commitment and ownership of the process, stakeholder buy-in, consensus building and overcoming resistance to change have been identified as critical conditions for effective NQF development and implementation in Europe. This contrasts with some 'first generation frameworks'. Examples of early versions of frameworks in South Africa or New Zealand illustrate how attempts to create tight and 'one-fit-for-all' variants can generate a lot of resistance and risk weakening the framework role. Such experiences have led to general reassessment of the role of these particular frameworks, pointing to the need to protect diversity (Allais, 2011c, Strathdee, 2011);
(c) the main objective of the new European frameworks, reflecting their 'loose' character, is to improve transparency of the national qualifications systems; the aim to make it easier for citizens to assess and make better use of national level qualifications, notably by clarifying how qualifications from different institutions and subsystems can be combined and support individual learning careers. This turns NQFs into key instruments

The remaining countries are expected to follow in 2017-18, which means that the first stage of EQF referencing is nearly finished. The completion of the first stage of referencing will be followed by regular updates in the event of major changes by the countries, which shows that EQF implementation is a continuing and ongoing process. Estonia and Malta presented updates in 2015, starting this phase (for Malta, this was the fourth update since 2009).

([3]) Italy has established the national repertoire of education, training and professional qualifications that consists of different sections, including a QF for HE and national framework of regional qualifications. Development of a comprehensive framework is work in progress. Spain is finalising its framework for lifelong learning.

([4]) A sub-framework is a framework, which covers only one subsystem (e.g. HE, VET) and is part of an overarching comprehensive framework.

for lifelong learning. Many countries have stated, when developing NQFs, that their purpose is not to reform the qualifications systems, but to make them more accessible and easier to understand. As European NQFs have developed and moved towards operational status, however, countries increasingly tend to see them as contributing to incremental reform, influencing their overall impact on policies and practices. European NQFs also have strong international comparability, addressing the need to support mobility of people across national borders. This positions European NQF developments within broader human and social development and lifelong learning rather than within the neo-liberal policies they are traditionally associated with (Allais, 2011a, 2014; Lassnigg, 2012).

3.3. Sustainability and visibility of European NQFs: preconditions for impact

The impact of European NQFs has only been partly assessed, reflecting their short history. Developed during the past decade, most frameworks have only reached a stage where indirect and partial impact can be assessed. From a survey carried out by Cedefop in 2015/16, however, the institutional robustness and end-user visibility of the frameworks can be judged. These two factors can be considered as preconditions for impact and so are of key importance.

3.3.1. Sustainability and institutional `robustness'

Most European countries now consider NQFs to be integral parts of their national qualification system. They acknowledge that a strong legal basis with clear policy objectives is essential to guarantee and clarify the future role of the frameworks. Active and committed involvement of stakeholders, within and outside the education and training system, is also seen as a precondition for, and guarantee of, sustainability. Few countries explicitly express doubts as to the future role of their frameworks. While some emphasise the need to clarify and/or strengthen the political mandate, others point out that changing national political priorities risks influencing future implementation. While most countries are confident that their frameworks will remain in place, some point out that the frameworks' ultimate impact will depend on integration into mainstream policy processes. Even frameworks with a long tradition, such as that in UK-Wales, still need to be further streamlined and linked to education, training and skills strategies (Welsh Government, 2014). Politically and institutionally isolated frameworks will be less able to meet expectations.

Around one-third of countries ([5]) see NQFs as reform tools and expect them to support the restructuring, strengthening and/or regulation of their national qualifications systems. This contrasts with the position of countries at the start of implementation when frameworks were seen as instruments for describing qualifications, not for changing them. The potential of the frameworks to support reform have become apparent during initial development and implementation stages, differing slightly between sub-frameworks ([6]). Some countries, as illustrated by Ireland, have strengthened the link between the national frameworks and quality assurance bodies. Most flag the need for financial and human resources to be stepped up when NQFs reach the fully operational stage.

3.3.2. Visibility

To be of value to individual citizens, frameworks need to become visible. Many countries now systematically indicate NQF and EQF levels on the qualifications documents they award (certificates and diplomas and 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. This visibility lies at the heart of the frameworks as tools for increased qualifications transparency. Countries are making progress in this area. Denmark and Lithuania were the first to include references to EQF/NQF levels in their VET certificates in 2012. By February 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, Portugal, Poland, 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 visibility of frameworks to stakeholders outside education and training, particularly to employers, is still limited. Countries such as Ireland, the Netherlands, Sweden and UK-Scotland have made explicit efforts to demonstrate the relevance of frameworks to companies and branches. In most countries this is still an area to be explored.

([5]) Examples are Belgium (fl), Bulgaria, Croatia, Estonia, FYROM, Greece, Hungary, Iceland, Malta, Montenegro, Portugal, Slovakia and Turkey.

([6]) Examples are the Croatia, Iceland, Netherlands, Poland and Slovakia.

3.4. Early impact of European national qualifications frameworks

The monitoring of European NQFs carried out by Cedefop since 2009, which is also supported by a variety of comparative studies ([7]), points to several areas where NQFs are starting to make a difference.

3.4.1. Improved transparency of national qualification systems

The introduction of national qualifications frameworks with explicit learning-outcomes-based levels have helped to make national education and qualification systems more readable and easier to understand within and across European countries (Cedefop, 2016; 2017). In a few cases where multiple qualifications frameworks have been operating in parallel and partly in competition, as in UK-England, the impact on transparency is less clear. Introducing a common learning-outcomes-based language for describing qualifications across education and training subsystems, the national frameworks provide a comprehensive map of national qualifications and relationships between them. Although differing between countries, important progress has been achieved in the past seven years ([8]). In some countries the increased transparency supports further systemic reforms, as exemplified by Estonia where a lack of initial qualifications at NQF level 5 was identified through development of an overarching framework. The main discussion centred on the fact that there were no initial education and training qualifications identified at this level. Steps have now been taken to fill this gap. Following consultation with stakeholders, a new VET Act came into force mid-2013, introducing qualifications at level 5 (both in initial and continuing VET).

This illustrates that the introduction of learning-outcomes-based levels, and the resultant placing of qualifications, makes it possible to identify gaps in existing qualifications provision. Cedefop's relevant study (2014) shows that EQF level 5 (and the relevant NQF levels) has been used as a platform in developing new qualifications. This is exemplified by Estonia, Malta and the UK. In many other countries (such as Estonia, Portugal and Slovakia) NQF level descriptors are used to review the content and outcomes of qualifications. Comprehensive and integrated qualification registers increasingly underpin the NQFs and make information on qualifications accessible for students, employers and guidance staff ([9]). Portugal exemplifies how NQF level descriptors are used to support the review and renewal of qualifications.

3.4.2. More consistent implementation of learning outcomes approaches

European NQFs share a common conceptual basis with a focus on learning outcomes. Recent research on the shift to learning outcomes (Cedefop, 2016) shows that the outcomes principle has been broadly accepted among national policy-makers and that national qualifications frameworks have contributed significantly to strengthening this dimension. While the approach was previously taken forward in a fragmented way in separate institutions and subsystems, the emergence of comprehensive frameworks has made it possible to implement learning outcomes in a more system-wide and – to some extent – more consistent way. In countries such as Belgium, Croatia, Greece, Iceland, Lithuania, Norway and Poland the introduction of frameworks has led to identification of areas where learning outcomes have not been previously applied or where these have been used in an inconsistent way.

The level descriptors of the frameworks are increasingly used as reference points for describing, writing (and levelling) qualification and assessment standards, as well as curricula. This is an important use of frameworks as it can strengthen the consistency of programmes and allow qualifications to be delivered according to similar requirements.

The frameworks emerging after 2005 differ from the first generation frameworks developed, for instance, in UK-England or South Africa. Comprehensive NQFs in Europe can be categorised as outcomes referenced ([10]) (Raffe, 2011b,

([7]) See Cedefop publications in the further reading section. NQF/EQF-relevant Cedefop studies since the initiation of the EQF process in 2005 also include: Annual NQF monitoring reports (2009, 2010, 2011, 2012 and 2014) analysing national developments, including country chapters (for 2012 and 2014): http://www.cedefop.europa.eu/en/events-and-projects/projects/national-qualifications-framework-nqf Briefing notes addressing specific aspects of NQFs (2011 to 2016): http://www.cedefop.europa.eu/en/events-and-projects/projects/national-qualifications-framework-nqf

([8]) See EQF referencing reports: https://ec.europa.eu/ploteus/sl/documentation

([9]) See for example the German qualifications database: https://www.dqr.de/content/2316.php or the Slovenian qualification database: http://www.nok.si/en/

([10]) Raffe (2011b) explores different types of NQFs and examines the role of learning outcomes within them. He elaborates on two contrasting types of NQFs: outcomes-led and outcomes – referenced; he suggests that these are associated with different roles for learning outcomes in pursuing the objectives of NQFs. A communication framework is typically outcomes-referenced. Learning outcomes-based level descriptors provide common reference

Cedefop, 2015) where the learning-outcomes approach – considered essential for levelling and increasing transparency of national qualifications – is linked to national curricula or programmes and accredited providers, accepting that mode and volume of learning matters. However, many frameworks have elements of the outcomes-driven model where learning outcomes are specified independently from curriculum and provider (Raffe, 2011b). This is most visible in some sub-frameworks as is the case in occupational/professional qualifications in Belgium-Flanders, Estonia, Slovenia or Slovakia. For instance, in the Slovenian sub-framework of national vocational qualifications (NVQs) only qualifications and assessment standards are regulated at national level. There are no formally accredited programmes leading to these qualifications.

It follows that the objectives and impact of the NQF will differ across sub-frameworks while a comprehensive framework will increase consistency of use of learning outcomes across sub-frameworks.

3.4.3. Linking qualifications frameworks and validation of non-formal and informal learning

The 2016 update of the European inventory on validation ([11]) confirms that countries ([12]) now give high priority to linking frameworks and validation arrangements. NQFs, through their focus on learning outcomes, act as a reference point for identifying, documenting, assessing and recognising learning acquired in non-formal and informal settings. The introduction of NQFs allows countries to move from fragmented use of validation to a more coordinated national approach. According to the European inventory, there is a link between validation arrangements and formal education qualifications in the NQF in at least one education sector in 28 countries; this offers a possibility to acquire a full qualification or parts of a qualification included in the NQF. Links with validation are more common in initial vocational education and training (IVET) and continuing vocational education and training (CVET) and higher education (HE) than in general education or adult education (in many countries not yet included in the NQF). Validation of non-formally and informally acquired competences and skills is possible in 17 countries included in the report. Around 75% of countries use the same standards in formal education and validation in at least one sector.

3.4.4. Greater stakeholder engagement and coordination

The new generation of comprehensive NQFs has helped to bring together stakeholders from different subsystems in education who do not routinely cooperate (VET, HE, general education) and stakeholders from education and employment. In some countries comprehensive NQF development has brought together stakeholders from different sectors for the first time. Evidence shows that this cooperation has increasingly been formalised and institutionalised (Cedefop, 2017). This is important to support the coherent implementation and maintenance of the NQF across sectors and institutions. Cross-sectoral bodies such as national qualification councils have been established in Croatia, Cyprus, Estonia, Montenegro and Poland. In Austria, the NQF advisory board of seven experts assists the NQF coordinating body in allocating qualifications to levels; the NQF steering group (NQR-*Steuerungsgruppe*), has 30 representatives of all the main stakeholders (all federal ministries, social partners, stakeholders from the different fields of education and Länder). A coordination point for the German qualifications framework was set up in a joint initiative of the Federal Government and the *Länder* in 2013. It has six members, including representatives from the Federal Ministry of Education and Research and Federal Ministry of Economics and Technology, the standing conference of the ministers for education and cultural affairs of the *Länder*, and the conference of ministers for economics of the *Länder*. Its main role is to monitor the allocation of qualifications according to levels descriptors, to ensure consistency of the overall structure of the framework. The impact of strengthened cooperation on progression routes across subsystems still needs to be seen. Deeper insights into acceptance and ownership of stakeholders in relation to the NQF objectives and implementation are needed in the coming years.

3.4.5. NQFs have opened up to qualifications awarded outside formal education and training

Most European NQFs cover qualifications from formal education and training (VET, HE, general education). These are qualifications regulated and awarded by national authorities. However, there is a growing trend among countries to open up their frameworks to include qualifications awarded in continuing and further education and training, often awarded outside the formal national qualification system. Countries including the Netherlands, Slovenia and Sweden have started developing criteria and procedures for inclusion of qual-

point for diverse qualifications from different sectors and institution and help coordinate education and training provision and improve coherences and integration of the system.

([11]) Cedefop; European Commission, ICF (2017). *Update to the European inventory on validation of non-formal and informal learning – 2016 update. Synthesis report.* Luxembourg: Publications Office. http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory

([12]) EU-28, EEA EFTA countries, Switzerland and Turkey are included in the inventory.

ifications awarded outside formal education and training or have already included an important number of those qualifications, as in the Netherlands. The Swedish national qualifications framework has, from the start (in 2009), been seen as a tool for opening up to qualifications awarded outside the public system, particularly in adult education and in the labour market. Linking this 'non-formal' sector to the NQF is seen as crucial for increasing overall qualifications transparency and relevance in Sweden.

3.4.6. NQFs and higher vocational education and training

In many countries vocationally oriented education and training at higher levels have been operating in 'the shadows' of universities. This lack of visibility partly reflects high esteem attributed to academic and research-oriented education, in some cases undermining the role of vocationally oriented and practice-based education and training ('academic drift'). The learning-outcomes-based levels of the NQFs have played a role by making visible the existence and importance of vocationally oriented education and training at levels 5 to 8 of the EQF. There is now an intensive debate on the future of vocational education and training at EQF levels 5 to 8 ([13]). The increased visibility of higher vocational education and training (HVET) can be illustrated by placing the German master craftsman qualification at level 6 of the German qualifications framework, firmly underlining that vocationally oriented education and training can take place at all levels ([14]). The Swiss national qualifications framework is explicitly designed to support this principle, showing how vocational and professional qualifications operate from level 2 to level 8 of the framework. The rapid development of HVET policies in many countries can partly be seen as directly influenced by the outcomes-based perspective provided by the NQFs and their learning-outcomes-based levels. This example shows that NQFs can make vocational qualifications at these levels more visible and contribute to increased diversity of qualifications designed for different purposes.

3.5. Areas where less impact can be observed

3.5.1. Limited visibility and labour market use

Several evaluation studies have pointed to the limited visibility and use of NQFs by labour market actors (Allais, 2017; NQAI, 2009). The most successful example of good framework visibility on the labour market is the French NQF (known as national register of vocational qualifications, *Repertoire national des certifications professionnelles*), where qualifications levels are linked to levels of occupation, work and pay (Allais, 2017).

In less regulated labour markets, the visibility and use by employers is more challenging. For instance, the evaluation of the UK-Wales framework concluded that too few employers engaged in or were aware of the framework. While this reflected a general lack of visibility of the credit and qualifications framework for Wales (CQFW), some stakeholders pointed to the fact that the UK (England and Northern Ireland) qualifications and credit framework (QCF) was the dominant framework in the UK and that some employers may have preferred to relate to this and not limit themselves to UK-Wales (Welsh Government, 2014, p. 45). The impact study of the Irish QF has demonstrated that it has considerable potential to be used in recruitment, in developing career pathways, in planning work-based learning and training and in recognising transferable skills (NQAI, 2009). However, its use by employers is limited, reflecting low awareness and visibility. A recent study carried out in Germany on the potential use of the German qualifications framework (Bundesministerium für Bildung and Forschung, 2017) identifies several areas where the German qualifications framework (DQR) can add value. The framework as stated can, for example, be used to support human resource development (recruitment and development of employees); this applies especially to small and medium-sized enterprises with limited human resource capacity, but will require capacity building and awareness raising. UK-Scotland stands out as an exception in this area, having developed and promoted a range of tools that support employers in using the Scottish credit and qualifications framework (SCQF) and guides to support recruitment and staff selection, identify and plan skills development for staff or gain recognition of in-house training programmes ([15]). There are examples of employer-led sub-frameworks of vocational/occupational qualifications, for instance in Estonia, Slovenia and Turkey, with good use and visibility on the labour market, including access to regulated occupations, certification of the skills acquired at the workplace, recruitment, workforce development, and guidance.

([13]) Several research and development projects are currently exploring this area. A good example is the *Beehives* project: https://www.eurashe.eu/projects/beehives/

([14]) Supplemented by policies and projects: http://ankom.his.de/pdf_archiv/2009_03_06-Hochschulzugang-erful-qualifizierte-Bewerber.pdf

([15]) http://scqf.org.uk/employers/what-are-the-benefits

3.5.2. Articulation between institutions and education and training subsystems

Several countries see their NQFs as tools for strengthening the links between education and training subsystems. This is considered essential for reducing barriers to progression in education, training and learning and for strengthening overall permeability of education and training systems. The new generation of European NQFs overwhelmingly consists of comprehensive frameworks, addressing all types of qualifications at all levels of formal education and training. This means that they – through their descriptors – must be relevant to diverse institutions pursuing a wide variety of tasks according to different traditions and cultures. According to Young and Allais (2009; 2011), one of the fundamental challenges comprehensive frameworks face is to take account of epistemological differences in knowledge and learning that exist in different parts of education. It is generally too early to say whether the NQFs are making a difference in this area: any future impact study needs to address this 'bridging function' of the frameworks and assess whether individual learners are becoming more able to move horizontally and vertically and combine education and training from different institutions and subsystems to benefit their lifelong learning careers.

3.5.3. Institutional reform: work in progress

NQFs have contributed to institutional reform in a limited number of cases. Ireland, Greece, Malta, Portugal and Romania exemplify this through their decisions to merge multiple qualification bodies into single entities covering all types and levels of qualifications. The synergies gained in bringing together functions under one roof can speed up implementation. Other countries have indicated future institutional reforms in this area, either in the form of mergers of existing institutions or in the form of new bodies, as in Croatia. This shows that comprehensive NQFs, even in cases where their main role is perceived as promoting transparency, can trigger institutional reform.

3.5.4. NQF support to recognition of qualifications across countries: at an early stage

At the moment the effect of the qualifications frameworks on mobility of learners and workers is still uncertain (ICF GHK, 2013), as implementation of the EQF (and many NQFs) is at an early stage. However, evidence gathered by a study on the (potential) role of qualifications frameworks in supporting worker and learner mobility (European Commission and DEEWR, 2011) shows that there are great expectations of qualifications frameworks in this through better recognition of qualifications. NQFs give important information about the level of qualification and its link to other qualifications, as well as what the holder of a qualification is expected to know, understand and be able to do. The information on learning outcomes, workload, type of a qualification and quality assurance are important elements in formal recognition of qualifications. The subsidiarity text to the Lisbon recognition convention (UNESCO and Council of Europe, 2013) underlines that frameworks should be used systematically as a source of information supporting recognition decisions.

3.6. Lessons from impact studies

The research literature identifies several challenges involved in studying NQF impacts. These challenges include, for example, the complexity of the field (Pilcher et al, 2015; Lassnigg, 2012; Lester, 2011) and the problems involved in gathering reliable evidence on success and reliability (Allais, 2011a, 2014; Raffe, 2009b, 2011a, 2011b, 2012, 2013; Coles et al, 2014). Several contributors have pointed to the particular problem of causality, stating that it is difficult to identify a direct link between the causes and effects of frameworks (Higgs and Keevy, 2007; Bolton and Reddy, 2011; Pilcher et al, 2015). Other literature suggests that NQFs are social constructs based on deeply rooted relationships and partly conflicting interests (Raffe, 2012, 2013; Higgs and Keevy, 2007). This means that a study of impact needs to transcend restricted technical analysis and consider the social dimension of NQF implementation and impact.

The purposes and objectives of an NQF can change over time as exemplified by some first-generation frameworks. New Zealand and South Africa attempted to introduce unified qualifications frameworks aiming to harmonise the way education and training systems were organised and managed. Based on a radical learning outcomes approach, these frameworks were transformational in their character (Allais, 2011c, Strathdee, 2011), signalling high ambition. Neither accepted nor supported by key stakeholder groups, the New Zealand and South Africa frameworks have subsequently gone through a series of revisions (Strathdee, 2011; Allais, 2011c; Bolton and Reedy, 2015).

It may be that this initial ambition, potentially exaggerating and 'overselling' the role of frameworks, has influenced the debate on NQF impact in a negative way. While most policy-makers and researchers agree that initial transformational objectives were unrealistic, this does not mean that other objectives cannot be addressed and achieved.

Understanding the impact of NQFs requires a realistic baseline, reflecting the way the framework is positioned in the national political and institutional landscape. The following impact studies exemplify these challenges.

The South African qualifications framework is the most researched (Allais, 2011a, b, c; Keevy and Blom, 2007; Taylor, 2010; SAQA, 2003, 2005, 2014, 2017). Studying and assessing impact was seen as complex because the NQF comprises multiple sectors, stakeholders and initiatives; direct lines of cause and effects could not be assumed (Bolton and Reddy, 2015). It was also argued that studying impact can '/…/ not be neutral and would necessarily be affected by the power struggle enacted within broader NQF discourse in South Afrika' (Coles et al., 2014, p. 28). The NQF impact work in South Africa was carried out in three waves: in 2002-05, 2009-10, and from 2012 onwards, with several attempts to improve research design. The NQF Impact study 1 (SAQA, 2003) established 17 criteria/indicators grouped into four sets against which the impact of the NQF was measured. The specific objective of the NQF Impact study 2 (SAQA, 2005) was to establish a baseline against which future progress was measured. Both studies gathered valuable information on implementation, challenges, issues and development areas. A second (planned) cycle was cancelled and replaced by a review of the framework leading to 2008 SAQA Act and the establishment of three sub-frameworks with three quality councils (Bolton and Reddy, 2015). Subsequent research focused on three sub-frameworks (the general and further education and training, higher education, occupational qualifications) and the roles of four NQF agencies (the three quality councils and the South African Qualifications Authority (SAQA)) in implementing a comprehensive framework (Taylor, 2010). According to this research, the South African NQF was seen as a device aiming to relate different parts of a segregated system to each other (Bolton and Reddy, 2015). 'From that time it became clear that the different priorities and voices of these NQF organisations called for a theoretical framework that would enable the capturing of the differentiated voices; not to do so would run the risk of adopting an apolitical 'technicist' approach', as Bolton and Reddy (2015) expresses it.

A new impact study, in 2014, took into account lessons learned in previous studies (SAQA 2003, 2005; Taylor, 2010) as well as impact studies carried out in other countries. The study conceptualised the NQF as an activity system related to the main objective: to link different parts of the education and training system. It unpacks the national policy, cultural and socioeconomic context in which the NQF operates. The main focus of the study was to review the design and implementation of the NQF functions, to collect and analyse data on access and progression, and examine in depth the work of the three quality councils established under the 2008 SAQA Act (SAQA, 2014, p. 5) ([16]). Only two broad 'stretch indicators' were selected for their potential to enable evaluation over time: 'moves towards systemic integration' and 'beneficiary gains' ([17]).

The New Zealand national qualifications framework was designed with an ambitious aim of transforming education and training and adopting 'a common system of measuring and recording learning'. Intended as a unifying and transformative framework that should serve multiple groups and stakeholders, it faced difficulties from the beginning (Strathdee, 2011). In the course of implementation many changes were made to accommodate the interests of different stakeholders. By acknowledging the specific qualities and needs of the different subsystems, the NQF has (according to Strathdee, 2011) gained wider acceptance.

In contrast, the Australian qualifications framework (AQF) was designed as a 'loose' framework with no legal base and no direct power in accrediting qualifications or quality assurance (Wheelahan, 2011b). In 2009-10, the Australian Qualifications Framework Council (AQFC) initiated a major review of the framework with extensive consultation across sectors. This was an *ex-ante* evaluation on how the strengthened AQF was likely to impact on, and be affected by, education and training and labour market structures and processes. It focused on how qualifications are constructed, how they are measured against each other and how they are used and valued (Buchanan et al, 2010). The study identified key issues/tensions and likely impact of a strengthened AQF in each of the subsystems (secondary schools, VET, HE and industrial relations). The likely responses of each sector and its institutions, and interaction with the regulatory frameworks were researched, as well as data necessary to make informed judgments. 'The role

([16]) A broad theoretical framework was also developed to understand change. It comes from activity theory through elaboration of Engeström's cultural historical activity theory (CHAT) (Engeström 1987, 2001, cited in Bolton and Reddy, 2015) aiming to map and study complex interactions between institutions and individuals and change processes.

([17]) These two indicators were sufficiently general to enable SAQA and three quality councils to evaluate and interpret developments over time in their respective contexts. The 'systemic integration' indicator refers to the need to integrate the system that was deeply divided along demographic lines and different forms and status of knowledge. The second indicator on 'beneficiary gains' notes the importance of learning and developmental opportunities for learners of all ages and stages of life.

of the strengthened AQF is therefore two-fold – to provide 'credentials consistency', as the levels structure, its descriptors and the qualification specifications strive to do; and to 'manage differences' between the disparate, sectorally-based institutional interests, the aim being to create a better-connected tertiary education sector.' (Buchanan et al, 2010, p. 8). In 2011, a revised and strengthened AQF was published with explicit learning-outcomes-based levels, detailed qualification type descriptors and supporting policies on pathways and credit transfer. The knowledge dimension in qualifications became stronger and more explicit with important consequences for VET qualifications that must now include an educational purpose besides the vocational one (Wheelahan, 2011b; Coles et al, 2014).

The Scottish qualifications framework (SQF) was evaluated in 2003 (Gallacher et al., 2005) to understand its expectations and its impact on policies and practices, as well as study factors that led to particular responses from institutions. The impact study in 2013 (SCQF partnership, 2013) looked at levels of awareness, the perception and understanding of SCQF among learners, parents, teaching staff and management. This evaluation, based on a combination of focus groups, online questionnaires, face-to-face interviews and in-depth interviews gave valuable insight into the level of implementation of the framework. The findings demonstrate that the SCQF is widely recognised by learners, parents and educational professionals in UK-Scotland. The evaluation is important also outside UK-Scotland as it provides research-based documentation on the impact of the framework at the level of end-users.

In Ireland, an impact evaluation of the national framework of qualifications (NFQ) was carried out in 2009, researching the degree of implementation and the impact of the framework on education and training; it was a five-year investigation, including background paper prepared by the National Qualifications Authority of Ireland (NQAI), reports from key stakeholders, engagement with stakeholders, case studies and a public consultation. Findings referred to different areas: implementation of the framework, impact on learners, learning outcomes and cultural change, and framework visibility and currency. A new policy impact assessment of the NFQ is under way (2016-17): a survey is being carried out that seeks views on policy impact of the NFQ on transparency of qualification, quality issues, lifelong learning and qualifications, employability impact, impact on teaching, learning and assessment practices, views on development and governance of the NFQ. It also seeks the views on future policy priorities for NFQ: communication, quality assurance, regulation, progression, recognition and design functions.

Evaluation of the Welsh framework with regards to the strengths, challenges and weakness of the framework implementation was carried out in 2013-14 (Welsh Government, 2014). Several recommendations were made in 2015, based on the findings of the evaluation: to support the CQFW as a meta-framework that underpins future qualification strategies; to revise the aims and objectives so that it evolves into a 'functional' national qualifications framework which acts as a vehicle for describing the qualifications system in UK-Wales; to simplify and raise the levels of understanding and profile of the CQFW; and to move ownership of the quality-assured lifelong learning (QALL) pillar from government back to the sector with a view to making formal and non-formal learning less bureaucratic and more accessible.

In the UK (England and Northern Ireland), evaluation of the qualification and credit framework (QCF) was carried out based on the background paper looking into practical experiences in implementing the QCF between 2008 and 2014. After extensive consultation throughout 2014 and 2015, and following a review of the QCF ([18]), Ofqual – the 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 ([19]) and statutory guidance ([20]).

Few of the new qualifications frameworks established after 2005/06 have been subject to systematic evaluation, apart from Cedefop's regular annual monitoring since 2009. There have been isolated academic studies carried out in a limited number of countries, as in Denmark and

([18]) Ofqual (2014). *A consultation on withdrawing the regulatory arrangements for the qualifications and credit framework*. 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

([19]) 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

([20]) 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

currently on the use of the German framework and the Dutch qualifications framework. In other countries priority has been given to initial development, pushing impact issues into the future. In the past two years, however, some countries (such as Latvia and Norway) have signalled interest in developing a more systematic approach to the measurement of impact of NQFs.

3.7. Identifying initial indicators for evaluating impacts

Several lessons may be drawn from the above experiences, potentially informing the way we assess and measure the impact of qualifications frameworks.

First, it is important to acknowledge the particular character and role of national qualifications frameworks: as multilevel, dynamic and evolving tools, their objectives might change over time. This is clearly demonstrated by some first generation frameworks as it is by frameworks developments in some European countries where focus and ambition have evolved. It is illustrated by shifting the functions from mere communication and transparency to strengthening functions such as quality assurance, progression or opening up to qualifications awarded outside the formal system. The relative complexity of comprehensive frameworks in Europe is illustrated by the fact that they are based on sub-frameworks referring to sectoral legislation, sectoral institutions and stakeholders. Sub-frameworks may differ in ambitions, objectives and degree of regulation. Comprehensive frameworks firmly aim at strengthening lifelong learning policies and practices and seek to integrate and coordinate education and training subsystems. They are tools that relate different parts of education and training and only rarely used to directly regulate the design and management of qualifications.

Second, NQFs should not be understood as a single-purpose focused intervention. Comprehensive frameworks, such as those now developing in Europe, address multiple stakeholders and objectives, sometimes pointing to different directions. Assessing the impact of NQFs requires clarification of the objectives of a comprehensive/overarching framework, and its sub-frameworks, and of how these interact in a specific political, institutional and social context. Clarifying these objectives, and how they complement or contradict each other, makes it possible to establish a baseline for assessing the effectiveness and efficiency of the framework. It is also important to note that NQF objectives may differ in different sub-frameworks, for example in vocational education and training and in higher education. When discussing the impact of NQFs, the different types of NQF, and the way they link to and integrate subsystems and policy areas, matter (Raffe, 2011a, 2013; Pilcher et al., 2015). Focus on functions of NQFs over time can help capture changing policy priorities. The complexity following from these characteristics must be taken into account when assessing and measuring frameworks impact. The following points should be considered:

(a) the impact of NQFs needs to be understood in relation to the social, political and institutional context in which they operate. Bolton and Reedy (2015) point to the drawbacks of impact evaluations that focus 'on the observable' and on 'outcomes' rather than on the factors and mechanisms that led to the outcomes. All evaluation and impact studies emphasise the importance of contextualisation of the NQF to provide a narrative within which the outcomes of an evaluation can be interpreted. Without contextual links, there may be the danger of adopting a technicist approach. It is also important to look at the mechanisms and success factors;
(b) the time dimension is an important factor influencing the focus of an evaluation or impact study from two perspectives: NQFs change over time, and some authors, such as Taylor (2010) emphasise that timing of measurement is important. He suggests that in the first two years of NQF implementation, measurement of the architecture is possible; two to five years of implementation are needed before effectiveness of implementation can be examined; and 5 to 10 years before the impact can be assessed;
(c) the focus and the perspective of the evaluation and impact studies matter. An impact study must make a clear decision on which aspect to address and from which perspective this is to be done: if the study focuses on strengths, weaknesses and challenges of implementation and its effectiveness; if it focuses on the use of the framework by different stakeholders; or if the study focuses on how NQF objectives are achieved and which change processes are used ([21]);
(d) experiences from South Africa illustrate the challenges involved in assessing impacts of NQFs, particularly by addressing the complex causality involved. The approach developed in recent years emphasises the relational role

([21]) Raffe (2013) argues that different change processes might be used in different countries by which they try to achieve their objectives (introducing common language, stakeholder coordination, regulation, quality assurance).

of the framework, pointing to its ability to involve and commit stakeholders and to promote cooperation and communication. This qualitative approach, complementing and partly contrasting a 'simplistic' measurement of quantifiable facts, makes it possible to capture the complexity of the framework and its functions;

(e) measuring the impact of NQFs requires baseline(s) and a limited number of indicators that can monitor the implementation and (possible) evolution of an NQF over time, as the (2014) study on impact of South African qualifications framework shows. This study also called for differentiated baseline across sub-frameworks for future evaluations and for studying contextual enablers. It also emphasised the importance of triangulation of data.

3.8. Key elements in a strategy for assessment and measuring of impacts

Few of the new qualifications frameworks established in Europe have been subject to systematic evaluation. However, in recent years, as frameworks are moving towards operational stage, some countries have signalled interest in a more systematic approach to measurement of impact. In 2015, the EQF advisory group – the body that coordinates and oversees EQF implementation – discussed principles related to the future assessment of impact of the EQF and NQFs. These discussions, addressing impact at national and European levels, illustrate several challenges of a more systematic approach to NQF impact assessment and measurement.

Members of the EQF advisory group agree that the impact of qualifications frameworks needs to be understood within a broader political and institutional context and could not be reduced to a question of simple 'objective' causality. An instrumental and technicist approach should be avoided. An evaluation needs to contribute to better understanding on how NQFs operate within complex and dynamic social, cultural, political, historical, technical and economic contexts. The evaluation should go beyond what works to include critical reflection about why, how, for whom and under what conditions NQFs work (O'Connor, 2015). This calls for a theoretical and conceptual framework that would be able to capture contextual factors, enablers and hindrances.

An assessment methodology must also be able to capture the informed interpretations and opinions of the main stakeholders. It would need to give voice to different stakeholders across sub-frameworks. Only by doing this is it possible to collect reliable evidence on added value and the place of the NQF in the overall context of policy interventions. It is emphasised that measuring impact requires a robust and agreed baseline and most probably differentiated baselines across sub frameworks. Such a baseline must refer to the key objectives agreed for the QF in question. The EQF advisory group further emphasised that the baseline should allow countries to clarify the stage of development of the comprehensive frameworks, as well as sub-frameworks, and so to provide a realistic starting point for the national assessments. The development and agreement on baseline should respect the fact that many countries are still at an early stage of implementation and provide them with a realistic starting point for the exercise. The focus of the evaluation would need to reflect this.

To stimulate this debate, Cedefop drafted an initial baseline proposal. This proposal refers to the following two main elements:

(a) the four strategic objectives defined by the EQF recommendation (transparency; mobility; lifelong learning; and modernising education and training);

(b) the key (innovative) elements of the qualifications frameworks (explicit level descriptors, the learning outcomes principle; the introduction of frameworks covering all types and levels of qualifications; and the involvement, acceptance and ownership of key stakeholders from education as well as employment).

Table 3-1 exemplifies how indicators can be developed using a combination of these two elements ([22]). It is important to keep in mind that a limited number of indicators would be applied that enable evaluation over time. Further, there is a need for differentiated indicators and a differentiated baseline across sub-frameworks (being part of comprehensive national frameworks in most countries) and a solid framework for capturing contextual enablers and voices of different stakeholders.

While only indicative, the table points to a limited number of aspects which will need to be addressed when (and if) a more systematic assessment and 'measurement' strategy is to be put in place, based on a sound theoretical and analytical framework. While the horizontal axis of the table (reflecting the core objectives of the 2008 and 2017 revised EQF recommendation) is specific to the European context, the vertical axis refers to generic factors shared by many qualifications frameworks worldwide. The objectives out-

([22]) An additional table outlining parameters for European level impacts has also been developed, but is not included here.

Table 3-1. Draft baseline for assessing and measuring QF impact at national level

	STRATEGIC EQF OBJECTIVES			
KEY ELEMENTS OF QFs (*)	**INCREASE TRANSPARENCY**	**PROMOTE LIFELONG LEARNING**	**INCREASE MOBILITY**	**MODERNISING EDUCATION AND TRAINING**
Level descriptors and the extent to which they are known and used	EQF/NQF learning-outcomes-based levels are referred to in certificates and diplomas, in national education, training and employment databases.	Level descriptors are used as a reference point by all lifelong learning providers and stakeholders.	Level descriptors used as a reference point by labour market as well as education and training stakeholders are comparable across institutions and countries.	Learning-outcomes-based levels are used as a reference and calibration-point when developing new qualifications and when reviewing and renewing existing ones.
The learning outcomes principle and the extent to which it is implemented	Learning outcomes approach has been implemented by all education and training sectors, for initial as well as continuing education and training.	Decisions on access, exemptions and recognition – including validation of non-formal and informal learning – refer to learning outcomes.	The extent to which the learning outcomes/ competence approach is presented in a format which is understood by society at large and by employers in particular.	The learning outcomes approach informs the articulation of standards, programmes, curricula, assessment and teaching.
The introduction of qualifications frameworks covering all types and levels of qualifications	The relationship between all types and levels of qualifications are demonstrated by the qualifications framework.	The qualifications frameworks increase communication and cooperation between levels, institutions and education as well as economic sectors.	The qualifications framework covers all qualifications and certificates relevant to employers and job-seekers.	The qualifications framework forms an integrated part of national education and training policies.
The involvement, acceptance and ownership of relevant stakeholders	Stakeholders from education and training, employment, civil society and other relevant sectors are aware of, committed to and actively use the framework.	The framework aids cooperation between stakeholders in lifelong learning, for example in the form of efficient and effective delivery of validation of prior learning.	The qualifications framework is known to, and seen as relevant and credible by, labour market stakeholders.	The qualifications framework has led to a broadening of participation and involvement in the governance of education and training (governance).

(*) National context, priorities and objectives that have informed the implementation of the EQF will need to be taken into account.
Source: Cedefop.

lined for the horizontal axis can be replaced by other objectives which are relevant in different national contexts. The approach has been discussed in the context of the EQF advisory group but not empirically tested.

A broad range of qualitative and quantitative methods and tools would need to be applied. Qualifications frameworks, through their emphasis on learning outcomes can often provide the reference point and baseline required for measuring progress in different policy areas. Introducing learning-outcomes-based levels – capturing the intended and actual outcomes of the national education and training system – is crucial to any strategy aiming at qualitatively better outcomes and not just at increased enrolment and completion rates. An important discussion to come is how to develop baselines, supporting more systematic 'measurement' of outcomes of learning.

3.9. Conclusions

Most qualifications frameworks worldwide have yet to reach maturity and full operational status. It is not a given that all these frameworks will reach a stage where they add value to education and training policies and practices and directly benefit learners and citizens. For this to happen it is necessary systematically to monitor and 'measure' their impact and context enablers. This chapter, mostly referring to developments in European NQFs during the past decade, has identified the need to develop and agree on clear assessment and 'measurement' baselines. European experiences and debates are relevant, but will need to be developed, both conceptually and in terms of empirical testing, in the coming years.

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CHAPTER 4.
QUALITY LIFELONG LEARNING: QUALIFICATIONS FRAMEWORKS AND MECHANISMS FOR RECOGNISING ALL LEARNING

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Summary

This chapter looks at how countries use national qualifications frameworks and mechanisms for the recognition, validation and accreditation of non-formal and informal learning outcomes to promote quality lifelong learning systems. It provides a comprehensive framework for understanding the conditions for organising a quality lifelong learning system by analysing initial indicators at macro, meso and micro levels. Findings to date show that quality does not only depend on the existence of policies, frameworks and standards alone, but also on the relevance of delivery and quality of recognising, validating and accrediting (RVA) arrangements at local level and their usefulness to the end-user. This is a major challenge. Drawing on evidence from the global inventory of regional and national qualifications frameworks (Cedefop, ETF, UNESCO and UIL, 2017, Vol. 2), we elaborate on a set of indicators highlighted by countries in national qualifications frameworks (NQF) and RVA policy and practice. These indicators would have a bearing on the monitoring and evaluation of the role of qualifications and recognition processes in creating lifelong learning systems that work in a quality manner.

Keywords: quality; lifelong learning; national qualifications frameworks (NQFs); recognition, validation and accreditation (RVA); formal, non-formal and informal learning outcomes; sustainable development goals (SDGs)

4.1. Introduction

The overall purpose of this chapter is to provide an overview of how countries use national qualifications frameworks (NQFs) and mechanisms for recognising, validating and accrediting (RVA) non-formal and informal learning as tools to promote quality lifelong learning systems. The development of NQFs and moves towards learning outcomes approaches, reforms in governance, and involvement of social partners and other stakeholders, has brought increasing demand to recognise learning outcomes from all learning settings.

The four-fold aim of this chapter starts with analysing a set of initial indicators of quality lifelong learning, within policy and practice of countries' NQFs and recognition systems, that aim to strengthen lifelong learning. A second aim is to analyse quality lifelong learning within a systems approach. Assuring the quality of lifelong learning involves continuously organising and improving lifelong learning quality at all levels – macro, meso and micro – including the quality components of structures, processes and outcomes/results. The chapter emphasises the importance of defining indicators of quality lifelong learning at the micro level, the level of the end-user of the lifelong learning system, where the products of qualification and recognition processes are developed. It is also the level at which RVA practices help individuals to maximise opportunities to demonstrate relevant knowledge, skills and competences fully and accurately. A third aim is to highlight the need for countries to be aware of contexts in which a lifelong learning system operates, such as the nature of skill formation systems and the way the education and training systems are organised. This contextual awareness is important as it determines policy needs and actions for quality lifelong learning and how different stakeholder groups use qualification and recognition processes address these needs. Fourth is examining the extent to which NQFs and recognition mechanisms can promote a holistic lifelong learning system, reflecting the full range of dimensions and processes: harmonising social and economic objectives, as well as dealing with quality elements around reliability, validity and standardisation as well as flexibility and individualisation.

The chapter starts by highlighting the importance given to lifelong learning and quality education in the new 2030 global agenda of sustainable development. It then conceptualises the notion of 'quality' at the macro, meso and micro levels, and breaking down quality components into structure, processes and results. Finally, using evidence from the global inventory of regional and national qualifications frameworks (Cedefop, ETF, UNESCO and UIL, 2017, Vol. 2), it elaborates on a set of indicators that countries have highlighted in NQF and RVA policy and practice.

These indicators would have a bearing on the monitoring and evaluation of the role of qualifications and recognition processes in creating lifelong learning systems that work in a quality manner.

4.2. Lifelong learning and the 2030 sustainable development goals (SDGs)

Lifelong learning is at the top of the 2030 global education agenda, with the sustainable development goal 4 (SDG 4) demanding inclusive and equitable quality education and the promotion of lifelong learning opportunities for all by 2030. The agenda conceives lifelong learning as a process, one that begins at birth and continues through all stages of life (Figure 4-1). 'This approach to education incorporates multiple flexible learning pathways, entry and re-entry points at all stages, ages, and strengthened links between formal and non-formal learning structures, including accreditation of knowledge, skills and competencies acquired through non-formal and informal education.' (UNESCO, 2016, p. 17). What is also new to the 2030 global education agenda is the concern for equitable access to post-basic education and training for the young and adults (Target 4.3) compared to the dominant emphasis on basic education within the Education for all (EFA) goals.

The 2030 global education agenda also focuses on 'learning outcomes' and 'skills' that are relevant for the young and adults both in the world of work (Target 4.4), and in the context of global citizenship in a plural and interconnected world (Target 4.7) (UNESCO, 2016).

'Education of good quality cultivates the flexible skills and competences that prepare learners for diverse challenges. The focus of quality ensures that foundation skills – literacy and numeracy – foster additional higher order thinking, creativity, problem solving, and social and emotional skills' (Ibid, p. 17).

Lifelong learning comprises all learning activities undertaken throughout life with the aim of improving knowledge, skills and competences, within personal, civic, social and employment-related perspectives.

Diversity in education types is another important quality issue in lifelong learning. UNESCO's global education monitoring (GEM) report highlights that 'Local context and diversity shape both challenges and solutions. Rather than pushing individuals into a one-size-fits-all programme, a lifelong learning approach incorporates diversity into an inclusive, equitable system. Education for sustainability reaches out to serve marginalised communities by using all types of education matching learning to context'. (UNESCO, 2016, p. 17).

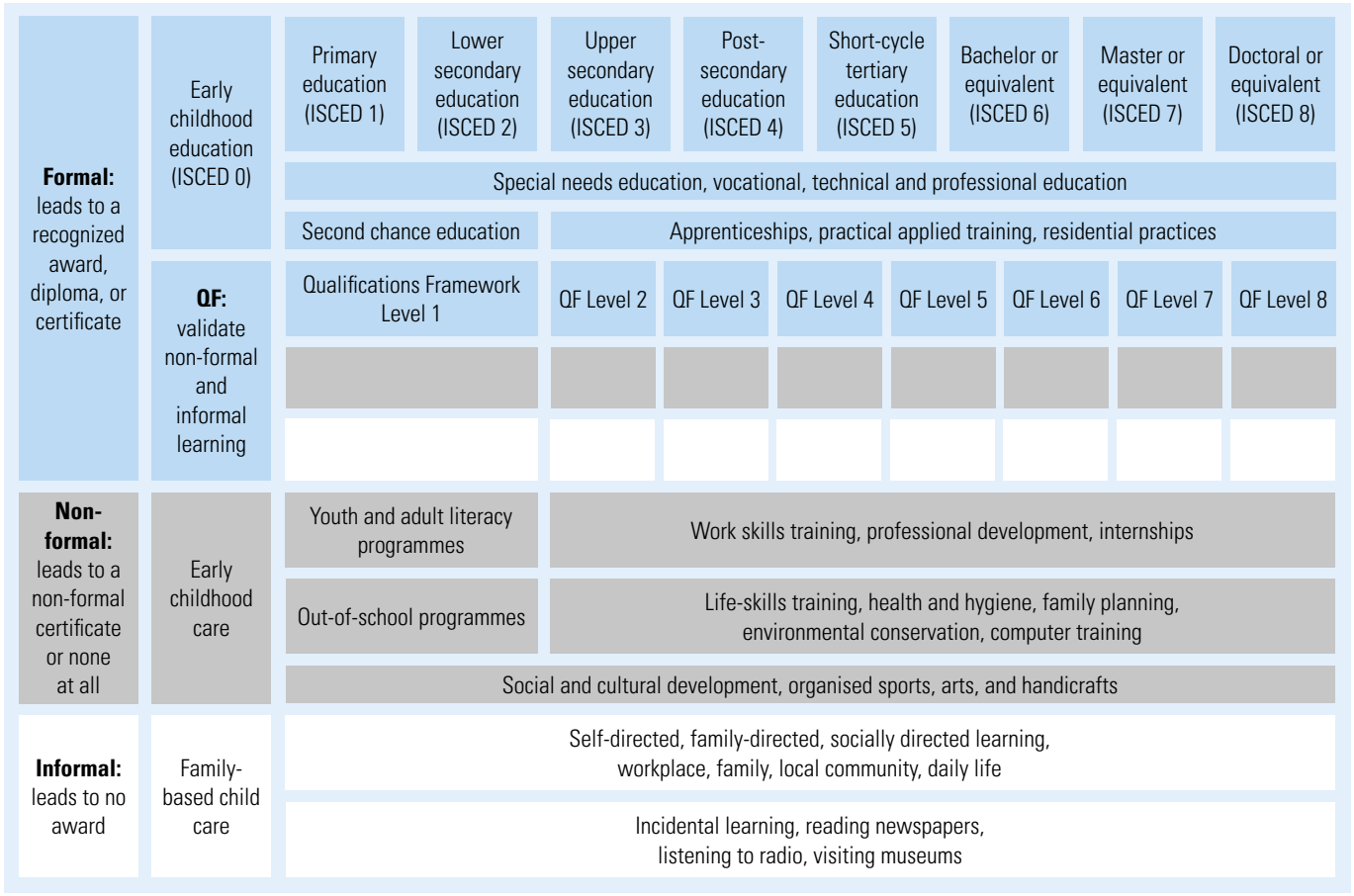
What also emerges from the new Global agenda of sustainable development is the heightened awareness of the new contexts in which a quality lifelong learning system needs to function. These contexts relate not only to SDG 4 on education, but also include targets from the other 16 SDGs, such as decent work, labour productivity, skills development, health and well-being, and climate change mitigation. Other international trends such as migration, inequality, information communication technologies (ICTs), and ageing societies are key factors, with great potential to influence the creation of a quality lifelong learning system including recognising, validating and accrediting (RVA) of non-formal and informal learning. For example, assessment, validation and qualification processes would need to adapt to circumstances of adults and young people from migrant and refugee communities by providing appropriate assessment methods that are more flexible and supportive of lifelong learning. Similarly, ICTs, which have opened up lifelong learning opportunities to many new users, both inside and outside the formal system, will have profound implications on quality assurance of lifelong learning. International trade has meant that several international standards have started to influence local non-formal and adult and lifelong learning provision. Skills development and skills recognition in countries where over 80 per cent of the workforce acquires its vocational competences outside the formal system is another issue with quality assurance challenges.

The more qualifications and recognition processes become accepted and visible outside formal educational contexts, the more issues about quality and accountability are going to be raised. A quality lifelong learning system will increasingly depend on how qualifications frameworks and recognition mechanisms can be counted as legitimate and trustworthy tools to recognise skills, knowledge and competences, regardless of the origin of that learning.

4.3. Macro, meso and micro levels of quality lifelong learning

Quality assurance, with appropriate indicators, is important in providing transparency, information, trust and shared understanding among countries of what constitutes a lifelong learning system of quality. The European quality assurance

Figure 4-1. Lifelong learning opportunities for all



Source: UNESCO (2016), p. 16.

for vocational education and training (EQAVET) supports coherence and implementation through the use of common indicators ([1]). By establishing a shared understanding among Member States of what constitutes quality, EQAVET increases transparency, consistency, portability and recognition of qualifications and competences of learners across European countries. It creates a common reference tool that enhances exchange and trust, and mobility of workers and learners.

Evidence from 34 examples of NQFs (Cedefop, ETF, UNESCO and UIL, 2017, Vol. 2) from the developing world and emerging economies in Asia, Africa and the Latin America, as well as the developed countries of New Zealand and Australia, has shown that countries have developed a comprehensive list of policy objectives for NQFs, which serve as important indicators of a quality lifelong learning system. Countries tend to place the goal of lifelong learning as an overarching policy goal, to be achieved via the following indicators.

From a systemic point of view, these indicators can be embedded in judgments about quality at the macro, meso and micro levels. A key consideration at the macro level is the extent to which political decisions taken together with stakeholders from all sectors can ensure the legal basis of RVA initiatives, as well as well as financial involvement and governance. The influence of the State and potential for activity from companies and the private sectors and other stakeholders is of crucial importance. RVA linked to qualifications frameworks must be discussed explicitly with decision-makers and with those involved with local stakeholder groups. The nature of the constellation of stakeholders will have an important influence on the creation of a holistic lifelong learning system at the national level.

Another important quality dimension at macro level is linkages between qualifications frameworks and recognition processes and reforms in existing education and

([1]) http://www.eqavet.eu/qc/tns/monitoring-your-system/evaluation/EQAVET_indicators.aspx

training systems. How can instruments such as qualifications frameworks and recognition mechanisms be effective in developing flexible progression pathways between, often, separated general and vocational education tracks, as well as supporting RVA as an alternative route to qualifications or credits within lifelong quality learning opportunities? How can qualifications and recognition mechanism be effective in creating a quality lifelong learning system by improving the image, status and quality of certain non-formal learning education and training tracks. A case in point is the low image of vocational education and training, or that of adult education in many developing countries.

At the meso level, a key consideration in the creation of a quality lifelong long learning system is standardisation and quality assurance of qualification and recognition processes. Shavit and Müller (2000, p. 443) define standardisation as. '(…) the degree to which the quality of education needs the same standards nationwide. Variables such as teacher training, school budgets, curricula, and the uniformity of school leaving examinations are relevant in measuring standardisation'. Standardisation is a useful term to understand the structures, processes and outputs underpinning the organisation and quality of qualifications and recognition processes. On the input side, focus should be on RVA in relation to reference points such as curriculum, qualifications and occupational standards. Input also relates to the level of expertise of RVA personnel. Processes will refer to the role of regulatory agencies, interinstitutional relationships and multi-stakeholder partnerships. Agencies and partnerships are important for ensuring quality processes in the development of standards and maintaining tools and methodologies. Certification and the accompanying entitlements on the output side and may explain whether RVA forms part of exit-based or entry-based systems. For example, entry-based systems are those where follow-up training institutions devalue certification.

The pedagogical perspective comes into the discussion at the micro level. Here the focus is on the relevance of the delivery of recognition processes in education, working life and civil society. NQF standards and recognition mechanisms do not themselves promote quality lifelong learning: this needs to occur through closer action at the workplace, individual and provider level, and through the creation of partnerships and articulations between institutions and agencies.

Table 4-1. Macro, meso and micro level indicators for creating a quality lifelong learning system: role of qualifications frameworks and recognition mechanisms

LEVEL	INDICATORS
Macro level	Involvement of State and private stakeholders in framing a legal basis and policy actions in RVA (*)
Meso level	Governance of RVA Use of learning outcomes Linking NQF and RVA: utilisation of agreed standards in RVA Establishing and maintaining learning pathways
Micro level	Ownership and acceptance of stakeholders at local level Resources and time Assessment and expertise Progression Encouraging employers and training providers to be involved in qualifications and recognition processes Ensuring real benefits for individuals, workers and learners

(*) RVA: recognising, validating and accrediting; NQF: national qualifications framework.

Source: Author.

Many approaches are available. On the one hand, the learning content or the standards used to compare the individual's evidence of prior learning need to be analysed in relation to learning outcomes. It needs to be ensured that learning outcomes are defined holistically, and not based on a fragmentary and non-integrative understanding. This means, for example, that in addition to technical skills, it is necessary to consider the situational orientation and context. On the other hand, it is also important to consider whether the personnel involved in RVA are able to undertake comprehensive personal career planning processes for the individuals. The methods used and the kind of arrangements made are all important, as is asking if the employment system is included at the micro level with the necessary support services. Also of importance is the extent to which institutions and organisations (public or private, workplaces, industry, NGOs and community-based organisations, TVET and educational institutions) employers and employees associations, have a stake and interest in RVA processes and are able to ensure real benefits in terms of employability, lifelong learning and personal development. At the micro level questions of ownership and control as well as usefulness must be clarified (Bjørnåvold, 2001, p. 20). The participation of stakeholders and the role of information as highlighted by Eriksen (1995) are also important micro-level issues. The organisation of RVA, therefore, cannot be limited to questions of methodology. It is important for enterprises and institutions to trust and accept the results of RVA of non-formal and informal learning.

The qualification and recognition processes must pay attention to quality processes at all levels.

4.4. Different contexts as starting points in a quality lifelong learning system

4.4.1. State and private involvement in framing RVA policy actions

Several factors in country contexts influence what could be seen as a quality and holistic lifelong learning system. For example, the influence of the State and potential for activity from companies and the private sectors and other stakeholders, and the way the education and training system is organised, are of crucial important. Many countries have acknowledged the need to widen participation in education and training and promote lifelong learning opportunities through RVA routes. However, this largely depends on the nature of those involved in skills development and skills recognition in a country. In Denmark, Finland, the Netherlands and Norway, while the main stakeholders in skills formation and skills recognition are the national authorities, social partners encourage skills recognition in companies and organisations. The Scandinavian countries started public policy with a legal framework: laws stipulate functions and criteria for RVA and also allocate tasks to specified institutions, bodies and authorities. The involvement of social partners, including professional associations, is a key feature of RVA legislation; this targets specific groups, such as adults lacking secondary education adults, who may benefit from participating in a process of recognition of non-formal and informal learning. In Norway, principles anchored in legislation are reflected in the successive introduction of various elements which together comprise a national lifelong learning policy package (Christensen, 2015). However, studies (Ore and Hovdhaugen, 2014) have shown that implementation is quite different from policy and legislation.

In State-dominated systems such as Bosnia and Herzegovina and Romania, there is little responsibility to date taken by industry. However, it is acknowledged by all stakeholders that there is need for more communication and cooperation among government entities/district/cantons, the education sector and the labour market. One of the main challenges in Romania is to link structures and stakeholders from vocational education and training (VET), higher education and the labour market in a more comprehensive qualifications framework and recognition system, creating opportunities for lifelong learning.

In the USA, skills recognition and lifelong learning takes a liberal approach with a low level of State and company influence and high level of individual direction (Busemeyer and Trampusch, 2012, pp. 12-149). A significant level of RVA activity is undertaken despite lack of relevant government policies or legislation. The widespread model of skills formation and skills recognition in the workplace is given priority (Barabasch and Rauner 2012). The Workforce Investment Act (WIA) of 1998 (Public Law 105-220) was instrumental in establishing a fund for adult basic education (ABE) services, which encourages the development of RVA pathways for low-skilled adults to increase their educational attainment and obtain higher skilled jobs. The fund targets at-risk youth, under-educated and/or unemployed/underemployed adults, youth and adults with disabilities, and English language learners (ELL). The governing structure of higher education is locally controlled within each individual US State, although financial support is delivered through a combination of individual, local, State and federal funding. The skills formation system in Canada is more or less the same as in USA (see Pilz, 2017), despite the fact that college programmes have a stronger skills development

component than in the USA. Like the USA, Canada does not have legal frameworks for RVA: certification bodies for regulated professions have developed RVA practices for their jurisdictions and the Canadian sector councils have sponsored a range of initiatives to promote RVA in the workplace.

In the developing world and in emerging economies, the dominant context is one of low levels of State and company influence in skills development and skills recognition. India and Mexico are examples. In India, stratification is high particularly because of the strict separation between general and vocational training (Mehrotra et al., 2014); the latter has low status. Skill formation in the Indian system is dominated by informal structures and processes, with vocational education and training institutions, certifications and formal curricula playing only a minor part. As a result, learning processes tend to be directly linked to practice and the potential for recognising unrecognised skills in the informal sector is high. In Mexico, the education and training system is highly stratified, with general and academic education strictly separated from the vocational track. Vocational training is unorganised and follows a 'learning by doing approach', mostly on the basis of private motivation (Kis et al. 2009). Given the highly stratified education system, and small formal VET system, the main issue is the social and economic pressure for young people to enter the workforce without completing their formal education and this trend is set to continue. Through RVA, India and Mexico are aiming to promote the recognition of outcomes of non-formal and informal learning and encourage the development of small enterprises. In Mexico, the conception and development of Agreement 286 of the Ministry of Education (issued on 30 October 2000) (and associated agreements) is designed to give both workers and learners access to formal education programmes at vocational or professional level. This is guaranteed through equivalency with credits in the formal education system.

The establishment of RVA routes into education and training depend greatly on the extent to which the systems are highly stratified. Germany has the tightest link between academic success in the school system and eligibility to enter higher education. This means that introducing RVA routes into the German system effectively calls this tight link into question (Ore and Hovdhaugen, 2014) so RVA routes mainly come from the vocational side of education. Legislation exists in a range of relevant legal acts and regulations allowing institutions and government departments to develop mechanisms and practical arrangements for RVA, depending on the diversity of purposes of RVA and different interests at stake. Social partners play an important role in RVA legislation in Germany. The inclusion in collective agreements of arrangements for the recognition of experience-based non-formal and informal learning is particularly conducive to the development of RVA. A legal basis for recognition of employee skills and qualifications in collective agreements is provided by Article 9 Section 3 of the Basic Law, in which freedom of association is defined as a fundamental right, and the Collective Agreements Act, which asserts the principle of the autonomy of collective bargaining. Employers and employees are free to agree on working conditions in companies with no regulatory intervention by the State. In addition to defining pay and working hours, this includes arrangements for training and continuing education (Germany. Federal Ministry of Education and Science (BMBF) 2008, p. 50).

Denmark, Finland and Sweden, when compared with Germany, have relatively weaker links between school success and eligibility for higher education. This has made RVA routes to higher education more likely.

An important quality dimension of lifelong learning at macro level is a consideration of how qualifications frameworks and recognition processes in Member States are linked to reforms in their existing education and training systems. In many countries, especially with education and training systems that are highly segmented and stratified, teaching and learning processes are theoretically oriented with low level of relevance to practice (Brockmann et al. 2011). In France, one response is legislation which aims to give every individual the right to apply for RVA. There are several other French laws, such as the Law of Decentralisation accompanying the Modernisation Law of 2002, which have given stakeholders and providers particularly in continuing vocational education and training (CVET), the power to implement RVA. The Law on Lifelong Vocational Training and Social Dialogue enables employees to access training outside working hours. This is gives employers an important role in RVA.

The dominant issue in skills recognition in Australia is the separation of general and vocational education and the low status of vocational training. To respond, the government established the Australian qualifications framework (AQF), whose key features have been standardisation and integration of trade qualifications centred on workplace competence with other VET qualifications and higher education qualifications. The development of flexible progression pathways was also a key objective. This supports mo-

bility between higher education and VET sectors and the labour market by providing a basis for RVA (Cedefop, ETF, UNESCO and UIL, 2017, Vol. 2). Recognition of non-formal and informal learning plays an important part in these efforts, particularly because increasing certification serves the aim of ensuring better integration of vocational education and training into higher education and better collaboration with key stakeholders to encourage improved transition to work arrangements.

Closing the gap between education opportunities for different groups in society is an important goal for Australia, New Zealand, and South Africa particularly those of indigenous groups raising the skill potential of workers who can and want to work or are currently excluded from the labour force (New Zealand Ministry of Education, 2008). With the large influx migrants and refugees into Europe, the recognition of migrants' prior learning and experiential learning is expected to become an important integration policy issue in the coming years, with implications for quality. There is also emphasis on utilising existing potential skills in the economy (BMBF) 2008). In Austria, recognition of non-formal and informal learning is seen as aiding the integration of marginalised groups such as migrants, elderly persons or the unemployed by giving them a 'second chance' (Austrian Federal Ministry of Education Arts and Culture, 2011).

4.5. Meso level: regulatory frameworks and quality assurance

The notion of quality must be understood not only at the policy framework and legislative level, but also at the meso level. This covers interinstitutional arrangements that link academic, vocational and continuing education programmes/institutions, and provide potential for awards/credits or generic awards across levels, subjects, and sectors. Partnerships across sectors between stakeholders from education, industry, and community adult learning sectors are important. These aspects of quality at the meso level need attention.

Regulatory agencies such as national qualifications authorities and accreditation bodies must be able to harmonise minimum standards for accreditation of qualifications obtained through all learning: formal, non-formal and informal learning. Registrations for education providers and training institutions, as well as systems for assessing learning and issuing qualifications and certifications, are important components of a quality lifelong learning system.

4.5.1. Governance of RVA

RVA governance is an important dimension of quality assurance of a lifelong learning system in which the involvement of stakeholders and clear accountability structures are required.

Successful organisation of RVA is dependent on the extent to which various partnerships drive the coordination. Information on national policies and practices indicates that partnerships with stakeholders differ significantly. We refer to three models of implementation and coordination that emerge from the country cases. The elaboration of examples does not aim to be exhaustive but rather illustrative.

The social partnership model

In Austria, Germany and Switzerland, multiple social partners and stakeholders treat implementing RVA as a shared responsibility, coordinating their work in accordance with laws, regulations and guidelines. This ensures legitimacy within decentralised education. In Austria (Schneeberger, Petanovitsch and Schögl, 2008) responsibilities for the regulation, provision, financing and support of learning activities are divided between national and provincial levels. Social partners play a role in designing the legal, economic and social framework conditions. Education institutions organise or provide preparatory courses for exams and design other procedures to validate prior learning, based on their respective quality assurance. In Germany, there is neither a central institution nor a standardised institutional framework in place for validation, but a variety of approaches. Chambers of crafts, industry, commerce and agriculture regulate admission to the external student examination. The German Rectors' Conference has defined a framework for recognition for higher education but specific regulations and procedures are established by the respective university. The ProfilPASS system is managed by a national service centre which supports 55 local dialogue centres. Responsibility for continuing education falls across several areas. Continuing education in Germany has less regulation at national level than other areas of education and, as a result, features a high degree of pluralism and competition among providers. Voluntary participation in continuing education is one of the guiding principles (German Federal Ministry of Education and Science (BMBF), 2008).

National institutes such as Skills Norway, the knowledge centres in Denmark and the Netherlands are established under their respective ministries of education, which in turn cooperate with trade unions, enterprises, national labour agencies, national education associations, organisations, universities and colleges, public and private ed-

ucators, and social partners. Skills Norway is the body designated by the Ministry of Education to work on RVA at the national level. It is responsible for developing validation guidelines for enrolment in tertiary vocational education and exemption in higher education. In 2013, the Norwegian Directorate for Education and Training developed national guidelines for RVA in lower and upper secondary education. Skills Norway cooperates with NGOs and social partners to further adult learning in working life. In the Netherlands, the EVC *(Erkenning van Verworven Competenties (recognition of acquired competences))* Knowledge Centre works in cooperation with a network of RVA regional offices. These are as one-stop locations where individuals can access multiple services appropriate to their specific needs. In 2006, stakeholders agreed to a quality framework for RVA that, while voluntary, promotes transparency and articulates minimum standards (Maes, 2008). Individuals working through the available RVA structures are granted a certificate of experience to submit to education institutions. The certificate has the status of an advisory document and the 'autonomous institutions decide for themselves how to use the results of EVC procedures' (European Commission et al., 2010).

Stakeholders in the adult and community learning sector

The high level of individualisation in skills formation and skills recognition in the USA can be seen in the fact that prior learning assessment (PLA) is not governed by legislation (Travers, 2011). PLA is conducted in many colleges and universities and its policies and practices play an important role in several higher education institutions that have been serving the adult learner population RVA. These institutions gave birth to work on how outcomes from adult non-formal and informal learning could be assessed at an individual level. Funding for PLA services is generally the responsibility of individual education institutions. Fees are normally charged to the individuals undertaking assessment. The quality of higher education remains a top priority. Some of the six regional accreditation commissions located across the country have issued policies and guidelines on PLA that allow for varying degrees of institutional flexibility. For example, the New England Association of Schools and Colleges (2005) restricts individualised PLA to undergraduate level but allows flexibility in programme structure. The policy and practice for accepting prior leaning assessment credits, established by individual institutions, largely reflects local faculty agreements (Travers, 2011, p. 251) and are responsible for monitoring the quality of higher education through formal accreditation. PLA development has been supported by the American Council on Education (ACE), the national body responsible for coordinating higher education institutions across the country. The Council for Adult and Experiential Learning (CAEL) is a national, non-profit organisation that works with education institutions, employers, labour organisations and other stakeholders to promote creative, effective adult learning strategies. Networks and structures such as CAEL aim to bring greater coherence to RVA in higher education.

In Canada, prior learning assessment and recognition (PLAR) is a highly decentralised process with the responsibility for assessment and validation distributed across the various provincial/territorial governments, education institutions and professional bodies. Adult educators have been at the forefront of RVA. The community of Canadian adult educators became acquainted with the work of CAEL in the USA and began to promote RVA in Canadian post-secondary education, as highlighted in an article by Joy Van Kleef (2011). Their reasons for promoting RVA lay in the perceived nature of adult education as community-based and encouraging the development of knowledge and skills within a framework of lifelong learning. Three groups of adult educators – institutional practitioners, community-based practitioners and academic researchers – have

Table 4-2. Governance in RVA

GOVERNANCE	COUNTRIES
Social partnership model	Austria, Denmark, France, Finland, Germany, Netherlands, Norway, Switzerland
Stakeholders in the adult and community learning sector	Canada, USA
NQFs coordinating RVA	Australia, India, Mauritius, Mexico, Namibia, New Zealand, Pakistan Philippines, South Africa

Source: Author.

been the primary sources of PLAR research in Canada. The Council of Ministers of Education Canada (CMEC) has responsibility for the Canadian Information Centre for International Credentials, which provides information on formal credentials assessment services, provincial/territorial education systems, post-secondary institutions, regulated and unregulated occupations and how to connect with provincial/territorial regulatory bodies that have responsibility for issuing licences to practice in each jurisdiction. Stakeholder engagement at the national level includes CAPLA's yearly conference that attracts a wide range of RVA stakeholders from across Canada and abroad.

NQFs coordinating RVA

A key element in RVA quality assurance is the development of national qualifications frameworks (NQFs). NQFs are an important part of education and training reforms in developed, transitioning and developing countries (Singh and Deij, 2016). They seem to have reached saturation point, with developments deepening within some countries and not much progress in others, but NQFs continue to support education and training, skills development, and lifelong learning. Many countries consider that the existence of a qualifications framework may help to promote systems for recognising non-formal and informal learning outcomes, especially in the case of recognition procedures formalised to the extent of awarding qualifications. NQFs provide a central reference point for the recognition of non-formal and informal learning.

Written record of qualifications available through recognition of non-formal and informal learning outcomes can confer a status and form of legitimacy by associating them more closely with qualifications obtained via formal channels. Where recognition of non-formal and informal learning can lead to the award of a qualification, these qualifications should be included in the national qualifications directory; this is necessary for securing social recognition and legitimacy. Standards should be accepted by all stakeholders and in particular by the various ministries that award qualifications, such as the ministries of labour and ministries of education.

In the majority of countries surveyed RVA is subsumed under acts passed under the establishment of their NQFs. In South Africa the recognition of prior learning takes place in the context of the South African qualifications framework (SAQF) that came into effect with the passing of the South African Qualifications Authority (SAQA) Act of 1995. The Australian qualifications framework (AQF) aids progression of students through qualifications by giving credit for learning outcomes already achieved. Credit outcomes may allow for 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 RVA determines the extent to which previous learning is equivalent to the learning outcomes of the components of the destination qualification; it takes into account the likelihood of the student successfully achieving the qualification outcomes and ensures that the integrity of the qualification is maintained. The AQF qualifications pathways policy establishes the principle that pathways are clear and transparent to students and can facilitate credit for entry into, and towards, AQF qualifications. The Mexican qualifications framework (MQF) is a comprehensive framework developed by the General Directorate of Accreditation, Incorporation and Revalidation (*Dirección General de Acreditación, Incorporación y Revalidación*; DGAIR), within the Ministry of Public Education (SEP). Stakeholders from all sectors (industry, education and civil society) have participated in the development of the MQF. CONOCER has been especially active on issues related to the national system of competency standards (NSCS) and on equivalences with formal education degrees. In October 2012, the Ministry of Education announced the new Mexican Bank of Academic Credits (announcement published by DGAIR on the official Mexican Government Diary of 4 October 2012, Article 8), which allows certificates of competence from CONOCER and from other recognised private and public training/certification centres to be accredited as part of formal education programmes at lower and upper secondary levels.

Evidence from Botswana, Ghana, Mauritius, Seychelles, and South Africa reveals that qualifications authorities, as models of shared responsibility between stakeholders, are prime movers behind the recognition of formal, non-formal and informal learning. In these countries, for all qualifications validated by the qualifications authority and placed on the NQFs, there is now a requirement that recognition, as an alternative route to gaining qualification, should be possible. In most cases, the qualifications authorities elicit/engage the support of professional organisations and employment agencies to take forward recognition of non-formal and informal learning and in seeking financial support for recognition initiatives.

National qualifications frameworks alone cannot promote recognition of the outcomes of formal, non-formal and informal learning. Evidence from the NQF examples shows that countries face challenges at the meso level in ensuring

that structures such as regulatory agencies, qualifications authorities and accreditation bodies are able to harmonise on minimum standards for accreditation of qualifications obtained through all learning: formal, non-formal and informal. Another challenge is equipping education providers and training institutions to initiate RVA. Recognition practices linked to NQF need acceptance by all stakeholders.

4.5.2. The use of learning outcomes

Learning outcomes have had an important impact on how levels and qualification standards have been defined. Their use can promote clarity and support participation through emphasising the relevance of programmes. However, learning outcomes require attention in several respects. At policy level they need to be overarching. At qualifications standards level they need to deal with intended learning outcomes. For learning programmes they need to deal with specific learning outcomes related to inputs and have a more pedagogical purpose. Learning outcomes should not be formulated in narrow and restricted ways which could limit rather than broaden the expectation of learners. From a lifelong learning perspective, learning outcomes need to reflect all contexts from life-wide, life-deep and lifelong learning perspectives. Even in countries without national qualifications frameworks, such as the USA and Canada, there is a trend in some institutions to design degree programmes around student learning outcomes, or competences, rather than college credits. Evaluative frameworks are being developed in increasing numbers for competence-based prior learning assessment programmes to equate their effectiveness to other programme evaluation processes within institutions of higher education. The standards defined by the Council for Adult and Experiential Learning (CAEL) for competence-based prior learning assessment (PLA) are being interrelated with quality criteria used in the evaluation of college academic programmes; the aim is developing overarching evaluative frameworks that also embed the effectiveness of PLA programmes. In Canada measures for assessing education quality (CAEL standards for PLA) are applied to the assessment of prior learning in competence-based education and assessment, for example in professional registration.

European Union countries are gradually beginning to grant non-formal and informal learning contexts the same value as formal learning. However, many institutions awarding non-formal qualifications need further assistance in describing their qualifications in terms of learning outcomes to comply with the NQF requirements.

4.5.3. Linking NQF and RVA: using agreed standards in RVA

Using agreed standards is an important feature of alternative recognition routes or/and credit transfers leading to a qualification. Agreed standards put outcomes from non-formal and informal learning on an equal footing with those from formal learning: in existing formal curricula; learning-outcomes-based qualifications standards; and occupational standards.

One way of achieving a qualification is to standardise second-chance education in relation to a curriculum with equivalence to formal education. In Belgium, the Secondary School for Adults (SSA) is part of the regular education system and organises courses appropriate for adults.

A second way to achieve a qualification is by aligning non-formal and informal learning outcomes to reference standards in NQFs. In Ghana, alternative transition routes to qualifications are proving beneficial especially for the young and young adults who have little access to formal education but have acquired their skills, learning and work experience in non-formal and informal settings.

A third way of achieving a qualification is in relation to occupational standards in a qualification. Countries are increasingly using RVA mechanisms within industry sectors as a means of enhancing the economic capacity of the workforce. Mauritius is making concerted efforts through the Mauritius Qualifications Authority (MQA) to recognise experience and learning of workforce in industry sectors such as tourism, financial services, real estate, information and communication technology (ICT) and seafood.

Reference standards, regardless of whether they are formal curricula or learning-outcomes-based qualifications, or occupational standards, do not necessarily have to lead to a full qualification; they can also lead to a partial qualification such as credits, which individuals transfer and accumulate towards achieving a qualification. Hong Kong SAR China has provision for credit accumulation and transfer (CAT) in its assessment systems, and to see recognition of non-formal and informal learning as an assessment and credit process. The CAT system allows learners to accumulate credits from diverse courses and all modes of learning – including class attendance, private study, online learning, practical learning, examination – and convert them into a recognised qualification. It provides the flexibility needed to suit individual learners' circumstances and minimise duplication of training.

In Indonesia, a credit transfer scheme is a part of bridging programmes, aiming to boost the performance of individuals who fail to meet the minimum requirements of the institution conferring their credits. In the Republic of Korea, the lifelong learning account (LLA) system, in place since 2008, allows an individual's diverse learning experiences to be accumulated and managed within an online learning account; learning results are recognised as education credits or qualifications so that each individual has opportunities to find a better job. The national education system comprises formal and non-formal learning, which has equivalences at all levels. In New Zealand, recognition of prior learning (RPL) is part of the credit system. Education providers (including employing organisations, industry and professional bodies and education organisations, and several institutes of technology and polytechnics) are required to have their own administrative and practical arrangements in place for RPL and credit recognition and transfer.

RVA as an alternative route to a full or a partial qualification offers people who have learned on the job an important second chance pathway to retraining and upskilling opportunities. Qualifications frameworks help to clarify the formal demands in qualifications, rendering them more understandable and transparent for the young to manage transitions. NQFs increase the sense of security that the outcomes of learning will at least be of quality and equal to a national standard. At the same time, adults and the young have the quality and relevant skills demanded by employers and other stakeholders (Cedefop, 2009). Locally defined qualifications, in contrast, may only offer this security to those who have access to good education institutions and receive a certificate issued by an accredited training provider. NQFs as communication tools are, therefore, important and should inform transition and lifelong learning policies.

4.5.4. Establishing and maintaining learning pathways

Among the many broad goals of countries in establishing NQFs is supporting the development and maintenance of pathways for accessing qualifications, and assisting people to move (vertically and horizontally) easily between different education and training sectors, and between qualifications of the different subsystems. The concept of learning pathways is important in lifelong learning. A learning pathway is a sum of learning sequences followed by an individual to acquire knowledge, skills and competences. It may combine formal and non-formal learning sequences through the validation of outcomes from non-formal and informal learning (Cedefop, 2014).

The global inventory of regional and national qualifications frameworks (Cedefop, ETF, UNESCO and UIL, 2017, Vol. 2), illustrates distinctive learning pathway types in the NQFs of developed, developing countries and emerging economies. Table 4-3 presents five pathway types.

Countries with highly developed qualifications frameworks have explicit pathway strategies. Both New Zealand (NZQF) and Australian qualifications frameworks (AQF) have an explicit 'pathway strategy'. In the case of the New Zealand qualifications framework, each qualification outcome statement includes the following pathways. Graduate profiles identify the expected learning outcomes of a qualification: these describe what a learner will know, understand and be able to do when they achieve the qualification. Educational pathways identify the qualifications a graduate can enrol in after completing the qualification in question. Where qualifications are stand-alone and do not prepare graduates for further study, the outcome statement should make this clear. Employment pathways (or contribution to the community) identify the areas in which a graduate may be qualified to work, or the contribution they may make to their community having achieved the qualification in question (Keller, 2013).

Similarly, the new documents of the strengthened AQF in 2011 stipulate that by 2015 all courses, whether in VET or higher education, must be compliant with the AQF and need to show how they provide preparation for 'further learning' as well as for work. To underline this requirement, the AQF document incorporated a strengthened 'pathways policy' (AQF Council, 2013).

Continuing and post-secondary and employment pathways to quality-assured qualifications are found in countries and territories such as Hong Kong SAR, China. Here the qualifications framework is a tool to articulate the academic and vocational education and associated quality assurance mechanisms within the continuing and post-secondary sectors. With the proliferation of post-secondary education programmes and qualifications, the Hong Kong QF ensures that education and training providers, employers and the public all understand the range and different types of qualifications, as well as contributing to nurturing the core skills and competences of individuals and promoting lifelong learning across all sectors of society. The Hong Kong QF acts as a unified system for the recognition of quality assured qualifications for continuing education and post-second-

Table 4-3. NQFs and alternative progression pathways

DISTINCTIVE ALTERNATIVE PROGRESSION PATHWAYS	COUNTRIES
Continuing and post-secondary and employment pathways to quality-assured qualifications	Australia, Hong Kong (SAR China), India, Malaysia, Maldives, Mexico, New Zealand, Singapore, Thailand
Pathways between VET and higher education	Australia, Bhutan, India, New Zealand, Republic of Korea, Sri Lanka
Pathways between primary and VET	Bhutan, Botswana, Ethiopia, Gambia, Ghana, India, Kenya, Mauritius, Namibia, Nepal, Seychelles, Uganda
Pathways from non-formal education to formal basic education	Bangladesh, Gambia, Mauritius, Philippines, Thailand
Certification-oriented second-chance qualification programmes for/in the informal sector	Afghanistan, Bangladesh, Gambia, Ghana, India, Mauritius, Mexico

Source: Author.

ary education, including all learning outside the formal education and training system. In this way NQFs are able to coordinate the diversity of learning already taking place outside the conventional system. In countries such as India, Malaysia, Maldives and Mexico learning activities have increased substantially over the past 20 years facilitated by distance learning, open learning, special entry schemes, credit transfer arrangements and recognition of prior learning and other strategies the development of lifelong learning for adults.

Countries such as Australia, India, New Zealand and Sri Lanka – and, more recently, Bhutan – have comprehensive NQFs that support the development of pathways between VET and higher education programmes, providing access and progression to higher education as well as enhancing their value/currency in the labour market. Australia has credit transfer arrangements for workplace learning, providing means of progression to higher education programmes. The Bhutan qualifications framework (Figure 4-2) foresees progression for individuals from certificate level to the diploma level.

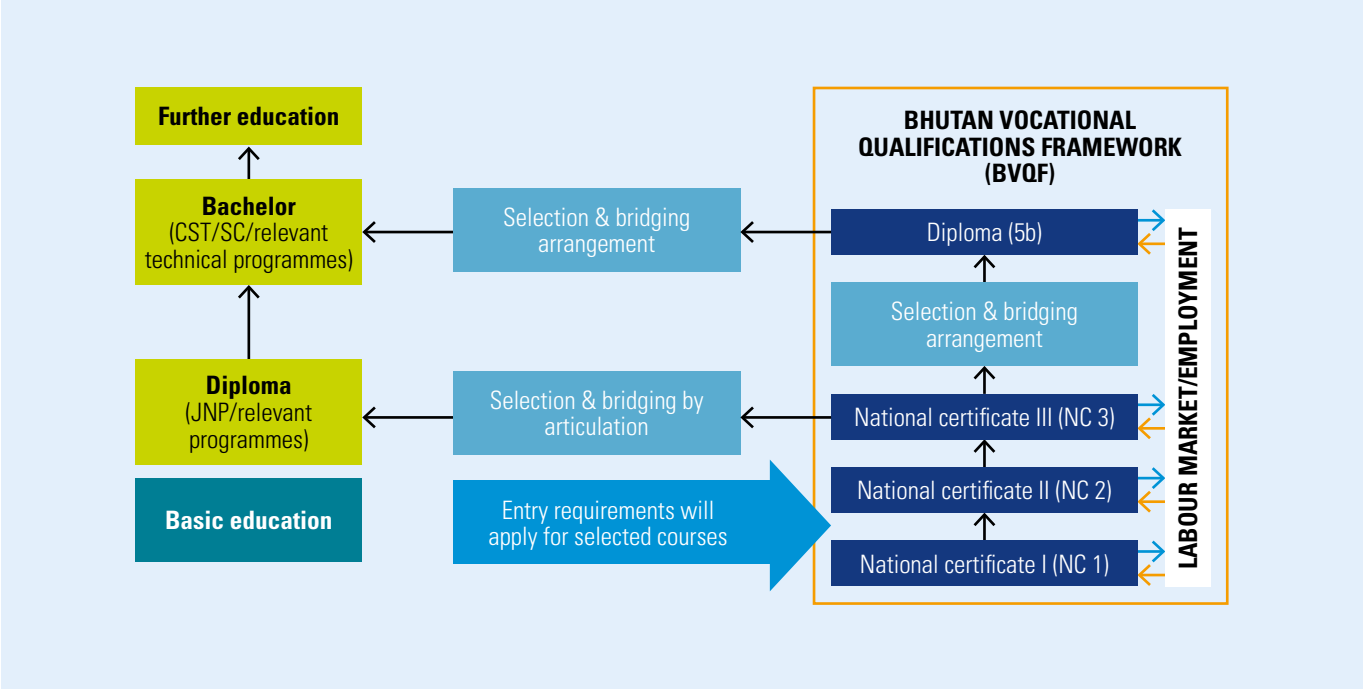
4.6. Micro level: individuals demonstrate learning and competences

Identification of contextual factors at the policy level, the key elements of the different ways organising education and training systems in different countries, and the possible RVA routes and flexible pathways leading to qualifications outlined above all provide the implementation environment for lifelong learning systems of quality. The next stage is to concentrate on the learning dimensions of recognition, validation and accreditation processes as they affect the end-user. At the micro level, we concentrate on defining six core factors that need to be taken into consideration in organising a quality lifelong learning system, keeping in mind the usefulness of RVA for the end-user. These do not indicate how RVA should be implemented at the local level; they are initial indicators that make up the framework for organising quality of RVA at the individual level. Some examples are shared for illustrative purposes to help advance the discussion.

4.6.1. Ownership and acceptance of local level stakeholders

The specific priorities of the RVA system in a country must be identified not only from a recognition policy perspective but also by taking into account the roles of those involved at the local level: learners, employers, employees, training providers, trainers, educational institutions, NGOs, public and private organisations, representatives of trade unions, small, medium and micro enterprises, adult associations and youth organisations. Local needs should be compared

Figure 4-2. Progression pathways from VET to higher education in Bhutan



Source: Cedefop, ETF, UNESCO and UIL, 2017, Vol. 2.

against macro level needs as well as related to the existing education and training institutions and providers and other sectors of the lifelong learning system. This process enables local needs to be identified but also aims at securing substantial acceptance and ownership through the participation of those involved.

Training providers and staff of the National Institute of Open Schooling (NIOS) in India are directly involved in serving underprivileged and low-educated groups in society who have not completed eight years of school (the minimum to gain entry into a vocational training institute) and who lacked the basic literacy and numeracy skills necessary to enter the lowest level of the Indian skills qualifications framework. This target group is being given access to competence-based courses at prevocational levels in the qualifications framework through the NIOS. In the Netherlands, local stakeholders apply validation as a tool to tackle the economic crisis and target young unemployed persons lacking level 2 vocational qualifications, those who are at risk of losing their jobs, or those who need to achieve mobility on the labour market. In Botswana and South Africa recognition serves to allow adults to participate in adult basic education and training (ABET) upon becoming literate.

RVA without stakeholder input will not be trusted. In the US, having at least one agency in the region supporting or encouraging the adoption and use of RVA methods has been highlighted in a study conducted by the Council for Adult and Experiential Learning (CAEL) (Klein-Collins, 2010). According to the purposes of RVA, representation from the world of work, and youth and adult organisations is required in developing RVA processes, methodologies and assessment criteria.

In many countries local stakeholders need to be made aware of the recognition schemes and their benefits among potential users, including citizens, businesses and their employees, education and training providers, voluntary associations, and social partner organisations in the labour market. Mauritius is focusing on communication strategy to expose major stakeholders to international RVA best practice.

An evaluation study from Denmark shows that the spread of RVA varied from institution to institution. Many institutions (education) have no RVA activity. Some of the barriers are in lack of awareness of RVA; others deal with financing and connecting skills development to formal education. Raising awareness for making the transition from system level to the user level or training provider level is an important quality issue.

For quality assurance of institutions and training providers, institutions must develop transparent guidelines to ensure quality, validity and reliability. In Australia and New Zealand, only registered training organisations that fall under the quality assurance framework of their NQFs also undertake recognition and validation of non-formal and informal learning. The New Zealand Qualifications Authority (NZQA) has a policy that education providers use.

Not only must a regulatory framework be in place at national level to link recognition practices to NQFs, but it must also gain the acceptance of all stakeholders. For instance, in Mauritius RPL has been accepted by employers since it provides them with qualified and well-motivated personnel. By contrast, in Hong Kong SAR, China, it appears that the government overestimated worker interest in further education, at least as presented by labour union representatives, and underestimated their insistence on using qualifications frameworks for job security and improving wage levels. It also lacked foresight in anticipating employers' strong opposition to the use of potentially unverified work experience rather than assessed skills and competences. As of today, RPL and its pace of implementation is a matter to be solely determined by the industries concerned (so far 22 industries have joined the QF, covering about 53 per cent of the total labour force in Hong Kong SAR), and there is currently in-depth discussion to reach a consensus before proceeding with its implementation. However, Hong Kong sees RPL not as a stand-alone practice but in relation to other instruments such as credit accumulation and transfer (CAT), which takes into account the total time likely to be required by an average learner in all modes of learning, including attendance in classes, self-study, online learning, practical learning, and examination. The development of NQFs is expected to facilitate CAT arrangements between sectors and training providers by providing a unified platform and common benchmarks.

4.6.2. Resources and time

Since the end-user and recognition processes at the local level form the focus of our approach, RVA must be appropriately resourced; this is the only way to address both qualitative and quantitative RVA needs. Necessary resources include rooms and assessment centres, the dissemination of information, guidance and counselling, identification and documentation of evidence, target group specific tools and materials, and appropriately trained RVA staff. Norway has found that specific assessment tools at upper secondary level for adults include dialogue-based methods, portfolio assessment and vocational testing. Attention is paid to ensuring the capacities of assessors and guides to interpret standards of relevant qualifications, curricula, objectives and admission requirements of the education programme in question, or workplace-specific competence demands. The Nordic model for quality in validation (Grunnet and Dahler, 2013) includes three perspectives on quality resources: organisation quality entails developing a holistic approach for institutions to work with RVA, as well as the development of evaluation, feedback mechanisms and improvement initiatives; assessment quality consists of using distinct criteria, methodologies, and establishment of evaluation and documentation practices; procedural quality consists of the distribution of responsibility and roles, and clear information, through website presentations, brochures and documents. The model is holistic, including all staff engaged in validation activities as practitioners, as well as dynamic and flexible, meaning it can be used in different institutional and sectoral contexts which may differ from country to country. In addition, the Nordic model is linked to eight factors in relation to which practitioners are free to decide how to use them and moderate them in their own contexts. These eight factors are information, preconditions (or regulatory framework), documentation, coordination, guidance, mapping, assessment, and follow-up.

National qualifications authorities are prime movers of RVA in many countries but there remains the challenge of how to equip education providers and training institutions for them to initiate the RVA exercise and offer opportunities to potential candidates. Bangladesh, with the assistance of International Labour Organisation (ILO), has plans to implement recognition of non-formal and informal learning as an additional tool that will be integrated into training agendas of providers. This change will require competent assessors to carry out a diverse range of assessment methods to compare a student's existing competences with unit standards and qualifications in the frameworks. The organisation and the planning process will also need to incorporate issues such as industry needs as identified by skills committees; initial training of assessors and the sustainability {XE "sustainability: of the process of training assessors" \f "subject"} of this process; procedures for the registration of providers; maintenance of a central register of qualifications; audit and moderation functions; and portfolio development.

In South Africa, the take-up of RVA is limited by staff and resource shortages; projects have been developed only in a few sectors. Costs to individuals and education systems for information and guidance, assessors and awarding bodies are a further challenge.

Good practice from Denmark shows that arrangements for the collaboration of assessors across institutions provide good opportunities to discuss which tools are relevant. This collaboration ensures some alignment in the tools institutions used in an RPL. In addition to knowledge sharing and collaboration, benefits could include a common material database and a manual for conducting RPL. Another challenge is follow-up on the outcome of the RPL through organisation of courses subsequent to the RVA. This is often difficult for institutions and training providers.

In Sweden, getting resources for RVA processes often depends on getting a commission to do validation from the public employment office (PEO) (Aagaard et al., 2017). Resources and time are preconditions. Getting a commission depends on demand and on procurement processes where different validation institutions compete to be a provider for the PEO. Quality includes developing information to candidates before the validation process; continuing professional development (CPD) for those who work with validation; improving the mapping for candidates for new arrived refugees; and improving quality of assessment in cases where the candidate lacks communication skills, but possibly has the vocational skills to be assessed. These are all resource-rich and time-consuming activities.

4.6.3. Assessment practices and expertise

Some authors have highlighted the tension between qualifications quality assurance and the lifelong learning goals of broadening access to adults and early school leavers. Comyn (2009) citing the Asian Development Bank (2008), suggests that NQFs may not be as relevant where the main problem is insufficient access to skills as opposed to improving the quality of assessment. Castejon (2013) also highlights that assessment is the core of qualifications frameworks. Governments need to understand that the shift to an outcomes-based approach has many implications for assessment, validation and certification, and learning and teaching strategies. Traditionally, assessment has been based on requirements of, and expected performance in, formal education and training. This process however, is not suitable in a lifelong learning system that recognises diverse learning paths. In New Zealand, for example, assessment generally includes recognition of all learning from formal, non-formal and informal settings, against designated current learning outcomes or standards, which make up the qualifications. In Australia, workplace-learning assessment includes assessment of formal, non-formal and informal learning. By contrast, in developing countries such as Bangladesh, most informal and non-formal workplace learning has not met a quality assurance requirement such as accreditation and is not recognised through any credit transfer arrangement. This situation is in contrast with that in Australia, where credit transfer arrangements exist even for workplace learning. In this case, non-formal learning is structured to meet formal objectives and result in credits and a qualification; it is therefore viewed as a formal learning and falls under the jurisdiction of formal quality assurance processes.

Assessment and validation of non-formal and informal learning should usually be a quality assured process as it results in the recognition of individual's knowledge and skills. The underlying principles of recognition, validation and accreditation (RVA) according to the UNESCO guidelines include equity, the equal value of outcomes from all learning, and quality in the assessment and validation through procedures that are reliable, fair, transparent and relevant (UIL, 2012). Quality is essentially a matter of validity and reliability in the RVA practice. Kirsten Aagaard, Per Andersson, Timo Halttunen, Brian Benjamin Hansen and Ulla Nistrup (2017) however argue that questions of what 'quality' in RVA entails should not be taken for granted. Instead, basic questions such 'does the validation 'measure' or 'assess 'what is intended' or 'how is this intention negotiated and decided?' need to be addressed. They argue that reliability and validity must not be taken for granted; it is rather a matter of negotiation of meaning, which could result in different situation-context-dependent conceptions of quality. These conceptions could include varying ideas on what knowledge and skills should be assessed, and how this could be done in the best way.

National examples emphasise distinctive criteria for ensuring quality of assessment and validation processes in certifying learning outside the formal system.

First, the evidence of learning needs to be produced with more attention paid to assessing its validity and authenticity. Individual competences should be recognised irrespective of where and how they were acquired, but without compromising the quality/standard of the education and training programme. The aim should be to assess the theoretical and the practical side of the trade. Evidence of learning is essential to assess credit-worthiness over and above the experience that shaped that learning (Wilbur et al. 2012). An example from Norway shows that methods of assessment at upper secondary level for adults include dialogue-based methods, portfolio assessment and vocational testing. The latter combines interviews and practice,

charting the learner's background, training, work experience, language skills and objectives, and to observe his/her skills in practice. The methods used need to ensure reliable assessment, inspiring confidence in the outcome.

Second, quality assurance concerns the standards to which the evidence of learning is compared. These standards should be directly comparable, preferably identical, to the standards applied in formal settings for the qualification. Care needs to be taken in ensuring these standards have been fairly interpreted. In France, assessment procedures help candidates organise learning outcomes in a way that suits the standards of the relevant qualification, and prepare the candidates to meet the jury under the best conditions. In UK-Scotland, learning outcomes and skills gained through informal learning are mapped against the appropriate level of the Scottish credit and qualifications framework (SCQF). In Denmark, an important principle is that competence assessment should always be based on the objectives and admission requirements of the education programme in question.

A third quality consideration for certifying learning outside the formal sector concerns taking account of the candidates' circumstances and the access they should have to reliable information, advice and guidance throughout the assessment process. The standards they must meet, the ways their learning is evidenced, the assessment process and the way assessed evidence is validated should all be clear to the candidate if the outcome of the process is to be fair and trusted. At the same time, Aagaard and colleagues (Aagaard et al., 2017) emphasise acknowledging the two faces of quality in RVA: 'On the one hand flexibility, individualisation, and judgement are central concepts. This perspective begins from an intention to give recognition to individual knowledge and skills that have been developed in varying ways, and in different contexts, thus probably situated in specific practices. … On the other hand, standardisation, reliability, and measurement are central concepts. This is important where the results have to be comparable, for example, as a basis for fair selection processes in relation to higher education or recruitment for apposition in the labour market' (Ibid. p. 2).

Fourth, quality needs to be seen in relation to the outcomes-based qualifications. The use of learning outcomes enables teaching and learning to be separated from assessment, allowing learners to be assessed differently according to their learning pathways: formal, non-formal or informal. For example, an increasing number of learners undertake adult education online or through work-based learning to acquire the competences needed to gain a qualification; these routes require different assessment methods and tools. They need to depart from the traditional final exam to encompass new forms of assessment that include practice-based assessment tasks requiring observation within a simulated or real context, evidence-accumulation (portfolio), and evaluation of real life practice. Because these more varied assessment methods are now being used in relation to outcomes-based qualifications, more attention is being paid to assessment standards – including assessment criteria, procedures, guidelines and minimum requirements – to ensure the validity and reliability of assessments.

Fifth, the result of the assessment should be documented by issuing a full qualification (or a certificate of education) or a part qualification (or credits, or a certificate of competence).

Sixth, different kinds of expertise and resources are needed to develop an effective assessment and recognition system. Recognition practitioners include individuals delivering information, guidance and counselling; those who carry out assessments; the teachers and managers of education institutions; workplace instructors; employers, and a range of other stakeholders with important but less direct roles in the recognition process. Guides/facilitators offer information, guidance and counselling services to refugees with the aim of clarifying procedures for the assessment so that individuals become more aware of their own competences and are more motivated to further learning and to have their learning outcomes recognised.

The role of RVA personnel is underestimated in many cases. Only well-trained RVA personnel can manage meaningful recognition processes and communicate clearly about what the recognition of non-formal and informal learning really means. Nor can such skilled personnel be replaced by technology or online learning packages: any materials need guidance from RVA staff in using them. It is necessary, therefore, for RVA personnel to be adequately trained and employed in assessment centres and education institutions, social enterprises, workplaces and public employment centres. Existing RVA staff would need to have experience in workplaces as well as didactic and pedagogic aspects to their training.

RVA expertise should contribute in:

(a) furthering the development of RVA practices;
(b) broadening understanding of assessment and evaluation;
(c) increasing knowledge of recognition processes through professional development opportunities;
(d) using a variety of assessment methods and tools;
(e) reviewing non-formal learning programmes and courses for continuous improvement;
(f) communicating the vocabulary and concepts of recognition to make RVA a part of a commonly accepted practice.

Developing certificate courses for practitioners working in non-formal learning and in recognition of individual competences could help to improve the quality of teaching, guidance and counselling as well as help managers to coordinate non-formal learning and recognition processes (Austria). The certificates need to be positioned at a certain level of the qualifications framework and modules can be prepared for the formal diploma programme offered either in colleges, or in continuing education departments of universities. In Portugal, professionalisation is sought through sharing practices, knowledge and experiences among teachers and trainers who carry out adult learning programmes and undertake validation assessments. Good practices from Denmark show that arranging collaboration among assessors across institutions provides good opportunities to discuss which tools are relevant, ensuring some alignment in use in an RVA. There is also potential benefit in a common material database and a manual for conducting RVA. A common language to describe the subject matter of RVA and tools is necessary to reach significant numbers of individuals.

4.6.4. Progression

Many RVA candidates are those whose knowledge, skills and competences are still in the process of being developed, so RVA should be conducted as part of an education and training programme or a preparatory bridge course. It is crucial to make participation in education and training or preparatory courses as attractive to them as possible, as is for instance the case in Finland. All RVA processes should therefore centre on assessment in terms of an extent to which they motivate participation in a further education and training. It is important that when education and training programmes are being put in place, the State focuses particularly on progression. State bodies should ensure that that learning processes end in an assessment of knowledge, skills and competences that are then recognised and certified according to agreed procedures; this is the only way of ensuring transparency of the standard achieved by individual participation in RVA. The certification should ensure transitions into the labour market for individuals and groups of individuals who are not yet integrated into the employment system, as well as access to general education. In Denmark, an evaluation study (Andersen and Laugesen, 2012) showed that while RVA is primarily used to give access to the education programmes that institutions provide, most candidates apply to gain recognition of competences for direct use in the labour market

In developing countries where vocational education and training are of low status, it is crucial that more substantial training courses are certified in a way that also ensures access to general education for the trainee concerned. This will be important to boost the status of vocational education and training and cater to a greater parity of esteem between formal and non-formal learning. Access to broader skills through general education is particularly important in the context of rapid economic and societal changes. These changes increase the importance of personal development, while reducing the importance of task-specific and narrowly defined instrumental knowledge and skills, as is for instance the case in New Zealand. Progression pathways in the US are called 'certification crosswalks'. These include *College credit for what you already know*, a project developed by the Council for Adult and Experimental Learning (CAEL) designed to bring prior learning assessments to scale, and increase the number of adults who would benefit from access to college education programmes (Ganzglass, Bird and Prince, 2011).

In Canada, progression through access to formal qualifications remains the key aspect of prior learning assessment and recognition. However, opening up access and progress in skilled and professional occupations is now reported as the key issue.

4.6.5. Encouraging employer and training provider involvement

Employers, who ultimately, are the users of skilled staff, need to be consistently encouraged to become involved in the training/recognition processes as this is a way of ensuring that skills development builds on actual practice and that skills reflect the real world. Employers should be involved in shaping recognition processes and training courses. They may find it helpful to use recognition to become more familiar with the stock of knowledge, skills and competences in their enterprise. In Mexico, workers obtaining certification of competences is considered a good proxy for increasing worker and the firm productivity and

reducing worker turnover (García-Bullé 2013). In Mauritius, employers are encouraged to invest in training those with very low skills, who need to be brought into the productive economy. The Mauritius Qualifications Authority (MQA) is making concerted efforts to implement RVA to support workforce development in certain industry sectors (specifically tourism, financial services, real estate, information and communication technology (ICT) and seafood). Employers understand the role of RVA in supporting a highly skilled workforce and they contribute to MQA fees for this. Well-established companies are also sponsoring RVA candidates. Currently, 19 industry training advisory committees are generating NQF qualifications in all TVET sectors of the Mauritian economy. While such qualifications are offered by both public and private providers, a centralised awarding body awards the NQF qualifications. In Mauritius, RVA and the NQF coexist in a symbiotic relationship, where the former is directly linked to the qualifications outcomes and smooth transition of many learners to the NQF is possible (Allgoo, 2013).

Training providers can enhance learning in different ways, both formally and non-formally. A positive learning environment and policies should be developed by providers to create more learning opportunities and enlarge learner and worker abilities. A more active learning model should be promoted and partnerships with organisations such as commercial firms, education providers, youth organisations or social enterprises, should be improved to expand opportunities for students, the young and adults.

Employers can support the education sector, adult, and community learning sectors in two ways: increasing the number of business partnerships and providing further job placements. They can also contribute to student assessment, providing feedback on learning at the workplace helping evaluate the efficiency of joint curricular activities and workplace learning (Leung and McGrath, 2010).

However, the concerns and needs of companies need to be taken into account in RVA. They must receive a return on their investment. In-company training and recognition initiatives should be designed in such a way that this a clear advantage to companies in terms of their cost/benefit of engaging in such activities (Pilz 2017).

4.6.6. RVA-benefits for the individual worker and learner

Recognition of an individual's learning and competences is important for quality. Recognition does not only mean official recognition but also recognition by the person whose knowledge has been validated. To be admitted to an education institution or to be recruited and employed, would mean recognition could be important for a strengthening self-confidence. RVA has different purposes, which are important for deciding what quality is in a certain RVA context. It is usual to identify a formative or summative goal. Formative RVA is intended to diagnose prior learning, forming the basis for further learning; quality here means providing the best possible foundation for further learning. Summative validation is typically undertaken by summing up the results of learning and competences in relation to certain criteria. Ideally both forms of assessment should make individuals aware of their learning and competence, strengthen self-confidence and guide people to lifelong learning.

RVA must have real benefits for specific target groups such as refugees and migrants as well as the low-skilled, semi-skilled and skilled workers and learners who are already in employment. In certain sectors of the labour market, the demand for workers with the requisite knowledge, skills and competences is growing faster than the supply, often because the formal education and training system is not sufficiently responsive.

In the case of low-skilled refugees in Sweden, the validation model has a clear focus on quality through an extensive process of identifying and validating candidates' competences, including practical work tasks, and the opportunity for 'topping-up' with context–specific skills that are lacking. Employability is an important benefit for employees as it is also a matter of establishing credibility and currency in relation to the industry. Initial mapping should show that the candidates could fulfil at least half of the requirements for the further validation process to be meaningful; if not the main alternative is to take the full training programme.

Consideration needs to be given to how skilled workers can be appropriately employed so that their competences can be used meaningfully and in way that will motivate them (Pilz, 2017). Factors playing a role here include not only technical skills but also aspects such as computers, health, and safety at work. Even more important, however, is increasing remuneration. Demand for training, and the likelihood that training activities will bring success, depends on there being a long-term monetary advantage to the individual employee in acquiring skills. State agencies and social partners should work towards a regulatory framework that prevents discrimination and market distortions. In Germany, RVA features in collective agreements,

giving greater security to individuals who have acquired skills through informal and non-formal learning in recognised apprenticeship trades. Similarly, provisions exist within the German public sector for scaled remuneration on the basis of work experience and length of service. Individuals can enrol in training programmes provided that they have a minimum of practical experience, with industry training agencies providing leadership in the design and development of RVA processes.

4.7. Conclusions

This chapter demonstrated that a quality lifelong learning system does not only depend on the existence of policies, frameworks and standards, but also on the relevance of delivery and quality of qualification and recognition arrangements. Lifelong learning opportunities at local level and their usefulness to the end-user are also important.

We highlighted the demand side of RVA. While macro and meso level are important, more attention needs to be given to the demand aspects in a quality lifelong learning system; one example is how companies and individuals can be encouraged to access RVA. What actual benefits will it hold for individuals, workers employers and learners in all settings? At the same time, employers organisations need to align with qualifications and education systems if true parity of esteem between formal and non-formal learning outcomes is to be achieved. Linking the efforts of all stakeholders and national authorities is essential for delivering access to education and recognition of all competences.

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CHAPTER 5.
VALIDATION OF NON-FORMAL AND INFORMAL LEARNING: A REALITY IN EUROPE?

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Summary

Validation of non-formal and informal learning, or the efforts to make visible and value the learning taking place outside formal education, is gradually becoming an integrated part of national education and training and lifelong learning arrangements in Europe. While most countries now officially state that they aim for the introduction of national validation systems, this is not always translated into practical arrangements on the ground giving citizens access to validation. Policy efforts to introduce validation date back more than three decades. The purpose of this chapter is to discuss the extent to which the values underpinning validation have been accepted and/or internalised at national and European levels. While the chapter contributes to better understanding of the history of this policy field, it also illustrates how national and European level policy initiatives have interacted over time.

Keywords: validation of non-formal and informal learning; national qualifications framework (NQF); European qualifications framework (EQF); non-formal learning; informal learning; prior learning assessment; learning outcomes

5.1. Introduction

Validation of non-formal and informal learning can be defined as the process that makes visible and gives value to the learning taking place outside formal education. It has grown in importance and visibility over the past few decades. Stakeholders at national as well as European level have argued consistently that validation can play a key role in opening up education and training systems to the learning taking place at work and during leisure time. Validation is increasingly being related to the needs of groups at risk, arguing that it can support integration into the labour market and society at large (Souto-Otero and Villalba, 2015). This chapter looks into the development of validation in Europe over the past few decades and discusses to what extent the fundamental values underpinning validation have been accepted and internalised. There is also reflection on the interaction between national and European policies in this area.

5.1.1. Validation: an issue of values

The acceptance of validation of non-formal and informal learning into society implies acceptance of two main values:

(a) all learning, irrespective of where and when it takes place, is valuable for the individual and for society;
(b) formal learning needs to be complemented by validation of non-formal and informal learning to make visible and value the rich, diversified learning of individuals.

These two values are closely interlinked and constitute what will be referred in this chapter as 'the validation norm'. Actively promoting this norm means that the dominant position of formal education and training systems is challenged. The introduction of validation arrangements, reflecting that learning de facto takes place in a wide range of settings and institutions, implies questioning the 'exclusive' right of formal education and training to value and certify learning.

For this norm to be accepted, and for validation to become an integral and effective part of national policies and practices, three main conditions have to be fulfilled. The first refers to the institutional setting of validation: are adequate laws, institutions and the relevant stakeholders committed to these values, allowing for long-term and legitimate implementation of policies? The second condition refers to resources and whether policy objectives are translated into concrete arrangements on the ground, giving citizens access to validation. Are the validation initiatives properly resourced, with well-trained professionals and adequate professional development opportunities? The third condition refers to methodological issues. Validation requires that the methodologies used for validation guarantee reliability and validity of the learning outcomes acquired.

A lack of trust in any of these three conditions undermines the principle that all learning is equal and that formal learning needs to be supplemented with validation of non-formal and informal learning. This chapter discusses the acceptance and internalisation of the 'validation norm'. The key questions we address in this chapter are:

(a) have the values underpinning the promotion of validation been internalised by EU countries?
(b) have the associated conditions for implementing validation at national and European levels been addressed?

The chapter starts by reviewing the recent history of validation in Europe from its emergence in the 1980s and 1990s. A second stage is presented from 2002 to the adoption of the 2012 recommendation on validation. The third part of the chapter discusses the current situation and the extent to which we can speak of acceptance of the basic norm, or not at this stage. Analysis of this third stage is based on the data collected for the latest update of the European inventory on validation of non-formal and informal learning ([1]).

5.2. The early days (1980-2002): emergence of a norm?

Validation, as a separate policy field, starts to emerge during the late 1980s. This does not mean that countries started without prior experience in this area: several already operated with arrangements allowing individuals with relevant work experience to sit for exams, in effect awarding a qualification without attending classes. The so called 'Article 20' arrangement in Norway, in existence since 1952, illustrates this. These arrangements, however, were mostly seen as technical, ensuring the flexibility of (mainly) formal training, and not as policy initiatives in their own right.

5.2.1. National developments

The emergence of the 'validation norm' – or the acknowledgement that all learning, irrespective of the context in which it takes place, should be recognised – is closely linked to the introduction of learning outcomes and/or competences based education standards and curricula in the 1980s and 1990s. The shift to learning outcomes, focusing on what learners are expected to know, be able to do and understand, states that the same outcomes can be reached in different ways and by following a variety of pathways (including learning at work and during leisure time). The introduction of national vocational qualifications in the UK in the 1980s and the development of competence-based education in Finland in the 1990s both illustrate how national learning-outcomes-based approaches trigger the development and introduction of validation arrangements. In the UK, the combination of learning outcomes (and modularised qualifications) resulted in arrangements including accreditation of prior learning (APL) and accreditation of prior experiential learning (APEL). In 1991, the National Council for Vocational Qualifications required that 'accreditation of prior learning should be available for all qualifications accredited by these bodies' (European Commission et al., 2008).

The extent to which this shift to learning outcomes aided the introduction of validation arrangements varies. While the Finnish competence-based system has developed into a strong and integrated part of the national system, and is still serving many individuals, the national vocational qualifications (NVQ) system has been limited in its ability to promote validation of non-formal and informal learning. The relative lack of progress in the UK may come down to lack of policy priorities, but may also be linked to the controversy around the quality and the relevance of the NVQ system. Some of the criticism currently raised against the learning outcomes approach (and, implicitly, validation) seems to be linked to the particular ('narrow') way learning outcomes were defined for NVQs (Allais, 2016). So, while learning-outcomes-based standards and curricula are important in promoting validation, they cannot do so alone.

France was also a frontrunner among the countries that pioneered validation. The *bilan de compétence* was established in 1985, supporting employers and employees in identifying (making visible) competences acquired at work. From 1992 vocational certificates (*certificat d'aptitude professionelle*) could be obtained (to various degrees) on the basis of assessment of non-formal and prior learning, and in 2002 legislation was adopted establishing a comprehensive national framework for validation (*validation des acquis de l'expérience* (VAE)). Nordic countries increasingly focused on developing legislation and institutional solutions allowing for validation. Norway, as a part of the 1999 Competence Reform, carried out an extensive three-year experimental scheme to develop and test the elements necessary for an operational national system on validation (VOX, 2002). This led to the setting-up of operational validation schemes from the early 2000s, addressing vocational education and training in particular. In the Netherlands, the commission on *Erkenning Verwoven Kwalificaties* (EVK) developed rec-

([1]) www.cedefop.europa.eu/validation/inventory

ommendations to establish a system for validation that was then tested in some sectors (construction industry and childcare). Also in Switzerland, the association CH-Q Swiss qualification programme for job careers started to develop methodologies for assessing learning acquired outside the formal system in 1999.

All these countries can be considered 'entrepreneurs' in the sense that Finnemore and Sikkink (1998) use the term. They 'pave the way' for turning validation into a visible policy priority, stressing the values underpinning the 'validation norm'. Stakeholders in these countries focused on the need to make education and training more flexible and to open up new routes for acquiring formal qualifications. These initiatives were partly framed in the context of lifelong learning, notably by avoiding dead ends and seeking to strengthen permeability in education and training systems.

5.2.2. European level

Bjørnåvold (2000) and Duvekot, Schuur and Pulusse (2005) point to the 1995 Commission white paper on teaching and learning (European Commission, 1995) as the first explicit effort to promote validation at European level. The white paper emphasised the importance of recognising competences acquired outside formal education and paved the way for extensive testing and experimentation to be financed through European programmes such as Adapt, Leonardo da Vinci, Socrates, Equal. This experimentation, also supported by the work of Cedefop (Bjørnåvold, 2000 and 2002), focused on the development of methodologies for validation, particularly testing the practical feasibility of the approach. While only in a few cases leading to permanent arrangements for validation being set up, the European programmes played a key role in disseminating 'the validation norm' to countries, institutions and experts previously not involved in this area.

The 2001 communication of the European Commission *Making the European area of lifelong learning a reality* (European Commission, 2001) gave further impetus to the role of validation of non-formal and informal learning. Rooted in the Delors (1996) declaration, UNESCO's 1972 publication *Learning to be* (Faure et al., 1972) and the subsequent changes to the concept of lifelong learning (e.g. Rubensson, 2001; Jarvis, 2002; Villalba, 2006), the 2001 communication emphasised the importance of learning throughout one's life and across the life span (in formal, non-formal and informal settings). Rubensson (2003) has argued that the communication places major emphasis on informal learning and gives the individual significant responsibility in the management of their learning history. Thus, validation became a central element in the implementation of lifelong learning policies. Around the same time, the European Union started developing transparency tools that would allow for better portability of skills and qualifications. The Copenhagen declaration of 29 and 30 November 2002 launched the European strategy for enhanced cooperation in vocational education and training (VET). The declaration established the need for 'developing a set of common principles regarding validation of non-formal and informal learning with the aim of ensuring greater compatibility between approaches in different countries' (European Council and European Commission, 2002).

5.3. Expansion of validation (2002-12)

5.3.1. National developments

At national level, the 'entrepreneur' countries, exemplified by France, Finland, Norway and the Netherlands, institutionalised their validation approaches during this period, notably by integrating validation arrangements into their national education and training systems and by increasing the number of those being validated. Several other countries acknowledged the potential importance of validation and initiated systematic processes for its implementation during this period; Portugal is the most notable example. The New opportunities initiative (2005) defined a national strategy, largely based on validation, to raise the qualification level of low-qualified individuals. Including a national system for recognition, validation and certification of competences (RVCC), the initiative established more than 400 centres at local and regional level and led to the award of more than 300 000 certificates. Denmark established legislation in 2007 on developing recognition of non-formal and informal learning across all education sectors and launched several initiatives with the aim of increasing its use. In Germany, the introduction of the ProfilPass (a tool to document people's skills) in 2005 can be considered a first move towards a broader validation approach. In Spain, the Royal Decree 1224/2009 on recognition of professional competences acquired through work experience established mechanisms for validating non-formal and informal learning in VET qualifications. Belgium, Estonia, Iceland, Ireland, Luxembourg and Slovenia also exemplify the introduction of legislation and administrative procedures for validation, although the degree of practical implementation varies. Other countries, such as the Czech Republic and Lithuania, also initiated developments during this period.

5.3.2. European level

European programmes play a key role in testing solutions and disseminating experiences of (and attitudes to) validation. In the decade 2002-12, European Social Funds played a crucial role in supporting the setting up of validation arrangements in 'new' countries, exemplified by the new opportunities programme in Portugal. Programmes such as Leonardo da Vinci, Grundtvig and Socrates (later the lifelong learning programme) continue support to testing and piloting, overall supporting several hundred projects. These projects were largely triggered by the policy objectives on validation included in the lifelong learning initiatives, the Copenhagen process and in the Bologna process. This interaction between European policy initiatives, European programmes and national developments is of key importance in understanding developments during this period. Further, adoption of instruments such as the EQF and increased attention to the learning outcomes principle can be seen as an indirect (and important) support to 'the validation norm'. The broad implementation of learning outcomes in all sectors of education and training and in most European countries during the decade (Cedefop 2009b, 2016) means that the conditions for opening up qualifications to a wider range of learning pathways were being addressed.

In 2004, the Council adopted a set of conclusions on Common European principles for the validation of non-formal and informal learning (Council of the European Union, 2004). These principles were formulated at a high level of abstraction and identify issues and conditions critical to the implementation of validation (Cedefop, 2009a). This was followed up by the first European inventory on validation (Cedefop, Colardyn and Bjørnåvold, 2005), providing an overview of national developments and arrangements followed by other editions (Souto-Otero, McCoshan and Junge, 2005; Souto-Otero, Hawley and Nevala, 2008; European Commission, Cedefop and GHK, 2010). Work on the first set of European guidelines on validation of non-formal and informal learning was also started (Cedefop, 2009a). Both the inventory and the guidelines support national implementation of validation in Europe and have been widely disseminated and used. The 2004 Council decision on a single community framework for the transparency of qualifications and competences in Europe (Europass) (European Parliament and Council of the European Union, 2004) can also be said to support the 'validation norm'. The Europass CV is explicitly focused on the identification and documentation of learning outcomes in different contexts, including those acquired through non-formal and informal learning. The 2008 adoption of the European qualifications framework (EQF) is of key importance to validation. The establishment of the EQF triggered the introduction of learning-outcomes-based national qualifications frameworks across the continent. The long-term effect of this, directly influencing validation, is the more systematic promotion of learning outcomes at national level. When countries are referencing their NQFs to the EQF, the role of validation is explicitly addressed.

While initially largely focusing on vocational education and training, other areas and sectors were gradually being included in the policy discourse. In higher education, the communiqué of the conference of European ministers responsible for higher education held in Leuven and Louvain-la-Neuve on 28 and 29 April 2009 (European Council, 2009) expanded the Bologna process and recognition convention to include recognition of prior learning, including non-formal and informal learning. In 2011 the Council conclusions on the modernisation of higher education also called on Member States to develop clear routes into higher education from vocational and other types of education, as well as mechanisms for recognising prior learning and experience gained outside formal education and training.

Validation also gained importance for the young. In 2006 a resolution of the Council invited Member States to enable the identification of competences acquired through non-formal and informal learning for young Europeans. The resulting Youthpass (as the Europass) supports the documentation of all forms of learning and promotes transfer of learning as well as transparency of qualifications (European Parliament and the Council of the European Union, 2006). This was followed up in 2009 by the renewed framework for EU cooperation on the young that places non-formal learning and its validation at the core of youth initiatives.

In this second phase we can see gradual expansion of validation objectives from the pioneering countries to an increasing number of 'newcomers'. In the pioneering countries, validation was becoming more institutionalised; although not necessarily always fully developed, the arrangements were becoming increasingly established within the institutional framework. In other countries, new legislation was developed to try to boost validation practices, in many cases within the development of national qualifications frameworks. However, initiatives were still limited to specific sectors and often lacking full-scale implementation. While the number of countries working with validation increased, full-scale, comprehensive implemen-

tation was largely lacking. Validation was taken forward in a fragmented way, lacking overall coordination. Practices still remained confined to specific sectors with no relationship to other practices. However, some critical conditions for development were created, notably through the intensified role of NQFs and the more systematic focus on the implementation of learning outcomes.

5.4. Internalisation of the validation norm? (2012- present)

In 2012, following an open consultation, the European Council adopted the recommendation on validation of non-formal and informal learning (Council of the European Union, 2012). Different from previous occasions, where validation was treated as a part of broader initiatives, the 2012 recommendation establishes validation as an independent policy instrument, relevant for policy development in several areas. The public consultation preceding the recommendation demonstrated that validation was considered increasingly relevant and important by most EU countries. The timing of the 2012 recommendation is important: following the financial crisis in 2008-09 a majority of EU countries faced serious problems linked to unemployment, redirection of people's careers, marginalisation of social groups and a general rise in poverty and social exclusion. Seen from this perspective, the perception of validation changed. While previously seen by many as an instrument to increase the flexibility of formal education and training (open up qualifications to non-formal and informal learning), countries now saw validation as a way to support integration of groups at risk and 'reskill' unemployed workers. Validation changed from being a tool relevant to the education and training sector to an instrument of interest to labour market and social policies. The adoption of the recommendation is not an isolated initiative at European level, but reflects a changing political and economic reality, requiring responses at national level.

5.4.1. European level: the 2012 recommendation, defining `the validation norm'

The recommendation clarifies the concept of validation, establishing a common understanding of what it is. The concept had remained difficult to define, with different terms used in different countries and contexts: validation of non-formal and informal learning, prior learning assessment, recognition of prior learning, certification of learning, accreditation and validation of experiential learning and more. All these terms are related, but address slightly different aspects and ideas. The recommendation provides a definition that can serve as an umbrella for all these existing, related terms. It defines validation as '…a process of confirmation by an authorised body that an individual has acquired learning outcomes measured against a relevant standard' (Council of the European Union, 2012, p. 5). This process, according to the recommendation, consists of four different phases: identification, documentation, assessment and certification. The four stages permit much needed flexibility in the validation concept. They make it easier for countries to adapt and accept the norm and to articulate the concept to represent the complex different realities in which it operates. The definition also indicates that the process of confirmation is carried out by an authorising body that checks the learning outcomes an individual has acquired, measured against relevant standards. The inclusion of an authorising body means that certain institutional structures have to be in place. This addresses one of the three basic critical conditions referred to at the beginning of the chapter: the necessary institutional setting for validation.

The recommendation draws up a series of principles to be included when establishing validation arrangements. Building on the 2004 principles (Council of the European Union 2004), these are more concrete and better integrated into existing policy actions. Validation arrangements, for example, should be closely linked to and integrated with guidance and counselling services, they should be closely linked to national qualifications frameworks, and thereby to the EQF, as well as working together with existing credit systems. Member States are also asked to make use of existing transparency tools, especially Europass and Youthpass. The standards used for validation are meant to be the same as, or equivalent to, those of formally acquired qualifications. In this, the shift to learning outcomes described above becomes relevant as standards for validation cannot rely on time or place of learning, but on learning outcomes irrespective of how they have been acquired. Other principles relate to the transparency of quality assurance and the provision for professional development to guarantee trust and reliability.

The recommendation also establishes a body that oversees and is responsible for implementing the recommendation: the European qualifications framework advisory group (EQF AG). This gives Member States a forum for discussion and exchange of views as well as a place for the norm to be further internalised. Giving responsibility to a specific body assures a certain degree of commitment and peer pressure in implementing validation initiatives.

The recommendation also gives an important role to the European guidelines ([2]) and the inventory on validation as tools to support its implementation, offering an extra platform for discussion and common understanding. The guidelines seek to clarify the conditions for implementing validation arrangements and can be regarded as the text in which the 'validation norm' is further defined and shared, providing the blueprint for the adoption, acceptance and adaptation of the values and principles included in the norm. While the guidelines provide the principles and conditions to consider when implementing validation, the European inventory provides an overview of how validation is actually being implemented across Europe. Section 5.4.2 presents data on national developments from the last inventory update to illustrate to what extent the 'validation norm' is being actually adopted and internalised in European countries.

5.4.2. The national level: confirming `the validation norm'?

After the 2012 recommendation, validation arrangements were further institutionalised and an increasing number of countries developed possibilities for individuals to validate their knowledge and skills. The most recent edition of the European Inventory on validation ([3]) shows that in 2016, all countries now are developing validation and have put in place concrete arrangements in at least one sector of education and training. Table 5-1 shows the countries in which it is possible to obtain a full or part qualification, access, exemptions or provision of training specifications.

The table shows that validation of non-formal and informal learning is becoming a common feature in European countries. Validation arrangements are most common in vocational education and training and higher education, less so in general education. Outside the education and training sector, linked to the third sector, chamber of commerce, public employment services and in private companies we increasingly see validation taking a hold. These initiatives, frequently focusing on identification and documentation of skills and competences, normally fall short of providing certification and are rarely linked to national qualifications systems. Only in a few countries, as with the *bilan de compétence* in France, do these arrangements operate on a large scale.

Fragmentation – a common feature of the period before 2012 – remains a challenge for the current implementation of validation. The 2016 inventory, however, demonstrates that countries are working towards increased coherence across sectors. Around 60% of the countries under review have or are developing comprehensive systems for validation, while the other 40% have opted for a sectoral approach, in which the legal frameworks, strategies and policies are developed separately in different sectors. Irrespective of the approach chosen – comprehensive or sectoral – mechanisms for coordination across sectors are being developed, with 20 countries reported to have in place an institution in charge of coordination. This coordination is mostly under the ministry or national organisation that oversees the different subsectors.

The continuous development of NQFs, with most countries moving into an operational phase, has also aided coordination. In Poland, for example, the Ministry of education was given the role of coordinating the delivery of the integrated qualification system (IQS), which came into force on 15 January 2016. The IQS act describes all qualifications awarded in Poland by authorised entities. It specifies the requirements for bodies carrying out validation and certification as well as setting the principles for quality assurance in validation and its monitoring process. In 2010 there were 12 countries in which an individual could access or obtain (part of) a qualification included in the NQF: in 2016 this is the case in 28 countries.

Institutional structures, therefore, are increasingly addressing the needs of validation. It is not clear, however, if this institutionalisation is being matched by an increase in human and financial resources. Determining the level of resourcing made available for validation is not straightforward. Many validation activities are embedded into training provider budgets or form part of broader initiatives and specific projects, making it difficult to identify exactly what is used for validation. The 2016 inventory features a thematic review of validation financing. The report concludes that policies on validation are not always accompanied by

([2]) The European guidelines, reviewed in 2015 after its first edition in 2009, were the result of a process of consultation with Member States and relevant stakeholders that lasted several years. They can be found at: http://www.cedefop.europa.eu/en/publications-and-resources/publications/3073

([3]) The 2016 European inventory on validation of non-formal and informal learning consists of a series of country and thematic reports as well as a synthesis report summarising main results. It covers 33 countries. There are three reports for the UK (England and Northern Ireland; Scotland; Ireland) and two for Belgium (French Community and Flemish Community). These regions are referred to and counted as 'countries' here and in the inventory. Countries include the 28 EU Member States, the EFTA countries and Turkey. The inventory addresses all aspect discussed in the European guidelines. It provides a detailed view of the different policies and practices on validation. http://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory

Table 5-1. Possible outcomes of validation in one or more education sectors with validation arrangements

AWARD OF PARTIAL/FULL FORMAL QUALIFICATION	
AT, BE-fl, BG, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IS, IT, LI, LT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SI, TR, UK (E&NI), UK (S), UK (W)	
AWARD OF OTHER NON-FORMAL QUALIFICATION/CERTIFICATE	**AWARD OF CREDITS**
AT, BE-fr, CY, DE, EL, ES, FI, IE, IS, LU, NL, PL, SI, UK (S)	AT, BE-fl, CH, DE, DK, EE, ES, FI, HU, IE, IS, IT, LI, LT, LU, LV, MT, NL, NO, PL, PT, SI, SE, UK (E&NI), UK (S), UK (W)
AWARD OF MODULES	**EXEMPTIONS**
AT, BE-fl, BE-fr, CH, DK, EE, ES, FI, IE, IT, LU, LV, MT, NL, NO, PL, SI, UK (E&NI), UK (S), UK (W)	AT, BE-fl, BE-fr, CH, CZ, DK, EE, ES, FI, HU, IE, IS, LI, LU, LV, MT, NL, NO, PL, PT, SE, SI, UK (E&NI), UK (S), UK (W)
ACCESS TO FORMAL PROGRAMMES	**TRAINING SPECIFICATIONS**
AT, BE-fl, BE-fr, BG, CH, CZ, DE, DK, EE, ES, IS, IE, LI, LT, LU, LV, MT, NL, NO, PL, SE, SI, UK (E&NI), UK (S), UK (W)	AT, CH, DK, ES, FI, IE, IS, LI, LV, MT, NL, NO, PL, SI, UK (E&NI)

NB: Multiple responses possible.

Source: 2016 European inventory.

a clear allocation of resources and European Social Funds are still a major source of income for initiatives. This was also one of the conclusions of the Cedefop conference in November 2016 ([4]). Participants pointed out that increasing validation structures was not necessarily link to adequate resourcing. This signals the temporary nature of validation arrangements as was the case before 2012, although it seems less severe than then.

5.5. Conclusions

The 2016 data show that most European countries have now accepted and internalised the 'validation norm' as defined at the start of this chapter. Almost all countries have put in place arrangements that allow for acquisition of full or partial qualifications through validation of non-formal and informal learning. Several are now working towards comprehensive systems offering validation opportunities where people live, work and/or study. The development of NQFs, as well as the general acceptance of the learning outcome approach, has been an important driver for validation. It can be argued that we have reached a 'tipping point' in national policy formulation. Validation is now an explicit and visible part of lifelong learning and (to some extent and importantly) employment and integration policies. This 'tipping point' has been reached through intense interaction between stakeholders at national and European level. In this sense validation serves as an example of 'the open method of coordination' promoted by the EU during the past few decades.

It is, however, more difficult to determine whether acceptance and integration at national policy formulation level is translated into acceptance and internalisation at practical implementation level. Policy documents and plans do not necessarily trigger adequate resourcing and financing for implementation at local and regional levels. Developments during the coming decade(s) will show whether acceptance of validation at national policy level will be translated into acceptance and internalisation at the level of practitioners and among end-users.

([4]) *How to make learning visible, 28 and 29 November 2016, Thessaloniki.* http://www.cedefop.europa.eu/en/events-and-projects/events/how-make-learning-visible

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CHAPTER 6.
QUALITY ASSURANCE OF QUALIFICATIONS: BUILDING TRUST AND ENHANCING VALUE

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Summary

This chapter presents recent trends and major challenges in developing effective and trustworthy quality assurance of qualifications. It analyses why the quality assurance of qualifications has become an important issue on policy agendas, what the challenges are, and how countries in Europe, the Asia-Pacific and elsewhere are responding. It identifies issues in assuring the quality and consistency of the certification process so that certificates have currency and are a valid and reliable testament to a learner's knowledge, skills and wider competences. The conclusions reached focus on national and international issues facing countries, qualifications systems reforms that are underway and further steps that can be taken.

Keywords: qualification; quality assurance (QA); assessment; learning outcomes

6.1. Introduction

UNESCO's Member States have identified an urgent need to reform their qualifications systems. An important driver for these reform strategies is to make sure that different aspects of national qualifications are useful and consistent with one another, and that they are trustworthy and recognised within and beyond national boundaries.

At the Third international congress on technical and vocational education and training (TVET), held in Shanghai in 2012, participants recognised the importance of quality assurance of qualifications. The Shanghai consensus ([1]) recommended exploring the possibility of developing quality assurance (QA) guidelines for the recognition of qualifications, based on learning outcomes.

In recent years, TVET has been gathering momentum and global attention. Education 2030 devotes considerable attention to the development of technical and vocational skills. TVET is also starting to feature in the strategic and operational planning of regional economic communities (RECs), such as the African Union (AU), the Caribbean Community (CARICOM) and the European Union (EU). In Africa, for example, the African Union Heads of State have adopted the Continental Education Strategy for Africa (CESA 2016-25) as the framework for a transformative education and training system, reinforcing the importance of TVET. In 2015, CARICOM adopted a regional TVET strategy for workforce development and economic competitiveness with a focus on 'redefining TVET' and on 'developing a CARICOM training system underpinned by a quality assurance framework' ([2]).

At European level, countries have been working intensively on the comparability of their qualifications, qualifications recognition, and periods of learning undertaken in different countries to make possible the portability of learner and worker qualifications between different EU countries. The European qualifications framework (EQF) established in 2008 – a transnational meta framework based on learning outcomes – provided the central point of reference ([3]) in using a translation device of eight European generic levels of learning to make qualifications systems more transparent to employers, learners, qualifications authorities, and education and training providers. Quality assurance is a key principle of the EQF and is considered the backbone for mutual trust between countries and systems in the referencing process, as it calls for national quality assurance systems to be aligned with the relevant European principles and guidelines in vocational training ([4]) and higher education ([5]). In 2015 the ministers in charge of TVET from

([1]) See: http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/ED/pdf/concensus-en.pdf

([2]) https://dl.dropboxusercontent.com/u/86702287/CARICOM_Caribean_Report_September%2012.pdf

([3]) EQF referencing is the process that results in the establishment of a relationship between national qualifications systems/frameworks and their levels to the EQF.

([4]) The *European quality assurance reference framework for vocational education and training* (EQAVET) is a meta framework established in 2009 providing a systematic approach to quality assurance at system and provider. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009H0708(01)&from=EN

([5]) See *Standards and guidelines for quality assurance in the European higher education area.* http://www.enqa.eu/wp-content/up-

the European Union Member States, candidate countries, Iceland, Liechtenstein and Norway endorsed the new medium-term deliverables for vocational education and training until 2020, known as the Riga conclusions ([6]). They renewed their commitment to continue developing their quality assurance mechanisms in TVET and to establish feedback loops to inform the renewal and review of their TVET qualifications. The European Commission also adopted in 2016 its *New skills agenda for Europe*. This aims to ensure that citizens are developing the skills necessary not only for today's jobs but those of tomorrow ([7]). One of the key strands of the Agenda calls for further work at European level to improve the transparency, comparability and trust in qualifications by shifting the focus from duration of qualifications to the learning outcomes achieved.

The recommendations on quality assurance of qualifications were further echoed in UNESCO's new Strategy for TVET (2016-21) and in the organisation's revised recommendation concerning TVET (2015). The revised 2017 Council EQF recommendation for lifelong learning ([8]) also calls for transparent and quality-assured TVET qualifications and the promotion of mutual recognition of qualifications at national, regional and international levels.

6.2. Recent shifts of focus: from inputs to outputs

While there is no unique definition of 'quality assurance of TVET', the most common understanding is that it consists of a totality of the principles, methodologies, actions, measures and instruments through which quality in TVET is assured, at system, provider, programme and teaching staff level (see Table 6-1 for explanation and examples).

For many years, the attention of decision-makers has been mostly at provider level, often through accreditation, and on external evaluation conducted by school inspectorates or bodies with similar functions (ETF, 2016). The focus was to ensure the quality of inputs and processes, such as management of infrastructure, personnel and administrative arrangements as well as the content (the curriculum) and delivery of teaching (Cedefop, 2009). Strategies for monitoring compliance include audit/evaluation, continuous monitoring, penalties and the publication of outcomes achieved by providers (Bateman et al., 2012). In addition to external evaluation/audit and inspections, attention was given to self-assessment in establishing a quality culture within TVET institutions. For example the European reference framework for quality assurance in TVET at system and provider level (EQAVET) ([9]) provides a systematic approach to quality assurance, promoting a culture of continuous improvement by combining internal and external evaluation with the use of indicators and qualitative analysis.

While this focus is reasonable and necessary, the continuing shift to learning outcomes, which allows qualifications to be acquired through different learning pathways, suggests that ensuring the quality of learning provision cannot be the only element underpinning the award of qualifications (Cedefop, 2015). Quality assurance of alternative pathways – such as work-based learning including apprenticeship, validation of prior learning and online learning – can only be ensured by developing reliable ways of deciding whether the related learning outcomes (what a learner knows, understands and is able to do) have been met.

In recent years, the widespread development and implementation of national qualifications frameworks (NQFs) has provided a means for reinforcing attention on the quality assurance of qualifications. This attention is motivated by the efforts of most countries to increase the relevance and value of qualifications, for both the individual and the labour market. It is also triggered by the growing mobility of learners and workers; it needs to provide assurances that national qualifications meet regional and international standards. As a result, much discussion has taken place on the relationship between formal systems of quality assurance and national qualifications frameworks. There is broad agreement on connecting the two but opinions differ on how this can be operationalised.

Although quality assurance and qualifications frameworks do not share identical origins, they have a lot in common. One such common feature is their objective for transparency and to build mutual trust between national education and training systems (Murray, 2013). NQFs help communication and transparency by providing the platform for different stakeholders to be involved in the development and review of standards, a key element that ensures trust

loads/2015/11/ESG_2015.pdf

([6]) http://ec.europa.eu/dgs/education_culture/repository/education/policy/vocational-policy/doc/2015-riga-conclusions_en.pdf

([7]) https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-381-EN-F1-1.PDF

([8]) http://data.consilium.europa.eu/doc/document/ST-9620-2017-INIT/en/pdf

([9]) See EQAVET recommendation 2009: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009H0708(01)&from=EN

Table 6-1. Examples of quality assurance (QA) of TVET

DIMENSIONS	MODEL	CHARACTERISTICS	EXAMPLES
System	National framework for quality that consists of an overarching set of principles, actions, measures and indicators covering all parts of TVET system.	Emphasis on building a quality culture rather than on simply complying with quality guidelines with the active participation of all actors involved (including staff and learners) and all stakeholders (including social partners and enterprises). Focus on the PDCA quality cycle ((P)lan, (D)o, (C)heck, (A)ct) and set of indicators covering key building blocks including inputs-process-outputs.	In Romania, the national quality assurance framework (NQAF) ([10]) in TVET has been developed from the European common quality assurance framework (CQAF/EQAVET) in VET. The NQAF includes descriptors for seven areas called principles including: (1) quality management; (2) management responsibilities; (3) resources management; (4) design, development and revision of learning programmes; (5) teaching, training and learning; (6) assessment and certification of learning; (7) evaluation and improvement of quality. The Tunisian National framework for quality of TVET (NFQVET) ([11]). The structure of the NFQVET is strongly based on QA principles, encompassing regulations for management of TVET institutions (55 standards) and tools for measurement (287 indicators). Standards have been introduced in vocational training centres as part of their recognition. New Zealand and Australia use standards and indicators to monitor the quality of TVET. The standards could apply to the regulator, to providers of TVET and to approval of achievement standards (competences, qualifications, curriculum).
Providers	Accreditation of TVET institutions. Accreditation can be defined as a quality assurance process through which a training provider is officially recognised and approved by the relevant legislative or professional authorities (Cedefop, 2014).	Encompasses a range of standards or criteria including management, infrastructure, premises, equipment, teacher competences, as well as those of technical and administrative personnel.	Regulations for registration of training providers in many countries in different contexts including Colombia, Hungary, Ireland, Morocco, Namibia and Samoa. In Australia ([12]), all registered training organisations (RTOs) are responsible for ensuring they fully comply with the standards at all times as a condition of their registration. The purpose of the standards is to: (a) describe the requirements that an organisation must meet to be an RTO in Australia; (b) ensure that training delivered by RTOs meets industry requirements (as set out in the training package or accredited course) and has integrity for employment and further study; (c) ensure RTOs operate ethically and consider the needs of both learners and industry.

([10]) http://www.erisee.org/downloads/library_romania/framework/Brochure%20QA_EN.pdf
([11]) http://www.etf.europa.eu/pubmgmt.nsf/%28getAttachment%29/B42F76F8CCFDFD1AC1257585003470CA/$File/NOTE7QHD7T.pdf
([12]) See the Australian guidelines for Registering Training Organisations (RTOs): https://www.asqa.gov.au/sites/g/files/net2166/f/Users_Guide_to_the_Standards_for_Registered_Training_Organisations_RTOs_2015.pdf

DIMENSIONS	MODEL	CHARACTERISTICS	EXAMPLES
Evaluation and review	Institutions self-reviewing against a set of evaluative questions/criteria and taking the necessary steps to improve areas of weakness.	Importance of self-assessment/ evaluation as a reflective process in which professionals take responsibility for their own assessment and the evaluation of their organisation.	A wide range of countries is encouraging self-assessment of training providers as part of the accreditation process. A case in point is the New Zealand Qualifications Authority (NZQA) ([13]) which uses rigorous processes and systems, based on an evaluative quality assurance framework. This includes self-assessment conducted by TVET institutions (non-university tertiary education organisations (TEOs) in this case). NZQA does not prescribe how tertiary organisations do this, as every organisation is different, but has published evaluation indicators as a common guide for TEOs and NZQA to reach consistent evidence-based judgements. TEO self-assessment information provides the evidence base for all the quality assurance processes. Self-assessment across an organisation has four main components: (a) systematic data gathering; (b) robust data analysis that leads to valid conclusions; (c) reflective processes that involve all people in the organisation; (d) decision-making for continuing improvement connected to the outcomes of a self-reflective process.
		Oriented towards incorporating components of international standards, such as ISO 9000.	The use of ISO 9000 and other types of award gained traction in many part of the world. In Latin America ([14]) this includes Brazil, Chile, Costa Rica and Peru. In Brazil, the SENAITECs are poles of generation, adaptation and transfer of technology. They develop vocational training activities and provide services to the industrial sector, such as assistance in the productive process, laboratory services and technological development and information. All this is developed according to the strict criteria of the National quality premium and the ISO standards.

([13]) http://www.nzqa.govt.nz/providers-partners/qa-system-for-teos/self-assessment-overview/
([14]) https://www.giz.de/expertise/downloads/Fachexpertise/en-tqm-vocational-training.pdf

DIMENSIONS	MODEL	CHARACTERISTICS	EXAMPLES
Programmes	Accreditation of programmes	Some countries distinguish between accreditation of providers and accreditation of programmes. The latter is an external content-review process of the training programmes against a specific set of standards. It is a process of quality assurance through which a programme of education or training is officially recognised and approved by the relevant legislative or professional authorities following assessment against predetermined standards (Cedefop 2014).	This is a model adopted in Canada, Malaysia and Samoa. In Malaysia all programmes across all TVET disciplines would be required to comply with seven areas including: (a) programme development and delivery; (b) assessment of student learning; (c) student selection and support services; (d) teaching staff; (e) educational resources; (f) programme management; (g) programme monitoring, review and continual quality improvement. In Canada ([15]), apprenticeship programme accreditation is a process for assessing education programmes against apprenticeship standards established by the Provincial Apprenticeship and Certification Board (PACB). The objectives of apprenticeship programme accreditation are to ensure that programmes conform to the standards identified in the national occupational analyses and reflected in the provincial plans of training established for specific trades, and that graduates have the required level of competence to enter the industry job market.
Teaching staff	Teachers licensing	In several countries, TVET teachers including trainers in companies, support personnel, and administrators are required to hold a licence issued by an authority to be eligible to teach TVET institutions.	The Vocational technical education regulations and the Guidelines for vocational technical education programmes and educator licensure in the United States (for example Massachusetts) ([16]). In Germany, statutory provisions for the dual system specify that, along with professional knowledge, skills and competences, trainers must also have the skills relating to occupation and work education necessary to convey the content of the vocational education and training. Personal aptitude is also required. Those responsible for vocational education and training in companies must be able to prove that they are technically and personally suited for this task. This usually occurs via an examination in accordance with the Ordinance on trainer aptitude (AEVO) ([17]).

([15]) http://www.aesl.gov.nl.ca/app/accreditation.html
([16]) http://www.mass.gov/edu/government/departments-and-boards/ese/programs/educator-effectiveness/licensure/
([17]) https://www.bibb.de/dokumente/pdf/BIBB_VET_Data_Report_2015_zur_BF.pdf

DIMENSIONS	MODEL	CHARACTERISTICS	EXAMPLES
Teaching staff	Assessors licensing	Defines responsibilities, criteria and processes for selecting and approving assessors.	In Europe, responsibility for selecting or approving assessors varies between TVET providers (in the Netherlands and UK-England), regional school inspectorates (in the Austrian school-based system, in Romania) or social partners such as chambers of commerce, chambers of labour (in Denmark and in the dual systems in Germany and Austria) ([18]). Some countries develop national registers for members of vocational examination committees; examples include Hungary in Europe and Fiji in the Pacific. These are the ones that are recognised by the regulator to assess 'national qualifications' as opposed to assessors appointed by the provider.

Source: Authors' compilation from different sources.

in qualifications (Coles, 2016). While quality assurance in many countries is a core component of an NQF, in others it is seen as a parallel development strongly linked to the NQF, as in Australia and New Zealand. This is also the case in Indonesia, Malaysia, Philippines and Thailand. In many countries quality assurance bodies play an important role in implementing qualifications frameworks. In the referencing process of European national qualifications frameworks to the EQF, the national quality assurance bodies must provide their written agreement. Some countries (such as Ireland) in their effort to create synergies and bring their NQF and quality assurance systems closer, establish a single body to maintain and promote their NQF and to ensure qualifications quality.

6.3. TVET qualification quality assurance definitions and concepts

UNESCO sees TVET as 'comprising education, training and skills development relating to a wide range of occupational fields, production, services and livelihoods. TVET, as part of lifelong learning, can take place at secondary, post-secondary and tertiary levels and includes work-based learning and continuing training and professional development that may lead to qualifications. TVET also includes a wide range of skills development opportunities attuned to national and local contexts. Learning to learn, the development of literacy and numeracy skills, transversal skills and citizenship skills are integral components of TVET' ([19]). Working on quality assurance of qualifications refers to the development and use of a range of terms and concepts that are essential for understanding and engaging in developing effective mechanisms.

To understand how a qualification can be trusted it is important to look at the definition of qualification and identify the key elements that need to be quality assured. These are:

(a) the learning outcomes: the knowledge, skills and competences that the holder of a qualification should have;
(b) the assessment and validation process;
(c) the standards against which learning, assessment and validation have taken place.

The 2017 Council recommendation ([20]) on the European qualifications framework for lifelong learning acknowledges the importance of the above elements focusing on the quality assurance of learning outcomes, particularly qualifications. It refers more specifically to the design of qualifications and the application of the learning outcomes approach underlying the need to ensuring valid and reliable assessment according to agreed and transparent learning-outcomes-based standards.

([18]) http://www.cedefop.europa.eu/en/publications-and-resources/publications/5551

([19]) UNESCO (2015). *Recommendation concerning TVET.* http://portal.unesco.org/en/ev.php-URL_ID=49355&URL_DO=DO_TOPIC&URL_SECTION=201.html

([20]) http://data.consilium.europa.eu/doc/document/ST-9620-2017-INIT/en/pdf

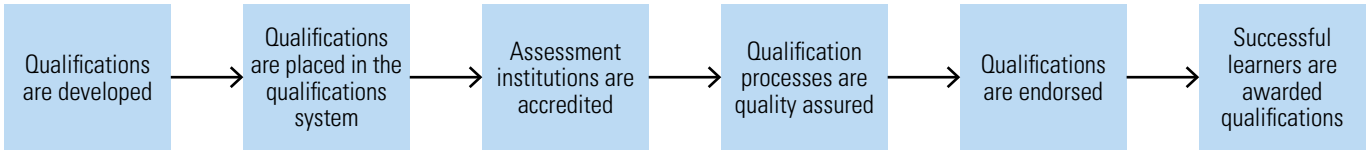
Table 6-2. Key terms for quality assurance of qualifications ([21])

Learning This is the basis for obtaining a qualification. Learning can occur in formal settings or through experiences such as work or social activities. Learning can manifest itself through knowledge, skills or wider competences such as personal and social competences.
Assessment This is the process of judging an individual's knowledge, skills and wider competences against criteria such as learning outcomes or standards of competence.
Validation This is the confirmation that the assessment outcomes of an individual's learning meets predetermined criteria (standards) and that a valid assessment procedure was followed. This means that the assessed outcomes have been quality assured and can be trusted. Sometimes during this process grading of certain standards of assessed outcomes can lead to grades being awarded to candidates.
Certification This is a record of an individual's learning that has been validated. A certificate is usually issued by a body which has public trust, displays competence, and confers official recognition of an individual's value in the labour market and in further education and training.
Qualification The word 'qualification' covers different aspects: (a) qualification is seen as the certificate, diploma or title that is awarded by a competent body and which testifies that an individual has achieved learning outcomes to given standards. The certificate, diploma or title 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 practise a trade; (b) qualification is seen as the knowledge, aptitudes and skills required to perform specific tasks attached to a particular work position; (c) qualifications express what people know, understand and are able to do and they can take different forms such as a diploma or certificate.
Recognition Recognition can be seen in the raised self-esteem of individuals and when it results in their progress into a new job, higher pay and/or increased social status.

Source: Bateman et al. (2016) and Cedefop (2015).

([21]) Adapted from Cedefop (2008, 2015); Eurydice (2006); European Training Foundation (1997); OECD (2007); ILO (1998).

Figure 6-1. Quality assurance of the qualifications process



Source: Adapted from ETF (2016) and Bateman et al. (2016).

Quality assurance of qualifications varies from setting to setting but, in most cases, it includes a chain of processes (Figure 6-1) from the development of a qualification to the certification of learners during which the above elements have been addressed consistently.

Qualifications are developed: institutions or stakeholders decide to develop a new qualification or to revise an old one; for example a TVET private provider, an awarding body, or sectoral branch.

Qualifications are placed in the qualifications system: to be entered into the NQF, qualifications will have to meet criteria, which ensure their quality. New, revised or amended qualifications must be validated and approved to ensure that they have clear and relevant purposes and have been designed to meet these purposes; for example, that there is a demonstrable need for the qualification and that the qualification has been well designed to meet this need.

Assessment institutions are accredited: to assess learners for qualifications in the NQF and to issue certificates to successful learners, institutions will have to meet certain criteria, ensuring their capacity to carry out these functions to an appropriate level of quality. For example, the institution must have an effective approach to assessment and the quality management of assessment, the necessary material resources to assess the qualifications/units, and the necessary qualified staff to assess and certificate the qualifications/units. Assessment should be valid and fair, reliable and transparent.

Qualification processes are quality assured: external quality assurance of assessment and certification is required. This can be checked by external verification and audit of assessment institutions run by concerned regulatory bodies.

Qualifications are endorsed: certificates for qualifications in the NQF will be endorsed by the regulatory body (for example the qualification authority) to show that they meet all of the quality requirements. Endorsement will be a signal that the qualification in question is in the NQF and that award of the qualification has been made by an approved institution on the basis of quality assured assessment. For example, the regulatory body (such as the national qualification authority) could issue supplies of endorsed paper for the use by the awarding institutions in issuing certificates or could issue an additional document (a covering document) to accompany the certificate issued by the awarding institution.

Successful learners are awarded a certificate: certification is the process of recognising the achievements of candidates. Qualifications are often issued by the same body that has conducted or organised the final assessment, such as by schools/VET providers on behalf of the competent national authority (in the German and Austrian school-based schemes, the Netherlands, Portugal and Slovenia), by regional chambers (in the German and Austrian dual systems) or by both (Denmark) (Cedefop, 2015).

The different institutions involved in this process must act to ensure continuing quality improvement in all these areas.

6.4. Quality assurance trends in qualifications

Faced with a myriad of challenges including employability and unemployment, particularly though not exclusively for the young, countries are seeking to reform their qualifications to ensure underpinning by quality assurance processes. Such processes are a key part of the solution to making TVET qualifications more trustworthy and more highly valued in the labour market. However, for most countries, robust quality assurance of qualification systems remains an objective to be realised.

In 2016, UNESCO conducted a review of TVET quality assurance mechanisms qualifications in Asia-Pacific (Bateman

and Coles, forthcoming). The key conclusion of the review was that developing quality assurance in TVET is more than just a technical process. Political, economic, social, cultural and financial considerations, as well as institutional structures and legal frameworks, shape the criteria and processes that underpin TVET quality assurance (Bateman and Coles, forthcoming, p. 11). While recognising uneven progress among countries, the review suggested several areas for improvement, formulating 13 recommendations as the basis for forthcoming regional guidelines on quality assurance of qualifications:

(a) the role of governance: countries should conduct a strategic review on the structure of governance of quality assurance across TVET with a focus on strengthening coordination and accountability of all aspects and bodies responsible for the qualification process;
(b) links between quality assurance and qualifications frameworks: qualifications frameworks need to have a quality assurance dimension and/or be linked to quality assurance frameworks, not only at national level but also regional;
(c) improving stakeholder engagement: reflect on the level of engagement of industry, employers and civil society in the quality assurance of TVET qualifications, and design the system to maximise engagement;
(d) increasing transparency: consider increasing transparency of processes and publishing outcomes of quality assuring activities and research to broaden understanding in the wider community;
(e) developing a quality culture: develop a process of self-assessment and continuous improvement in TVET, making sure that quality assurance is fit for purpose;
(f) ensuring funding and resources: targeted funding is critical to the implementation of a system for quality assuring TVET qualifications;
(g) increasing the use of learning outcomes approaches: developing greater use of learning outcomes should be a priority; current initiatives on greater use of learning outcomes to make assessment of learning more objective should be supported;
(h) attention to validation and certification: countries should ensure that when designing or reviewing the system for quality assuring TVET qualifications, attention is paid to the validation and certification aspects of the qualification process;
(i) building capacity of assessors: promote the capacity development of assessors, which could be achieved through constructing an assessor qualification, and train assessors in assessment;
(j) access to and pathways of TVET qualifications: undertake research into TVET qualifications to explore how they support access for all (especially vulnerable groups) through different pathways, recognition of prior learning and credit transfer;
(k) improving development and use of data systems: make the development and use of data systems, including labour market information systems, an integral part of the whole process of quality assurance of TVET qualifications;
(l) supporting regional cooperation and policy learning: there is much to gain for all countries in participating in further collaboration, and the sharing of experience. A community of practice should be created which has the potential to inform policy and practice. A regional collaboration platform could be an instrument to support policy learning, as is the opportunity to take advantage of the range of cross-national TVET networks already available. Regional guidelines for the quality assurance of TVET qualifications could be an approach for participating countries;
(m) developing guidelines and support materials: it is proposed that guidelines be developed to strengthen common understanding of quality assurance systems and provide a basis for enhancement in quality assurance systems in the Asia Pacific.

The findings of a recent Cedefop study (Cedefop, 2015) on quality assurance of certification in the European context, echo those of UNESCO in Asia-Pacific. The study calls for reliability and validity in the qualification process in technical and vocational education and training (TVET) and identifies eight related quality features. It concludes that 'to strengthen trust in certification, results across the system based on the same qualification standards must be comparable. Comparability of results ensures that holders of the same qualification have actually achieved the learning outcomes required for it and therefore qualifications can be trusted' (Cedefop, 2015). It is important that same assessment results can be obtained in different cases (in relation to context, time, assessors or assessment tasks) and that assessment outcomes that lead to the award of a qualification are consistent. The study also calls for the involvement of labour market stakeholders in developing assessment standards based on learning outcomes and for their participation in summative assessment. Their participation ensures the validity of assessment and that assessment tasks measure as precisely as possible the learning outcomes expected of the holder of a qualification. Their involvement may also increase credibility and trust in qualifications.

In another context, the European Training Foundation (ETF) conducted a review of quality assurance mechanisms in its partner countries, which include those in the Arab region, Balkans, Eastern Europe, Caucasus and Central Asia. In these countries, there seems to be new emphasis on the processes of developing the standards behind a qualification, in terms of how and by whom it is done. In its recent toolkit on developing better qualification systems, the ETF focuses on the issue of quality assurance, providing a set of recommendations for countries that wish to strengthen the QA of their qualifications (ETF, 2016). ETF work emphasises the importance of quality assuring the standards behind qualifications, the assessment processes, and certification, and includes an independent validation check at every step (ETF, 2016, p. 121).

6.5. Regional quality assurance dimensions

The application of quality assurance systems to transnational TVET is becoming increasingly important, with quality assurance of qualifications addressed in different ways. Alongside regional qualifications frameworks there are increasingly coordinated approaches/frameworks of quality assurance, such as the East Asia summit (EAS) TVET quality assurance framework, the European quality assurance in vocational education and training and the Pacific quality assurance framework. The key aims of a regional quality assurance framework are to develop mutual understanding and trust among member countries. Some regional qualifications frameworks, such as the European qualifications framework (EQF) and Association of Southeast Asian Nations (ASEAN) qualifications reference framework, require countries to refer to agreed quality assurance frameworks in the referencing process.

6.6. Conclusion

Quality assurance of TVET qualifications is evolving in many countries. Often this evolution is related to other reforms in TVET systems: development of national qualifications frameworks and moves towards a learning outcomes approach; reforms of governance and involvement of social partners and other stakeholders; shifts towards more autonomy of TVET providers; expanding and diversifying access and increasing attention to work-based learning (UNESCO, 2015; Cedefop, 2016; Bateman et al., 2016).

Given the diversity of country contexts, much consensus exists around the idea that quality assurance is a crucial vehicle for trust and value of qualifications. Giving attention to the different elements of the quality assurance chain is an appropriate approach to assessing the relevance, reliability and validity of the processes in place.

Although quality assurance has risen to the top of policy agendas, the capacity of TVET systems to respond to the requirements of the quality assurance chain is often limited. Countries should conduct a strategic review on the governance structure of quality assurance across TVET, with a focus on strengthening coordination, capacities and accountability of all aspects of the qualification process (Bateman and Coles, forthcoming).

Despite growing international interest, there is little empirical research into the impact of introducing quality assurance of qualifications on the value and currency of TVET qualifications in the labour market within and across countries.

Table 6-3. Key regional initiatives on quality assurance

INITIATIVE	PURPOSE	PROGRESS
European quality assurance reference framework for VET	The key purpose of the European quality assurance reference framework for TVET is to serve as a reference instrument to promote and monitor continuous improvement of TVET systems ([22]). The framework is based on the continuous improvement cycle ([23]) and includes: quality criteria; indicative descriptors for TVET system levels; indicative descriptors for TVET provider levels; and a reference set of quality indicators for assessing quality in TVET. The indicators proposed cover relevance; investment in teachers; participation, completion and placement rates; utilisation of acquired skills at the workplace; unemployment rate; prevalence of vulnerable groups; mechanism to identify training needs and schemes used to promote better access to TVET. The EQAVET framework does not specifically cover the quality assurance of qualification design, assessment and certification	All EU-28 countries have established QA approaches compatible with EQAVET ([24]). In 34% of the countries, the EQAVET framework was used to develop the national QA approach.
In Europe, the 2017 EQF recommendation for lifelong learning lays out in Annex III the principles of quality assurance that must underpin implementation of the framework	10 criteria are governing referencing of national qualifications frameworks to the EQF. Criteria 5 and 6 explicitly refer to the need to document existing quality assurance arrangements and their consistency with the relevant European principles and guidelines, underlining the importance of these for ensuring confidence when comparing national qualifications frameworks.	By April 2016, 32 countries had linked ('referenced') their national qualifications levels to the EQF ([25]).
East Asia summit TVET quality assurance framework	The East Asia summit TVET quality assurance framework aims to help EAS countries to benchmark their TVET quality assurance systems to an agreed international framework. It includes standards for competent bodies and for TVET providers.	Currently, nine East Asia summit countries have conducted self-assessment against the competent body standards (Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand and Vietnam).
Pacific quality assurance framework	The quality assurance framework includes standards based benchmarks for national competent bodies and for providers of education and training services across the Pacific. The Pacific nations use these quality assurance standards to benchmark their own quality assurance standards and processes. In a few instances, Pacific nations have adopted the regional qualifications framework and the quality assurance framework at the national level.	Pacific quality assurance framework was adopted in 2015.

([22]) *Official Journal of the European Union*, C 155, 8.7.2009, pp. 1-10.
([23]) Plan, implement, evaluate and review.
([24]) http://www.eqavet.eu/gns/policy-context/european-quality-assurance-reference-framework/framework-implementation.aspx
([25]) https://ec.europa.eu/ploteus/documentation#documentation_73

INITIATIVE	PURPOSE	PROGRESS
South African quality assurance framework	Quality assurance guidelines were developed to support the implementation of the Southern African Development Community (SADC) regional qualifications framework. The SADCQF encourages SADC countries to have good QA mechanisms. In this regard, the SADCQF links up with regional QA bodies.	To ensure that credible, trustworthy information is being shared across SADC, a regional qualifications verification network (SADCQVN) was established. The SADCQVN was initiated to strengthen verification in SADC and has applied for membership of the African qualifications verification network to ensure that African qualifications can be trusted. Currently, the SADCQVN document is being translated and prepared for publication. There are plans to create a list of credible SADC institutions and their qualifications.

NB: EQAVET: quality assurance in vocational education and training; EQF: European qualifications framework; QA: quality assurance; SADC: Southern African Development Community; SADCQF: SADC qualifications framework; SADCQVN: SADC qualifications verification network.

Source: Author, based on different sources.

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CHAPTER 7.
LEARNING OUTCOMES IN COMPARING VET QUALIFICATION PROFILES: A GLOBAL APPROACH

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Summary

This chapter summarises the outcomes of joint research carried out by Cedefop, the ETF and UNESCO in 2015-16 comparing the content and profile of four vocational qualifications (bricklayer, healthcare assistant, hotel receptionist and ICT service technician) in 26 countries worldwide. The research was made possible by the increasing use of learning outcomes for defining and describing qualifications. Comparison was also made possible by the continuing development of the European classification of skills, competences, occupations and qualifications (ESCO) providing a reference point for comparison of national profiles. We argue that systematically demonstrating similarities and differences between qualifications allows national stakeholders to reflect better on their own choices and priorities: are, for example, significant differences in skills requirements the result of differing national settings and requirements, or are they merely caused by lack of information and oversight?

Keywords: technical and vocational education and training (TVET) qualifications; learning outcomes; European classification of skills, competences, occupations and qualifications (ESCO)

7.1. Introduction

While qualifications frameworks are developed for many different purposes, the promotion of learning outcomes stands out as probably the most important. Systematic use of learning outcomes in frameworks and qualifications allows for the introduction of levels supporting comparison and transfer of qualifications; outcomes increase the overall transparency of qualifications, making it possible for individual learners and future employers to judge their quality and relevance. The approach also points towards a 'common language' allowing dialogue between education and training institutions and external stakeholders on skills needs and relevant responses. Different studies (Cedefop, 2016; Keevy, Chakroun (2015), show that national qualifications frameworks have played a significant role in supporting more systematic use of learning outcomes in many countries. Compared to the situation in 2013 when the first global inventory was produced (ETF, Cedefop and UNESCO-UIL, 2013), this inventory indicates that learning outcomes are now more widely used and considered by countries in developing, reviewing and updating their qualifications.

This chapter draws on the increased use of learning outcomes, supported by qualifications frameworks, and uses these statements as a basis for comparing the content and profile of vocational qualifications in 26 countries worldwide ([1]).

7.2. The comparative study: focus and methodology

In 2016, Cedefop, ETF ([2]) and UNESCO, in cooperation with national stakeholders ([3]), carried out a comparative study of vocational education and training qualifications for four broadly defined profiles in 26 countries across the world. The study was inspired by the fact that an increasing number of countries now use learning-outcomes-based approaches to define and write qualifications ([4]). The emergence of this 'common language' ([5]) makes it possible to compare what

([1]) The study was carried out by researchers from 3s in Austria and Ockham IPS in the Netherlands, Karin Luomi Messerer, Monika Auzinger and Simon Broek. The findings presented in this chapter are based on the draft reports to Cedefop and UNESCO.

([2]) The European Training Foundation, represented by Eduarda Castel Branco, added data for VET qualifications in Albania, the Former Yugoslav Republic of Macedonia and Tunisia.

([3]) The analysis of national level data was supported by several individual experts and institutions.

([4]) The global study was inspired by, and based on, a European study developed by Cedefop (2017,), looking at 10 VET qualifications in 10 EU countries. These 10 qualifications are: bricklayer/masonry, health care assistant, hotel assistant/receptionist, ICT service technician, plumber (cooling and heating), sales assistant, dental assistant, logistics technician, machine operator (automation/CNC) and farm management professional (agriculture).

([5]) See for example Cedefop (2016). *The application of learning outcomes approaches across Europe: a comparative study*. Luxembourg: Publication Office. Cedefop reference series; No 105. http://www.cedefop.europa.eu/en/publications-and-resources/publications/3074

Table 7-1. Qualifications covered by the study

GENERIC TITLE	FURTHER INFORMATION/FOCAL POINT OF QUALIFICATIONS SELECTED
Bricklayer/Masonry	Bricklayer is a traditional qualification in the construction sector (house building, commercial building, restoration, repair and maintenance).
Healthcare assistant	Healthcare assistants (or assistant nurses) provide assistance, support and direct personal care to patients and residents in a variety of institutional settings such as hospitals, clinics, nursing homes and aged care facilities. They generally work in support or under the guidance of qualified healthcare professionals (often nurses) or associate professionals. Might be a relatively new qualification in some countries.
Hotel assistant/ receptionist	Deals with communications as part of the reception function (e.g. provides tourist information to guests), with check-in and check-out of customer as well as with bookings; supports administration, book keeping, cost accounting.
ICT service technician	Provides ICT support and systems service in companies/institutions; focus is on more technical aspects of ICT installation, service and maintenance.

Source: Cedefop, (2017).

countries expect their TVET ([6]) candidates to know, be able to do and understand after having successfully completed a TVET programme. The study focuses on intended ([7]) learning outcomes and does not claim to map and compare the actual achievements of learners, as these are demonstrated through assessments or at work ([8]). While this can be seen as limiting the usefulness of the research, the systematic insight into national priorities can potentially add significant value. The study did not aim for a ranking of countries but to examine the transparency and comparability of qualifications at international level and to support peer learning. Systematically demonstrating similarities and differences between qualifications allows national stakeholders to reflect on their own choices and priorities: are, for example, significant differences in skills requirements the result of differing national settings and requirements or are they merely caused by lack of information and oversight? The following sections present the focus and the methodology of the comparative study. Given that this is a pilot-study, testing what is in many ways a new approach, this will be presented in some detail.

7.2.1. The qualifications studied

The study focuses on qualifications for four profiles commonly awarded in most countries in the world and seeks to describe and compare their scope, profile and content. The qualifications chosen are presented in Table 7-1.

The qualifications were selected to illustrate the span of knowledge, skills and competences covered by national qualifications. While the bricklayer qualification must balance century-old handicraft traditions with modern industrial construction, the healthcare assistant and the hotel receptionist qualifications need to be able to offer the relevant personal services, a combination of sector-specific technical knowledge and interpersonal and transversal skills and competences. The ICT service technician qualification needs to combine technical and transversals skills and competences in a context characterised by rapid technological change. At least two (hotel receptionist and ICT service technician) of the four qualifications are likely to refer to common sets of skills across countries.

7.2.2. The countries and regions covered

Starting from a Cedefop project (Cedefop, 2017) comparing 10 TVET qualifications in 10 European Union countries, the key purpose of the global study was to extend

([6]) For the purposes of this chapter, the term technical and vocational education and training (TVET) is used. Cedefop uses the term vocational education and training (VET).

([7]) The distinction between intended and actually achieved learning outcomes is critical for understanding the strengths and the limitations of the study: intended learning outcomes are those that are presented in written documents. They describe what learners should know and be able to demonstrate at the end of a learning process. They are thus statements of expectations related to learners' performances. Achieved learning outcomes are those that are demonstrated by an individual learner at the end of a learning process and/or in a working context. In some countries the term 'competence' is used to describe these actually achieved learning outcomes.

([8]) The European part of the study, carried out by Cedefop, takes one step in this direction by analysing how learning outcomes are reviewed and how the experiences from 'real life' support continuous renewal (through a feedback loop) of qualifications.

the selection of countries to cover as wide a variety of national systems and solutions as possible. The extension of the study from 10 to 26 countries was made possible by the cooperation between regional qualifications frameworks initiated by UNESCO from 2013 and onwards ([9]). This cooperation was essential for getting access to and analysing the relevant data from national qualification authorities. While important regions and countries are missing, the study covers a wide range of countries and regions representing very different national qualifications systems. Countries are united, however, by having introduced learning-outcomes-based national qualifications frameworks. The participating countries were divided between Africa (five), Asia (two), Europe (12), the Gulf region (one), Latin America and Caribbean region (three) and the Pacific region (two). Table 7-2 shows the participating countries and the qualifications covered in each country and as a total.

The four selected qualifications are not covered in all 26 countries. This is partly due to lack of national capacity to provide data and partly where a particular qualification is not awarded by the national system. This latter is particularly the case for the healthcare assistant.

7.2.3. Contextualising the qualifications

For a comparison of the content and profile of the qualifications to be possible, the institutional context in which the qualifications operate had to be clarified. While most of the 26 countries have set up national qualifications frameworks operating with learning-outcomes-based levels, only the European countries, through the EQF, have adopted a common reference point allowing for comparison of these levels. This lack of a common reference provides a challenge for the global comparison and could potentially be addressed through the gradual adoption of world reference levels, as currently sought by UNESCO. The occupational purpose of each qualification also provides an important indication of the role assigned to each qualification. The study distinguishes between two main occupational roles; skilled and semi-skilled worker. Table 7-3 shows how these two roles have been defined.

These roles can be further clarified by identifying the relationship of these qualifications to jobs and occupations. Does the qualification, for example, grant exclusive access to an occupation or is it one of several pathways leading in this direction? Table 7-4 shows different ways in which qualifications can be related to occupations.

7.2.4. The learning outcomes data

While the contextual data help to locate the qualifications in relation to the national qualifications systems and labour markets, analysis of the intended learning outcomes is at the centre of the study. The learning outcomes approach now is commonly used for describing TVET qualifications in the countries covered by the study ([10]), but the way it is applied and interpreted varies. This means that learning outcomes differ in length, level of detail as well as orientation. Countries further use different documents and instruments to define and describe the intended learning outcomes and it will often be necessary to combine different documents to get full understanding of the qualification in question. Countries normally use the following documents (Figure 7-1), or combinations of these, when defining the content and profile of their TVET qualifications.

While occupational standards are oriented to meet needs of the labour market, specifying the performance requirements in an occupation, educational standards, curricula, assessment criteria and programme descriptions focus on the learning process and how this can be managed. These documents will normally vary significantly in level of detail and specificity. While a national qualification standard will normally provide an overarching description of the content and profile of a qualification, assessment criteria (for example) need to specify not only what is to be assessed but also indicate the expected level of performance.

7.2.5. Reference point for comparing learning-outcomes-based qualifications

Given that qualifications are presented and described in different ways across countries, identification of similarities requires some form of reference point. Experiences from European pilot projects point to the need for independent reference points (grids or matrices) making it possible to

([9]) In a follow-up to the conclusions of the 2012 Shanghai declaration on TVET, a working group has been set up to address the feasibility of World reference levels for qualifications. Including representatives of existing regional qualifications frameworks, this working group has initiated joint work in several areas, notably seeking to share experiences in the use of learning outcomes for different purposes.

([10]) The fact that the 26 countries all use learning outcomes to define and describe their qualifications signals general acceptance of this approach. Differences in interpretation and implementation between countries, however, means that the objective of creating 'a common language' to be used across institutional and geographic borders has yet to be fully realised.

Table 7-2. Countries and regions covered by the study

REGION	COUNTRIES	QUALIFICATION PROFILES COVERED				TOTAL
		BRICKLAYER	HOTEL ASSISTANT/ RECEPTIONIST	HEALTHCARE ASSISTANT	ICT SERVICE TECHNICIAN	
Africa	Mauritius	●	●	●	●	4
	Namibia		●			1
	Tunisia	●	●			2
	South Africa	●	●	●	●	4
	Zambia	●	●		●	3
Asia	Korea (KR)	●	●	●	●	4
	Philippines (PH)	●	●	●	●	4
Caribbean Region and Latin America	Barbados	●	●	●	●	4
	Chile	●	●			2
	Costa Rica	●	●	●	●	4
Europe	Albania	●			●	2
	Austria	●	●	●	●	4
	Bulgaria	●	●	●	●	4
	Denmark	●	●	●	●	4
	Finland	●	●	●	●	4
	France	●	●	●	●	4
	Ireland		●	●	●	3
	Lithuania	●	●	●	●	4
	Macedonia		●			1
	Netherlands	●	●	●	●	4
	Spain	●	●	●	●	4
	UK-England	●	●	●	●	4
Middle East	United Arab Emirates (UEA)				●	1
Pacific Region	New Zealand	●	●	●	●	4
	Samoa		●			1
TOTAL	**26**	**20**	**23**	**17**	**20**	**80**

Source: Auzinger, M.; Broek, S.; Luomi-Messerer, K., 2017 (forthcoming).

Table 7-3. Main roles of TVET qualifications in the labour market

	SKILLED WORKER	SEMI-SKILLED WORKER
Scope	The qualification attests that the person is a qualified/competent/skilled worker, with the knowledge, skills and competence required to practise an occupation.	The qualification attests that a person has obtained a set of skills/competences, with the skills needed to perform particular tasks/a narrow set of activities (semi-skilled worker).

Source: Adapted from Spöttl and Ruth (2011), pp. 148-151.

identify similarities and differences. The VQTS model ([11]) and projects building on this approach ([12]) exemplify this. Several ECVET projects have used a similar approach for comparing qualifications ([13]). These project approaches, however, are too limited in scope and left the project with two main alternatives:

(a) the terminology currently being developed in the context of the ESCO project (the multilingual classification of European skills, competences, qualifications and occupations) ([14]);
(b) the terminology developed in the context of O*NET, the Occupational information network used in the US ([15]).

It was decided to use a draft version of the ESCO terminology made available at the beginning of 2016 ([16]). This reflects that ESCO is explicitly designed to work at international level and aims to be relevant across national labour markets and education and training systems. Second, ESCO not only provides terminology on occupational tasks and functions, but also introduces terminology on knowledge, skills and competence designed to bridge education and work. For the purpose of the study, two ESCO elements were used:

(a) draft ESCO terminology on occupational specific skills and competences is developed for 27 sectors, covers 3 000 occupations and contains approximately 13 000 skill and competence terms ([17]). Using ISCO 2011 ([18]) as a tool for distinguishing sectors and occupations, the skills and competence terminology ([19]) evolved from analysis of main tasks and functions in each occupation and associated jobs. This analysis was then adjusted using information on learning outcomes for describing relevant qualifications ([20]). The learning outcomes statements identified at national level were mapped to these occupationally specific lists of terms, demonstrating correspondence or lack of correspondence;
(b) draft ESCO terminology on cross-sectoral and transversal skills and competences is organised according to five key headings divided into 16 subheadings: application of knowledge (numeracy/mathematics, ICT, Health and safety); language skills and competences (including mother tongue and foreign languages); thinking skills and competences (problem solving; innovative and creative thinking; entrepreneurial thinking; social skills and competences (leading and managing others; working with others; training and supporting); critical thinking; learning); and personal attributes (physical abilities; attitudes to work; values at work). While the fifth headline (attributes) is only partly about skills and competences, it is an important category for defining learning outcomes. As with the occupation-specific skills and competences, national terms were mapped to the ESCO list, demonstrating correspondence or lack of correspondence.

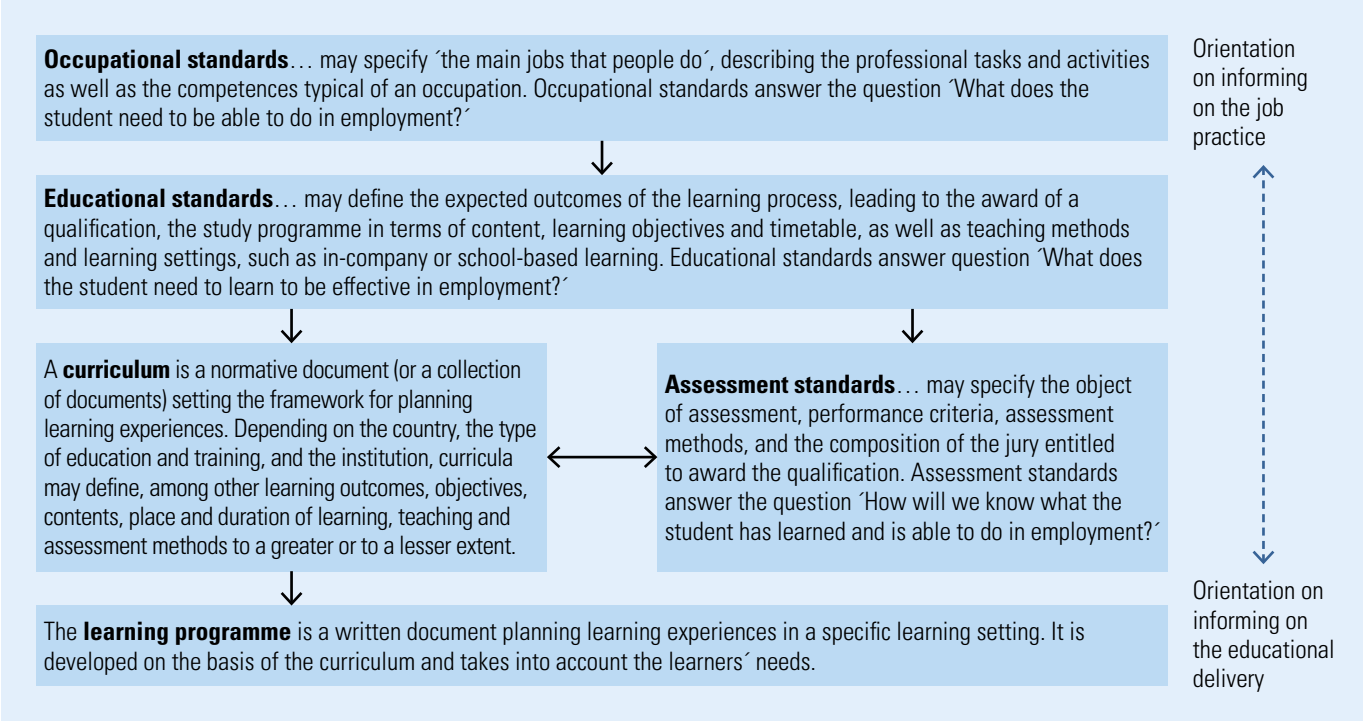
([11]) Luomi-Messerer (2009). http://www.vocationalqualification.net/
([12]) www.VocationalQualification.net (Resources: Links: VQTS model).
([13]) http://www.ecvet-projects.eu/ToolBox/ToolBoxList.aspx?id=28&type=1
([14]) https://ec.europa.eu/esco/portal/home
([15]) http://www.onetonline.org/
([16]) It needs to be emphasised that these are draft results and ESCO has been further developed since then and that a first official version of ESCO was published in July 2017. Some have pointed out the room and need for improvement.
([17]) The terminology will be available in 24 languages.
([18]) International standard classification for occupations, 2011
([19]) https://ec.europa.eu/esco/portal/escopedia/Learning_outcome
([20]) The number of knowledge, skills and competence terms included for each occupation varies. For the occupational areas touched by this study, the variation is: the profile for bricklayer includes 48 terms; the hotel assistant/receptionist comprises 26; the profile for healthcare assistants is 31 and the ICT service technician includes 34.

Table 7-4. The relationship between qualifications and occupations

Licensing refers to situations in which it is unlawful to carry out a specified range of activities for pay, i.e. an occupation or profession, without first having obtained a qualification which ensures that the practitioner meets the prescribed standards of competence.
Certification refers to situations in which there are no restrictions on the right to practise an occupation, but job holders may voluntarily apply to be certified as competent by a State-appointed regulatory body.
Registration refers to situations in which it is unlawful to practise without having first registered one's name and address with the appropriate regulatory body. Registration provides some form of legal barrier to entry, but an explicit skill standard is not provided.
Accreditation refers to situations in which an individual may apply to be accredited as competent by a recognised professional body or industry association. Accreditation is distinct from certification in that the criteria governing accreditation and the procedures regarding enforcement are entirely the responsibility of the accrediting body rather than the State ([21]).

Source: Cedefop (2013b).

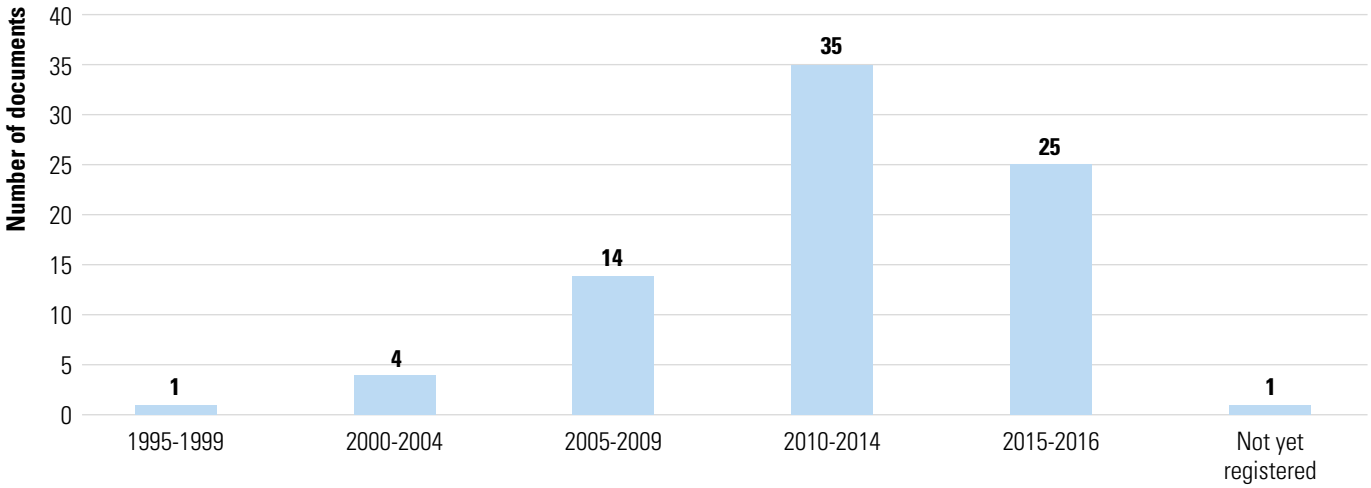
Figure 7-1. Documents providing information on learning outcomes



Source: Cedefop, 2017.

([21]) Cedefop (2013a). *The role of qualifications in governing occupations and professions*. Luxembourg: Publications Office. Cedefop working paper; No 20.

Figure 7-2. Date of issue of documents used



Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

ESCO is applied as a sort of 'fixed' terminological point allowing for the analysis of national learning-outcomes-based data. The fact that the terminology is detailed (for example containing 48 terms for capturing occupational specific skills and competences for bricklayers), increases its relevance and allows for more precise analysis of the content and profile of national qualifications. The combination of occupation-specific, cross-sectoral and transversal skills and competences was, from the start, considered to be crucial to the comparison.

7.3. Main study findings

The findings of the study can be divided into two main parts: those related to the positioning of qualifications in the national education and training and labour market context; and those related to the learning outcomes and the content and profile of the selected qualifications. The following two sections provide an overview of main findings.

7.3.1. Qualifications and context

It is commonly asserted that TVET qualifications, to be relevant to the labour market and society at large, must be continuously reviewed and renewed. The study shows that most qualifications studied (60 out of 80) had been issued during the past six years; 19 are registered as having been issued before 2010, raising questions over their relevance to the labour market they are supposed to serve ([22]).

The level of a qualification can be established either using a learning-outcomes-based approach (as provided by regional qualifications frameworks such as the EQF) or by using institutional levels (such as the international standard classification of education, ISCED 2001). These approaches are based on different data but provide, when combined, a useful picture of the way qualifications are levelled. Table 7-5 offers an overview of the EQF level and ISCED 2011 classification as indicated in the qualifications descriptions. For countries outside Europe the EQF level indication can only be estimated, as no formal referencing of their NQF levels have taken place. In cases where no NQF level is available, an estimation is not possible. A reference to ISCED 2011 is indicated for 56 of 80 qualifications (mainly in Europe). This can be explained partly by the structure of education and training systems of the concerned countries where non-formal TVET is important and lies outside the education system.

While incomplete, the table is still interesting in demonstrating the wide range of levels covered by TVET qualifica-

([22]) The question of review and renewal is addressed in the second part of the Cedefop study (for 10 countries) and an extension of this focus to the remaining 16 countries is being considered.

tions, in this case from EQF levels 2 to 5. Table 7-6 shows the coverage according to EQF levels, also indicating how the four qualifications covered differ in this respect.

The hotel assistant qualifications can be found at all EQF and ISCED levels, while there are no bricklayer and healthcare assistant qualifications linked to EQF level 5. There is no ICT service technician linked to EQF level 3. Healthcare assistant qualifications are predominantly linked to EQF level 3 while the centre of gravity for ICT service technician qualifications seems lie at EQF 4. The position of the four qualifications can be further determined by looking at their orientation towards the labour market and their relationship with occupations. Table 7-7 shows that 65 out of 80 qualifications aim to train skilled workers, able to work autonomously in a particular occupation, taking on the required responsibilities. This corresponds with the EQF-levelling where the centre of gravity of the qualification lies at levels 3 and – especially – 4.

Some countries have a higher share of qualifications preparing for semi-skilled work while others have none. For example, three of the four New Zealand qualifications analysed are preparing for semi-skilled work, as are all three from Ireland, two from UK-England and two from the Republic of Korea. The link to the labour market and to occupations can also be addressed by looking at the way qualifications may be legally required to operate in an occupation (Table 7-8).

Table 7-5. EQF levels (actual and estimated) and ISCED 2011 classification

ESTIMATED EQF LEVEL	TOTAL NUMBER	ISCED 2011	TOTAL NUMBER
2	7	2	6
3	19	3	32
4	32	4	15
5	5	5	3
No estimate possible	17	No estimate possible	24

NB: n = 80 qualifications.

Source: Auzinger; Broek; Luo mi-Messerer, K., 2017 (forthcoming).

Table 7-6. EQF levels (actual and estimated)

CLASSIFICATION			EQF LEVEL INDICATION (ACTUAL AND ESTIMATE)			
Type		2	3	4	5	n/a
Bricklayer/mason	20	2	6	7	0	5
Healthcare assistant	17	1	8	5	0	3
Hotel assistant/ receptionist	23	1	5	8	3	6
ICT service technician	20	3	0	12	2	3
Grand Total	**80**	**7**	**19**	**32**	**5**	**17**

NB: n = 80 qualifications.

Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

Table 7-7. Orientation of qualifications: overview per qualification profile and country

TYPE	SKILLED WORKER	TOTAL	SEMI-SKILLED WORKER	TOTAL
Bricklayer/mason	AL, AT, BB, BG, CL, CR, DK, ES, FI, FR, LT, MU, NL, PH, TN, UK-EN, ZA, ZM	18	NZ, KR	2
Healthcare assistant	AT, BG, CR, DK, ES, FI, FR, LT, MU, NL, PH	11	BB, NZ, ZA, IE, KR, UK-EN	6
Hotel assistant/ receptionist	AL, AT, BB, BG, CL, CR, DK, ES, FI, FR, LT, MU, NL, NZ, PH, TN, UK-EN, WS, ZA, ZM	20	IE, KR, NA	3
ICT service technician	AL, AT, BB, BG, CR, DK, ES FI, FR, KR, LT, NL, PH, UAE, ZM, ZA	16	IE, MU, NZ, UK-EN	4
Total		**65**		**15**

NB: n = 80 qualifications.

Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

Table 7-8. Function/role of qualifications in the labour market: overview by qualification profile and country

	THE QUALIFICATION IS REQUIRED TO PRACTISE A CERTAIN PROFESSION (LICENSING/ ACCREDITATION)	TO PRACTISE THE RELATED PROFESSION, IN ADDITION TO THE QUALIFICATION, FURTHER REQUIREMENTS NEED TO BE FULFILLED (CERTIFICATION/ REGISTRATION)	THE QUALIFICATION IS DESIRED/ RECOMMENDED BUT NOT A FORMAL REQUIREMENT
Bricklayer/ mason	1 (DK)	3 (NL, TN, ZA)	16 (BB, NZ, CR, CL, MU, PH, KR, ZM, AT, BG, UK-EN, FI, FR, LT, ES, AL)
Healthcare assistant	7 (AT, BG, DK, ES, FI, KR, LT)	1 (ZA)	9 (UK-EN, FR, IE, NL, BB, NZ, CR, MU, PH)
Hotel assistant/ receptionist	2 (DK, LT)	1 (TN)	20 (BB, NZ, ZA, WS, CR, ZM, CL, MU, NA, PH, KR, AT, BG, UK-EN, FI, FR, IE, NL, ES, MK)
ICT service technician	2 (LT, UAE)	1 (KR)	17 (BB, NZ, ZA, CR, ZM, MU, PH, AT, BG, DK, UK-EN, FI, FR, IE, NL, ES, AL)
Grand total	**12**	**6**	**62**

NB: n = 80 qualifications.

Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

Table 7-9. Purpose of qualifications for further education by qualification profile and country

TYPE	NO DIRECT ACCESS TO A NEXT LEVEL OF EDUCATION AND TRAINING	ACCESS TO A NEXT LEVEL OF EDUCATION AND TRAINING (BUT NOT TO HE).	ACCESS TO A NEXT LEVEL OF EDUCATION AND TRAINING AND TO HE	ACCESS TO HE	OTHER
Bricklayer/ mason	2 (ZM, KR)	11 (AT, BG, UK-EN, FR, NL, ES, BB, NZ, TN, MU, AL)	3 (FI, ZA, PH)	2 (DK, LT)	2 (CR, CL)
Healthcare assistant	2 (BG, LT)	7 (AT, DK, NL, ES, BB, ZA, MU)	6 (NZ, KR, PH, UK-EN, FI, IE)	-	2 (CR, FR)
Hotel assistant/ receptionist	1 (ZM)	9 (AT, DK, NL, BB, NZ, WS, TN, KR, MU)	9 (BG, UK-EN, FI, FR, IE, ZA, PH, NA, MK)	2 (LT, ES)	2 (CR, CL)
ICT service technician	-	9 (AT, DK, NL, BB, NZ, ZA, UAE, MU, AL)	7 (BG, FI, FR, IE, ZM, KR, PH)	3 (UK-EN, LT, ES)	1 (CR)
Grand total	**5**	**36**	**25**	**7**	**7**

Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

The data show that most qualifications are desired by occupations but that few are (legally) required ([23]).

The orientation of qualifications can also be determined by addressing their link to further education, training and learning, including links to higher education. It is sometimes asserted that TVET qualifications are 'dead-ends', not allowing learners to move to further and higher education and training which, in turns, affects the attractiveness of TVET. Table 7-9 questions this assertion, showing that only five qualifications provide no direct access to the next level of education and training. We also see that a significant proportion of the qualifications also provide access to (general) higher education. The importance of advanced or higher vocational education and training (outside the university sector) is implicitly underlined by the table, pointing to this as an important progress route.

The contextual data provide an interesting comparative picture of the four qualifications. While diverse and covering a relatively wide range of levels and trades, the 80 qualifications share several common features, irrespective of the country of award.

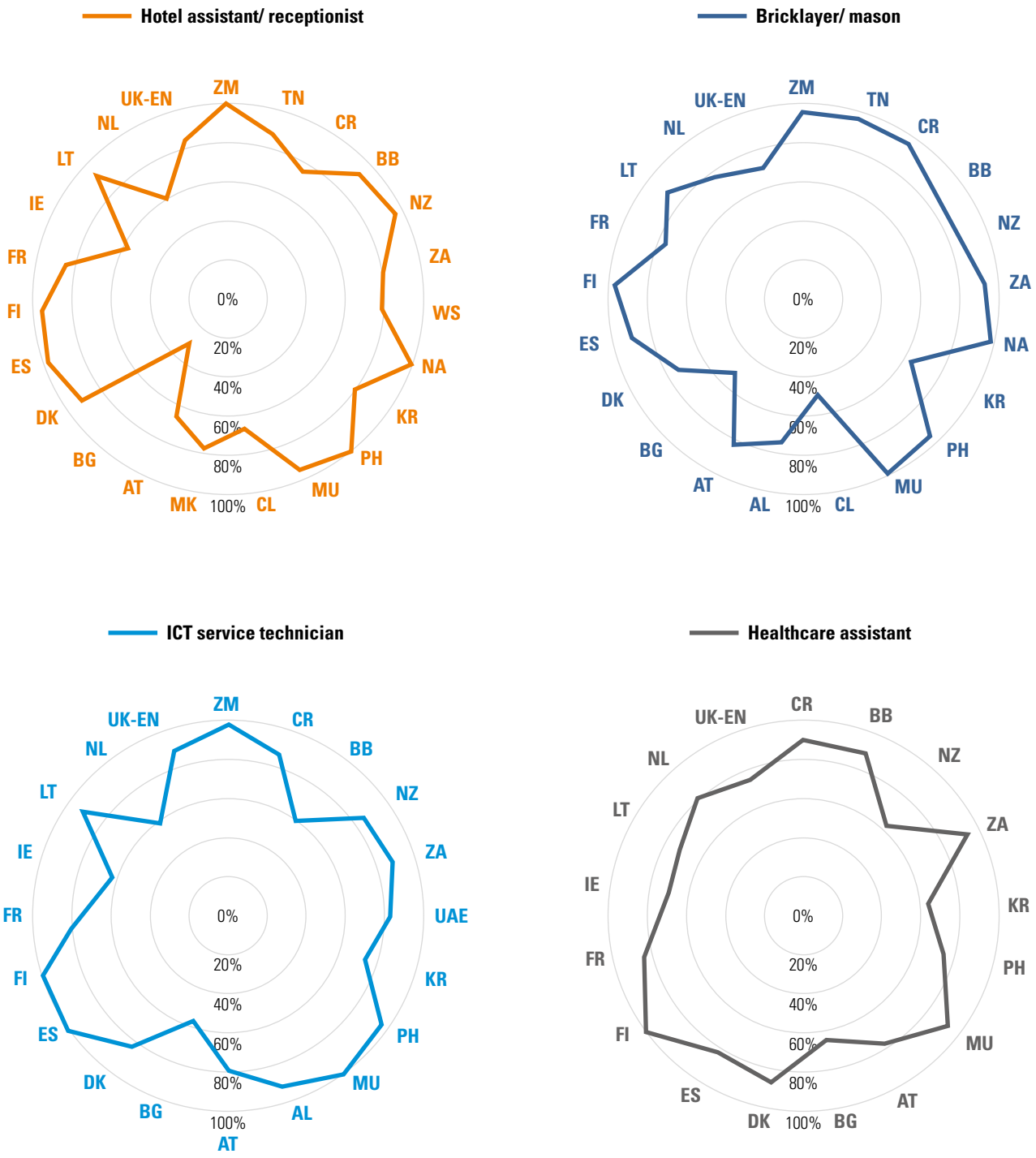
7.3.2. Qualifications content and profile

Qualifications have been mapped to the ESCO terminology on occupation-specific skills and competences and cross-sectoral and transversal skills and competences. Figure 7-3 illustrates the extent to which national qualification profiles (as a combination of occupational and transversal skills) match those used by ESCO. While this does not say anything about how the specific content of qualifications varies and their relevance to the needs of the labour markets, it illustrates the variation between countries.

From this comparison we can distinguish between countries with narrower or broader qualification profiles: if we look at the occupational-specific skills and competences, Spain and Finland demonstrate an almost complete match with the ESCO profiles. Albania, Bulgaria and Ireland, in contrast, demonstrate a weak match with ESCO. While we can observe some significant differences between countries in terms of match with ESCO, there are relatively limited differences across the four qualification studies. The qualification with the best match is the ICT service technician, where one third of the countries cover all ESCO skills and competences. With the healthcare assistant qualifica-

([23]) These are preliminary findings that need to be further checked and confirmed, in particular regarding the qualifications defined as being legally required.

Figure 7-3. Match of national qualifications profiles to ESCO (combining occupation-specific and transversal skills and competences)



Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

tion we find the lowest average match. The data indicate that the two service sector oriented qualifications demonstrate the lowest match to ESCO and also vary most between countries. A better match is demonstrated for both the ICT and bricklaying qualifications, possibly reflecting the fact that these operate in areas with clearly defined technologies and standards, organisation of work and professional practices.

For transversal skills and competences, Spain and Finland again demonstrate an almost full match with the ESCO terminology (although no country has 100% coverage). The highest average percentage of coverage can be observed for the hotel assistant/receptionist which is slightly higher than the figure for the other qualifications profiles. The lowest coverage (below 50%) is indicated for five qualifications: the bricklayer in Bulgaria (31%) and Chile (33%), the hotel assistant/receptionist in Ireland (46%) and the healthcare assistant in Korea (38%). The comparison across qualification profiles shows that language competence is more important for the hotel assistant/receptionist than for the other qualification profiles, which is understandable given the nature of the job. Learning outcomes related to numeracy/mathematics are more often included in bricklayer/mason and ICT service technician qualifications while items related to health and safety seem to be less relevant for the ICT service technician qualifications compared to the other profiles.

Transversal competences related to the areas of thinking skills and competences and social skills and competences (see previous sections) vary little between the different qualifications and also across countries, indicating that these are considered relevant across the board. Only three of the 81 qualifications covered demonstrate a full match with ESCO: the hotel assistant/receptionist from the Philippines and the ICT service technician from Mauritius and Spain. The lowest coverage (below 60%) is indicated for the hotel assistant/receptionist from Bulgaria (29%), the bricklayer from Chile (48%) and from Bulgaria (51%), the hotel assistant/receptionist from Ireland (55%), and the ICT service technician from Bulgaria (56%), the Netherlands (58%) and Barbados (59%). In most qualifications analysed (55%), a clear focus on job/occupation-specific learning outcomes can be observed but in many (45%), there is an equal balance between these types of learning outcomes. An equal balance is slightly more prevalent for healthcare assistant qualifications and for newer qualifications than for the others. However, this trend is not very pronounced.

While the distinction between broad and narrow qualifications profiles is interesting and indicates that countries define their qualifications in different ways, real added value is linked to the detailed comparison of which occupational and transversal skills and competences have been covered. The strength of the ESCO terminology lies in its detailed approach, operating at a level of granularity making it possible to analyse which specific skills and competences are being addressed by each qualification. This approach is demonstrated by the following two tables (Table 7-10 and Table 7-11), showing how the 21 national bricklayer qualifications covered by the study match the occupation specific and the transversal skills and competences.

The overviews provided by these tables are unique in the sense that they provide a direct and detailed comparison of the intentions of national qualification authorities. Using the bricklayer qualification as an example, we can immediately detect several critical issues.

Occupation-specific content

The most important findings regarding occupation-specific content can be summarised as follows:

(a) there is a common core of occupation-specific skills and competences; while we have distinguished between broad and narrow qualification profiles, among the 21 countries studied (across the world), a strong common core exists. Looking at the total 48 occupation-specific skills and competences listed by ESCO for bricklayers, 27 are covered and shared by more than 18 countries. While not surprising in an area characterised by long and strong skills traditions, awareness of this common core could aid cooperation between countries, facilitate transfer and recognition of qualifications, and support learner and worker mobility across borders;

(b) there are different occupational expectations; 10 of the occupation-related skills and competences are shared by fewer than 15 countries. Half of these are related to the management and organisation of working process activities. Skills such as 'ordering of construction stock' and 'keep personnel administration' are not prioritised by a significant number of countries. This may indicate different perspectives on what a bricklayer is expected to know, be able to do and understand. Should tasks be limited to 'putting brick on brick' or should broader skills be encouraged and developed; for example management of equipment, team and neighbouring trades?

(c) while a strong common core can be observed, a few countries stand out as operating with significantly differ-

ent profiles. For occupation-specific skills Albania, Bulgaria, Chile and Denmark operate with clearly narrower profiles than most others.

Cross sector and transversal skills and competences

The most important findings for transversal skills and competences can be summarised as follows:

(a) a common core of cross-sectoral and transversal skills and competences can also be identified: half of the transversal skills and competences listed by ESCO are covered by 18-21 countries. This points to the existence of a strong core of broader skills and competences, being combined in most countries with the occupation-specific skills;
(b) there are different degrees of integration of transversal skills and competences: the study, in the case of bricklayers, shows that countries differ significantly in the attention paid to transversal skills and competences, with 16 of the 38 skill listed are shared by 15 countries and below. It is difficult to point to particular categories of skills and competences not addressed; the lack of focus might reflect that priority is given to occupational-specific skills;
(c) there are significant national differences; three countries – Bulgaria, Chile and South Korea – stand out as having a significantly different approach to transversal skills and competences than the majority of countries covered and compared. These countries lack between 19 and 28 of the total 38 transversal skills and competences listed by ESCO.

While only related to one of the qualifications, the above points illustrate the potential of the comparative approach in terms of identifying similarities and differences. The methodology does not aim at ranking countries. It should instead be used by national stakeholders to reflect on the priorities set nationally and whether the choices of other countries might be of interest.

7.4. Concluding remarks and issues

The 80 profiles compared reveal a range of shared characteristics among the countries' qualifications for the same occupation. This could benefit education institutions and companies working at international level, and aid decisions on recognition and transfer of individual qualifications.

Common elements include: most of the qualifications have been reviewed in the past six years; they operate at what can be understood as EQF levels 3 and 4; their aim is to capture and communicate the education and training of skilled workers; and they are normally understood as a desirable (even if not legally required) for access to and practising an occupation. Most of these qualifications give access to further education and training and, in some cases, also to higher education.

However, this comparative approach, illustrated by the bricklayer case, raises several questions for further work and research:

(a) how accurate are the national qualification profiles; how can we work to validate further the data underpinning the comparison?
(b) can the ESCO approach, given publication of a quality-assured official version in 2017, be used as a basis for future comparative work?
(c) who, at national and international levels, could be involved to validate further and strengthen the data?
(d) how can these comparisons, when strengthened and stabilised, support national and international policy developments related to qualifications?
(e) how will digitalisation, including digital learner records and credentials, affect the way we access data and use it for faster and broader comparison.

The study will be followed up by Cedefop, with particular focus on the processes adopted by the countries to review and update their qualifications. The ETF, Cedefop and UNESCO are actively discussing the continuation of their collaboration to ensure that this global perspective on TVET is further developed and strengthened.

Table 7-10. Job/occupation-specific KSC: bricklayer

KSC PREFERRED TITLE	AL	KR	PH	NZ	ZA	ZM	MU	
check straightness of brick	●	●	●	●	●	●	●	
fill up mortar joints	●	●	●	●	●	●	●	
finish mortar joints	●	●	●	●	●	●	●	
follow health and safety procedures in construction	●	●	●	●	●	●	●	
lay bricks	●	●	●	●	●	●	●	
secure working area	●	●	●	●	●	●	●	
use measurement instruments	●	●	●	●	●	●	●	
use safety equipment in construction	●	●	●	●	●	●	●	
work safely at heights	●	●	●	●	●	●	●	
keep workplace tidy	●	●	●	●	●	●	●	
maintain equipment	●	●	●	●	●	●	●	
work in a construction team	●	●	●	●	●	●	●	
interpret 2D and 3D plans	●		●	●	●	●	●	
mix construction pastes and grouts	●	●	●	●	●	●	●	
sort waste	●	●	●	●	●	●	●	
split bricks	●	●	●	●	●	●	●	
calculate needs for construction supplies	●	●	●	●	●	●	●	
mix concrete		●	●	●	●	●	●	
inspect construction supplies		●	●	●	●	●	●	
apply finish to concrete	●	●	●	●	●	●	●	
install construction profiles	●	●	●	●	●	●	●	
transport construction supplies		●	●	●	●	●	●	
work ergonomically			●	●	●	●	●	
building codes			●	●	●	●	●	
apply damp-proofing and waterproofing membranes		●	●	●	●	●		
build scaffolding	●		●	●	●	●	●	
operate masonry power saw	●		●	●	●	●	●	
remove concrete forms	●	●	●	●	●	●	●	
apply restoration techniques	●		●	●	●	●	●	
inspect supplied concrete		●	●	●	●	●	●	
place concrete forms	●	●	●	●	●	●	●	
pour concrete		●	●	●	●	●	●	
screed concrete			●	●	●	●	●	
install falsework	●		●	●	●	●	●	
install insulation material	●		●	●	●		●	
keep records of work progress		●	●	●	●	●	●	
reinforce concrete		●	●	●	●	●	●	
rig loads		●	●	●	●	●	●	
snap chalk line		●	●	●	●	●	●	
monitor stock level		●	●	●	●	●		
operate surveying instruments		●		●	●		●	
process incoming construction supplies		●	●	●	●	●		
set up temporary construction site infrastructure			●	●	●	●	●	
use squaring pole		●		●	●	●	●	
estimate restoration costs	●		●	●		●	●	
keep personal administration				●		●		
document survey operations				●		●		
order construction supplies		●	●	●	●	●		

Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

	BB	CR	CL	TN	NA	AT	BG	DK	ES	FI	FR	LT	NL	UK-EN
	●	●	●	●	●	●	●	●	●	●	●	●	●	●
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	●	●			●	●		●	●			●	●	●
		●	●	●	●	●			●			●		

Table 7-11. Transversal KSC: bricklayer

KSC PREFERRED TITLE	AL	KR	PH	NZ	ZA	ZM	NA	
follow hygienic work practices	●	●	●	●	●	●	●	
carry out work-related measurements	●	●	●	●	●	●	●	
work with shape and space	●	●	●	●	●	●	●	
apply quality standards		●	●	●	●	●	●	
support company plan	●	●	●	●	●	●	●	
manage time	●	●	●	●	●	●	●	
memorise information	●	●	●	●	●	●	●	
follow safety precautions in work practices	●	●	●	●	●	●	●	
communicate mathematical information	●	●	●	●	●	●	●	
evaluate information	●		●	●	●	●	●	
make decisions	●	●	●	●	●	●	●	
process qualitative information	●	●	●	●	●	●	●	
handle quantitative data	●	●	●	●	●	●	●	
accept constructive criticism	●	●	●		●	●	●	
lead others	●		●		●	●	●	
support colleagues	●	●	●	●	●	●	●	
develop strategy to solve problems	●	●	●	●	●	●	●	
carry out work-related calculations	●	●	●	●	●	●	●	
interact with others	●	●	●	●	●	●	●	
use mathematical tools and equipment	●	●	●	●	●	●	●	
report facts	●		●	●	●	●	●	
work in teams	●	●	●	●	●	●	●	
use learning strategies	●		●		●	●	●	
motivate others	●		●		●	●	●	
recognise opportunities	●		●		●	●	●	
think creatively	●		●	●	●	●	●	
follow environmentally sustainable work practices	●	●	●	●	●	●	●	
support cultural diversity	●		●	●		●		
instruct others			●		●	●	●	
demonstrate intercultural competence	●		●	●	●	●	●	
give advice to others	●		●		●	●	●	
negotiate compromise	●		●		●	●	●	
persuade others	●		●		●	●	●	
use body language	●		●		●	●	●	
address an audience	●		●	●	●	●	●	
use questioning techniques	●		●	●	●	●	●	
support gender equality	●		●			●	●	
mother tongue	●		●				●	
foreign language	●		●				●	

NB: n = 81 qualifications.
●: KSC terms that are either explicitly or implicitly covered. Remaining KSC terms are not covered at all.

Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

	MU	BB	CR	CL	TN	AT	BG	DK	ES	FI	FR	LT	NL	UK-EN
	●	●	●	●	●	●	●	●	●	●	●	●	●	●
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	●	●	●		●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●		●	●
	●	●	●	●	●	●		●	●	●	●	●	●	●
	●	●	●	●	●		●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●		●	●	●	●		●
	●	●	●		●	●	●	●	●	●	●	●	●	
	●	●	●	●	●	●		●	●	●	●	●	●	●
	●	●	●		●	●		●	●	●	●	●	●	●
	●	●	●	●	●	●		●	●		●	●	●	●
	●	●	●		●	●		●	●	●	●	●	●	
	●	●	●		●	●	●		●	●	●	●	●	●
	●	●	●		●	●	●	●	●	●	●	●	●	●
	●	●	●		●	●			●	●	●	●	●	●
	●	●	●	●		●	●	●	●	●	●		●	
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	●	●	●		●					●	●			●
	●	●	●		●	●				●		●		●
					●				●	●	●		●	

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CHAPTER 8.
LEARNING OUTCOMES WORLD REFERENCE LEVELS: GLOBAL SOLUTIONS FOR GLOBAL CHALLENGES

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Summary

The Third international congress on technical and vocational education and training (TVET), held in 2012, recommended the development of international guidelines on quality assurance for the recognition of qualifications. This would be based on learning outcomes and the identification of a set of world reference levels (WRLs). The main purpose of this work is to increase transparency of qualifications and aid international comparison and recognition of TVET qualifications. UNESCO, in collaboration with experts, international partners and regional organisations overseeing regional qualifications frameworks, has been leading this work using a multistage approach. This chapter provides an update on progress and challenges related to the establishment of WRLs. It presents an overview of the main findings of a set of studies: a comparative study of qualifications cross-borders; an analysis of level descriptors and a preliminary structure of WRLs; and a study on the way qualifications frameworks relate to each other with a particular focus on referencing processes.

Keywords: qualification; world reference levels (WRLs); referencing; level descriptors

8.1. Introduction

In 2012, UNESCO convened the Third international congress on TVET in Shanghai to debate current trends and future drivers of education and training development. This global dialogue culminated in the Shanghai consensus, which recommended developing international guidelines on quality assurance for the recognition of qualifications based on learning outcomes ([1]). This included the proposal that a set of world reference levels (WRLs) be considered to support international recognition of TVET qualifications. Since 2014, UNESCO has been working towards developing such guidelines, in partnership with regional and global organisations. As discussed by Chakroun and Daelman (2015), UNESCO has adopted a four-staged incremental approach to this work: a technical review of level descriptors at national and regional levels; conceptual development of the WRLs; broad consultation; and a political process that will explore the technical and legal aspects relating to the desirability of defining and adopting WRLs.

Approaching the work in a bottom-up way, a range of reviews and consultations have been conducted since 2015, bringing together many international experts in qualifications and qualifications frameworks. This chapter reports on progress made since 2015 in terms of advancing the conceptual development of WRLs.

8.2. The purpose of the world reference levels

The most important factor behind developing WRLs is the internationalisation of education and training systems and labour markets and the increased mobility of people and jobs. The existence of regional frameworks and the international visibility of national qualifications are additional stimuli. The added value of the world reference levels lies in their potential to provide an independent reference point against which a level of learning outcomes can be compared internationally. The levels should broadly aim at supporting learner and worker mobility, and participation in the labour market and lifelong learning. They should support equity of recognition by including quality assurance principles, while addressing the challenges of inter-regional mobility through capacity-building, development of a common language, shared orientation materials and the establishment of networks and communities of practice. The world reference levels should complement national qualifications frameworks (NQFs) and regional qualifications frameworks (RQFs), and support monitoring of regional and international development.

WRLs should not be seen as a set of standards, in the sense of requirements, or a type of world qualifications framework, but rather as a translation tool, that can support 'global mobilities'. They should allow the primary descriptions of

([1]) Shanghai consensus: recommendations of the Third international congress on technical and vocational education and training, Transforming TVET: building skills for work and life. Shanghai, People's Republic of China, 14 to 16 May 2012. http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/ED/pdf/concensus-en.pdf

any system to be re-expressed using a global lexicon. The advantage of this is the ability to offer a neutral, independent and international reference point against which the levels of outcomes expressed in different forms can be compared and to which qualifications can be pegged. They should provide a point of comparison for international/inter-regional dialogue about learning outcomes and qualifications, their value in entry to formal education and training, and entry to, or progression in, employment. They should be capable of being used not only with national, sectoral and regional qualifications frameworks, but also with other outcomes-based constructs, such as job search and career guidance frameworks, job evaluation and recruitment schemes, and other sectoral national, and international structures.

8.3. Current initiatives and main findings

Since 2015, UNESCO has made progress in the conceptual development of the proposed WRLs by undertaking several research studies in collaboration with international experts in the field. The following studies have been carried out: a comparative study of qualifications cross-borders; an analysis of level descriptors; and a study on the way qualifications frameworks relate to each, other with a focus on referencing processes. The objectives, methodology, key findings and conclusions of these three studies are presented in detail in the next sections.

8.3.1. Comparative study of qualifications ([2])

Introduction

The purpose of this study was to provide empirical support in understanding how TVET qualifications are defined, reviewed and renewed and how these processes influence their profile and content. Using comparative methodology, the study aimed to:

(a) analyse and compare the description of qualifications in terms of learning outcomes in a systematic way;
(b) analyse and compare the categories used for describing qualifications.

It was anticipated that the systematic demonstration of similarities and differences among qualifications would allow identification of the most frequently used categories and items. This, in turn, could be used as a basis for an international common template, a minimal common structure for describing qualifications.

The study focused on four qualification profiles available globally and capable of being compared in terms of their scope, content and structure: bricklayer/brick mason; healthcare assistant; hotel assistant/receptionist; and ICT service technician.

The study covered 38 qualifications from 26 countries distributed geographically as follows ([3]): five in Africa, two in Asia, 12 in Europe, one in the Gulf region, three in Latin America and the Caribbean and two in the Pacific. Countries represented different income levels and national qualifications systems, covering the span of what is usually called the three generations of national qualifications frameworks (Coles et al., 2014). All countries involved have in common an effort to introduce learning-outcomes-based national qualifications frameworks.

Methodology

The detailed methodology and results of the comparative study are presented by Bjørnåvold and Chakroun in Chapter 7 of this publication. This chapter focuses on the analysis conducted by the experts to identify the most frequently used categories for describing qualifications.

A template was prepared for analysing the structure of qualifications, the qualification description categories. This template was then used for indicating whether information on specific items is included in the descriptions. The assessment was based on official descriptions of qualifications (for example, as presented in national databases or NQFs). The template was developed drawing on the available literature. It included categories or data fields used for the Europass certificate supplement ([4]) and those suggested by the European qualifications framework advisory group for presenting information on describing qualifications with a European qualifications framework (EQF) level in the context of the *Learning opportunities and qualifications in Europe* portal ([5]).

Findings

The qualification items can be broadly clustered into five main areas: basic information about the qualification; association with international/national categorisations/classi-

([2]) This work was conducted by Monika Auzinger, Simon Broek, Karin Luomi-Messerer, in collaboration with Cedefop, the ETF and UNESCO.

([3]) Only part of the global study is reported here.
([4]) https://europass.cedefop.europa.eu/en/faq/certificate-supplement-questions
([5]) http://ec.europa.eu/ploteus/en/home

fications and frameworks of qualifications; official basis for the qualification; acquiring the qualification; and profile and scope of the qualification.

The findings are summarised in Table 8-1. The categories highlighted in a darker shade could be used as a starting point for developing common templates for describing qualifications.

Conclusions

Using the most frequently used categories for describing qualifications, the following categories could be a starting point for developing a common template for describing qualifications internationally:

(a) title of the qualification in English;
(b) country/region;
(c) name of the body awarding the certificate;
(d) type/form of assessment;
(e) learning outcomes descriptions;
(f) scope of the qualification (full, partial, special purpose qualification);
(g) thematic area/economic sector;
(h) NQF level ([6]).

Further information on qualifications beyond the items presented above would improve their wider transparency across the world. Additional data fields that can aid the use of the information for recognition of qualifications and help users to understand the quality level and trustworthiness of qualifications would achieve this purpose. For instance, additional optional items could be considered including the geographic dimension (national/international), the orientation of the qualification (academic/professional/mix) and accreditation and other quality assurance processes.

8.3.2. Referencing processes ([7])

Introduction

Referencing processes and methodologies are increasingly being used when qualifications frameworks are compared (Keevy and Chakroun, 2015). The WRLs expert group identified this as a key area to be analysed to determine the implications for the proposed world reference levels. The preliminary outcomes of this work are presented below.

Methodology

The work included mapping referencing processes throughout the world, including techniques, methodologies used, elements of organisation, quality assurance, actors involved, highlighting comparable elements as well as differences, and examining the outcomes of these processes and their impact.

The study adopted the use of the term 'referencing' based on common use in Europe and other parts of the world to describe the process of comparison of national qualifications frameworks with a regional qualifications framework or another national qualifications framework. Adopting the term for this work was done in the knowledge that referencing has a particular meaning in the European context in relation to the EQF and that it may not necessarily translate well in the global arena.

The EQF considers referencing as an agreed 'process that results in the establishment of a relationship between the levels of national qualifications, usually defined in terms of a national qualifications framework, and the levels of the EQF' (or the levels of another local ([8]), national or regional qualifications framework) (EC, 2013). It is also widely accepted in the EU that 'the referencing process involves each country … describing its qualifications system, quality assurance arrangements and reporting the extent to which the country meets the (agreed referencing criteria) ([9]) that structure and quality assure the referencing process'. An important part of this process is the involvement of all stakeholders in the qualifications system to ensure objective and external scrutiny of national systems, the process and the referencing outcomes (Keevy et al., 2016, p. 19).

The term 'referencing' is commonly used to describe the process of comparing national qualifications frameworks with a regional qualifications framework, such as has

([6]) The last two items are not among those most commonly used in the 39 countries analysed in this study (as presented in Table 8-1). We suggest that they should be considered for a minimal common structure of a template for describing qualifications because they are strongly emphasised in the European context. They belong to the 'required data fields' suggested in the EQF context for the common format for the electronic publication of information on qualifications.
([7]) This work was carried out by Diane Booker (Booker, 2016).
([8]) For instance, Hong Kong is a Special Administrative Region of the Peoples' Republic of China and as such the Hong Kong qualifications framework (HKQF) is described as a local framework and its referencing activities are examples of referencing a local framework with other national or regional frameworks.
([9]) The EQF describes 10 criteria; referencing between other countries may have agreed on other criteria although most are derived from the EQF criteria.

Table 8-1. Categories for describing qualifications: most frequently used categories

ITEM/CATEGORY	DETAILED DESCRIPTION	FREQUENCY OF ITEM USE
1. Basic information about the qualification	Title of the qualification	39
	Country/region in which the qualification is awarded	34
2. Association with international/ national categorisations/ classifications and frameworks of qualifications	Thematic area – international classification: ISCED/ fields of education and training	8
	Economic sector – international classification: NACE code	3
	Thematic area/economic sector – national classification: national classifications for clustering programmes related to their thematic or sectoral focus	28
	Level – international classification: ISCED level	7
	Level – national classification: NQF level	29
	Level – national classification: countries might use other (national) systems for classifying their education programmes or qualifications	25
3. Official basis for the qualification	Legal basis of the qualification	21
	Name of the body awarding the certificate	35
	Name of the national/regional authority providing accreditation/ recognition of the certificate	29
	International recognition agreements	2
	Grading scale/Pass requirements: the grading scale informs about the standardised measurement applied to identify the levels of achievement in an education programme. The pass requirements indicate the level of achievement necessary for passing a course	33
4. Acquiring the qualification	Official recognised ways of acquiring the qualification, for example, the type of programme leading to the qualification (e.g. school-based or work-based pathway/programme) or to the type of exam required for obtaining the qualification	28
	Type of providers/institutions offering the pathway towards obtaining the qualification	24
	Entry requirements: this refers to the requirements that need to be fulfilled for entering the pathway or gaining access to a training programme leading to the qualification (such as requirements related to age, previous qualifications, work experience)	30
	Volume/duration of learning required: for example, number of learning hours or years of training necessary for obtaining a qualification; sometimes expressed in credit points	27
	Extent of company-based training: this specifies the amount of workplace training required	23
	Accreditation and other quality assurance arrangements of the training programme leading to the qualification	22

ITEM/CATEGORY	DETAILED DESCRIPTION	FREQUENCY OF ITEM USE
	Arrangements for the validation of prior learning: processes for evaluating learning outcomes which could result, for example, in exemption from parts of programmes or exams	18
	Type/form of assessment	33
5. Profile and scope of the qualification	Credit points: credit points indicate the value assigned to a programme/ qualifications or to parts of it	21
	Description in terms of learning outcomes	39
	Range of occupations accessible to the holder of the qualification: this refers to the occupations certificate holders may pursue or any entitlements in the labour market	28
	Main target groups of the qualification: characteristics of learners expected to obtain the qualification, e.g. in terms of age group, work experience, or employment status	30
	Geographic dimension: indication of the labour market context for which the qualification prepares	16
	Orientation of the qualification: for example, general education, vocational/professional education. academic education or a mix	25
	Scope of the qualification: size and purpose of a qualification, e.g. whether full, partial, or special purpose	28

Source: Auzinger; Broek; Luomi-Messerer, K., 2017 (forthcoming).

been the practice in Europe since the introduction of the EQF recommendation. Increasingly, as countries are considering comparison of individual national qualifications frameworks with each other (or even just sections of the frameworks), different terminology such as 'benchmarking', 'self-certification', 'alignment' and 'comparison' are being used. New Zealand suggests that comparison is the overarching term and New Zealand's use of comparative analysis approaches enables inclusion of a greater level of detail in the mapping (pathways, credits, inputs, outputs). Analysis of level descriptors expressed in terms of learning outcomes used in each framework is a critical component of this comparison process.

Table 8-2 compares the terminology used in different contexts. Irrespective of the particular term used, it appears that the outcome of a referencing process is the development of mutual trust between countries, increased understanding of qualifications systems and their legal basis, and definition of the relationship or correspondence of the levels of the national/regional qualifications systems to improve transparency and aid international recognition of qualifications.

Findings

Several relevant referencing processes of qualifications levels have been identified:

(a) the referencing of national qualifications levels to regional qualifications levels (and particularly to the EQF, both by European and non-European States);
(b) the referencing of national qualifications levels to another country's set of national qualifications levels, such as Malaysia with New Zealand;
(c) examples of countries referring their NQFs to other countries with an objective to benchmark levels and level descriptors;
(d) other forms of referencing, such as sectoral international qualifications, including welding, tourism, hospitality, banking.

Table 8-2. Terminology related to referencing processes

TERM	DEFINITION	ACTION/OUTCOME CONTINUUM
Alignment	Agreement, alliance or cooperation among persons, groups.	Implies a political agreement (e.g. Shorter Oxford third edition – fall into line with)
Benchmarking (study)	Test or measure something against a standard (or develop the standard) UAE: means the continuous process of measuring and comparing products, services and practices with comparable systems or organisations both inside and outside the UAE for the purpose of continuous improvement	Implies an unequal relationship: one side has set the standard against which the other is measured
Comparability (study)	Capable of being compared; features in common	HK/EQF: analyses the technical and conceptual characteristics of the respective frameworks in the context for which they are designed and, by comparing the two frameworks, seeks to identify key aspects of similarities and differences and thereby determine the comparability between them.
Comparative (analysis)	Using comparison as a method of study	Designating the degree of comparison (Shorter Oxford third edition)
Compare	Liken, similar to	Consider or estimate the similarity or dissimilarity of one thing to another (Shorter Oxford third edition)
Comparison	Considering the common characteristics between two or more 'things'	Action or an act of likening or representing as similar (Shorter Oxford third edition)
Compatible	Used to establish a system-to-system level agree ability or harmony of national qualifications frameworks level descriptors and qualifications definitions (New Zealand glossary)	
Compatibility	Consistent with something else, agreement, correspond, in accord	Used in NZ/Ireland report 2010
Mapping	Delineation, representation, reflection	Lower level type of comparison
Reference point	Basis or standard for evaluation, assessment or comparison (Shorter Oxford third edition)	Used in EQF terminology
Referencing (process)	Process that results in the establishment of a relationship between the levels of local, national or regional qualifications framework) (EC, 2013 p. 6).	EU context is a political requirement
Relationship (analysis)	Connection, association, involvement between parties; state or mode of being related/connected (Shorter Oxford third edition)	
Relative (to)	Reference to, relating to (Shorter Oxford third edition)	Thesaurus: comparable, related

Source: Booker (2016).

The impacts and benefits of referencing are difficult to measure but there appears to be evidence that referencing outcomes can build confidence in a country's qualifications and associated system. The European Commission has found that one key impact is an increase in motivation to develop, implement and strengthen NQFs in most countries (European Commission, 2013). Beneficiaries of the referencing process include learners, employers and employees, educational institutions, industrial relations organisations, accreditation bodies and other stakeholders.

There is no single model for the referencing process but EQF criteria and processes have provided a significant normative influence on referencing activities elsewhere. There is a strong trend towards increased referencing between countries and between regions, with the most 'active' country being New Zealand. There is, however, no clear model for referencing outside the formal education and training system, such as for sectoral international qualifications.

Conclusions

The work conducted so far compares the different terminology used and includes a definition and preliminary range of outcome statements. While EQF criteria and processes have provided a significant influence on referencing activities in other parts of the world, there is a need to draw on other experiences and to work on guidelines for other forms of referencing, including sectoral international qualifications.

Based on the above analysis, it is proposed that referencing processes in the context of WRLs should be:

(a) transparent;
(b) based on robust quality assurance processes;
(c) evidence-based;
(d) representative of stakeholder views;
(e) objective to ensure trust;
(f) based on useful, practical outcomes;
(g) ensure accessibility of outcomes;
(h) dynamic and subject to continuous review and revision.

These guidelines, and the outcomes of this work more generally, feed directly into the development of the model WRL presented in Section 8.3.3, particularly with regard to the development of factor-descriptor statements for each stage and the table of concordance.

8.3.3. International review of level descriptors ([10])

Introduction

In 2015, Keevy and Chakroun (2015) conducted a first analysis of the use of level descriptors based on learning outcomes. A broad range of level descriptors was examined, drawing on national and regional qualifications frameworks, as well as longitudinal studies, international competence assessments and diagnostic review. The authors found that some form of knowledge, skills and competences were the most widely used domains, and should be considered as the most appropriate for the world reference levels. It was found that all three domains can be described using learning outcomes, or sets of learning outcomes. Linking the descriptor phrases within levels and across domains to form whole sentences (as is done in the Association of Southeast Asian Nations (ASEAN) regional qualifications framework) the need to add exemplars from various countries and regions, and indicative levels were also noted as important considerations for the world reference levels.

Methodology

This section presents the results of a study that builds on the work of Keevy and Chakroun (2015) on the use of level descriptors. It provides a comparative analysis of the structures, terms and concepts used for defining the level descriptors, and identifies and compares the factors used to characterise levels and create the level-to-level steps in and across domains. The aim is to identify significant commonalities and understandings around the world, and reveal common conceptual bases for setting levels and progression. The analysis should also flag any identifiable changes in the uses of level descriptors.

The study was conducted as follows:

(a) methodology was developed for comparative analysis of 15 national and regional qualifications frameworks: ([11]) the national qualifications frameworks of Australia,

([10]) This work was conducted by John Hart (Hart, 2016).
([11]) Account was also taken of Cole and Oates (2005), Markowitsch and Luomi-Messerer (2008) and Winterton et al. (2006). They also take into consideration a range of relevant frameworks which are not qualifications frameworks, such as the UK National Health Service and Social Work frameworks of competences; the UK's University for Industry level descriptors; the Hay MSL job evaluation framework, aspects of the World Bank step programme and the O*Net report; mapping undertaken at different times by the construction and engineering sectors in the UK; the QF Emirates employability indicators.

Germany, Indonesia, Ireland, Mexico, New Zealand, UK-Scotland, South Africa and the United Arab Emirates and the regional frameworks of the ASEAN, the Caribbean Community (CARICOM), the EU, the Pacific, the Southern African Development Community and the Small States of the Commonwealth;

(b) findings and recommendations of the initial round of analysis were discussed and reviewed by experts.

Based on the results of the first comparative analysis and the experts' feedback, the report and recommendations were revisited and revised; a draft conceptual framework for the content analysis of a larger set of frameworks was then prepared. The outcomes of this analysis are set out in Section 8.3.3.3.

Findings

The number of levels used in NQFs varies but most have eight or 10; some frameworks include additional access levels. The frameworks in the sample employ between two and 10 groupings or headings to structure their level descriptors. Most, but not all, call these 'domains'; one framework has no overt groupings. The format and content of descriptors is also varied along the following dimensions: use of words, phrases or sentences; simple, complex or detailed; and use of shared headers and bullet points.

From this analysis, a first conceptualisation for WRLs is proposed which emphasises progression and requires a considered referencing process. It proposes a three-dimensional structure based on analysis of qualifications frameworks and named in ways which distinguish them from such frameworks. The following dimensions are proposed:

(a) a small number of broad stages;
(b) a range of key factors and markers that are common to most qualifications frameworks and used in many of the other structures referred to above. These are set out in sector neutral language, using a small number of terms to discriminate between stages;
(c) definitions and explanations of these factors and markers;
(d) a series of concordances of these factors and markers that set the stages. They will work by linking the terms of the WRLs to the terms (including sector-specific terms) used in qualifications frameworks.

Each stage includes a basic level and an advanced level: basic stage A and advanced stage A, and so on. This is intended to create a level playing field for comparisons between frameworks, based on different assumptions about the number and nature of levels. Quality assurance processes could be added, but are not included in these proposals.

Stage A

The basic characteristics of this stage are the competences and capabilities for meeting the essential demands of active citizenship, basic education and participation in a work role: functional literacy, numeracy, use of information and communication technology, backed by general knowledge and the ability to carry out structured tasks and procedures and work with others in a familiar context. In many countries this is identified with the completion of primary education and in some countries with 'work readiness'.

The advanced characteristics at this stage are the competences and capabilities associated with a particular area of study or a specific work role or occupational activity, such as 'assistant worker' or 'helper' or 'supervised operative'. It might be seen as the level of the first meaningful general or vocational qualifications. In some countries this is identified with the completion of compulsory education and introductory vocational training.

This stage appears to accord with levels 1 and 2 in most frameworks.

Stage B

The basic characteristics of this stage are the competences and capabilities required for undertaking study leading to progression from secondary education or for undertaking work as a partially skilled, but qualified, worker or an 'independent operative'.

The advanced characteristics at this stage are the competences and capabilities associated with fitness to take on learning, leading to tertiary or higher education or to function as a skilled worker in a trade or craft, or to take on supervisory responsibilities.

This stage appears to accord with levels 3 and 4 in most eight-level frameworks, but relates to three levels in several frameworks.

Stage C

The basic characteristics of this stage are the competences and capabilities associated in an education context with the requirements for learning in short-cycle qualifications in the first cycle of tertiary or higher education and associate degrees, and in a work context with technician, specialist or 'para-professional' work roles, often with some managerial responsibilities.

Advanced characteristics at this stage are the competences and capabilities associated with the descriptors for full first cycle degrees and entry to the second cycle of higher education and in a work role with independent/senior technician, specialist, professional or middle manager.

This stage appears to accord with levels 5 and 6 in most eight-level frameworks, but relates to three levels in several frameworks.

Stage D

The basic characteristics of this stage are the competences and capabilities associated in an education context with the requirements for learning in the second cycle of tertiary or higher education and in a work context with the requirements for specialists, professionals and executive managers.

The advanced characteristics of this stage are the most advanced intellectual, academic, specialist and managerial competences and capabilities. Work roles include technologists, analysts, and executive professionals with extensive and/or strategic responsibilities.

This stage appears to accord with top levels in most frameworks.

It is proposed that these stages are described with statements based on the following 11 factors:

(a) carrying out activities;
(b) using skills and applications;
(c) dealing with problems and carrying out research;
(d) communicating;
(e) accessing and using data;
(f) taking responsibility for activities;
(g) working with others and giving leadership;
(h) monitoring and improving quality;
(i) using and extending knowledge;
(j) responding to context;
(k) applying values.

It is further proposed that each factor should be set out in eight statements (two for each stage). These statements could take the form: 'The individual will…'. This would make them more elaborate than the level descriptors used in some frameworks such as the EQF, but less elaborate than some frameworks which may use two or three circumstantial sentences. For example, a statement for carrying out activities at basic stage A could take the form: the individual will carry out tasks and procedures that are simple, familiar, routine and/or highly structured.

It is intended that the WRLs should be accompanied by a kind of glossary or concordance table which will set out the factors and markers in the WRLs and link them to words or phrases used in different frameworks to indicate the same idea, characteristic or quality; as example, the WRL factor term 'activity' should be understood to cover terms such as task, action, process, project, work, or function. An illustrative concordance table is currently being developed.

Conclusions

The above concepts and definitions are currently being discussed and reviewed by the international expert group. The group has raised questions and provided feedback on several aspects, such as the division of each stage into basic and advanced statements. The group also highlighted the need to address some of the gaps and inconsistencies identified in the factors themselves. The next step for this work will be to test these concepts and their definitions to find out whether it is technically feasible to develop them further to create more coherent and consistent statements, and to identify any gaps and inconsistencies. It was agreed that the WRLs will be tested with a range of outcomes-based structures: these may include a level from a sectoral competence framework, a level from a sectoral career framework or management structure, a national qualifications framework level, a qualification specification, and a qualification type specification.

8.4. The way forward

The work presented in this chapter is part of the conceptual development process around WRLs that has been led by UNESCO in collaboration with an international group of stakeholders and experts since 2014. The

wide diversity in the organisations and bodies involved in developing qualifications and using level descriptors should not be underestimated. UNESCO is also deepening its mapping of the approaches used for ensuring the quality of qualifications at national, regional and international levels. Quality assurance is the crucial dimension in value and recognition by the labour market. The chapter on quality assurance of qualifications in this *Global inventory* illustrates the attention given to quality assurance of qualifications.

In this chapter, we present a first attempt at conceptualising the world reference levels, drawing on the different national and regional frameworks that already exist, as well as the wider literature developed in this area over the past few years. The conceptualisation also draws on the extensive discussions that have taken place in the context of the expert group convened by UNESCO on this topic. This work is not yet completed and is currently being reviewed by the group of experts; the intention is to trial the concepts of stages, factors and concordances on a small scale to assess its usefulness and suitability, and to identify inconsistencies and gaps that can be addressed in subsequent revisions. The bottom-up approach that has been adopted in its development is, therefore, at the heart of this process.

The following initiatives also support the conceptual development of world reference levels:

(a) mutual and peer learning and capacity development is encouraged and supported. Substantial learning is already taking place through the peer learning exercises conducted, for example, between the Southern African Development Community (SADC) technical committee on certification and accreditation and the EQF advisory group;
(b) UNESCO is currently working towards the development of a global convention ([12]) on the recognition of higher education qualifications. The general aim of this international normative instrument is to promote international cooperation in higher education, strengthen and promote international mobility and lifelong learning, and promote the coherence between recognition, quality assurance and qualifications frameworks, while recognising the growing diversity in the sector. This activity, and the future outcomes of this work on the convention, are relevant to the development of WRL, particularly in the context of the increased permeability and diversity of technical, vocational and academic programmes at the post-secondary and tertiary levels. The conceptual development of the global convention on higher education is being followed closely by experts working on the WRLs.

The development of the world reference levels will further benefit from focused research in the following areas:

(a) the use of learning outcomes in level descriptors, curricula and assessment tools;
(b) the application of digital technologies in the area of recognition of skills and qualifications.

Work in these areas is already under way and being discussed by the expert group convened and led by UNESCO; the outcomes of this additional work will be disseminated to the broader expert community as soon as they are available. This chapter provided a snapshot of the progress achieved so far in the conceptual development of WRLs. This technical work, despite its challenges and limitations, is an essential first step towards the task of developing a robust set of world reference levels that could ultimately be adopted and used by a highly diverse set of organisations, institutions and individuals in an increasingly globalised and mobile world.

([12]) http://unesdoc.unesco.org/images/0023/002352/235261e.pdf

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CONCLUSIONS

The 2017 Global Inventory provides some important insights into the current development and implementation of qualifications frameworks worldwide. The following points summarise some of the main trends which can be observed.

(a) The number of national qualifications frameworks has stabilised at around 150. These frameworks can be found in all regions of the world.

(b) Most qualifications frameworks were set up during the past decade, partly triggered by the development of regional frameworks such as the European qualifications framework (EQF) and the reference framework of the ASEAN. This indicates extensive policy borrowing and/or policy learning over a relatively short period. A key question is whether these new frameworks are mere 'policy hypes', destined to fade away, or whether they are being turned into integrated parts of national and regional policies and systems.

(c) While the long-term sustainability and impact of qualifications frameworks has yet to be identified on a global scale, developments after 2015 show that several national qualifications frameworks (NQFs) have found their place in the education, training and employment policy landscape and are turning into operational entities. This is clearly the case in Europe, but can also be observed for South-East Asia and other regions. This speaks against characterising qualifications frameworks as mere 'policy hypes'.

(d) The first generation of qualifications frameworks (Australia, New Zealand, South Africa and the UK) are fully integrated into national systems but are undergoing continuous change and adaptation. The most significant change took place in UK-England where the qualification and credit framework (QCF) was abolished and, replaced by a new, non-regulatory framework.

(e) Between 2015 and 2017 we can observe a tendency towards strengthened regional cooperation between NQFs. This is the case in Europe (as demonstrated through the adoption of a revised EQF recommendation), but can also be observed in Asia where the ASEAN reference framework is now operational. Efforts to revive cooperation between frameworks in the Southern African region (SADC) also illustrate this tendency. This increase in regional cooperation is important as it aids dialogue on cross-border transfer and recognition of qualifications and raises the question of how NQFs can support learner and worker mobility.

(f) Developments in the USA differ from those seen in other countries. While the new credentials framework, promoted by the Lumnia foundation, pursues many of the same (transparency) objectives as others, it is organised as a voluntary/private venture and operates independently of federal or State authorities and legislation. The credentials framework confirms the general and increasing need for transparency of qualifications and credentials. It underlines that qualifications frameworks need to be relevant to the needs of individual citizens, who face an increasingly complex world of qualifications and credentials.

(g) The new generation of frameworks (particularly in Europe) differs from first generation frameworks by emphasising communication and transparency rather than regulation and harmonisation. These frameworks are 'loose' in the sense that they have been designed to embrace the multiplicity of education and training subsystems, institutions and provisions, reflecting a broad range of concepts, traditions, values and interests. 'Loose' frameworks introduce a set of comprehensive level descriptors to be applied across subsystems, but allow sub-frameworks to retain their own principles and regulations. 'Tight' frameworks differ from this by defining uniform specifications for qualifications to be applied across sectors. Examples of early versions of frameworks in South Africa and New Zealand, which aimed to transform national education and training systems, illustrate attempts to create tight and 'one-fit-for-all' solutions. This created a lot of resistance and led to reassessment of the role of these frameworks. There is a general need for more evidence on how lessons learned from the first generation frameworks have been taken on board in developing the new generation. It seems (at least in Europe) that (simplistic) policy borrowing – heavily criticised by research – has been replaced by more reflective policy learning, paying attention to national context and needs.

(h) 'Loose' frameworks, emphasising communication and transparency, are able to aid and trigger reform. This mirrors the ability to mobilise and commit stakeholders, rather than to impose 'one-fit-for-all' rules and regulations.

(i) The (heavily criticised) link between NQFs and neo-liberal economic policies is hard to detect in current NQF developments. In its place is a broader NQF perspective which, sometimes in a modest way, addresses a combination of economic and social equity and sustainable development goals. This broader perspective is closely linked to the increasingly important role played by lifelong learning policies, and by the UN in its sustainable development goals (2015), articulated as inclusive education and training for all. Offering relevant and high quality learning to all, also beyond primary education, is essential for sustainable development and reform.

(j) For an NQF to contribute to these wider policy objectives it must be embedded in the relevant (national or regional) policy context. Standing alone and isolated, NQFs are insufficient to support reform and change. For frameworks to make a difference, they must interact with and add to other policies. A comprehensive NQF can be seen as a tool and platform for stakeholder communication, coordination and cooperation across policy areas, levels and institutions.

(k) The new frameworks aim for overview and support learning across institutional, sectoral and (sometimes) national borders. This brings NQFs close to the objectives of lifelong and life-wide learning, establishing themselves as instruments encouraging and facilitating learning careers throughout life and linking formal, non-formal and informal learning. National and regional qualifications frameworks can support this lifelong learning agenda by addressing (through a learning outcomes focus) problems related to lack of transparency and fragmentation of provisions and institutions. The potential of qualifications frameworks (QF) can only be released the moment they start directly to serve individual learners and support their lifelong learning pathways. The future success of the QFs very much relies on their ability to make themselves visible and relevant to end-users.

(l) Learning outcomes are at the core of national and regional qualifications frameworks giving stakeholders tools for communication, cooperation and coordination across institutions, levels, and sectors, between education and the labour market, and across national borders.

(m) National case studies show that NQFs are multilevel and dynamic tools that evolve over time. They are part of the country's historical, political, institutional and cultural context and the national qualification and education system and labour market. There is a need for more research and understanding on how NQFs interact with the national qualification systems; what are enablers and implementation barriers in particular contexts; and how tensions are resolved. This seems to be especially important when discussing NQF development and implementation in developed rather than developing countries. Developed countries most often have well established national qualification systems, strong education institutions, trained teachers, established cooperation with social partners and other stakeholders; developing countries – lacking resources, trained teachers and often with weak education institutions – struggle to engage stakeholders, reform curricula, and provide capacity building.

(n) Many NQFs have now completed initial conceptual and technical developments. The case studies point to several important factors that shape successful implementation. Alongside a solid technical and conceptual foundation, formal (legal) adoption, institutional structures and quality assurance mechanisms, the commitment of key stakeholders to the long-term development of the framework is of key importance. Evidence from the first generation, and also from new frameworks, shows that the willingness of powerful stakeholders to use the framework is among the most important factors.

(o) The visibility of the frameworks to end-users, learners and workers, is of crucial importance and a condition for wider impact.

(p) The challenges of measuring the impact of qualifications frameworks are now at the forefront of discussions. Experiences so far show that impact assessment requires agreement on clearly defined baselines for assessment. It has to be understood in relation to the social, political and institutional contexts in which they operate to provide narrative for assessment and reflection on why, under what conditions, how and for whom the frameworks work.

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