



Changing Qualifications

A review of qualifications
policies and practices





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We provide information on and analyses of vocational education and training systems, policies, research and practice.

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Foreword

Qualifications – or the certificates and diplomas awarded following education, training or learning – are important to us as individual citizens. They influence our ability to get a job, to carry out an occupation or a profession, to pursue lifelong learning, and to move between countries; they also affect our general social standing and status. But qualifications are important for a number of other reasons:

- for employers and enterprises, they signal what a potential employee is expected to know and be able to do;
- for education and training, they state that the teaching and training activities (the input) leading to a particular certificate or diploma are of relevance and of a certain quality;
- for policy-makers, they provide a focal point for education and training policies, not least by offering a tangible measure of output;
- for statisticians and researchers, they offer a measurable entity for analysing the supply of knowledge and skills in our societies.

This study provides overview and analysis of the existing and changing roles of qualifications in Europe and beyond. Building on a broad range of sources, including the research carried out by Cedefop in recent years, two key messages can be drawn from the study.

First, qualifications are surprisingly stable and there is no indication that their overall influence and value is diminishing. While it is possible to observe fluctuations in the value of qualifications ('over-qualification'), the basic functions of qualifications to signal and demonstrate learning, and to regulate access to occupations and labour markets, seem to be largely unchallenged.

Second, qualifications have their limitations. We increasingly observe, for example in the recruitment practices of enterprises, that qualifications rarely stand alone as a means to capture the knowledge, skills and competences of a potential employee. The future development of qualifications requires discussion of how certificates and diplomas can be more systematically supplemented and complemented by other instruments and tools, and how individuals better can document and represent all their skills and competences, not only those formally assessed.

Qualifications play indispensable roles in our societies. But, as demonstrated extensively by the study, these roles vary between countries and sectors. In some cases we can observe that qualifications increase in importance, making it impossible for individuals to access employment and education without the right formal certificate or diploma. There are still a significant number of occupations in Europe where the right to pursue professional activities is directly regulated by qualifications. In other occupations, less weight is given to a single qualification, thereby radically weakening its regulatory function.

The study is a unique aid to understanding qualifications better, not least the dynamics of change characterising the field. Qualifications systems are constantly seeking to improve themselves; the shift to learning outcomes, the rapid development of national qualifications frameworks and the opening up of qualifications to learning outside schools are good examples of this. But qualifications are also changing due to external pressure. The global economy is increasingly having an impact on qualifications, for example in the form of increased cooperation (as in the EU), but also in the form of international qualifications gaining their value beyond national authorities.

The study outlines a set of scenarios indicating the choices policy-makers and stakeholders face in developing qualifications. These scenarios point to four basic questions to be addressed by policy-makers and stakeholders in the coming years:

- should qualifications become more flexible in the sense that they provide the learner ease of access, build on a wide range of learning modes and can be combined according to the needs and the time-perspective of the individual learner?
- should qualifications focus more on stability and predictability, making sure that their overall value (currency) and signalling power is consistently strengthened?
- how much of a role should be given to the suppliers of qualifications (education institutions, awarding bodies, etc.)?
- how much of a role should be given to the users of qualifications and those demanding them (for example social partners)?

These questions, extensively addressed in the report, point to the political implications of the work on qualifications. Both at European and national levels there is need to reflect systematically on the possible choices in the future development of qualifications, qualifications systems and (increasingly) qualifications frameworks. While this study can be seen as a synthesis of extensive research effort by Cedefop and others during

the last few years, it should not be seen as a final and concluding statement but as a starting point for future research and policy development.

The study, with its reflection on policy options and choices, provides an important input to policy developments at European, national and sector levels. It also provides a starting point for researchers to go deeper into an area of modern societies which, in many cases, is overlooked and taken for granted.

It is our hope that this study will stimulate continued debate and work on qualifications.

Christian F. Lettmayr
Acting Director

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This study takes into account the conclusions drawn by the Conference on Qualifications for lifelong learning and employability, organised by Cedefop in Thessaloniki 8-9 October 2009, which brought together EU and national policy-makers, stakeholders and experts from all over Europe.

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Executive summary

The aim of the study

This Cedefop study aims to review changes in qualifications systems and indications of future trends in this field. There have been significant developments in qualifications systems over the last few years and there are signs that these structural changes are a result of pressure for more transparent and responsive qualifications.

Learning is fundamentally important and has profound effects on people, businesses, societies and economies. All kinds of learning, in all kinds of settings, have value for every individual in terms of their self-knowledge and their interaction with their environment. However, many benefits to learning arise from the formal valuing accredited to it by competent bodies in governments, businesses, learning providers and communities; qualification is regarded by many as the main means by which learning is recognised.

Where to look

This report aims to provide a comprehensive overview of qualifications and qualifications systems and draws on extensive evidence. It also considers the implications of current trends in qualification design and use. Readers wishing to examine the summaries of evidence of qualification use and developments in qualifications systems should look at Chapters 2 (literature sources), 3 (national sources) and 4 (outcomes of other Cedefop studies). Readers wishing to gain full understanding of what might be changing in terms of qualifications and systems and some possible reasons why this change is happening should read Chapter 5. Some scenarios for futures of qualifications systems and implications for policy-makers are included in Chapter 6. Readers wanting a high-level synthesis of what all this work could mean are advised to read Chapter 7. Chapter 1 provides a practical and theoretical underpinning to the study.

What does qualification mean?

The European qualifications framework (EQF) definition ⁽²⁾ of qualification is proving particularly useful as a means of making national qualifications levels transparent and comparable. However, there are differences in understanding of qualification that cannot be hidden under this single definition. On the one hand, the term ‘qualification’ makes reference to the concept of vocational training: in this setting, a worker is qualified to do certain work functions. On the other hand, the concept of qualification is linked to certification, which means to possess formal certification of the level of competence which the individual has reached.

The qualification process varies enormously from setting to setting and normally includes the following five elements:

- learning: the basis of qualification, an individual’s learning could be gained through a formal curriculum or through experiences in settings such as work or personal and social activities; learning might take the form of knowledge, skills or wider competences such as personal and social competences;
- assessment: judgement of an individual’s knowledge, skills and wider competences against criteria such as learning outcomes or standards of competence;
- validation: confirmation that the outcomes of assessment of an individual’s learning meet predetermined criteria (standards) and that a valid assessment procedure was followed. This means that the outcomes have been quality assured and can be trusted;
- certification: a record of the individual’s learning has been validated; the certificate usually issued by a body which has public trust and competence, confers official recognition of an individual’s value in the labour market and in further education and training;
- recognition: follows the previous four stages; it is seen in the raised self-esteem of individuals and when third parties use the qualified status of an individual to offer progress into a new job, higher pay and/or increased social status.

⁽²⁾ A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

Discussion of the findings

The context of change

Qualifications exist in systems that are relatively stable. This is because the systems grow out of education and training provision which, itself, is relatively stable. Qualifications systems require multiple interactions between networks of stakeholder groups and each type of stakeholder holds diverse interests and values.

The driving forces for change within systems can be understood in terms of stakeholder goals; for example, employers may wish to allow easy and frequent modernisation of the content of specific qualifications so that they better reflect the needs of the labour market. In contrast, a provider or awarding body may not favour rapid adjustments to qualification content as it has implications for managing curricula, assessment and awarding. It might also be the case that the bulk of employers are not at the cutting edge of work practices and are more comfortable with current provision than those that are pressing for advancement.

In most settings, the institutions that enable stakeholders to influence and interact also tend to be relatively stable, at least in terms of function. It is neither useful nor practical to view qualifications as objects separate from the system that enables them to be awarded and valued.

A particularly challenging goal for change is evident in the research: integrated or unified qualifications systems, where differences in the education and training sectors are preserved, but the linkages between the separate sectors are transparent and used by learners. Evidence suggests that this goal is not short-term, and that considerable time must be set aside for testing possibilities through pilot arrangements. A key challenge for high-level policy is the delicate line between securing adequate 'permeability' and 'transparency', and promoting unduly restrictive alignment of different sectors and areas. This mainly covers the profound danger of an over-restrictive pursuit of 'system tidiness' for its own sake.

The analysis suggests that theoretical positions also strongly influence the shape and operation of qualifications systems. They can enable change by adding weight to proposals or can counter change by suggesting possible unintended and negative consequences of change. Theory must be regarded not only in respect of its specific content and quality, but also its social and political force: the stronger the theoretical underpinning for a qualification (both in theory quality and the extent to which it is consensually endorsed by key groups) the more difficult the process of radical change to

that qualification. The converse is an interesting case. Qualifications with a weak basis in theory may be susceptible to modification and be relatively unstable.

While change can be a diffuse process, ‘organically’ driven by national and international factors, ‘top down’ management of systemic change generally is most often discussed and negotiated and (rather infrequently) tested before it can become implemented and embedded in practice. This process takes time and requires carefully conceived and sustained strategic approaches. However, the analysis suggests that, in some country settings, the rate of (surface and/or) structural change in qualification systems is an issue of concern and debate.

The process of change

The study identifies five stages in the change process:

- (1) policy discussions, no concrete implementation: for example, discussions about the best approach to recognising the qualifications of immigrants;
- (2) policy, the direction is set but again there is no concrete implementation: for example, a law is passed to develop a national qualifications framework (NQF);
- (3) implementation: the infrastructure for change is put in place, such as funding, management and a communications strategy; for example a body is set up to manage and coordinate the assessment and validation of experience in private companies;
- (4a) practice through pilot schemes: people use the new arrangements; for example a learner is taught and assessed according to a new modular programme and qualification;
- (4b) full-scale applied practice: all old methods are adapted to the new methods;
- (5) effect: the new system delivers benefits to individuals, organisations and society; for example, more adult learners are engaged in lifelong learning and skills supply to the labour market is improved.

The series of stages carries no surprises to those who manage change but it may be useful to comment on the quite common observation in discussions of reforms: ‘this is just rhetoric – there is no concrete change’. There are two important aspects to this, reflecting contradictory trends: first, where ‘rhetorical change’ represents the first stage of innovation; second, where some innovations fail to engage with deeper structures and simply represent superficial shifts in policy statements, but not accompanied by

substantive objective changes. This latter form is manifest in some systems and is often a substantial waste of public and private resource, removing capacity from the system (through superficial adaptation of arrangements) and reducing the efficiency of arrangements.

Focusing on the former, it is quite clear from the study that, in the early stages of change, rhetoric and discourse about change are formative on policy positions of stakeholders groups. Without opportunities to interact with plans, the likelihood of 'ownership' and commitment to any derived policy is likely to be weaker as a consequence. For this reason, rhetoric about reforms should always be seen as a major part of the first stage of a change process.

A second observation is that the end-point of reform is an effect and not practice itself: it is the obvious (but often ignored) fact that the success of a policy should be measured by its intended and unintended effects and not merely by whether it 'has been enacted'. Any failure to measure effect means that, first, a change process is incomplete, and second, and more important, that feedback to change managers (reformers) is absent and refinement and adjustment of policy will inevitably be weakened.

Understanding of the qualification concept

It is not surprising that understandings of 'qualification' vary between countries, with this study suggesting that there is awareness, among key groups, of serious differences in understandings of qualification between education and training sectors within a country. The fundamental difference in understanding is detectable between those that see qualification meaning certification of achievement via formal assessment of prescribed learning and those that see qualification as a status endowed by communities of practice. These differences are accommodated in different sectors and countries; however, one key point for discussion arises, and relates to the EQF development which carries its own definition of qualification. This fact may be having an impact on common understandings of qualification in sectors and countries. If the influence of the EQF is as strong as suggested in the evidence of this report then the question arises about whether the relative weakening of other, more social, interpretations of 'qualification' may eventually be squeezed out of discussions in national settings, so that part of these broader understandings will become undervalued, at best, or lost, at worst.

Qualifications and economic growth

The relationship between qualifications and economic growth is increasingly a focus of government policy, and with this, growing recognition of complex interdependencies between the two. Concern over social gains (such as the inclusion of individuals in education and training) are feeding into increasing efforts to use any possible means to achieve improvements; efforts are increasing in areas that have not so far been an object of effective engagement in order to bring about change.

Pressures for reform

While some pressures for reform are increasing in intensity, they are essentially the same pressures: the study has not revealed new ones. However, worthy of further discussion is the leverage that is now obvious from international comparative surveys and the policies of international bodies that are relevant to qualifications. These are now exerting strong pressures on national qualifications systems in terms of both their effectiveness and their form. Recent evidence suggests the EQF structure (and its attendant internal logic) is part of this international pressure.

Perceptions of the leverage of qualifications systems

Qualifications systems appear to be becoming more prominent as a reforming tool as they become more transparent, better understood and the focus of European-level drivers. In general terms, and notwithstanding major national and sectoral differences, they are more frequently used as a point of reference in quality assurance procedures and target-setting for education systems. Associated with this development, international benchmarking is increasingly prominent as a factor influencing national reform.

The functions of qualifications and qualifications systems

The study has developed a typology for the functions of qualifications. The range of functions is extensive and the typology may serve as a basis for further probing into whether the range of functions, or the intensity of any one function, is changing. For the moment, it is reasonable to suggest that the purposes and functions of qualifications are not generally changing substantially. However, some types of function, such as the power to act as a metric for performance in education and training, have increased in prominence, while others, such as acting as the main way for people to progress in work, have weakened. Generally, the role of qualifications in supporting international mobility has strengthened.

An important point to make here is that, while the range of functions is undoubtedly stable, it is wide, with functions which combine differently in different national settings and in different sectors. It may seem obvious but qualifications collectively deliver these functions to systems. Problems can arise when the purposes and functions of a single qualification become numerous, diverse and contradictory. The first casualty of this diversification is the perceptions of users of the validity of the qualification for their particular priorities.

Changing processes of awarding qualifications

The process of awarding VET qualifications has changed. There is a more prominent role for labour market information (flows, returns, occupational standards) and greater involvement of social partners.

Generally there are developments in all education and training sectors towards flexibility, in particular those that increase flexibility in awarding (such as modularisation, credit arrangements and the recognition of wider learning). The purpose seems to be to enable, through an explicit progressive route, step by step lifelong learning. It is possible to envisage a scenario where the kinds of learning recognised by qualifications is expanded to cover more general skills and attributes.

Aiding lifelong learning

Much of the evidence in the report indicates that qualifications are playing a stronger role in implementing lifelong learning policies by offering recognition for learning. While evidence of the motivating influence of qualifications on learning is not strong, the need for individuals to have positional advantage when seeking employment is clearly motivational. Policy-makers are looking at making the most of this motivation and, apart from regulating entry to the labour market, this is generally achieved by minimising barriers to recognition. Barriers are reduced through transparency of what qualifications are available and increasing flexibility within them.

Access to recognition has led to new or revised procedures for validating individual learning outcomes and for new or revised recognition of the certification or awards achieved. The extent to which validation and recognition are operational varies, as does the approach to assessment and to the procedure for awarding qualifications. It seems that validation or recognition procedures are being widely adopted in some countries but this is not the case everywhere: there appears to be a structural barrier to

full-scale systematic use of validation procedures. An issue to consider, beyond the establishment of procedures, is the numbers of learners who are motivated to come forward and have their learning validated through such procedures.

In many countries flexibility is interpreted as more ‘personalised’ or ‘tailored’ approaches to teaching and learning through such mechanisms as personal learning plans and contracts that specify the learner’s objectives. This may be achieved, for example, through modularised curricula that leave the learner more scope over the pacing and content of their studies. As some qualifications pathways become more flexible and open up wider progression possibilities for learners, there is a requirement for more effective and neutral information, advice and guidance; there is some evidence of increased attention to this.

Shifting the focus of curricula and qualifications from specifying what is delivered by providers to the outcomes of learning is a policy intention in many countries and sectors. While generally well developed in VET environments, the use of learning outcomes is, according to the evidence gathered, set to spread.

Coupled with the relatively rapid development of, and agreement between European governments on, the structure of the European qualifications framework, most European countries are currently adopting or considering a national qualifications framework. By any account this is a rapid set of developments. Further, it is reflected elsewhere in the work of international organisations such as UNESCO, the International Labour Organisation and, for the EU, Cedefop and the European Training Foundation. The development of NQFs around the world is also accompanied by the development of a number of regional frameworks for countries with geographic proximity and mobility of people.

As a minimum, NQF developments seek to reconceptualise national qualifications systems, which can be defined largely through types of curriculum content and the place and duration of study, so that subsystems can be better linked according to the broad learning outcomes and levels that learners are intended to achieve by the time they have completed their studies. The EQF has a similar intention, which is eventually to be used as a tool for comparing qualifications developed in different countries and also across sectors. At a minimum, the developing NQFs and EQF are intended to improve the legibility and comparability of qualifications, so making qualifications more transparent.

Transparency

The development of NQFs is also believed to offer advantages for transparency of qualifications systems; appropriate forms of governance, degrees of restriction, and anticipation of effects all remain critical issues. Here the study notes rapid and extensive development of NQFs in those European union countries that, until recently, did not have explicit national frameworks. It will be necessary to wait for evidence of impact of these new frameworks on citizens but the coordinated development, stimulated by the EQF and its associated functions (such as use of learning outcomes, effective quality assurance and validation of wider forms of learning), holds promise of greater transparency of national systems when viewed from outside.

The development of NQFs also holds promise of greater transparency within countries if the development engages the full range of stakeholders and is built on explicit standards. The potential of NQFs as a tool for linking educational sectors, principally VET and higher education (HE), is high on the agenda in some countries. For others the traditional boundaries will be preserved in the hope that the specificity of NQFs for a particular sector will preserve sectoral relevance and lead to better quality qualifications for the sector. Again, locus of control issues is vital.

The rapid development of NQFs brings uncertainty and turbulence to national settings. Policy-makers will be aware that such turbulence can undermine the aim of achieving greater transparency. The slower development of frameworks with respect for current structures is more likely to preserve transparency than hastily designed frameworks that have an air of 'system tidiness' about them. Some NQFs have been designed as reforming tools which describe the future form of qualifications that the country aspires towards: the Irish framework is an example of this. Other frameworks set out to describe the status quo in clearer terms than is normally the case, aiming to describe better the existing arrangements. Both of these approaches lead to change: in the former it is obvious why change occurs but, in the latter, more subtle change tends to result. The increased clarity and the establishing of language and procedures for exchange lead, through collective agreements between stakeholders, to greater coherence in the qualifications system.

Flexibility

Qualifications (and their systems) are becoming more flexible: through development and accreditation of smaller qualifications and units of

assessment, through the merging of the recognition of learning developed through formal means and learning gained outside formal programmes; and through increased permeability of tracks through education and training. The evidence of this greater flexibility in most countries belies massive differences in the extent to which ‘flexibilisation’, as it is sometimes phrased, is defined, welcomed and implemented. In VET a major difference exists between countries with large centralised national qualifications (such as the dual or alternance system), where flexibilisation may be desirable but its impact on traditional values is feared, and those with a multitude of different sector specific qualifications where it is considered a ‘natural step’ towards greater responsiveness to need.

An important consequence of developing tools for more flexibility and increased responsiveness to learners – such as frameworks, credit, modules, units of assessment – is the need for new forms of coordination and communication. These features, designed to loosen up tight systems, carry an intrinsic logic for more elaborated management systems. More flexible systems require better information, advice and guidance (IAG) for users.

Representation

Qualifications can represent current knowledge, skills and competence; they can signal aptitude in key competences (soft skills) or the potential of a candidate to be ‘future competent’. However, it is unlikely that one form of qualification can act in these three ways simultaneously in a given recruitment process. The concept of qualification as we now understand it, from particular recruitment situations, is always imperfect as a signal.

If qualifications evolved to be better at representing an individual’s abilities and potential there is a chance that some of the current valued characteristics (signals) would be reduced in effectiveness. For example, if a qualification aimed to show potential by valuing the traditions of certain proven institutions to recruit and educate people with potential, then the signal about proven specific competence may diminish. In other words it is better that qualifications are fit for some purposes and that, where they are inadequate, recruiters look elsewhere for desired signals. Qualifications could then be a part of representation of an individual’s abilities. An individual could aim to optimise all aspects of representation so that they might be successful in recruitment. A recruiter could clarify all they require, including qualifications, in the form of a model of representation.

The concept of representation is useful because it is comprehensive: it allows the user to build a picture of their capabilities and a recruiter to

be more specific about what is sought in a candidate. Representation can usefully accommodate the changing value of qualifications in different settings. French research shows that the territorial nature of qualifications affects their value: and this is important as there is a trend, albeit slow, towards the globalisation of qualifications.

Representation is also a useful idea because it embraces and makes explicit factors that are known to be important in creating currency but are not always clearly embodied in qualifications. Such factors include the occupational standards on which a qualification is partially or perfectly based, the extent to which social partners contribute to the design and assessment of the qualification, the degree to which non-formal and informal learning is recognised, the quality of the providing institution and, last but not least, the extent to which learning has advanced since the award of the qualification. Representation of specific key competences can be made explicit through assessments but also through evidence from experience. Representation of potential can be made explicit through evidence of learning through work as well as other proxies for potential such as metacognition and other thinking-related achievements.

Validation

As qualifications and qualifications systems around the world are modernised, the validation process is central to discussions. This is because validation sits in the centre of the whole qualification process, between assessment of knowledge, skills and competences and the certification of them. Validation is best understood as the process through which evidence of learning is judged to meet objective or, at least, reliable standards. Improvements in validation procedures can lead to benefits:

- use of learning outcomes makes the basis of the standards for the validation process more transparent. This leads to greater trust in the relevance of qualifications on the part of users;
- national qualifications frameworks set out clear overarching standards for validating levels of learning. The levels established are commonly understood and also trusted, because they can be associated with better and more comprehensive quality assurance systems;
- if actors on the demand side of the qualifications development process can better express what they require to be validated, qualifications can be adapted or new ones developed, and providers can also adopt processes to achieve outcomes that are closer to what is needed. This explains the drive towards competence-based qualifications, which –

like other factors in this report – has to be carefully balanced to meet the range of roles and functions required of qualifications;

- validation that is independent of routes to learning leaves learners with more options for presenting their knowledge, skills and competences in a purposeful way that can lead to recognition of the learning that they have achieved. Learners can also make use of the full range of opportunities to learn that their whole environment presents, rather than be limited to the sometimes narrow confines of formal qualification routes;
- opportunities to develop generic skills are usually embedded in the context of learning programmes or work practices, but they are often not assessed and reported. Effective, flexible validation methods can make generic skills more visible;
- validation processes can be tailored to how an individual's learning can relate to the standards and assessment criteria used for validation.

Validation is likely to play a future role beyond its normal function in qualifications, and become more refined and sophisticated as it is applied more widely in different settings. Even with lighter touch quality assurance, this kind of validation is unlikely to replace the need for formal national qualifications. However, a qualifications system that puts diverse, fit-for-purpose validation processes in a more prominent position for representing some aspects of learning may prove to meet a wider range of needs.

Introduction to qualifications and qualifications systems

The ultimate goal of this study is to provide an authoritative international overview of changes in qualifications systems and indications of future trends in this field. There have been developments in qualifications systems over the last few years and there are signs that these structural changes are a result of pressure for more transparent and responsive qualifications. However, some people consider qualifications to be the source of some stability, creating an anchor point for the development and measuring of learning. It is also clear that talk about the advantages of change in qualifications, education and training does not always translate into concrete activity at the level of the learner. There is currently a complex and dynamic situation in qualifications systems and this requires research, understanding and documentation. Qualifications development seems to take place without a coherent framework for understanding what qualifications do and how they do it. This study, building on previous research into qualifications systems and lifelong learning, including by Cedefop, attempts to provide a framework for understanding qualifications and their associated systems, and to reflect and draw conclusions about change that can inform policy-makers about the current dynamic in qualifications systems, and where it might lead.

1.1 The European policy context

Qualifications, and the way they are based on and embedded in social and institutional settings, have increasingly become a focal point for policies addressing such different areas as education and training, employment and social inclusion.

1.1.1. Lifelong learning

Aiding lifelong learning has been at the heart of many European and national education and training policies ⁽³⁾. This priority was recently reaffirmed by the *Council Conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training*, which states that:

‘European cooperation in education and training for the period up to 2020 should be established in the context of a strategic framework spanning education and training systems as a whole in a lifelong learning perspective. Indeed, lifelong learning should be regarded as a fundamental principle underpinning the entire framework, which is designed to cover learning in all contexts – whether formal, non-formal or informal – and at all levels: from early childhood education and schools through to higher education, vocational education and training and adult learning.’ (Council of the European Union, 2009, p. 3).

Lifelong learning should be understood in European policies as a continuum ranging from early childhood education to adult learning and including all forms of learning ⁽⁴⁾. Lifelong learning policies across Europe aim to improve permeability between different education and training systems, so that people can progress vertically (raise the level of their qualifications and competences) or horizontally (broaden their achievements, requalify or change learning pathways). This requires qualifications to be open to recognise this vertical and horizontal learning. Lifelong learning policies also aim to increase participation in learning by stimulating the demand for learning and making sure that provision is adapted to the needs of individuals and other users of qualifications. As these policies are implemented, the demand for lifelong learning will have an obvious impact on how learning is delivered and will raise the demand for recognition of learning throughout life, and for more flexible validation and certification systems.

⁽³⁾ OECD (2007) describes the interaction between qualifications systems and lifelong learning as follows: ‘A qualifications system, whether formally or implicitly, articulates which forms of learning form part of the qualifications systems and how they are standardised, recognised and valued by individuals, the economy and society. Individuals use the system to decide on their learning activities. A qualifications system can facilitate the individual in navigating along these pathways or can be a deterrent, depending on what incentives or disincentives it provides.’

⁽⁴⁾ Formal (organised learning process, intentional from the point of view of the learner, often leading to certification); non-formal (planned activities not explicitly designated as learning in terms of time, support, etc., intentional from the point of view of the learner) and informal (resulting from work, leisure, daily life, etc., not intentional from the point of view of the learner).

1.1.2. New skills for new jobs

There has been a strengthening of the role of EU-level policies with an employment focus in education and training. In 2009, EU education policy was reinforced by linking education and training with the labour market needs of the future. In the report on *New skills for new jobs* (European Commission, 2008b), the European Commission states that skills upgrading is critically important for Europe's future, as is a better match between skills and labour market needs. Research shows that skills mismatches in the labour market have been a growing concern in most Member States and the education, training and employment policies of the Member States need to focus even more on increasing and adapting skills and providing better learning opportunities at all levels, to develop a workforce that is high skilled and responsive to the needs of the economy. Qualifications play a clear role in this bridging of labour markets and education and training provision.

The European Council stressed in March 2008 (European Commission, 2010) that investing in people and modernising labour markets is one of the four priority areas of the Lisbon strategy, and invited the Commission 'to present a comprehensive assessment of the future skills requirements in Europe up to 2020, taking account of the impacts of technological change and ageing populations and to propose steps to anticipate future needs'. The assessment concludes *inter alia* that the skills, competences and qualification requirements will increase significantly, and across all types and levels of occupation. The evidence from the first analysis forecasts that the next decade will see increasing demand for a high-qualified and adaptable workforce and more skills-dependent jobs. In the EU-25, between 2006 and 2020, the proportion of jobs requiring high levels of education attainment should rise from 25.1% to 31.3% of the total; jobs requiring medium qualifications are also expected to increase slightly, from 48.3% to 50.1%. This would amount respectively to 38.8 and 52.4 million high- and medium-level job openings. At the same time, the share of jobs requiring low levels of educational attainment will decline from 26.2% to 18.5%, despite 10 million job openings. Most jobs in non-manual skilled occupations will require highly qualified workers; workers with medium educational attainment will increasingly fill skilled occupations. Since education rates increase at a faster rate overall than labour market changes, only half of elementary jobs will be held by workers with low educational attainment. In the service sector, there is a clear tendency towards the broadening of the required skills portfolio at all occupational levels, linked to 'non-routine' tasks. In many knowledge-intensive sectors, both managerial skills and scientific

knowledge are needed. In social care and education, further skills upgrading is needed to improve the quality of services. This reflects the growing demand from employers for generic competences ⁽⁵⁾, such as problem-solving and analytical skills, self-management and communication skills, linguistic skills, and more generally, 'non-routine skills'.

The policies and forecasts indicate an important role for the development and recognition of skills and competences and provide a useful background for this study of changing qualifications systems in Europe.

1.1.3. Increased focus on qualifications

Ensuring the employability of citizens is at the heart of the Lisbon Strategy for EU economies; this has resulted in EU policy that is strongly orientated towards qualification focus on employability and social inclusion. For a decade, both qualifications and qualification frameworks have been high on the agenda of education and training policy-makers engaged in European-level cooperation. Education ministers cooperating in the context of the Education and training 2010 work programme, and its successor with goals to be attained by 2020, are tackling matters of significance for qualifications, including improving teacher education and key competences development. More specifically, as part of the Copenhagen Process, cooperation between ministers responsible for VET and the social partners has resulted in the creation of qualifications-related tools for the transparency, portability and quality assurance of qualifications. This includes the European qualifications framework (EQF), the European credit transfer system for vocational education and training (ECVET) and the European quality assurance reference frameworks for vocational education and training (EQARF). Within the context of the Bologna Process, ministers responsible for higher education pledged commitment to the goals of the European area for higher education (EHEA), which includes linking national frameworks for the three-cycle qualification structure to the overarching EHEA Framework.

Although the same themes are under development within the sectors – this includes outcomes-based learning and assessment, modularisation, credit accumulation and transfer and recognition of prior learning – the processes and instruments for the reform of qualifications and systems are predominantly tailored to the realities and needs of the respective sectors.

⁽⁵⁾ The term generic competences will be used in this report to refer to the range of skills and competences that apply to most work-life situations. These are called general, key, core and transversal skills in other reports.

Despite the unifying framework of common goals and objectives, the diversity of these sectors, how common terms may convey dissimilar meaning and how seemingly similar approaches and mechanisms are differently applied and implemented, can militate against the attainment of goals related to qualifications in the context of lifelong learning. These differences are visible at EU level and become magnified in the implementation of EU policy at national level.

Vocational education and training (VET) is characterised by its distinctive features of straddling education and employment policies and the worlds of school and work and the involvement of the social partners, as well as its heterogeneity within and across Member States: it can arguably be singled out as the sector of greatest range and complexity. VET qualifications can relate to VET as a stand-alone sector within formal education and training; to vocationally orientated provision within other sectors of the formal system (general, higher and adult education); and to education and training provided in partnership between the formal education sector and the labour market. It can also apply to arrangements outside formal education and training provision, e.g. company- and community-based training. Further, VET qualifications that are placed at the intersections with general, higher and adult education need to articulate with qualifications in the other sectors, which, in turn, need to change to be responsive to VET.

The intricacy of VET and its pivotal position is of particular significance in this study, as reflected in the body of research that underpins the report. Mostly, the research evidence relates to qualifications and frameworks developments in support of lifelong learning but a considerable weight of the evidence focuses specifically on VET, most notably the outcomes of the Cedefop studies.

In a recent article, Harris (2009) makes reference to sectors as ‘tectonic plates whose interactions slowly form a convergent boundary’. As in the lithosphere, these plates move slowly towards each other but the result might be one plate moving over another or a collision resulting in earthquakes and volcanic activity. To avoid similar occurrences in the ‘qualifications’ context, it is important to reflect on why change in qualifications is happening in different ways in different sectors, the effect of change in one sector on another, and the impact of inappropriate or untimely change. It is also crucial to analyse the conditions for interconnectivity.

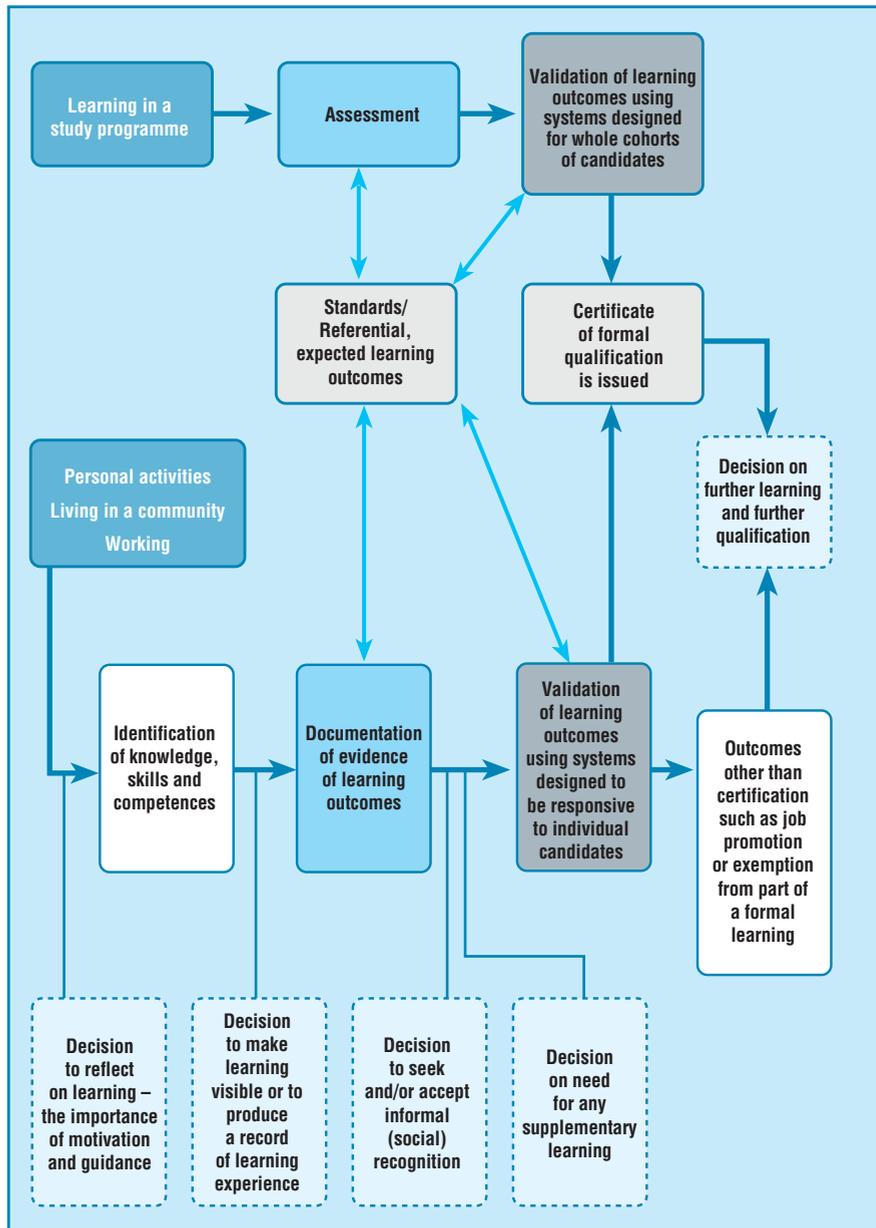
1.2. Qualifications as means for measuring learning

Learning is fundamentally important and has profound effects on people, businesses, societies and economies. All kinds of learning, in all kinds of settings have value for an individual's self-knowledge and interaction with their environment. However, many benefits of learning arise from the formal valuing of learning by competent bodies in governments, businesses, learning providers and communities. Qualification is regarded by many as the main means by which learning is recognised.

Over many years the concept of qualification has been refined through the process by which qualified status is earned: proof of performance; completion of approved learning programmes; independent testing and validation; endorsement by reputable bodies. Alongside these means of achieving qualified status is the creation of standards that can be used for judgements, such as occupational standards, educational standards, assessment and validation standards, certification standards, and national and international qualifications level standards. Qualifications become operationally important and derive status from a complex mix of social, political, economic and technical processes: this makes it a field that is in a state of continuous, though often gradual, evolution.

Qualifications have a place in education and training systems as means of measuring and reporting learning. The purposes of measuring are diverse, as are the main beneficiaries. At one end of the scale might be, for example, an individual, now living alone, with lifetime interest in horticulture, wishing to study and complete qualification in plant biology and become part of a study community; at the other extreme could be a government department that wishes to report progress towards national targets for qualification levels in the population. This report examines the range of purposes and beneficiaries of qualifications. It also attempts to encompass all kinds of formal recognition processes, including those used primarily in learning institutions, workplaces, communities, the third sector and international organisations but, as much learning will not be formally validated and certificated, this is excluded. The diagram below offers important clarification of the routes to validation and makes a clear distinction between the organisation and documentation of evidence of learning (which has value in itself) to the process of independent validation of learning against clear criteria defining expected standards. This use of standards is a critical point in determining the learning that leads to qualification and so is in the scope of this study.

Figure 1. The different routes to validation and their basis in standards



1.2.1. Same language, different concepts

It is useful at this stage to define the process of qualification that is the basis of this study. The EQF definition ⁽⁶⁾ of qualification is proving to be particularly useful as a means of making national qualifications levels transparent and comparable. However, differences in understanding of qualification cannot be masked by this single definition. These differences reflect the deeply embedded social and cultural understandings that are likely to have existed for generations and have evolved with social change over time. The term 'qualification' makes reference to the concept of vocational training: the notion of competence comprising observable outcomes and subtle processes of professionalisation, participation in work culture, internalisation of value frames, and commitments. In this setting, a worker is qualified to do certain work functions as a result of the training in which they have participated and by virtue of their accumulated experience. However, the concept of 'being qualified' can include such references, but more frequently refers to the process of being certificated: 'I am qualified' means to possess formal certification of the level of competence which the individual has reached. The focus here is not the individual's progression through specific means of vocational training, but the possession of a particular formal 'label'.

It may be helpful to see the core of the concept of qualification as a description of a threshold for learning. This threshold is usually well defined (by criteria or standards) or well understood (through custom and practice) and makes it possible to say whether a person has reached the point of qualification. For example, a person may show the ability to carry out a job effectively and so be qualified; or a person may have completed some task successfully, such as a test or examination, followed by receiving acknowledgement (recognition) of success. This could be in the form of a certificate.

It is not possible to rely on a single commonly accepted pan European understanding of qualification or the qualification process. We see this in the literature (Brockmann et al., 2008), in the Cedefop studies ⁽⁷⁾ and in the in-depth country study from France (see Section 3.1.2.). The social and cultural influence on the concept of qualification is clear when the process

⁽⁶⁾ A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

⁽⁷⁾ See for example: Cedefop, 2009b, Section 5.6.

is examined in more detail. The qualification process varies enormously between settings and normally includes the following five elements ⁽⁸⁾:

- (a) learning: the basis of qualification, an individual's learning could be gained through a formal curriculum or learning through experiences in settings such as work or personal and social activities; learning might take the form of knowledge, skills or wider competences such as personal and social competences;
- (b) assessment: judgement of an individual's knowledge, skills and wider competences against criteria such as learning outcomes or standards of competence;
- (c) validation: confirmation that the outcomes of assessment of an individual's learning meet predetermined criteria (standards) and that a valid assessment procedure was followed. This means that the outcomes have been quality assured and can be trusted;
- (d) certification: a record of the individual's learning has been validated; the certificate, usually issued by a body which has public trust and competence, confers official recognition of an individual's value in the labour market and in further education and training;
- (e) recognition: follows the previous four stages and is seen in the raised self esteem of individuals and when third parties use the qualified status of an individual to offer progression into a new job, higher pay and/or increased social status.

This series of stages presents a general model of the qualification process and the stages may take a great variety of forms. This partly explains the hopeless quest for a single narrow definition of qualification. For example, in some countries assessment takes place against informal standards that are embedded in the understandings of trusted, professionally trained, teachers. In others, the assessment is a tightly defined process based on explicit occupational or educational standards and takes no specific account of teaching or the judgement of teachers. Both these approaches can show signs of tension, particularly where trust is challenged, perhaps on the basis of perceptions of falling national educational attainment.

Some would argue that the fifth stage is not part of the qualification process but something that simply follows this process. This argument does not allow for the fact that qualifications processes are always designed to offer recognition of the knowledge the learner has acquired, the skills gained or

⁽⁸⁾ Produced by Mike Coles for the Cedefop conference, Qualifications and Employability, October 2009.

the status in life that completing a programme of studies confers; therefore recognition influences all stages and should be included in a comprehensive view of qualification design, use and value.

1.2.2. The notion of validity

The achievement of qualification is often considered a proxy measure for learning, with the evidence of learning judged to meet the assessment criteria (standards) for the qualification. The validity of the qualification needs to be judged in these terms. However, as suggested above, the range of purposes that qualifications are expected to fulfil means that measures of validity can become distorted and confidence in the qualification as a metric for learning can be challenged. The validity of the assessment process, and the qualification of which it is part, is important.

There are several widely accepted notions of validity. The most basic is face validity, which is the general acceptance of an assessment being appropriate. However, a three-part conceptualisation of validity has gradually emerged and has been helpful in understanding the extent to which assessments can be trusted. These three forms are construct validity (the ‘thing’ being assessed), criterion validity (the standards set to judge performance); and content validity (whether an assessment covers the knowledge and skills it is intended to cover). This three-part approach has recently been elaborated, to explain different aspects of the performance and behaviour of assessments. The most radical extension and refinement of the three-part concept has emerged through discussion of Messick’s work (1989), and more recently, Kane’s work (2002) on ‘consequential’ validity. This suggests that validity does not stop with a concern that the assessment is measuring what it intends to measure, but extends to concerns that the outcomes are being used in a way which means that the inferences made about a person are consistent with inferences which can be genuinely supported by the assessment. The most recent development of ‘consequentialist’ approaches to validity is a notion of duty on those developing assessments and qualifications to develop a ‘validity argument’ for specific assessments and qualifications. The consequentialist position is increasingly being explored by assessment agencies and qualification bodies, since it extends their moral obligations from the more traditional territory of the measurement characteristics and behaviour of assessments into the patterns of use of the outcomes of the assessments. Examples of this are in respect of selection in education and training, making inferences about a person, and in licence to practise.

The consequentialist position does not undermine attention to more traditional concerns regarding construct, criterion and content validity (including utility, as in cost and manageability) and face validity (for example, acceptance and credibility). These still require precise attention, with construct validity being the foundation of sound measurement by giving precision and clarity in respect of what it is that is being assessed and certificated. A concern with construct validity not only commits qualification developers to intensive and well-grounded initial identification of the construct base of an assessment (and the most appropriate assessment method(s) associated with each construct) but to continued evaluation and review of the performance of the assessment in its expected measurement characteristics and its intended purpose (including detecting problems such as bias).

The relationship between reliability and validity, frequently in tension, should be seen as closely interdependent. The reliability of an assessment relates to its stability, consistency and precision: how it can provide repeatable outcomes for candidates with comparable characteristics (knowledge, skill, and understanding) at different times and/or places?

This tension between validity and reliability is played out in very different ways in different national settings. In the French system of vocational qualifications, while there is a strong emphasis on diplomas and formal qualifications throughout the system, vocational qualifications are heavily predicated on *formation* (training), with protracted immersion in work processes giving rise to development of valid skills, knowledge and understanding and also to dispositions and attitudes in respect of work. This gives rise to an apparent contradiction, which stands in stark contrast to outcomes-focused systems. In the French system, those requesting recognition of their skills, knowledge and understanding through recognition of prior learning face a higher level of formal assessment than those who are pursuing qualification through traditional, programme-based routes. This comes from the notion that certain skills, knowledge and understanding can be assured due to the nature of the learning programme and the immersion in certain learning and work processes that this assures. The level of assurance for qualification via formal assessment is, therefore, higher in the route which is designed to recognise prior attainment.

The importance of *formation* in the French system is mirrored in Germany, and other European countries with dual-system approaches, where the overall validity of the process of qualification relates to building up a sense of profession (*Beruf*), through long-term learning which includes an essential element of immersion in work processes.

1.3. The purpose of qualifications

According to Allen (2007) qualifications (systems) have three broad purposes:

- (a) social reproduction, supporting demarcations in knowledge and skills, promoting particular explicit/implicit values;
- (b) structuring pathways to employment and further learning, formalising progression routes and thus providing patterns of incentives for participation in education and training;
- (c) shaping learning through affecting the nature, structure and content of learning programmes.

Looking across the evidence gathered for this study it is clear that this is a good description of the way qualifications are expected to work, with each of the three parts receiving attention as qualifications are reformed. It is possible to break the functions into finer detail and a further classification of function is:

- (a) promoting learning;
- (b) responding to social and economic policies;
- (c) measuring and promoting human capital;
- (d) equating supply and demand for skills;
- (e) quality assurance;
- (f) regulating the national educational priorities;
- (g) creating the conditions for enhanced personal status/identity formation;
- (h) international benchmarking.

Agencies in England, Wales and Northern Ireland have recently examined in greater depth the purposes of qualifications and classified them as shown in Table 1 (Ofqual, 2008).

A clear and comprehensive five-category structure for qualification use is set out in Table 1, and all national and international qualifications should fit one or more of the categories in the right hand column. Hart (2008) sets out a broader and complementary listing of purposes of qualifications systems that ensures a more social and political perspective on qualification use:

- (a) enhance economic, personal and social prospects;
- (b) signify the completion of stages of education and milestones within the system;
- (c) motivate learners;
- (d) tackle social exclusion;
- (e) promote lifelong learning;
- (f) as evidence of readiness/fitness to progress in education;

Table 1. The purposes of qualifications

A. Recognise personal growth and engagement in learning	A1. Recognise development of skills for life
	A2. Recognise development of knowledge and/or skills to operate independently and effectively in life, learning and work
	A3. Recognise development of personal skills and/or knowledge
	A4. Recognise development of employability skills and knowledge
B. Prepare for further learning or training and/or develop knowledge/skills in a subject area	B1. Prepare for further learning and/or training
	B2. Develop knowledge and/or skills in a subject area
C. Prepare for employment	C1. Prepare for employment in a broad occupational area
	C2. Prepare for employment in a specific occupational area
D. Confirm occupational competence and/or licence to practise	D1. Confirm competence in an occupational role to the standards required
	D2. Confirm the ability to meet a 'licence to practise' or other legal requirements made by the relevant sector, professional or industry body
E. Updating and continuing professional development (CPD)	E1. Update knowledge and/or skills relating to legal, technical, process or best practice changes/requirements
	E2. Develop knowledge and/or skills in order to gain recognition at a higher level or in a different role
	E3. Develop knowledge and/or skills relevant to a particular specialisation within an occupation or set of occupations

- (g) as evidence of the readiness/fitness to enter employment;
- (h) as evidence of the readiness/fitness to enter/practice a specific occupation/profession;
- (i) as evidence of readiness/fitness to progress in employment (responsibility, seniority, pay);
- (j) to structure the curriculum;
- (k) to structure the content of national training programmes;
- (l) for business planning/to structure workplace training and development;
- (m) to measure institutional performance;
- (n) as a basis for funding (and therefore to access funding);
- (o) for quality assurance, benchmarking, target setting, etc.

Here the breadth of possibilities for change becomes clear and it is with this broader perspective that the literature helps with indications of change.

The sociological view of qualification purposes can take a wide perspective. For example, for Vinokur (1995) historically, certification can be said to be

a socially constructed form of extra-market rationing of worker access to means of subsistence. Assuming diplomas to be one of the ways in which the relationship between the use and perpetuation of the workforce are regulated yields a typology of the logic between certification and workforce management. It also suggests some hypotheses to account for the factors responsible for the changing role of diplomas, both as an entry-card to the labour market and as an instrument for steering systems of education.

This broad range of purposes is taken into account in the range of evidence used in this report. It is also amplified further in the form of a typology in Section 5.5.2.

1.4. Limits to functions of qualifications

Qualifications can improve mobility (in work, social, geographic) since they offer a signal that an individual possesses certain knowledge, skills and understanding that can be useful. Qualifications thus may support individual mobility and economic flexibility. However, this is contingent on them assuming a certain form, and being located in a specific set of arrangements. This capability of making skills, knowledge and understanding available to individuals, society and the economy can be limited by rigidities and commitments in the design and operation of qualifications:

- (a) qualifications are often assumed to be proxies for knowledge, skills and competences, an assumption that is probably not secure;
- (b) ineffective signalling due to invalid, defective and/or overly complex description of knowledge skills and understanding;
- (c) lack of confidence by users in specific qualifications due to perceptions of lack of quality checks, crisis in the management of a qualification, undue variation in the range of knowledge skills and understanding demonstrated by holders of the qualification;
- (d) strong sectoral demarcations in skills, knowledge and understanding, combined with restricted recognition of 'competing' organisation or sector qualifications, which can result in the same skills knowledge and understanding being described in different ways in different sectors/ qualifications.

This last point is critical: inappropriate sectoral organisation, insufficiently coordinated action, and dysfunctional relations between sectoral organisations and institutions can introduce inappropriate rigidities and restrictions. These can prevent necessary mobility, in particular, where labour shortages are

affecting a specific sector and skills cannot be redeployed due to employers being either unaware of the existence of appropriate skilled labour in other sectors, or unable to access them, for example due to restrictions of licence to practise, legislation, etc. Genuine commonalities between those holding qualifications regulated or administered by different organisations are masked by surface differences in qualifications.

It is important to recognise that certain developments in assessment are also directed towards removing dysfunctional rigidities. This is, however, a complex area. While assessment processes which aid recognition of non-formal and informal learning, making visible learning that might otherwise remain invisible (Cedefop, Bjørnåvold, 2000) and thus making skills, knowledge and understanding available to individuals, society and the economy, this may break links between input/process elements of learning (such as vocational training) and the outcomes which can be recognised in assessment and in the resulting qualification.

1.5. Political interest in qualifications

It is difficult to gauge the level of policy-maker interest in qualifications systems. There are major national and sectoral differences that make generalisations, particularly over time, difficult. However, there are signs that political interest in this field is increasing, with qualifications systems, particularly frameworks, being seen as part of the national identity and as a means of regulating the quality of institutions providing formal learning. The lifelong learning agenda and the goal of inclusive societies are highlighting qualifications systems as the focus of reform in many countries. Another strand of political interest is to do with economic performance and the need to link education and work, for example by developing joined-up systems where the education sectors, such as vocational education and training and higher education, link and allow progression across their institutional frontiers so that learners and economies can benefit from the strengths of each sector.

This study was conceived as supporting the long-term European agenda for education and training and employment. The report is tailored to this function and it aims to make clear the potential and limitations for qualifications systems to be used for achieving policy outcomes. Material used in this report that relates to political dimensions of qualifications is empirical evidence gathered for the study. It should be noted that other sources of research evidence are in short supply.

1.6. Theories and practices

This study attempts to use a range of research perspectives to make sense of the current understanding of the use of qualifications and the systems that generate qualified status. These research perspectives are principally:

- (a) empirical evidence of change in national, regional and business sectors;
- (b) social and economic research and conceptualisation of impacts of qualifications on education, economies, work, communities and individuals;
- (c) systems analysis that is related to institutional funding, management and monitoring;
- (d) technical developments and the production of analytical tools and instruments;
- (e) international comparative research into policy development, the effects of global pressures, and benchmarking tools.

The activity of theorists is vital for illuminating the way in which qualifications are understood, managed and used. This can be understood as the explanatory function of theory. Elements of these theories are mobilised by policy-makers and those managing qualifications (awarding institutions, regulatory bodies, etc.) to convey particular social values (theory relating to social reproduction) and to enhance the life chances of specific groups (theory relating to personal identity and to human capital), etc. This can be seen as the explicit deployment of theory. In addition, and not less important, implicit assumptions are made about the value of specific qualifications and qualifications in general, and the degree of trust which can be associated with specific qualifications. These beliefs in turn affect how a system of qualifications behaves.

These categories of theory are operationally distinct. Explanatory theory emerges principally from the activities of dedicated analysts and researchers. Deployed theory is associated with actions in the policy domain. Implicit theory operates across social, economic and political systems, and is embedded in the actions and beliefs of individuals who inhabit those systems. It is important to seek out the common features of the operation of these different classes of theory. While analysts engaged in the production and refinement of explanatory theory strive to increase the power of explanation which those theories provide, it is not suggested that any theory provides perfect knowledge of the qualifications and the systems of which they form a part. Further, there is no necessary relationship between theory and policy impact.

Theories are inadequate characterisations of the operation of qualifications, not because these theories are somehow badly constructed but because they are partial. Qualifications sit in complex social, political and economic contexts; their real 'behaviour' will depend on this context. Limited as they may be, theories condition action by affecting and altering the system they seek to explain. In many cases we can observe a rolling dynamic: theory is created to explain the operation of qualifications (it is partial and imperfect) and is then used by people in their development and use of qualifications, thus changing the way in which qualifications operate. Theory (both explicit and implicit) is forever 'running to catch up with the reality it has created'. In other words, theory is formed in the context of a specific set of relationships in to explain those relationships but, the moment the theory is used to manage, control and intervene, it transforms those relationships such that the theory no longer strictly applies.

The crucial difference between theories trying to explain natural and social systems is that in social systems the theory is not independent of the systems, it is part of them (Bhaskar, 1998). Unlike the relationship between gravity and human theory about gravity, the views of human actors in those systems affect how those systems operate. This can be readily demonstrated. If I believe (through adopting a theoretical stance) that a given social group is intellectually inferior, I will behave differently towards members of that group. At its worst, this becomes a self-realising mechanism. For example, a group that is regarded as inferior may be denied access to educational and developmental opportunities; this then reinforces the theoretical view that the group is inferior – the group in adulthood does not manifest the qualities of other groups – but principally through the effects of the deprivation and inequality caused by the original theoretical view.

Theory in the social domain is distinctive from its role and function in the natural world; it is not universally pre-eminent but occupies a complex position, which can shift at different times. It can legitimately be viewed as the product of certain social, political and economic relationships as well as the cause of them (Searle, 1995); it is at times the outcome of certain relationships and at others their cause (Hacking, 1999). This suggests that theory is neither trivial nor unimportant; we need to understand how avowed or implicit theory affects qualification policy, affects the users of qualifications, and plays a role in determining how qualifications function.

1.6.1. Main theoretical perspectives

The literature (discussed in detail in Chapter 2), reveals that there is no such thing as a single qualification theory. Instead we can observe that

theories are formed and develop according to different perspectives linked to different parts of the social and institutional context in which qualifications are located. The following section considers these perspectives, which sometimes complement each other and sometimes compete.

1.6.1.1. *Human capital theory*

Human capital theory emphasises the importance of the possession of skills, knowledge and understanding required in production. It was originally defined as ‘capital’ since it was seen as a fixed element, possessed by individuals, capable of generating profit without circulation or exchange, and requiring investment to develop:

‘... the acquisition of such talents, by the maintenance of the acquirer during his education, study or apprenticeship, always costs a real expense, which is a capital fixed and realised, as it were, in his person. Those talents, as they make a part of his fortune, so do they likewise that of the society to which he belongs. The improved dexterity of a workman may be considered in the same light as a machine or instrument of trade which facilitates and abridges labour, and which, though it costs a certain expense, repays that expense with a profit...’
(Adam Smith, *The wealth of nations*, 1776).

Human capital theory has been associated with devaluing and exploitation of individuals (Becker, 1993): the notion of commodification of individuals. Conversely, neoclassical economic theory includes a tendency to value individuals for the human capital they have accumulated and in which investment has taken place, and the tendency to enter into new forms of contractual relationships which balance power in different ways (Guest and Conway, 2004). When associated with human capital theory, qualifications can be seen as having a number of critical functions:

- (a) quantification of the knowledge, skills and understanding possessed by an individual (and thus a measure of investment, by the individual, employer, and or State, and of value in optimising education, training, and production processes) (Schmid and Hafner, 2005);
- (b) a means of allowing labour market movement and substitution (and thus flexibility in production) (Rolfe, 2001);
- (c) a check on the quality of investment in human capital (Blundell et al., 1999), i.e. authentication or assurance of the possession of specific skills, knowledge and understanding.

The skills, knowledge and understanding considered to be worthy and of value have been subject to change as the requirements of production have changed but also as the theorisation of what is vital has itself changed (Oates, 2004). 'Social capital' emerged as a means of explaining inequalities in progression and return, identifying social networks as not only a feature of advantage for individuals, but also for groups and societies (Baron et al., 2000). Further elaborations of the notion of 'capital' include the notion of 'personal capital', those elements of personal psychological disposition which appear to be highly related to life chances and life success (Heckhausen and Chang, 2009). Although measured in research studies (Bynner and Wadsworth, 2007) these capacities and traits typically are not captured in formal certification. This is explored below.

An apparent weakness of human capital theory as the basis for the explanation of the way in which formal qualifications function is the existence of different life chances and trajectories for those possessing the same formal qualifications. An example is differentials in return from seemingly identical degree courses from institutions of different prestige.

1.6.1.2. *Signalling theory*

Signalling theory has been developed in three domains - biology, engineering and economics – and there continues to be interaction between the different refinements of the theory. From biology emerge the notions of the importance of signalling and the possibility of deliberate false signalling (McKean and Zuk, 1995). From engineering emerges the notion of interpreting low-level signals in the context of high levels of background noise (Abdi, 2007). The theorisation, within labour economics, of signalling, has now become highly refined (Friederiksen et al., 2006). It focuses on the existence of 'asymmetric information' (the worker's knowledge their own skills knowledge and understanding versus a potential employer's understanding) to structure detection of high(er) quality employees by use of specific signals. The theory and empirical work was initially carried out in relation to signals associated with education and training credentials (Tyler et al., 2000) but it can also be related to cultural theory:– social capital conveys advantage and this can be signalled in various ways to employers. The communication medium for the signal is important, along with notions of the 'dependability' of signals (Bird and Smith, 2005). While the early work focused on the signals imparted through a claim to possess a specific qualification, more recent analyses have included examination of the value of *curricula vitae*, a narrative regarding experience. This is an important line of enquiry since narrative theory is complex, and

suggests that certain groups may possess more cultural capital in respect of being 'able to tell a good story', thus tending to increase processes of concentration of opportunity and accumulation of 'valued experience' in specific groups of learners (Ozdurak, 2006).

1.6.1.3. *Political economy*

Analyses deriving from political economy focus on the extent to which qualifications (in every respect: form, content, value, etc.) both reflect and reproduce social, political and economic structures. With the erosion of traditional class inequalities and the complex dynamic of advanced capitalism, the majority of the analyses of the function of qualifications have focused on specific patterns of inequality and the problems of access and progression for specific groups (Social Exclusion Unit, 1999) rather than the extent to which qualifications may be the symptom and support of deeper structural trends. The creation of greater efficiency and liberty in recognition and labour mobility has been a specific focus of key analyses in recent years (Pavlov, 2006), but the use of qualifications for the purpose of exclusion – for example by restricting numbers eligible for access to a specific profession in order to protect the interest of current members of the profession - remains an important area of enquiry. One area of qualifications policy which remains particularly informed by notions of political economy is that of 'routes' through education and training systems, as in vocational versus academic. This is linked to the emergence of qualifications frameworks as a new and distinctive policy tool.

1.6.1.4. *Identity theory*

Identity theory represents a highly articulated set of strands of theory seeking to explain the formation of identity in individuals (personal identity, self-image) and in social groups (social identity, cultural identity). Both branches of identity theory offer value in understanding the function of qualifications. The former links to notions of personal capital and social capital outlined above, and the way in which feedback from qualifications can affect the formation of self-concept (Bynner and Wadsworth, 2007; Modood, 2004). The latter is helpful in understanding the way in which qualifications can signal membership of certain social groups and assist in opening access to further accumulation of skills, knowledge, understanding and experience.

More recent work on 'learning identities' (Rudduck and Flutter, 2004) holds promise for better understanding the function of qualifications in relation to individual life trajectories. While concerned with explaining the

processes of exclusion and underperformance in specific groups (such as working class boys) it also examines the process of forming individual self-conception, i.e. the sense of 'personal qualities and competence' which are derived from educational experiences, including those conditioned by qualifications, and from the feedback obtained from specific qualifications, such as reinforcement of low self-esteem and personal value deriving from a person obtaining poor grades in general academic qualifications (Romans et al., 1996; Social Exclusion Unit, 1999; Boden et al., 2008).

1.6.1.5. *System theory*

With origins in Bertalanffy's general systems theory, systems theory has become elaborated into specific analysis of education, social and economic systems, as in the structural functionalist theory of Talcot Parsons and Niklas Luhmann.

Luhmann's theorisation provides a significant progression from Parsons' founding work. Essentially, Parsons used the concept of 'system' as an analytic tool to understand certain processes going on in society. Luhmann, in contrast, asserts that systems exist as a real thing – a strong ontological claim – and posits, via notions of 'binary code', an explanatory framework for why systems evolve (or indeed, decay) in specific directions under specific conditions (Gershon, 2005).

A further distinctive element of Luhmann's work is that while Parsons' overall model is of 'subsystems' contributing to the functioning of overall society, Luhmann regards systems as defining the form society assumes. He sees this as happening as a additive of the functioning of the systems: there is no overall 'form' of society which somehow defines the functioning of the systems. He construes each system as unfolding and operating according to its own code and with no regard for functioning of other systems.

Within this lies a distinctive notion of the relationship between individuals and systems. Systems require individuals to act and interact so that a system exists and operates but the history of each system unfolds as a result of the internal structure of the system. Far from dismissing people and their actions as irrelevant, this theorisation is seen as mapping how persons can change society, delineating the influence of the environment (the people) on the system (the society), referred to as 'structural coupling'.

The implications of this work for understanding the role and function of qualifications focuses particularly on the role of qualifications as a medium of communication within a system. This then invokes complexity in the way in which qualifications can assume a specific form as a result of the way in which a system – labour market, economy, education – has evolved and

the form of the qualification in turn affecting the potential ways in which a system can operate, and the directions in which it can ‘evolve’.

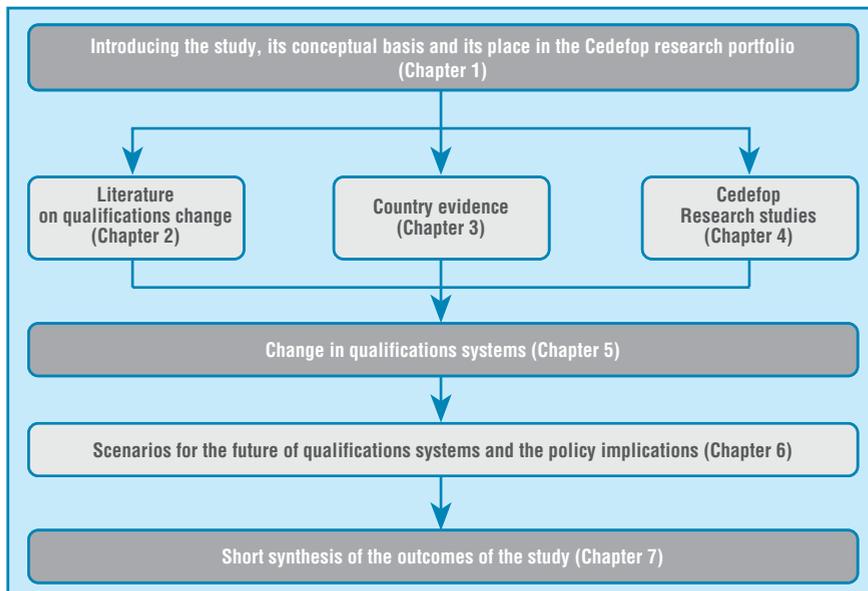
Appropriations of systems theory have given rise to concepts oriented towards the optimisation of enterprises – for example in conceptualising enterprises as ‘learning organisations’ – alongside attempts to use learning as a unifying concept supporting social movement and governments. This strand of development of systems theory has tended to promote knowledge production as a crucial element in societal strength and economic effectiveness.

With a fundamental principle of understanding the causal linkage between elements or entities in a system, it has given rise to notions of ‘skills ecologies’ and the importance of understanding the operation of ‘open systems’, where single-factor policy management may be entirely insufficient either to explain or control the outcomes or trends in education and training.

1.7. The report

The core of the report is the documentation of change included in Chapter 5. This explores the diversity of qualifications and qualifications systems, to-

Figure 2. **The structure of the report**



gether with how the balance between change and stability might be judged. The drivers of change are easier to document than the effects they might have: this forms the next part of the chapter and includes analysis of the view of policy-makers on the potential of qualifications systems in achieving economic and social improvement. Before considering the range of changes to qualifications systems the shifts in conceptualisation of qualifications systems is discussed. The final part of this chapter is reserved for a discussion of the roles of qualifications systems in bringing about lifelong learning.

The three chapters that precede Chapter 5 each describe an aspect of the evidence that forms the basis of the study. The first covers relevant literature, the second describes the country evidence of change in qualifications systems and the third chapter presents outcomes of Cedefop studies. These three chapters (2, 3 and 4) consider the scope of the evidence, the main findings and the implications. The latter are written independently of the evidence from other sources as far as this is possible.

Chapter 6 takes the evidence of change and uses scenarios methodology to look into the mid-term future to see what future changes might mean for policy-makers.

The final chapter takes all of the evidence and the scenarios for the future and offers a synthesis of the main outcomes of the study.

Indications from literature

Published literature is one of the three main sources of evidence contributing to this study. Also used are country information and the range of separate Cedefop studies. However, the published literature allows engagement with theoretically based observations and the placing of the empirical evidence in a broader perspective.

2.1. The scope of the literature and its limits

The study has been working with literature from the field of qualifications. The boundary of this search field has been set to be broad and inclusive. The following perspectives embrace the main theoretical positions outlined in Section 1.6.

Six research perspectives have been considered admissible for the study:

- (a) systems research: theories of how generic systems work, such as education and qualifications systems, and making them more effective, efficient and equitable;
- (b) social research: enquiry which measures, describes, theorises and predicts changes in social and economic structures, attitudes, values and behaviours and the factors which motivate and constrain individuals and communities;
- (c) economic research: theories about how the economy works and the ways different structures and policies affect it;
- (d) political research: theories of the political economy, with links to market research, media research;
- (e) technical research: understanding better how procedures work and evaluating their effects;
- (f) international comparative research into policy development, effects of global pressures and benchmarking tools, and generic concepts of qualification and skill, in education and training systems.

While evidence from all of these perspectives is included, some limits have been applied. For example, papers and other publications that are more than five years old have been excluded; however, review articles of any age have been included. This is to ensure that only documentation of the most recent changes is used. Publications can take two years to come to press and the research on which the publication is based could be two years old. This rough approximation means that the study is looking at literature that describes change in qualifications systems from the year 2000 and to the year 2007 at the latest. Published research literature usually describes developments as a basis for critical review; however, it is relatively unusual for research literature to document such change. For this reason the study has relied more on country-based evidence and the Cedefop studies for documenting change. The major contribution of the research literature to the study has been the conceptualisation – and consequent critical review – of developments and policy positions. Equally important to this conceptualisation is the theorisation of the main concepts (including the ways language and terminology are used). The literature has also been a seedbed for ideas about possible future qualifications trends.

2.2. Drawing on the research perspectives

Qualification is not a good term to use when searching standard library thesauri. The term is generally not used and other terms, such as credential, need to be used to access information about qualification. One of the major issues in using the term qualification is the fact that it is commonly taken to be a proxy for education and training; the latter terms are much preferred and have a long history in research literature.

The literature review process was intended to search for evidence of change rather than academic documentation of literature in the area of qualifications and qualifications systems. This is an important distinction since, in this study, the aim is for the literature to be part of three strong areas of documentation of change and not a comprehensive analysis of all the research in the qualifications field.

Research from social science was the most productive search area. This offered many useful reports of work in the subsidiary fields that covered institutional structures, attitudes, values and behaviours and the factors which motivate and constrain individuals and communities to value qualifications and learning. Economic research was also rich in terms of the interface

between learning and returns on learning, qualification and the labour market, particularly in terms of higher education and vocational education and training. International comparative research was also plentiful and covered potential areas for policy learning rather than documenting change. Here there was emphasis on policy development and the use international benchmarks.

International comparative research was also well represented in literature but this was mostly descriptive and of less value than expected. It has not generated the kinds of analytical frameworks that could have been used to analyse country-specific reports: compare other areas, such as welfare regimes, varieties of capitalism, school-to-work transition systems, although, even in these areas, typologies have not been empirically robust.

Technical research into qualifications processes was not as fruitful an area as one might expect. The documents here were highly specific and focused more on assessment than qualifications and then the assessment was not related so much to change but to improving understanding of psychometrics.

There is much literature on policymaking in education and training; only a fraction of this was concerned with qualification.

The literature search made little progress in documenting outcomes of systems research or political research. Fortunately both of these areas were covered well in the country evidence.

An area of particular difficulty was obtaining information about changing qualifications use in recruitment and selection processes. This is regarded as an important area since there is a transaction of learning (recognised in qualifications) for position (salary, job, career). It is likely that this kind of research into human resource management is carried out within companies and is not published as it has commercial value. Some of the major trade journals did reveal some information that was analysed for the study.

2.3. Pressures for change in education and qualifications

Education and training systems are large and complex and are the focus of pressures of different kinds from within countries and from outside. There is a good range of evidence of change arising from large international studies on whole education systems to more specific studies on particular subsystems

such as schooling, VET and higher education ⁽⁹⁾. The 2007 OECD study involving 25 developed countries concluded that education and training systems are subject to the following pressures.

2.3.1. Broad economic pressures

Internationalisation of trade and competition between trading nations has many aspects. Education and training is expected to deliver human capital that ensures minimal skills shortages and allows for modernisation of production and innovation. This implies a good relationship between education and work that leads to minimal discrepancies between job requirements, education and training provision and qualification descriptions.

2.3.2. International pressures

International monitoring of education and skills levels ⁽¹⁰⁾ applies political pressure for governments to show good national rankings. There is also pressure on education and training systems to enable international labour mobility and the mobility of learners so that the labour market can supply qualified people to enterprises and services. The development of international instruments such as the European qualifications framework, the NARIC network and the Bologna framework for cooperation in higher education illustrates this.

2.3.3. Demographic pressures

The implications of ageing populations and possible skills shortages in the future are creating pressure. Further pressure arises from large migration flows that may be essentially economic or social in nature.

2.3.4. Social and cultural pressures

These pressures intersect with the other categories listed above but some specific pressures can be best classified under this heading, such as valuing learning for its own sake and the socialising influences for better behaviour, sense of citizenship and active democracy. A key pressure arises from the need to optimise social inclusion.

⁽⁹⁾ For example, the OECD publishes an annual synopsis in *Trends shaping education*. These documents outline the challenges facing education systems in countries from nine major areas of change.

⁽¹⁰⁾ For example the OECD PISA Programme of International Student Assessment, TIMSS (Trends in International Mathematics and Science Study).

2.3.5. Pressures from learners and recruiters

Qualifications systems are mostly, if not always, complex. Users of the system need ways of understanding better what a qualification represents, how it relates to other qualifications and which stakeholders have endorsed it. Added to these complexities may be funding and institutional arrangements for providing learning, assessment and certification. It is not surprising that the need for transparency in the system, with clear communications with learners and employers about qualifications on offer, is a pressure on managers of qualifications systems. The need for coherence between elements of the system also means particular pressures from users. These are sometimes in conflict with the interests of the managers of different education sectors who wish to retain control over the way qualifications work for their sector.

2.3.6. Technological change

Developments in understanding assessment, about how assessments are reliably reported, and using the opportunities created by the new technologies create pressures on qualifications systems for modernisation to achieve greater public confidence and efficiency in operation.

2.3.7. Commercial pressures

Heynamen (2000) reviewed the changes in international trade in educational goods and services and identified seven drivers of change. His observations provide a commercial perspective on the pressures identified above. For example, he highlights international standards as a particular driver of global change and reminds us that transnational labour markets exist in medicine and health, food processing, the airline industry (pilots and engineers). Telephone operators and air traffic controllers are subject to standards for English language. Heynamen points out that, while international regulatory authorities have an interest in these standards, they are also commercially driven through their use by companies wishing to gain economic advantage. Heynamen also identifies democratising pressures on qualifications systems and points to evidence for higher levels of accountability and greater emphasis on equity and access in a more democratic environment for trading in educational goods and services. Following this argument further, the range of countries offering closed State systems of education and training (such as the Russian Federation) are opening up to privatisation and outsourcing of supplies of tests, qualifications and learning materials. Evidence also exists for this in

many African, Asian and Middle Eastern countries. Heynamen concludes that countries operating traditional national qualifications systems that aim to maintain quality are on a collision course with market economics based on consumer demand.

Gallacher et al. (2005) identify some other pressures, for example democratic social and political forces may promote unified qualifications frameworks as means to encourage social equality and social inclusion. They expect NQFs to improve access and progression, to recognise skills achieved without formal qualifications, to encourage parity of esteem for different types of learning and to help unemployed or excluded people to acquire skills. They also identify system pressures arising from the desire of central authorities to increase their control of education systems and/or to strengthen the systems' coherence and coordination. As education systems become larger, more diverse and more complex, they pursue a broader range of goals and outcomes and they engage a wider variety of stakeholders.

2.3.8. Pressures from within qualifications systems

On a more detailed level Gordon (2007) argues that qualifications systems are under pressure to:

- (a) develop coherent progression routes that allow people to build on the qualifications they already have in order to move to the higher level;
- (b) improve access to learning and to qualifications to enable individuals to undertake further learning to develop their knowledge, skills and competences; improve employability; and have their acquired competences validated;
- (c) develop flexibility to allow young people and adults who have left the school system to access training and qualifications more easily. This is a question of entitling adults to learn in ways that take account of their work and life constraints;
- (d) ensure transparency among the different types of diplomas and/or certificates that exist in any given country, so that people can more easily access higher level or specialist qualifications;
- (e) establish criteria and procedures for ensuring the quality of the qualifications that may be issued by different ministries or bodies;
- (f) improve the links between learning and the labour market in order to ensure the relevance of the qualifications provided.

Good examples of the pressures on national qualifications are available in national literature. The Federal Ministry for Education and Research (2007a) in Germany reported:

- in the short term, opportunities outside of the education system must be used to reduce current shortages. Opportunities for businesses to employ foreign specialists should be improved considerably;
- in the medium term, a reduction must be achieved in university drop-out rates. In addition, a target must also be set for a higher proportion of those entitled to attend university to do so by enrolling on a degree course;
- in the long term, a higher share of young people must acquire the Abitur, the obligatory qualification for university entrance. This necessitates a fundamental change in the German education system, namely a renunciation of the current selective education philosophy.

In 2005 the German Federal Ministry of Education and Research established the think tank Innovation circle on vocational education and training. Ten guidelines for the modernisation and structural improvement of vocational education and training were published (Federal Ministry for Education and Research, 2007b), forming the basis for VET policy in the coming years. The guidelines are largely aiming at making vocational education and training more flexible and creating pathways for lifelong learning, and at the same time strengthening the occupation principle. Throughout the guidelines, opportunities for credit transfer in the education system are a high priority, transfer between the areas of schools, dual initial and continuing VET and higher education. This is seen as essential not only to guarantee equality of opportunity but also to meet the increasing demand for higher education graduates.

The range of pressures on qualifications systems identified so far is likely to have effects on change in systems; literature points to a series of changes that have taken place in the last few years.

2.4. Evidence of change in qualifications systems

Published literature is generally slow to report on change. While it takes a naturally critical and theoretical approach to policy positions, the literature is more concerned with effects of policy positions. These effects take some time to manifest themselves and so evidence for analysis and reporting is not available until some time after implementation of policy. However, the literature indicates change and potential change in the following areas:

- (a) modularisation and unitisation;
- (b) credit systems;
- (c) qualifications frameworks;
- (d) qualifications as structuring tools;
- (e) economic performance and qualifications;
- (f) employment perspectives and functions;
- (g) recruitment and selection;
- (h) rising qualifications levels;
- (i) employability;
- (j) credentialism;
- (k) overqualification;
- (l) social benefits from qualifications;
- (m) institutions and qualifications: convergence and divergence;
- (n) knowledge and skills and the competence approaches;
- (o) national testing arrangements.

2.4.1. Modularisation and unitisation

There is considerable evidence of the development of modules of learning dating back to the 1960s (Pohlmann, 2007) and the trend continues ⁽¹¹⁾ (Surssock and Smidt, 2010). This curricular or pedagogic shift is essentially about understanding the structures of knowledge and skills within an occupational area or a subject discipline. One intended outcome is that users, principally learners and employers, have a clear idea of the content of a learning programme and the way it could be structured (progression). In one sense, modularisation is not part of the qualification process in that it is not necessarily the case that a module of learning is the same as a unit of assessment (European Parliament and European Council, 2009). However, providers adopting a modular approach to curriculum are likely to consider assessing content in line with the modules and reporting success in terms of ‘modules’ achieved. Modularisation can be viewed as a first step towards providing credit arrangements, credit accumulation and credit transfer.

The key attribute of modular systems is their flexibility and the fact that modules are easier to update than sections of whole programmes. For example, debate in Germany (Hensge, 2007) is reported as centring on modular occupational structures acting as an instrument of flexibilisation and

⁽¹¹⁾ At present, debates are continuing in the German speaking countries (Austria, Switzerland and Germany) about individualisation and flexibilisation elements. In this process, modular systems and modules have proven useful tools for modernisation in VET (Pilz, 2009).

as a modernising force, these being a prerequisite for more transparency, permeability and a greater degree of comparability of German vocational education and training qualifications. The aim is to make the German VET system competitive and connective in international terms. It also aims to make access to the dual system and the possibilities of progression from it more transparent. However, this is contested by other authors who see the modularisation movement as having the potential to reduce levels of VET (Ehrke and Nehls, 2007).

When modular courses are bolted on to school education, evidence suggests they offer little opportunity for young people to get into communities of practice and to gain an idea of the skills needed throughout life (Tennant and Yates, 2005). The broader appreciation of the knowledge skills and wider competences needed for a job or study programme may be obscured by the short-term unit structures. This argument is well rehearsed in the context of learning outcome approaches to defining curricula (Jessup, 1991; Hyland, 1993). However, in some circumstances (Allais, 2007) modularisation, and unit-based assessment has failed to offer the flexibility and increased access it promised. Despite this, a study on modularisation in European VET (Raffe, 1994) in the early 1990s suggested a strong link with disadvantaged and excluded learners, making their provision more flexible.

2.4.2. Credit systems

If modularisation is considered to be mainly about organising training programme content, the point of intersection with qualifications is when modules are validated and contribute directly to the qualification process; this may be either by securing exemption from part of an education and training programme, or by receiving direct recognition within a qualification ⁽¹²⁾. The literature points to a shift in understanding of credit systems, with a distinction being drawn between credit frameworks and qualification frameworks. Gosling (2001) reports that:

- (a) credit frameworks are based on:
 - (i) epistemology of knowledge;
 - (ii) curriculum progression through study programmes;
 - (iii) personal and professional development (increasing levels of autonomy, skills, application of knowledge);
- (b) qualification frameworks (such as the Bologna framework) are derived from:

⁽¹²⁾ See Section 4.3. for an explanation of the various forms of credit arrangements.

- (i) institutional structures;
- (ii) hierarchies of academic awards.

This kind of analysis of the difference between credit systems and frameworks has now been overtaken somewhat by the development of qualifications frameworks that are based on learning outcomes (Cedefop, 2009e; Allais et al., 2009). In these new generation (Young, 2003) frameworks the institutional basis of qualifications is reduced in importance in favour of general descriptions of levels of learning as opposed to defining the provenance of learning.

These new, learning outcomes based, frameworks offer the potential of assigning levels (framework levels as opposed to qualifications levels) to units of learning that may be independent of the qualification of which it is part⁽¹³⁾. There is no doubt that literature is clarifying the processes of defining credit, credit accumulation, credit transfer and how credit systems can work with high levels of trust (Cedefop, Coles and Oates, 2005). However, with the exception of higher education and the European credit transfer system (ECTS), the extent to which credit arrangements are operating in a concrete way is still not clear from literature sources alone⁽¹⁴⁾.

2.4.2.1. *Credit and the validation of non-formal and informal learning*

Systems for validating non-formal and informal learning are developing (usually on a small scale) in most countries (Otero et al., 2008) and are being seriously considered in policy terms (Seidel et al., 2008). While there are many outcomes of validation processes for informal and non-formal learning, the award of credit that is recognised in a formal qualification (partial qualification) is a key purpose⁽¹⁵⁾. The evidence in the literature is not conclusive about the added value offered by credit systems to the validation of non-formal and informal learning. Nor does it indicate any trend to ensure credit systems are available for validation systems. This might be for several reasons:

⁽¹³⁾ See <http://www.qcda.gov.uk/19674.aspx> [cited 28.2.2010].

⁽¹⁴⁾ However, the launch conference for ECVET (November 2009) included many examples of practice and it is likely that there are many examples of bilateral arrangements between learning providers and between companies and learning providers that do not feature in literature reviews.

⁽¹⁵⁾ For a discussion of the relationship between validation and credit transfer, see: Bjørnåvold and Le Mouillour, 2008.

- (a) the development of formalised credit systems that allow accumulation and transfer of validated informal and non-formal learning into qualifications is not yet well developed ⁽¹⁶⁾;
- (b) the purposes of validation processes attached to non-formal and informal learning are geared to full qualification; partial qualification is not a priority ⁽¹⁷⁾;
- (c) validating non-formal and informal learning gives exemption from part of a learning programme for a qualification and so the credit awarded is less well defined ⁽¹⁸⁾;
- (d) the purposes of validation attached to non-formal and informal learning have outcomes that are not primarily aligned to formal qualification but to processes that are linked to personal progression needs or the needs of companies in managing a workforce ⁽¹⁹⁾.

The relationship between validation of non-formal learning and credit transfer and accumulation processes has the potential to develop under lifelong learning policies, since there is synergy between the systems that offer learners and other users flexibility in progress towards qualification.

2.4.3. Qualifications frameworks

There has been an expansion of interest in NQFs across the world (Serban and Deij, 2009); claims for their effectiveness are summarised in Cedefop's 4th research report (Cedefop, 2009a) on modernising vocational education and training:

- (a) acting as tools for governance, mobility and transparency; they have become fashionable instruments in VET modernisation because it is assumed they address several institutional reform domains simultaneously;
- (b) diversifying the range of education and training options on offer while reducing the complexity of the qualifications system, aiding coherence and increasing transparency;
- (c) improving career development support and employment mobility by improving the fit between supply of qualifications, skills and competences and labour-market needs;

⁽¹⁶⁾ Although the new qualifications and credit framework for England, Wales and Northern Ireland gives this possibility.

⁽¹⁷⁾ The VAE in France is an example.

⁽¹⁸⁾ ECTS generally has this function.

⁽¹⁹⁾ Company schemes are often commercially restricted and most fall short of offering qualification status that is validated outside the company.

- (d) promoting international and transnational mobility, cooperation and exchange by reciprocal recognition between providers, teachers and trainers and students/trainees and the development of a common language for qualifications;
- (e) regulating and assuring quality of education and training provision;
- (f) promoting lifelong learning by securing the transfer of knowledge, competences and skills between different settings.

It is difficult to pinpoint any global or regional stimuli for such interest with confidence, although clearly the development of a European qualifications framework has stimulated activity in European Member States. Long-standing frameworks in Australia, New Zealand and the UK do not appear to have acted as a strong stimulus for other countries, although those countries that developed frameworks before the emergence of the EQF have used the older frameworks as models of development. More likely than being stimulated to develop NQFs by other countries is that countries are responding to a range of pressures (see above) that have acted on education and training systems and qualification arrangements in particular. It is also possible that global changes have encouraged countries to look outward when reforming qualifications systems rather than considering them purely a national matter and immune from international influences. Examples of such influences are the growth of international business, the free flow of electronic information and the increased migration of people from one country to another. All have all intruded into national systems. However, there is a shortage of hard evidence that NQFs are a solid response to these national and international pressures and it is probably fair to say that NQFs are being introduced around the world through intuitive logic, supported by international advocacy, and with political faith in their effectiveness (Allais, 2007). A good example comes from Germany, where Kremer believes the need for a German national qualifications framework has virtually ceased to be an issue of contention (Kremer, 2007). The development of such a framework is an opportunity for the country to rethink the concept of vocation by lifting boundaries first to set new ones (*Entgrenzung/neue Begrenzung*). Kremer thinks Germany needs a new alignment of the different subsystems of governance.

Visions for NQFs in countries differ greatly (Cedefop, 2009e). Some countries start by reflecting existing implicit national qualifications levels in a diagrammatic form, usually a grid. This classification acts as a representation of the national qualification system. It is intended to enable change – by increasing transparency and providing tools for reform – rather than to drive change more directly, and it is built on the consensus existing in the current

system. Other frameworks aim to drive change rather than simply provide tools for change. Raffe (2009c) describes two types of NQF that go beyond description of the current system. The first kind (reforming NQFs) sets out a means of moving to a new position for the qualifications system, for example by encouraging the use of learning outcomes. A second type (transformational NQFs) simply sets out the way things will be in the future and encourages strategies to achieve this new position. There may be a difference in the ways countries with weak education and training systems envisage a new NQF compared to countries with relatively strong systems. Referring to the African experience, Singh (European Training Foundation, 2009) sees the more developed countries aiming to reflect the current qualification system in an NQF whereas countries with weak education and training systems seem to describe a vision for an NQF as providing many things the current system does not deliver.

NQFs achieve added value by means of structure or by having functions associated to them (European Commission et al., 2010). The latter are commonly such procedures as additional quality assurance, additional validation procedures (such as for non-formal and informal learning) or new qualifications for disadvantaged groups ⁽²⁰⁾.

There is often a high expectation that NQFs will solve problems. For example, in the Russian Federation the following problems are thought to be important and an NQF is seen as part of the solution (Oleynikova, 2008):

- (a) an outdated system of education/training qualifications (input-based and inconsistent);
- (b) an outdated classification of occupations;
- (c) the labour market and the education and training system developing as two separate strands;
- (d) uneven economic growth of sectors and regions;
- (e) employer dissatisfaction with VET and HE;
- (f) lack of flexibility in providing training;
- (g) weak social dialogue.

It is not possible to make a definitive list of areas of added value for all NQFs. However, in general terms, it is probably reasonable to expect benefits in some or all of the following (European Commission et al., 2010):

⁽²⁰⁾ There are other kinds of factors that have to be considered in the design of an NQF, for example its possible use as a regulatory tool which requires additional quality assurance procedures, or whether the framework is imposed by government (possibly by law) or is built on the basis of voluntary engagement of stakeholders.

- (a) increased consistency of qualifications;
- (b) better transparency for individuals and employers;
- (c) increased currency of single qualifications;
- (d) a broader range of recognised learning forms;
- (e) a national/external reference point for qualifications standards;
- (f) clarification of learning pathways and progression;
- (g) increased portability of qualifications;
- (h) acting as a platform for stakeholders for strengthening cooperation and commitment;
- (i) greater coherence of national reform policies;
- (j) a stronger basis for international cooperation, understanding and comparison;
- (k) realistic expectations.

The unintended, negative consequences associated with qualifications frameworks have not yet been mapped with precision in any research work or analytical critique. However, specific issues have emerged in relation to:

- (a) forced alignment between qualifications effecting negative ‘washback’ into specific qualifications (e.g. demanding inappropriate content in order to meet ‘alignment’ requirements);
- (b) a shift in the locus of control, particularly promoting a tendency to centralism;
- (c) disruption of formal agreements and delicate relations between qualifications and wage rates, work processes, etc;
- (d) reduction in flexibility of arrangements (in contrast to the intended increase in flexibility) through the imposition of new relationships between qualifications and new, restrictive, approval arrangements;
- (e) increase in cost and bureaucracy associated with the development and operation of qualifications;
- (f) reduction in public confidence and operational utility due to wholesale revision of arrangements (‘system turbulence’);
- (g) reduction in legitimate diversity in the form and content of qualifications operating in the same areas of education and training, reducing the inherent flexibility of arrangements;
- (h) new formal barriers erected to mobility and mutual recognition, created through minor misalignment between qualifications and ‘framework’ requirements, and challenge to the status of existing qualifications (including potential withdrawal of funding) (Oates, 2010).

2.4.3.1. *Measuring the trend: stages in the development of NQFs*

The process of defining and implementing an NQF can be seen as going through a series of more or less distinctive stages (Serban and Deij, 2009). The literature, mainly from international organisations such as Cedefop, OECD, ILO, ETF, indicates that it may be possible to chart change in NQF development against a series of stages. Table 2 presents a summary position.

Table 2. Stages in the development of NQFs

Stage	Countries in 2009
The exploration stage, during which there is no agreement yet on whether the country would need an NQF, which is used to discuss the advantages and disadvantages of an NQF as a policy tool and alternatives.	Algeria, Azerbaijan, Moldova, Kazakhstan, Tajikistan, Ukraine
The conceptual stage, during which countries discuss, develop and define the rationale and the main outline of a future framework.	Latvia, Slovakia
The design stage, used to design the national framework and to agree between stakeholders on how it should be implemented.	Albania, Belgium (Wallonia), Bosnia and Herzegovina, Bulgaria, Cyprus, Georgia, Greece, Hungary, Italy, Kosovo, Luxembourg, Montenegro, the Netherlands, Poland, Romania, Russia, Slovenia, Spain, Sweden, Tunisia, Turkey
The testing phase, used to test and develop the tools for implementation and support the operational planning for implementation.	Austria, Germany, Iceland
The implementation stage, which normally starts with capacity and institution building, populating the framework with qualifications, followed by more attention on quality assurance linked to assessment, certification and delivery processes and the coordination, regulation and/or management of the framework, including ensuring sustainable funding and ICT systems.	Belgium (Flanders), Croatia, Czech Republic, Denmark, Estonia, Finland, Lithuania, Malta, Portugal
The review stage to review progress and the impact of the framework, often followed by reconceptualisation, redesign, testing, implementation, etc.	France, Ireland, UK

The clear descriptions in Table 2 may, however, be an illusion as it is quite possible to have several of these stages happening together. It is also the case that frameworks tend to evolve to match changing national policy and qualifications arrangements better (Raffe, 2007). As Kremer (2007) points out, dialogue between social partners and consensus building is a constant endeavour as different interests and priorities are resolved.

The process of setting up NQFs is strongly dependent on the national context (Coles, 2007) and, in particular, frameworks covering VET. Higher education frameworks have been developed in many countries as part of the Bologna process; Rauhvargers provides a description of this process (Rauhvargers, 2009) and warns of the problems ahead if framework design is not considered with sufficient care. Discussions at European level (European Commission, 2008a) concluded that the implementation of NQFs requires attention to the following points:

- (a) NQFs require strong political commitment. Development of a NQF is a long-term process: from the moment it is first discussed, through the consensus building, the publication of a design, an implementation programme to the moment it provides benefits, it is likely that a matter of years will pass;
- (b) development of consensus across the variety of actors concerned is crucial for trust and openness of NQFs;
- (c) development of NQFs should be progressive but, on the other hand, NQFs evolve. Therefore it may be necessary to have more modest expectations in the beginning and improve the framework over the years;
- (d) NQFs have to suit their national contexts. The added value they can bring in is relative to the existing situation. Each system is facing different challenges (e.g. coherence may be a problem in some systems but not in others). The technical features of NQFs also have to be based on the national context (e.g. the number of levels in an NQF);
- (e) there is a need to be realistic about expectations from NQFs. While they can support many policy objectives, these will not appear automatically because of an NQF;
- (f) other related policies and practices have to be related to the NQF to create added value. Challenges related to NQF are not so much related to the technical aspects but to all the peripheral requirements (e.g. involvement of stakeholders, quality assurance, etc.).

These points are reinforced by analyses that explore the social, institutional and political dimensions of qualifications (Raffe, 2009c). Such dimensions draw

attention to features such as the role of trust in underpinning qualifications, the possible tensions with ‘institutional logics’ and the way that NQFs are shaped by conflicting interests among stakeholders. Raffe argues that policy-makers developing and implementing NQFs need to give as much attention to these social, institutional and political aspects as to more ‘technical’ issues such as level descriptors and quality assurance systems. A further consequence is that effective NQFs develop over a long time. Raffe argues that the Scottish framework has its roots in reforms implemented in the mid 1980s; Boudier and Kirsch trace the origins of the French framework back to the 1970s (Raffe, 2007). Because the social, institutional and political context of qualifications is different in each country, no standard model of qualifications system or NQF will fit all countries.

Qualifications frameworks are now featuring more strongly in literature on qualifications systems. This literature is more about development processes and desired effects on learning, progression and permeability than on the ways the frameworks interact with other aspects of qualifications systems (such as defining standards, raising skills levels for employment and influencing the choices individuals). Recent literature (CEREQ, 2009) suggests that, at least in the case of four countries, the different qualifications concepts and qualification structures may not always be compatible with the EQF logic and this may provide specific national strategies which may be interesting to observe in the future.

There is a shortage of hard evidence that proves that NQFs work and add value: evaluations have tended to be concerned with the process of NQF development rather than the impact one has made. The systematic reviews of Ireland ⁽²¹⁾, South Africa and Australia are exceptions ⁽²²⁾. Allais (2007) indicates that the failure of the South African Qualifications Authority (SAQA) to embrace the majority of learning over the 13 years of its existence is linked to two reasons: overspecificity and a danger in not recognising and valuing the teacher’s role in unpacking learning and knowledge structures. She goes on to point out, however, that NQFs have value when they are a communication tool and when they are used by rich countries.

⁽²¹⁾ Framework implementation and impact study. Available from Internet: http://www.nqai.ie/framework_study.html [cited 28.2.2010].

⁽²²⁾ For example, see for Ireland: http://www.nqai.ie/framework_study.html [cited 28.2.2010].

2.4.4. Qualifications as structuring tools

Several researchers have commented on the role of qualifications as a structuring tool: they act as a fixed point about which other variables – such as curriculum and assessment methods – are regulated or determined. Here the focus is largely on VET where qualifications are generally more flexible and follow any changes to institutions, curriculum and assessment. Where relationships between the labour market and provision are important, qualifications can be seen as a means of defining how employment and training interests come together: they are seen as a proxy for knowledge, skills and wider competences and also as a means of organising the learning that leads to qualified status. In Cedefop's 4th research report on modernising VET, Boudier (Cedefop, Boudier et al., 2009) explained that there are three reasons for the increasing use of qualifications as a structuring agent. They are a stable point in an increasingly diverse training arena, and they are at the nodal point between labour market interests and education and training interests. Qualifications can also help with European harmonisation, so transparency of qualifications systems remains critically important. However, there are problems in moving to a more transparent system. For example, not all stakeholders want transparency; private companies may want confidentiality of their qualifications. More seriously, Cedefop, Boudier et al. (2009) argue that transparency may actually develop bureaucratic processes that their own enemy and that the ways transparency is understood vary from context to context. The point is made that qualifications may be becoming too powerful a shaper of systems, with supply (in the form of qualifications) dictating to demand (the needs of the labour market).

The OECD (2007) has argued that qualifications can play a much broader structuring role:

- (a) social reproduction through the promulgation of specific content, particularly by supporting certain demarcations in knowledge and skill; by promoting certain explicit/implicit values;
- (b) structuring labour markets through linkage to licence to practise, by supporting job demarcations, by controlling labour flows;
- (c) conditioning learning through impact on the nature, structure and content of learning programmes.

A series of different influences (including qualifications) has helped to shape the identity and specificity of the vocational training. European influences have also been important in countries where VET was poorly structured (Imaginario, 1996) or structured to meet the needs of a different type of economic configuration. The EQF is proving a major shaper of VET systems, especially though the focus on learning outcomes. It is argued that the rising

interest in qualifications has shifted discussions away from curricula and pedagogies towards certification (Cedefop, Boudier et al., 2001).

The stronger influence of qualifications on VET leads to questions about whether they are becoming more specific in terms of their content (the competences for which they attest). There is good evidence from comparative studies (Kogan and Unt, 2008) that more specificity is useful for employers and for the employment prospects of young people. The specificity of VET pathways for learners is also found to be useful for employers and learners and leads to links between providers and employers becoming effective.

Kogan and Unt (2008) also argue that labour market regulation ⁽²³⁾ is effective for employers and learners and it is clear that qualifications serve a useful purpose in regulating entry to labour markets. This is regarded as a powerful means of ensuring the effective use of occupational and training standards that have been designed with social partner involvement.

2.4.5. Economic performance and qualifications

Reviewing the literature on economic performance and education and training, it is impossible to disentangle qualification and certification levels in populations from education and training provision ⁽²⁴⁾. This is necessary if the effects of qualification level are to be measurable. There are several reasons for this situation, the main one being that the only widely used metric for 'learning' levels is based on education and training provision and not the levels of learning actually achieved by populations of individuals. Institutions are powerful influences on the generally understood levels of learning. Individuals generally have levels of knowledge, skills and competences that have continued to grow since leaving initial education and training but much of this learning remains invisible (Cedefop, Bjørnåvold, 2000).

Despite this the general thrust of all economic development accepts that a good supply of skills is essential for optimising productivity and securing economic growth. Notwithstanding some reservation expressed later, qualifications are a good proxy for this skills supply ⁽²⁵⁾. This faith in

⁽²³⁾ Regulation at its broadest means actions taken on behalf of governments in the public interest to steer events and behaviour, rather than to provide or distribute goods or services.

⁽²⁴⁾ Although in some recent literature this is evident. For example, CHEERS (Careers After Graduation, under the responsibility of the International Centre for Higher Education Research (Kassel University) discussed student competence level corresponding to diploma level (see: www.unikassel.de/incher/cheers [cited 9.7.2010]).

⁽²⁵⁾ See for example discussion in *Les métiers en 2015* [Trades in 2015] (Centre d'analyse Stratégique and DARES, 2007), the result of work carried out in the framework of the Skills and forecasting group.

the effects of a good skills supply may well be obscured by other factors in ensuring growth. In a review of how education attainment influences economic performance in the USA, Wolff (2006) concludes that, on the basis of both time-series and pooled time-series cross-industry econometric analysis, no evidence is found that the growth of skills or education attainment has any statistically significant relationship to earnings or productivity growth.

Particular attention has been paid (see OECD, 2007) to the idea of ‘responsiveness’, frequently expressed as the time that it takes for qualifications to be revised in the light of changes in technology, the labour market, etc. The call for qualifications to be more responsive ironically highlights the extent to which qualifications can exert a structuring influence (see above) on education and training. In particular, and across a range of educational sectors, the structuring influences are:

- (a) formalising progression routes and so providing patterns of incentives for participation in education and training;
- (b) providing clear labour market signalling of skills and knowledge;
- (c) supporting protective arrangements regarding labour rights, pay, etc.

Unitisation is also believed to support responsiveness (Hart and Howieson, 2004) although much depends on the presence of other policies and existing institutional arrangements.

2.4.6. Employment perspectives and functions

The confused position in attempting to relate productivity to qualification levels may be clarified if the views of employers are taken into account. Most countries have surveys of employers, although it is unusual to ask direct and specific questions of employers about qualifications. To employers, a qualification not only includes school, vocational and university credentials, but also documentation such as ‘tickets’ and licences to practice work. An Australian survey (Blythe and Bowman, 2005) makes the following key points.

Employers value qualifications, but they value skills (possibly meaning experience-based competences) more highly. They will use accredited training leading to qualifications only under certain circumstances. Employers believe that qualifications provide three main benefits:

- (a) in recruitment: qualifications are used as a ‘screening’ tool but are not the determining factor in choosing a candidate. Employers give more weight to personal qualities and direct industry experience as signs of immediate competence, especially in lower-level occupations;
- (b) meeting compliance requirements: qualifications are particularly important for jobs where certain credentials are mandatory. For example, formal

qualifications are required in many jobs in the occupational health and safety area, and the trades;

- (c) providing career development for existing workers: some employers encourage the pursuit of further skills through qualifications to increase morale, and promote a learning culture within the workplace.

Employers use and value qualifications differently according to occupation, and enterprise type and size. Employers value qualifications most in those people working in higher-level occupations. Big businesses or enterprises in traditional industry areas (such as manufacturing) value qualifications more than employers in small businesses and enterprises in new, emerging industries (such as information technology), or those undergoing major structural change. Employers of larger enterprises tend to support a more 'comprehensive approach' to worker qualifications, while small business owners tend to be more discriminating when assigning worth to qualifications.

Research shows a difference between employers' beliefs and their actual practices. Although they may indicate that qualifications are not important to them, evidence reveals that employers are not only more likely to take on employees with qualifications, but also tend to pay them higher wages.

The following measures are likely to encourage employers to view qualifications more favourably:

- (a) VET providers need to show employers that existing training packages contain most of the competences that employers identify as important for performing jobs well. Providers also need to be aware that employers place more value on some types of knowledge, skills and competences than others in terms of whether they need to be assessed formally;
- (b) providers need to find a way of linking qualifications with actual skills gained through work experience, to enable employers to recognise that candidates who hold qualifications have skills and abilities that will be valuable in the workplace.

In a UK study of employers (UKCES, forthcoming) most employers perceive qualifications as offering benefits to their business:

- (a) 89% of employers agree that vocational qualifications (VQs) increase knowledge and understanding (60% of these agree strongly);
- (b) 83% agree that training to VQs developed new skills (53% of these agreeing strongly);
- (c) 71% agree that VQs lead to better business performance (43% agreeing strongly);
- (d) 61% believe that they offer benefits in terms of staff retention (although around 20% disagree with this statement).

In a report in a USA tyre trade journal (Marinucci, 2009), two additional reasons for valuing qualifications were proposed:

- (a) reliable standards of competence;
- (b) improved staff retention.

Qualifications are used to manage regulatory compliance risk, such as occupational health and safety. Employers see qualifications as less important in managing business risks, such as potential loss of profit, believing these risks require forms of control other than skills development/qualifications.

A UK report based on a survey of employers (BMG Research, 2010) suggests that, in broad terms, employers and individuals do not seem to be too far apart in their views, experiences and perceptions of vocational qualifications. Although employers and individuals place high value on vocational qualifications, they do not have full understanding of their content. There is broad agreement on the skills and knowledge to which they attest and a shared view of their remunerative impacts.

2.4.7. Recruitment and selection

From a qualifications point of view the insertion of people into the labour market is a critically important activity when learning and attributes, often in the form of qualifications, are used to open the door to a salary, a job, a career and, the beginnings of a trajectory for life.

It is a common public assumption that the most qualified people will get the best jobs as qualifications are a good representation of what is needed in work. The evidence in literature shows this assumption should be challenged. However, there is limited and mixed (Keep and James, 2010) evidence of the value of qualifications in the recruitment process; there are many variables that are important such as size and type of enterprise/job, level of qualification required, any regulation in labour market entry. It is necessary to probe more deeply so that findings such as ‘employers say standards in qualifications are falling’ or ‘personality is more important than qualifications in getting a job’, can be understood and weighted in terms of value for this study.

The way qualifications are used ⁽²⁶⁾ in recruitment can be traced back to filter theory (Arrow, 1973) or screening theory which (for higher education) says that higher returns for individuals are not due to the acquired content of learning programmes (thus allowing individuals to be more productive

⁽²⁶⁾ For the purposes of this discussion the focus is restricted to the usefulness of qualifications for recruitment. Qualifications have other significant private, personal and social value as well as value as quality assurance tools.

in work) but because employers use education to differentiate potential in candidates. Education is a signalling device that helps place the right person in the right job. It is the innate qualities in individuals that are productive and valued by firms, not the process of schooling. Institutional quality (elite or non-elite) is also identified as a screen or filter because employers prefer those graduates from the schools and colleges that they perceive to be the most prestigious (Layard and Psacharopoulos, 1974).

Bishop (1987) later explained that while the institutional schooling element is signalled to recruiters, dimensions of education and training accomplishment, the actual knowledge, skills and competences developed, are often not signalled to potential employers and therefore have limited influence on the allocation of workers to jobs. Bishop goes on to write that much depends on general intellectual achievement (GIA) and educational credentials. However, GIA is unobservable, so pay is based on credentials and supervisory assessments of doubtful reliability. As in most signalling models, the labour market tends to overcompensate credentials and undercompensate academic achievement.

French studies show a wide range of attitudes from the employers. A legal and sociological analysis (Caillaud and Dubernet, 1999) shows that the diploma is viewed as a sign that acts according to whether it is considered as the general or individual level. Nevertheless, a national qualification system drives an ideology of merit and reward in a regulated and negotiated framework, available throughout life.

Economics literature is particularly weak in terms of insights into recruitment procedures. However, the interest in more general characteristics is possibly engaging researchers to look at returns on these wider characteristics when used the labour market more generally.

The invisibility of research evidence and the apparent informality of the process of recruitment may be a smokescreen that is intended to preserve the confidentiality of such processes, seen as critical to the success of larger companies.

Keep and James (2010) report the outcomes of a survey of advertisements for posts and produced a classification of what it is recruiters seek:

- (a) quality/ambassadors (the best people for best brand);
- (b) reputation for success (lawyers, senior managers);
- (c) social capital, contacts, network access;

- (d) effort/labour/willingness to work hard;
- (e) technical skill and knowledge;
- (f) cognitive and reasoning skills;
- (g) creativity;
- (h) physical strength and resilience;
- (i) manual dexterity, tool usage, hand to-eye-coordination;
- (j) soft/generic/inter-personal skill;
- (k) appearance, voice, accent (aesthetic skills);
- (l) personal attributes, behaviours and characteristics (someone like us/
someone who will fit in);
- (m) motivation, hunger, drive to succeed, desperation, and, in some cases,
willingness to tolerate less appealing aspects of job;
- (n) experience (proof of ability to perform, proof of limited need for
training);
- (o) potential (ability to fill future jobs, not just current post).

The question is which of the listed requirements are commonly represented by a person's qualifications and, even if many of them are, to what degree does a qualification signal these to an employer? The transmission of a signal from employer to potential recruits and vice versa is now more complicated than it once was: the growth of specialist recruitment agencies is now a significant moderator of signals in both directions.

The evidence that exists gives a mixed picture of whether qualifications are an improving or deteriorating signal of knowledge, skills and wider competences.

Respondents to the NCVET Australian survey ⁽²⁷⁾ tended to agree that qualifications are a good guide to a new recruit's skills and abilities, and that qualifications are very important when it comes to recruiting staff. Employers currently perceive that the onus now is on them to develop leaders, equip employees with the soft skills required to maximise performance, and provide specialist technical training relevant to the workplace. Some professional bodies see it as important to document this added value provided by employment to maintain professional standards and allow qualified people to move freely between countries. For example, the European Association

⁽²⁷⁾ See: <http://www.ncvet.edu.au/statistic/21066.html> [cited 30.9.10].

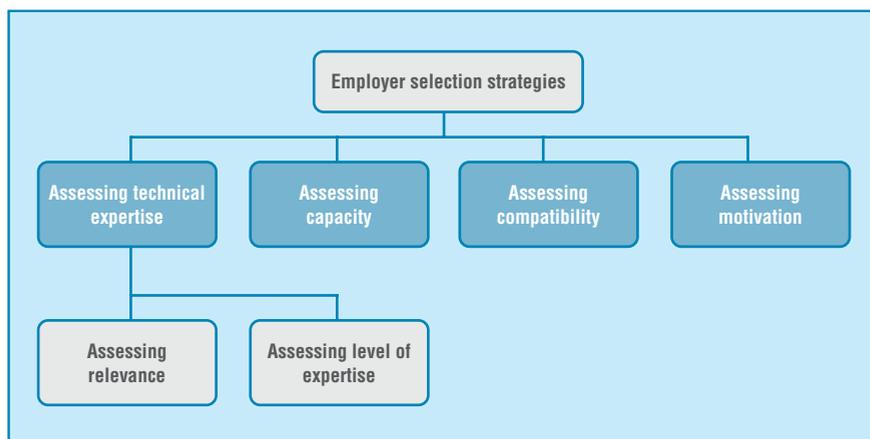
of Chemical and Molecular Sciences has established the title European Chemist. In the literature for the title the association states ⁽²⁸⁾:

‘... academic qualifications alone have limited value. In providing an acceptable common professional standard, the European Chemist requires experience in the application of knowledge, level of skill, safety and environmental consciousness, sense of responsibility, ability to communicate and level of supervision received. In providing an acceptable common professional standard, the European Chemist requires experience in the application of knowledge, level of skill, safety and environmental consciousness, sense of responsibility, ability to communicate and level of supervision received. Through the European Chemist designation the [members of the association] have ensured that there is an easily understood title to indicate a high level of competence in the practice of chemistry. The award of EurChem will assist individual chemists who are moving from one employer to another in different member states...’.

International standards such as this exist across many professions (Lunt, 2008) ⁽²⁹⁾.

There is no doubt that recruiters for many jobs and learning programmes place value on personal attitudes that may or may not be signalled by qualifications. In a recent study of graduate employment, Dafou (2009) includes the following model representing employer selection criteria.

Figure 3. **Employer selection criteria**



⁽²⁸⁾ See: www.euchems.org/QUALIFICATIONS/ECSE.ASP [cited 17.9.2010].

⁽²⁹⁾ See: European Parliament and Council of the European Union, 2005.

However, it is important to see the value of aspects of personality (such as capacity, compatibility, motivation) from the perspective of basic qualifications held. Often personality is used to discriminate between applicants with similar qualifications levels. For example, in a large UK study of recruitment (Shury et al., 2008) personality and attitude was the highest ranked element in recruitment, followed by performance in interview, previous experience, academic qualifications, and vocational qualifications. All qualifications are lowly rated compared to other factors. What these results indicate is not that qualifications have little value but that, in deciding on a new recruit, factors that the employers decide for themselves are more important and qualifications are a baseline for the selection process. While qualifications are important in accessing employment (especially when first entering the labour market) and higher education, employers and higher education generally consider them as a limited measure of a candidate's abilities. Instead, methods that provide information about a person's range of skills and attributes are now being used more frequently, seen in increasingly diverse recruitment practices (Lloyd, 2008; Iglesias-Fernandez and Llorente-Heras, 2007) ⁽³⁰⁾. Taking an overview of the literature, it seems that the status of qualification as a success factor in securing a job, while important, is declining in importance: this is especially so after initial labour market entry. Factors related to work experience and general competences are growing in importance and, when all these factors are about equal, there is some evidence that personal qualities/emotional intelligence (Chia, 2005) can play a part in successful job application.

In another Australian study (Townsend et al., 2005) employers distinguished between qualifications and experience (Marinucci, 2009), the latter being more valued across a wider number and type of business circumstances. Often, the skills most valued are 'employability skills' (such as attitude, language and literacy, communication abilities and teamwork) or 'generic skills'. However, employers used formal qualifications most when planning for future skill and training needs, recruiting new employees (about 90% of respondents) and ensuring regulatory compliance (around 80%). In the light of the UK study reported above, these figures indicate the complexities of making generalisations. The question that this raises is why some employers are using tests while others persist in not doing so. The adoption of tests can

⁽³⁰⁾ It seems that this diversification of recruitment methods has been happening since the 1980s and that a sizeable proportion of organisations are now using tests as part of the selection process (Shackleton and Newell, 1991).

be regarded as one way of formalising recruitment and selection procedures, and theoretical work on the degree of rigour and formality in the process has shown that it will be influenced both by the external business context, such as the sector in which the organisation operates and the kind of labour market it faces, and by internal structures and processes.

2.4.8. Rising qualifications levels

Using ISCED as a measure of qualifications levels in a population it is clear that qualifications levels are rising (Müller and Wolbers, 2003). Research literature indicates a series of effects of this gradual rise, the most marginalised being those with no qualifications (Solga, 2005). How does the trend influence the employability of individuals and, if there are more qualified people, does this indicate that people are collecting qualifications that offer them no benefits (credentialism)? A key area of literature is the extent and effect of overqualification. Finally, are there social benefits from higher levels of qualification and what effects do the above have on the learner? These effects of rising qualifications levels are discussed in the four sections that follow.

2.4.9. Employability

Qualifications form one aspect of a person's status as they apply for a position and there can be tensions between occupation and employability as a focus. In some countries the occupation-based approach to initial and continuing training may evolve to incorporate greater pedagogical elements that will lead to wider employability (Kraus, 2005).

Employability is often described in terms of the broader competences that are either attested by a qualification or are validated separately to a qualification. Employability skills might be regarded as attitude, language and literacy, communication abilities and teamwork, or 'generic skills' (Townsend et al., 2005). Increasingly, employability is centred on behavioural competence and a wider range of competences (Tomlinson, 2008). It has been stated earlier that, during recruitment, employers are increasingly looking for qualities in recruits beyond the basic threshold of qualification and there is abundant evidence of recruits seeking to become more employable through seeking positional advantage relative to other potential recruits.

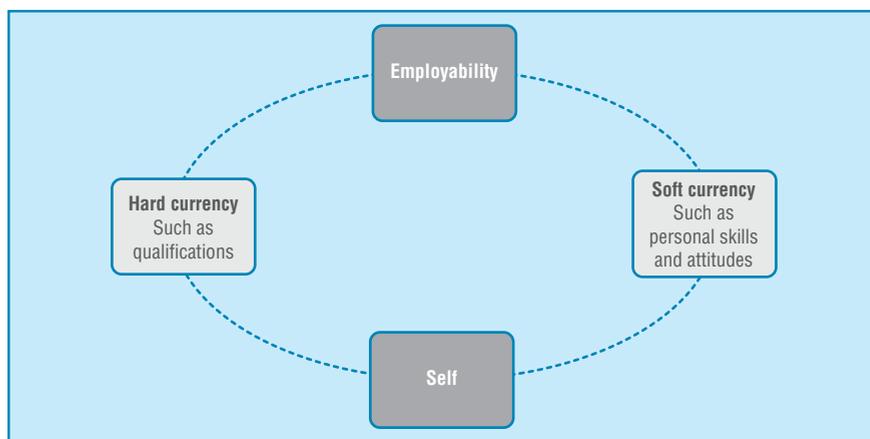
If positional advantage is becoming more important, it implies that, with increasing levels of qualifications, other aspects of quality will grow in importance and qualifications could be a weakening concept. Focus will continue to shift to the increasing diversity in income, status and opportunities for self-development of individuals (Brown et al., 2004). Previously there

was almost a depersonalising of personality, with qualifications being used to match a person ‘impersonally’ to an organisation. The private personality was kept separate from the visible role of the public official. This led to a meritocracy in education that aimed at securing qualifications. Brown et al. state that credentials now tell employers less about what they want to know about a candidate and considerable attention is paid to personal and social skills. For example, managerial competence frequently includes interpersonal sensitivity, good communication skills, persuasiveness, drive, resilience, adaptability, self-confidence, good judgement and problem-solving skills, creativity and business awareness. With this range of competences, and the difficulties of reliably assessing and reporting on these competences, it seems logical that formal qualifications should take a less prominent role.

It is possible to visualise the new relationships between the different kinds of currency as in Figure 4.

Some research points to the need to adopt new assessment procedures to lead to employability. Competence assessment procedures, which go beyond traditional forms of examination and certification, are increasingly in demand in company practice (Münk and Severing, 2009).

Figure 4. Relationships between different forms of currency



Employability in the context of higher education ⁽³¹⁾ is understood in a broader sense than the practice of one or a few defined occupations. In the

⁽³¹⁾ While the unemployment rate three years after graduation is 5%, within the first two years of graduation it is 13% in the EU-27 (Eurostat, 2009, p. 126).

context of the Bologna process ⁽³²⁾ employability is ‘the ability to gain initial employment, to maintain employment, and to be able to move around within the labour market’. It is characterised by ‘skills and attributes (knowledge, attitudes and behaviours) that individuals need in the workplace and that employers require, and to ensure that people have the opportunities to maintain or renew those skills and attributes throughout their working lives’. The European-level review of trends in higher education in the first decade of the 21st century (Sursock and Smidt, 2010) considers that employability has moved to the forefront of concerns at all levels of higher education. Particularly problematic is the general acceptability of the bachelor level.

Dafou (2009) summarises the position with regard to qualifications by stating that technical expertise in applicants for courses and jobs needs to be enhanced with personality and motivation evidence. New approaches to competence management (in a workforce) demand that these wider personal attributes are taken into account. It is possible to conclude that human capital theory needs to be extended to include these personal enhancements to formal qualifications.

2.4.10. Credentialism

For many years the general level of qualification has been rising and there has been an accompanying fear that qualification supply has been more than the labour market demands. Collins (1994) pointed to a significant credential inflation trend in the USA. Hirsch (1977) used a graphic illustration of credential inflation – ‘if everyone stands on tiptoe – no one sees any better’ – to illustrate possibly that there is a zero sum effect operating in the market of qualifications for recruitment. The supply and demand issue is at the heart of credentialism: if achieving qualification status generally offers no benefits to learners, we can judge credentialism to be evident.

In a recent survey of higher education graduates (Tomlinson, 2008), evidence pointed to perceptions of a cutthroat and congested graduate job market. Graduates believed other discriminatory effects, such as volunteering, are necessary for them to achieve positional gains: students were aware of needing to stand apart. Additionally they believed the leisurely days of privileged students merely passing exams has gone and grades matter. Students were aware of the need for soft skills and economy of experience that operates in job markets and they strongly supported the credentialist

⁽³²⁾ For further information on employability in the context of the Bologna process, see: <http://www.ond.vlaanderen.be/hogeronderwijs/bologna/actionlines/employability.htm>. [cited 9.7.2010].

argument. They see their HE qualification as a positional good and the investment as defensive for their future employment.

Brown et al. (2004) conclude that credential inflation favours the rich and socially advantaged, who have opportunities to add value by paying for enhanced education and also have good personal 'connections'.

If credentialism becomes a reality, it is possible that qualifications may signal the technical competences that people need to perform in jobs and the other attributes (that give positional advantage) are really at their strongest in enabling people to get jobs rather than perform them. This suggests that it is technical competence that leads to higher returns for individuals rather than the wider personal attributes ⁽³³⁾.

Credentialism may present a serious problem by undermining the value of qualifications based on good valid standards. It might also undermine some aspects of policies on social inclusion and the creation of a meritocracy in the qualifications market.

2.4.11. Overqualification

There is growing evidence ⁽³⁴⁾ that many employees are overqualified for the work they do: the knowledge, skills and competences they have had certificated are not fully used in their normal work. Overqualification is expected when supply and demand are not synchronised efficiently, when jobs are in short supply or when there is an excess of qualified people in the labour force. However, people of all ages feel overqualified – rather than underqualified – for their jobs (Brown et al., 2010).

As well as much literature on the subject, there is also a wide range of terms used to describe the situation experienced by people not using the skills they have in their work. The most common is overeducation, meaning that people have more years of education than a job requires. This may be an unhelpful basis of measurement when one considers that the content and level of attainment in learning are relevant to job requirements and neither of these are embedded in this definition. An improvement is to use the notion of overqualification which carries ideas of content and level of learning and can lead to a more specific understanding of skills mismatch

⁽³³⁾ Tomlinson (2008) makes this point.

⁽³⁴⁾ See European Commission et al., 2009; Buchel et al., 2003; Borghans and de Grip, 2000; Hartog, 2000.

between people and jobs. This definition is at the heart of a recent Cedefop review of skills mismatch between people and jobs (Cedefop, 2010a). The review report takes into account all the definitions used in the literature and attempts objective judgement of the various surveys of people and jobs mismatch in terms of skills. Figures vary widely from survey to survey but, approximating across all of them, it is possible to conclude that around 20% of employees can be regarded as having more skills than their job normally requires. The effects on the people, the businesses and the economies are many and the Cedefop review discusses these in depth. Those relevant to the design and use of qualification are discussed below.

In most European Union countries people with tertiary education qualification accept roles for which they are overqualified for a range of socioeconomic reasons. In 2007 only around 55% of graduates worked as 'managers' or 'professionals' and more than 20% as 'technicians or associate professionals'. The tendency to accept roles for which candidates are overqualified is particularly applicable to women graduates. During 2007, the proportion of women graduates who worked as 'technicians and associate professionals' was higher than men in almost all countries ⁽³⁵⁾. Further, women accepted, on average twice as often as men, jobs such as clerks, service and sales workers. Across Europe, the proportion of women in this group was higher than men.

In many countries overqualification seems structural (Brynin, 2002). Is it because governments supply too much education or is it because of the lack of transparency in the labour market? Some observers think that some overqualification has economic value as it reduces frictional costs such as selection and flexibility. Perhaps one of the most serious negative effects is that people take a relatively low-level job at the start of their careers that then causes blockage of opportunities for others with appropriate qualifications ⁽³⁶⁾.

There are consequences of overqualification: individuals may not receive the returns on their qualifications they expected; some with the right qualification for a job will find they are not appointed; and overqualified workers may be bored and unproductive in their work. If most people are qualified to intermediate level, the expectation is that this group might be

⁽³⁵⁾ Although the much higher proportion of women opting for part-time work accounts for this as these grades are more likely to be offered on a part-time basis.

⁽³⁶⁾ Finnish evidence suggests that the lower educated were 'bumped' out of their jobs in the recession of the 1990s.

most affected by overqualification. However, some estimates put the figure for higher education graduates at between 30 and 40% when one takes the mismatch that exists when they apply for jobs ⁽³⁷⁾.

The literature on overeducation (as opposed to over qualification) is extensive and it is reasonable to conclude (though still arguable) that overeducation grows as a first market adjustment to excess supply of skills to the labour market. It is also possible that it is a temporary phenomenon and not an embedded characteristic of the labour force.

Studies on the productivity of overqualified employees (Rose, 2005) show that in situations where people are appropriately qualified for their jobs they have positive attitudes to work and are as productive as others, if not more so. A problem occurs when there is widespread under- or overqualification: evidence shows that poor attitudes to work can cause problems for employers.

Another serious effect of overqualification is that it can lead to lower wages and employers paying less attention to training (Lloyd, 2008).

2.4.12. Social benefits from qualifications

The more educated people are, the more likely they will associate, engage, trust people and institutions and be politically active (Green et al., 2006). This does not necessarily link to macro social cohesion but is so for individuals. Education, and possibly qualifications, has a role in developing social cohesion. This is important because, according to Green et al., social cohesion is diminishing in many countries.

It is possible to see a difference in the role of qualifications in terms of enabling individuals to get a job and in setting the course for a career and underpinning employment progression (Warmington, 2003). This difference in role is a consequence of the emphasis on qualification enabling labour market entry, rather than as a direct proxy for competences to allow a person to function in a job. Career development can be seen as building on qualifications and gaining a series of experiences that, in addition to technical skills, allows soft skills to develop and for people to adapt and shape the work environment. This does not mean that qualifications are limited in importance for higher education students. In a survey the most immediate theme to emerge from the students' discussion of their labour

⁽³⁷⁾ See The determinants and consequences of graduate overeducation, in *Overeducation in Europe* (Buchel et al., 2004, p. 211).

market experiences was their widespread conviction in the dominance of the qualification system: students have faith in a correlative relationship between the education system and the labour market. They did not see the qualifications system as something that deprived them of their natural opportunity to develop themselves; it is a system that offered some kind of currency and a passport for future progress.

Individuals lacking success in gaining qualifications have a different viewpoint. While it is clear that a selection process where someone is displaced by someone more highly qualified is simply a case of supply and demand, there is evidence that a series of these experiences can stigmatise individuals, so that they are even less likely to progress than on the basis of their qualifications alone (Solga, 2002). This has nothing to do with supply and demand but has a lot to do with the way qualifications shape people.

A UK study (Shury et al., 2008) indicates some generally understood conditions: people with few qualifications, low skilled people and older and part time workers have lower rates of participation in skills development. Barriers to engaging with training include finance, poor guidance, negative family pressures, and the legacy of negative school experience. However, the study also points to clear progression routes as playing an important part in skills development; these routes may be enhancers if qualification structures are coherent and presented with good progression, permeability and access levels.

The role of qualifications and competences is set in perspective when seen from the viewpoint of advice from a business leader to an individual looking for a successful career during the time of the 2009 downturn in the world economy. What is the single most important thing a person can do with regard to being marketable?

‘First, have a three pronged attack plan to make sure you’re insulated from any sort of downturn as well as furthering your career. The first is results. You absolutely have to deliver outstanding results and you have to do it consistently. If you can’t do that, the conversation ends there. The second part is behaviours. Corporations are social institutions. How do you interact with your boss? How do you interact with your colleagues? Do you make the workplace a better place to work? Do you add to the organization? The third part of the triangle is competences. That’s really just managing your portfolio of skills, making sure you’re committed to lifelong learning, and adding things to your skill set. Each year you have to add something to your game that’s marketable. The goal right now should be how you can emerge from the downturn with an improved competitive position.’ (Hughes, 2009, p. 41).

2.4.13. Institutions and qualifications: convergence and divergence

There is little discussion in the literature ⁽³⁸⁾ about institutional changes with direct reference to qualifications. The European Training Foundation has been working on qualifications frameworks with 20 partner countries bordering the European Union and has conducted surveys in the countries. It is evident, for qualifications framework development, that ministries of education and (to a lesser extent) the ministry of labour are the dominant actors in the management of education and training in the countries ⁽³⁹⁾. The ministries of education and of labour are often supported by different subordinate bodies in carrying out the functions listed above. These subordinate bodies are responsible for such functions as the accreditation (licensing) of education provision accreditation, teacher training, the development of educational standards (national curriculum development), career guidance, and the development of occupational profiles.

One of the differences between countries is the extent to which the responsibility for developing qualifications and managing them (delivery of programmes and the assessment and certification processes) were devolved from ministries to dedicated agencies. The dominant functions of the main qualifications bodies, as described in the responses to the ETF survey, are:

- (a) provision of a legal basis for qualification processes and national qualifications levels;
- (b) development and implementation of State policy on VET;
- (c) development of State requirements for the levels and volumes of vocational education and training;
- (d) scientific and methodological functions in the development of technical and vocational education;
- (e) development of State educational standards for VET;
- (f) periodically reviews State qualification provision and State certification procedures;
- (g) quality assurance;
- (h) testing the students and issuing certificates to VET graduates;
- (i) analysis of labour market needs.

It is possible to generalise about the remit for a qualifications body. Any or all of the following can be seen in remits for such bodies:

- (a) produce plans for the development of the national qualifications system and advise on the relevant policies to support this;

⁽³⁸⁾ For a review of the permeability between institutions, see Frommberger (2009).

⁽³⁹⁾ Other ministries were involved in less significant ways with education and training; these include ministries of economy, finance, agriculture, energy, health, culture, sport and youth.

- (b) define national occupational standards and ensure the operation of standard-setting bodies;
- (c) prepare educational standards in line with the national occupational standards;
- (d) determine the principles of national vocational qualifications based on the national and international occupational standards;
- (e) accredit education and training institutions and programmes in national vocational qualifications;
- (f) set examinations to assess achievement;
- (g) issue certificates to successful applicants;
- (h) ensure that citizens have the opportunity to gain qualifications and progress to higher levels of learning and work;
- (i) review the operation of the examination and certification system and the qualifications standards in line with international developments and technology;
- (j) ensure links with other national and international qualifications frameworks;
- (k) arrange for the recognition of qualifications of migrants entering the country to work;
- (l) cooperate with the similar institutions and organisations in other countries: purchase services; develop and implement projects; carry out education, research, conference, seminar, consultancy and publication activities.

Institutional structures seem to be sufficiently embedded to be resilient to external pressures, the effects of international pressures: tools such as the EQF and from monitoring of standards, such as with the Programme for international student assessment (PISA), are evident in literature. However, the dependency of qualifications systems on institutional structures (such as qualifications agencies, certification bodies and learning institutions) produces pressure for continued diversification (Müller and Wolbers, 2003). As institutions are often the key certifying bodies it is possible that the kinds of certification are also resilient to international pressures for convergence.

The potential advantages in clarifying the differences and similarities between tertiary qualifications (accredited by VET and HE institutions) that are at the same level are ⁽⁴⁰⁾:

⁽⁴⁰⁾ See the report of the proceedings at the peer learning activity 'Bridges between VET and higher education based on learning outcomes' held in Berlin in June 2009, at: http://www.ksill.net/Documents/Recognition%20of%20learning%20outcomes_Report_on_Berlin_PLA.pdf [cited 11.10.2010].

- (a) aiding vertical progression by opening up access and improving the take-up of pathways leading to higher levels of education and training;
- (b) improving horizontal progression by identifying areas where transfer and recognition are possible ⁽⁴¹⁾;
- (c) making VET more attractive to learners by eliminating dead-ends in their pathways and enabling pathways for HE students who desire reorientation, new skills and competences;
- (d) recognising the contribution of the labour market sector to education and training.

These motivations can be found in the development of the German National qualifications framework (*Deutscher Qualifikationsrahmen, DQR*) and in the development of the Irish National framework of qualifications (NFQ). The DQR descriptors are formulated as general statements of learning outcomes that either encompass both VET and HE, thus showing similarity, or use parallel expressions to accommodate for differences.

A Berlin meeting of leaders in qualifications development in 22 countries noted that in principle, by shifting the emphasis away from the institutional basis of qualifications (VET/HE) to learning outcomes, NQFs can change the dynamics of qualifications. As an example, they can strengthen the learner-centred orientation or the relevance for the labour market. Thus NQFs and learning outcomes support permeability between VET and higher education. The national representatives also noted that, to overcome the institutional logic in creating greater permeability, the following issues related to NQF development are important:

- (a) the use of levels clarifies where potential overlap exists between qualifications;
- (b) mapping qualifications against the same set of descriptors makes it apparent where two (or more) qualifications lead to comparable learning outcomes and what the learners need to achieve in addition. The use of learning outcomes can make this process more systematic and transparent if LO are used as standards for assessment;
- (c) the use of learning outcomes as the basis for credit also facilitates permeability. The transfer towards HE is made possible because of the existence of modularised pathways (which are the basis for credit) in HE that make it easier to identify overlap and to exempt learners from the module and its assessment. Modules or units also enable delivery

⁽⁴¹⁾ Permeability between the systems of vocational education and training and higher education means, above all, flexible transitions in both directions (Mucke, 2009).

of individualised pathways once the learner has obtained recognition and has been exempted from certain units/ modules.

It was also noted that there are already good examples of permeability between the sectors. These are based on:

- (a) the existence of demand from learners;
- (b) institutional cooperation and the fact that certain HE institutions want to recruit more students;
- (c) qualification development in specific economic sectors where requalification or upgrading of qualifications is required.

The accumulation, reproduction and creation of new knowledge are traditionally the core of academic higher education; the creation of skilled workforce is traditionally the main focus of VET. While these distinctions still broadly apply, important evolutions and many intermediary qualifications are making them less appropriate.

Many HE qualifications are related to a specific occupational profile (e.g. medical and pharmaceutical qualifications, engineering qualifications) with emphasis being put not only on knowledge (which remains important) but also on the capacity to combine, use and apply knowledge in concrete situations as well as to make decisions, communicate, interact, etc. Further, no HE qualification, even among those strictly focusing on research, is actually built solely on knowledge: the skills to apply knowledge, as well as broader competences, are also required, though sometimes this is not made explicit and taken into account in the teaching process.

Knowledge is also an important component of VET qualifications, and this becomes even more obvious at higher levels of qualification. The focus of VET qualifications is much more on its application rather than on its accumulation and reproduction. Traditionally, the knowledge aspect in VET qualifications was narrower than in HE qualifications (specific to an occupation) but at higher levels of VET this is becoming less true. Further, employers, especially small and medium-sized enterprises (SMEs), are increasingly emphasising the need for polyvalent staff with a broad array of knowledge, skills and competence, rather than highly specialised people.

HE qualifications remain very closely related to the programme; the use of learning outcomes in HE is often in the context of programme design. Standards (e.g. for assessment) are rarely explicit. At the same time, outcomes-based competence profiles of higher education qualifications are becoming a more widespread practice (e.g. Tuning).

The strengthening of quality assurance processes in both VET and higher education (HE) has an important role to play in overcoming the differences in the way qualifications are designed. It should ensure that, despite the differences in design and processes leading to an award of qualifications (assessment, use of standards, etc.) in VET and HE, stakeholders can trust that qualifications are meaningful both for the labour market ⁽⁴²⁾ and for future progression in education and training.

In conclusion, VET and HE qualifications share common understandings and common orientations such as:

- (a) the emphasis on learners' capacity to use knowledge;
- (b) the importance of competences that are not specific to any of the education and training sectors (key competences);
- (c) focus on employability and the required knowledge, skills and competence, but understood in higher education in broader terms than just preparation for a specific profession or group of professions;
- (d) development of outcomes-based qualifications, even though differences exist in the benchmarks on which outcomes are formulated (occupational standards in VET qualifications and programmes/ curricula for HE qualifications).

The growing numbers and types of VET qualifications, especially qualifications other than those corresponding to the three main higher education cycles, make the distinction between VET and HE even more blurred. Nevertheless, certain differences remain in the way qualifications are conceptualised and designed in the two sectors that stem from different traditions.

The two sectors embrace the notion of the validation of non-formal and informal learning; however, the purposes, procedures and barriers to operating systems are very different. For businesses, the purposes are intended to be jointly beneficial to the business and the employee and so broad human resource management and other company interests prevail. The benefits for companies include the opportunity to refine work practices and use a workforce more efficiently. Barriers to developing systems include costs, avoiding bureaucratic process, enabling employees to seek employment elsewhere and the need to train (additional) experts in HR teams. In higher education, validation of non-formal and informal learning is largely to allow learners to use existing skills and become exempt from some part of a qualification programme. There are possibly four main obstacles to the further development of accreditation of prior experiential learning (APEL)

⁽⁴²⁾ In a broad sense, not necessarily for just one or a group of occupations.

in universities (Valk, 2009): the general focus of higher education provision (input oriented, moving slowly towards learning outcomes), staff attitudes, staff workload issues, and financial considerations. It is clear that validating non-formal and informal learning is important in businesses and is possibly more focused on learner interests in higher education. When the two sectors come together, for example postgraduate nursing education, entry with formal qualifications and those with validated hospital practice cannot be differentiated in terms of qualification outcome (Donaghue et al., 2002). This challenges the dominant routes to professional status that is generally through formal qualification.

2.4.14. Knowledge and skills and the competence approaches

The literature on qualifications can be confusing when attempts are made to distinguish competences such as knowledge and skills, overall competence that is linked to qualification, and qualification as a validation of aspects of knowledge, skills and wider competences. Varied understanding in this field means that reports can be difficult to interpret generally. For example, some researchers attempt to distinguish qualifications (as educational) from competences (work-based/activity-based).

There is considerable literature on the concept of competence, which can be defined as the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development.

Despite protracted attention, the concept of competence remains problematic and clear, material distinctions existing across national boundaries in respect of the meaning of the term (Brockmann et al., 2008). The distinctions occur in the explicit conceptualisations of 'competence' in different settings, and in the implicit assumptions regarding the composition and nature of competence (Oates, 2004). Qualifications are typically designed to support strong claims regarding a person's competence; the nature of the claim being dependent on the model of competence (implicit and explicit).

An empirical comparative review offers transnational contrasts in four occupations (construction (masonry), health (nursing), ICT (software engineering) and transport (large goods driving)) across Germany, France, Netherlands and UK-England. This indicates significant national, sectoral and occupational differences in governance, labour market, competence and education. The labour market distinctions highlight differences in the composition of work processes and therefore different expectations and models regarding competence.

Distinctions in notions of competence also relate to ‘atomism’ versus ‘integration’. The dominant assumption in the English system (and many national and international credit systems) is that it is possible to accumulate small ‘components of competence’ until they ‘add up’ to qualification. But the underlying assumption about the possibility of ‘decomposing’ competence into small elements, distributing these into units/modules, and then supporting flexible ‘recomposition’ into complete qualifications has been challenged in a number of settings and by diverse commentators (Oates, 1999; Oates, 2004; Eraut, 1998; Hagar and Becket, 1995). These critiques focus on the extent to which damage is done when integration of knowledge and skills, holistic concepts and values (such as a general commitment to accuracy (engineering), or a ‘caring’ approach (health care)) and subtle ‘codes’ and behaviours are disaggregated, rather than permeating both learning processes and professional practice.

This leads to further distinctions in understanding in terms of input-orientation versus outcomes-orientation. The proponents of outcome-orientation emphasise its key benefits in terms of putative transparency of standards and expectations and flexibility of routes to qualification, based on the independence of qualification from the mode, duration and location of learning. Critiques of the outcome-orientation focus on three key points. First, that competence resides in the complex integration of skills, knowledge and understanding which individuals effect in response to the stimuli from specific settings (Lave and Wenger, 1991). The context-bound nature of competence is crucial. It is not impossible to construct complex assessment activities which demand integration of this kind, and these are emerging as part of suites of assessment approaches in programmes such as medicine, the sciences and engineering (Boreham, 1998). Second, that this complex integration is best acquired in protracted periods of learning which includes ‘immersion’ in work processes and workplace culture. Third, that it is practically more efficient to ensure that certain processes have been included in the learning process (and to assess them continuously) than to try to assess retrospectively with precision whether ‘tacit’ knowledge and holistic competences have been acquired by a person.

Distinctions in understandings of competence also exist in the ‘level’ at which descriptions of competence are pitched, for example:

- (a) generic level: relating to skill components which are not expressed in the form of activities specific to a particular setting, such as key competences;

- (b) occupational: relating to description at the level of an occupation; the description engages with activities at a high level of generality, with the intention that it applies to a wide range of settings and of specific ways of completing the activities, such as a generic description of fault diagnosis in aircraft hydraulic systems;
- (c) task-specific, but independent of specific jobs: relating to descriptions which give the detail of the task (e.g. constructing lead roofing) but which do not engage with the way that the task might be organised within a specific work system. This level is common in the development of national standards (for qualifications and for quality standards);
- (d) job-specific, enterprise-specific: relating to descriptions of the way in which a task is undertaken in a specific work system. Falling into this category are job descriptions, work analysis processes (for purposes of pay regulation, of reward systems and of management control), etc.;
- (e) person-specific: relating to the way the tasks/the job is undertaken by a specific individual within a specific work system. This is important for training, assessment and evaluation purposes. Undertaken by the worker/learner themselves, it can also form her/his contribution to appraisal systems, assessment and in preparing applications for jobs and for training/education programmes.

Confusion of these levels can have simple practical consequences: for example, job-specific descriptions (based on observation in very limited, specific circumstances) have been used in developing national standards. Conversely, occupational-level descriptions have been used in an inappropriate way for analysis of jobs in particular work settings, thus failing to engage with the actual range of skills used in the specific context.

Concepts of competence are essential to processes of qualification, and evidence abounds of critical variation in concepts of competence, over time, and in different system settings. Clarity regarding the specific concept of competence being deployed in a specific setting is crucial.

In the final analysis qualifications, competences or a mixture of the two need to lead to recognition for individuals, as this is the test of value of learning. Bergan (2009) suggests that the five elements that need to be considered when comparing qualifications for recognition are level, volume, profile, quality and learning outcomes. These five elements are helpful in overcoming differences in understandings of the packaging of learning for recognition. The multi dimensional and inclusive approach is also useful since it is potentially a way in which diversified learning paths (academic

and professional learning are likely to be part of most lifelong learning trajectories) can be recognised and encouraged.

2.4.15. National testing arrangements

The literature on assessment and national testing that is part of the schooling system is extensive. This area has expanded over the last few years and national tests for validation of learning and performance monitoring have become a regular practice in most European countries ⁽⁴³⁾. This is largely due to pressures for countries to increase the effectiveness and efficiency of their education systems. Current national tests are most often used either to certify individual pupils' achievements, or to monitor schools or the entire education system. Some countries organise national tests to support pupils by identifying individual learning needs; education authorities usually use the same test for several distinct purposes. None of these purposes is explicitly related to offering qualification or certification and so this literature is not considered further here.

2.5. Summary of evidence

From literature sources alone it is clear that there is a range of pressures acting on qualification systems from international, national and internal (systemic) sources. Allowing for the various barriers to change and the inertia in complex systems, the general implication of such influences is that qualifications systems will adapt to ease pressures and better meet needs of users. The literature offers a major advantage when compared to country evidence in that it is relatively free of discussion of policy intentions and plans, some would say free from the political statements about change, and is reflective on the effects of qualifications arrangements after a period of implementation and evidence gathering.

There is a tendency for more people to become qualified (and to higher levels) in all the main education sectors; also validation of non-formal and informal learning is expanding. One implication of this increase in numbers and levels of qualifications is that there is an increased need to ensure that the signal the qualifications give to users remains clear and is endorsed by

⁽⁴³⁾ In the school year 2008-09 only the German-speaking community of Belgium, the Czech Republic, Greece, Liechtenstein and UK-Wales did not administer national tests in compulsory education (Eurydice, 2009).

stakeholders and gatekeepers in recruitment processes. Another implication is that means must be developed to ensure that the whole qualification system remains coherent; regulation is one way to ensure this coherence.

Responsiveness of systems is also indicated from the literature, not simply in terms of meeting the progression needs of learners (although there is evidence of this) but more generally in terms of opening up to a range of users including governments, bodies with social and economic agendas, employers and sectors more generally. The effects of global markets for education and qualifications are evident in this respect, as are pressures for democratisation in some national settings.

Lifelong learning is a key theme for policies and implies inclusive and flexible qualifications systems. It could be argued that this 'flexibilisation' referred to in some articles is possibly another key implication that can be drawn from literature; modularisation and credit is part of this trend. Lifelong learning is also possibly a driver for the development of progression and permeability that is a key attribute (or expectation) from qualification frameworks. There is increasing analysis of framework design and their effects but, with some notable exceptions, there is still a dearth of hard evidence of effectiveness. It is a possibility that learning-outcome-based qualification frameworks, which are not adequately analysed in literature, are poised to make an impact on flexibility and lifelong learning by virtue of their associated functions and potential as a system reform tool.

The development of frameworks brings into question the nature of qualifications and their purposes. While it is possible to document purposes, it is not clear whether these are changing from the literature alone. Two indications are clear: the purposes of qualifications seem to be expanding in number and type; and qualifications seem to be increasingly used as a means of structuring education and training provision.

One aspect of using qualifications to structure provision is particularly evident in VET. The linking of training to labour market needs continues to be a priority for stakeholders and qualifications are receiving attention in this respect. The vocational relevance of qualifications is seen as critically important by employers when considering candidates for jobs but other factors, linked to personal attributes and experience, also seem to be growing in importance. Increasingly a person's post-qualification experience contributes to the chances of success in getting a job and progression in work.

With the added value of personal attributes and the increasing levels of qualifications in populations there are signs that credentialism may be becoming important and leading to the linked effect of overqualification. Both

of these effects are described in the literature and there are some potentially damaging effects on the currencies of some intermediate qualifications and the job prospects of more lowly qualified people. Social effects of qualification are generally positive at higher levels but may be less so at lower levels.

There is a dearth of literature on the functions and effects of qualification bodies. It is also difficult to be definitive about the level of change in functions and organisations in different countries. While it is clear that international influences have not produced any generalisable convergence in structures, it is possible that the introduction of national qualifications frameworks will result in organisational change.

The interface between vocational and higher education qualifications is receiving attention and there is clear evidence that increased permeability would be valued. There is little evidence in the literature of the effects of collaboration and, in qualification frameworks, the literature indicates parallel developments rather than coordinated ones. There are signs that developments in recognition of different qualifications and experiences (aided by learning outcomes) may open up separate qualifications sectors to more permeable exchanges.

New literature related to qualifications systems refer to objective international surveys such as the International adult literacy survey (IALS) and PISA as preferred measures of education. In statistical reporting ISCED is pre-eminent: there is hardly a mention of qualification level, learning outcomes or nationally derived standards. This has possible implications for the coherence of qualifications systems as the shift to learning outcomes becomes more pronounced, with the increased possibility of 'dual' standards for outcomes of education and training.

Country information

This chapter provides evidence on development and trends in a range of countries. Each section is detailed but the final section provides a summary.

The chapter reports on whether and how qualifications are changing in five specific countries. Further information is then included on a wide range of European and other countries.

A limitation of the country evidence is the possibility that the diversity of practice within a country makes it difficult to generalise with confidence. In particular, it may be possible to find many projects leading to changes in qualifications, but these may be small scale and restricted to specific sectors or regions.

3.1. In-depth country reviews

This study investigated qualifications systems in five EU Member States to get a deeper insight into the changes that are taking place. These are Denmark Germany, Ireland, France and UK (England, Wales and Northern Ireland; Scotland). These countries have been identified as among those where data is plentiful and indicators might be useful for wider consideration. They are not proposed as a representative set of national developments and generalisation from the evidence from these countries is not intended. The main points and issues arising from these national reports are summarised below.

3.1.1. Denmark

Many attempts have been made in Denmark to achieve a consensus about the terms 'qualification' and 'competence', but so far this has not proved possible. For the purposes of this country study, the EQF definition of qualification is used.

Denmark is characterised by a high degree of tripartite influence on all issues to do with qualifications at both the national and local level. The State has worked in partnership with labour market organisations for many years to shape the Danish qualifications system. This applies in particular to the VET system and the public CVT (continuing vocational training) system and also, though to a lesser extent, to higher education. Joint committees of trade unions and employers' associations have the explicit responsibility to keep these qualifications up to date and to define new qualifications.

Another marked trend is the continuous change from central control of contents and methods for VET towards more local freedom, encouraging VET providers to achieve the national standards through locally decided pedagogical methods.

There is a strong link between qualification and jobs in some segments of the labour market, while other segments are characterised by a high degree of substitution and flexibility. There is no substitution for professional occupations such as doctors, teachers, nurses and pilots, nor for a range of skilled occupations at a lower level in the labour market, such as bus drivers and electrical contractors. The segments with a high degree of substitution are the non-skilled levels, where people with all kinds of qualifications find employment, notably individuals with only compulsory school completion as a qualification; this also applies to occupations such as skilled hairdressers, sales assistants, etc. The most notable sector with a high degree of substitution is probably the construction sector.

This partly reflects public policy of increasing flexibility, both in the decentralisation of decisions on how to provide education and training, and in growing flexibility of labour market entry. Qualifications are important, but far from the only factor in recruitment processes. There is little solid research evidence on this, but a simple look at various job adverts illustrates clearly that work experience and personal and social competences are at least as important as the formal qualifications. Further, the Danish trade unions have traditionally used qualifications as the defining factor for eligibility for labour market entry and for trade union membership. Lawyers and economists, engineers, electricians, bricklayers, etc., have had their specific trade unions, and qualifications still define demarcations between them. However, mergers have been taking place throughout the last decades. These trends indicate new forms of flexibility, and are of interest in terms of the changing shape and roles of qualifications.

A focus on globalisation as the most important challenge to the Danish economy has resulted in consensus that competence development at all

levels is one of the most important factors furthering its competitiveness. The training system has contributed significantly to the ability of the Danish economy to adapt quite quickly to structural and technological changes, and is also an important component of the Danish flexicurity model. Examples showing how the training system has adapted include:

- (a) validation of non-formal and informal learning is now formally available across all 3 000 qualifications;
- (b) numerous VET programmes for adults result in the same qualifications as the initial VET qualification;
- (c) short-cycle higher non-university programmes, medium-cycle university and non-university programmes and long-cycle university programmes have been introduced, and the qualifications are defined, renewed and taken out of use by the joint sectoral committees.

Although extensive reform has taken place over a number of years, and reforms and innovations continue to be a feature, changes in the qualifications system take place consistently and on the stable basis of underpinning mechanisms, particularly the strong tripartite processes of governance of the qualifications system.

3.1.1.1. *Dominant policy positions*

The dominant position shared by all parties and labour market organisations is that the development of competence-based qualifications is crucial to competitiveness.

Globalisation is recognised as the major challenge, partly because Denmark's economy depends heavily on exports. A high degree of consensus exists that competence development for the existing workforce and a qualitative improvement at all levels of education are the right policies to make it possible for Denmark to cope with this challenge.

The Globalisation Council has made recommendations aimed at strengthening the general competences of the existing non-skilled workforce, specifically through literacy, numeracy, and IT-related qualifications. The aim is to establish a world-class VET system in Denmark. An innovation supporting this aim is the creation of a central analytical unit to fund analyses on technologies, the fusion of occupations, new energy sources and other factors that impact on qualification developments and on the system of alternance, with a view to modernising qualifications. The qualifications structure is intended to create lifelong learning opportunities by eliminating dead ends in the qualifications system. The public CVT system is intended to be a central element in avoiding dead ends, by constantly providing up-to-date qualifications.

A globalisation fund has been established to support associated developments in the labour market ⁽⁴⁴⁾. This aims to make Denmark a society of leading knowledge-based companies and start-ups. The funding will be used in five areas: research and development, innovation and entrepreneurship, youth education programmes, higher education, further education and continuing education.

Collective bargaining has placed a greater focus on competence development in the first decade of this century. This resulted in a noteworthy innovation in collective bargaining in 2008: new funds for competence development create the opportunity for up to two weeks' fully paid individually chosen CVT (fee + 85% of normal salary) in addition to the existing rights to two weeks' fully paid CVT that can be agreed on with the company.

All types of education are shifting towards use of learning outcomes. In the alternance-based VET system, this shift is mainly important for the parts of the learning that take place at technical and commercial colleges, while the part of learning which takes place in enterprises is naturally learning outcome oriented. In the CVT system all 3 000 qualifications have been changed from a description of subjects and contents to a description of learning outcomes. In the CVT system, this change has been parallel to other developments pointing in the same direction:

- (a) CVT should be more demand-driven;
- (b) CVT should be oriented towards developments in enterprises;
- (c) pedagogy should be much closer to practice, rather than textbook driven.

These parallel developments have probably contributed to a greater impact of learning-outcome orientation on the VET and the CVT system than in other parts of the education system. The weakest effect in terms of use of learning outputs can be observed in higher education.

One of the best known objectives in the debate about VET is the target for 95% of a cohort achieving formal education either in general education or in the VET system. However, this target is yet to be achieved, due to high drop-out rates. Other innovations include short VET programmes, of 18 months or 2 years' duration, and 'new apprenticeship', where apprentices begin their education with practical learning in enterprises; this contrasts with the usual practice, where VET students begin their education with a half year of learning at the technical college.

⁽⁴⁴⁾ The total globalisation pool funding amounts to EUR 5.71 billion in the period 2007-12.

3.1.1.2. *Validating non-formal and informal learning*

The national authorities and joint committees have made it a major priority to establish validation of non-formal and informal learning in Denmark. There are national schemes for identifying individual competences, which are intended to facilitate suitable individual learning plans for CVT. The schemes operate with validation procedures that are consistent with the formal criteria of access to a specific qualification, with the learning outcomes of specific parts or modules and with the final qualification from a specific education.

Legislation of 2008 aimed at assessment and validation of the individual's non-formal and informal learning using national CVT standards. This gives each citizen a legal right to 'get a certificate for what you can do'; and this is a qualification in the EQF use of the term. The standards used are the same as the learning-outcome-oriented CVT targets in the national CVT system; the awarding body is the nationally appointed training provider of the CVT system. The national authorities have developed guidelines for CVT providers together with financial support from the national development programme. The sectoral joint committees have produced sectoral guides, which aim to inspire people to have their learning validated, and clarify the provision that the providers (the training institutions) should make. Major efforts have also been made by the by the trade unions to promote the validation of non-formal and informal learning. The largest trade union developed a strategy for all members 'to get formal proof of what you can do'. The trade unions also set up campaigns to motivate members to get this formal certificate.

Nevertheless, the concerted efforts of the authorities and trade unions show modest impact in practice to date. Evaluation in 2009 shows that, in spite of the intention of the new law, individual citizens have shown little interest. Validation activities almost always relate to the initiative of the enterprise in which the individuals are employed.

3.1.1.3. *Indications of changing functions of qualifications on the labour market*

The recent financial crisis has had an impact on people with different qualifications levels, in terms of unemployment rates and the risk of unemployment. Unemployment has increased most among individuals with basic school or vocational education as the highest level of education. During the latest year (from September 2008 to September 2009), unemployment for these groups has increased by 2.4%. This increase masks

large differences, with unemployment for individuals with a qualification in construction increasing by 3.7%, while unemployment for individuals with a health sector qualification has only increased by 0.7%. By comparison, unemployment rates have increased by 1.0 and 1.4% for individuals with medium-length and long further education ⁽⁴⁵⁾. Individuals with basic school as the highest completed education also have, in general, a higher unemployment risk than individuals with vocational or further education as the highest completed education. In the main part of the period since 2000, individuals with further and higher education have had the lowest risk of unemployment. However, in the period from mid-2006 to mid-2008 the risk of unemployment among vocational educated groups has been on the same low level as the unemployment risk for individuals with long further education.

In the period from June 2008 to August 2009, the unemployment risk for individuals with further and higher education has increased by 59%, while the unemployment risk for individuals with basic school and vocational education has more than doubled. In general the unemployment risk due to market fluctuations for individuals with further and higher education is less than for other main education groups. This reflects, among other factors, that individuals with further and higher education make up a relatively small part of the employed in trades sensitive to market fluctuation, such as manufacturing and construction.

Analysis shows that qualifications acquired in further education have a positive effect on the individual's job and vocational mobility and reduced sick days from the work place. Adult education leading to qualifications at a further level also has the greatest economic gains for society; the category also includes diploma degrees in public administration and IT. The participants who already have further and higher education can look forward to considerable salary increases and better opportunities for employment. Also, continuing vocational education and training provides a better connection to the labour market and job security. For those participating in general adult education and higher preparatory examination single courses (which give access to higher education), the situation is not as promising.

⁽⁴⁵⁾ Further education can be understood to be post compulsory education but not including higher education. In the EQF levels system, the outcomes of further education would normally link to levels 2-5, but could often be lower or higher than this range. The term tertiary education is best used to describe education at higher levels that lead to qualifications equivalent in level to the main higher education qualifications.

Of interest to the study as a whole, these data suggest that while risks of unemployment have risen for many groups during the economic crisis, the differential risk for holders of different levels of qualifications has not changed a great deal. Nevertheless, qualifications holders in sectors such as manufacturing and construction are most at risk of unemployment, and this coincides broadly with workers who hold relatively low levels of qualification.

3.1.1.4. *Changing roles of competent bodies*

In general the competent bodies have not changed greatly over a number of years. However, new social partner bodies have been established to manage the new funds. The use the funds are put to is a result of collective bargaining, and these new bodies – one for each collective agreement – define the rules that govern the funds, administer them and handle applications from individual members.

Accreditation bodies have also been introduced. The Accreditation Council's decisions are based on a thorough academic assessment made by the accreditation operators (ACE) and the Danish Evaluation Institute (EVA). The Accreditation Council works in accordance with standards and guidelines for quality assurance in the European higher education area. This implies that the Accreditation Council is independent of both the Government and the further education institutions in its choice of methods and procedures.

3.1.1.5. *Changing international perspectives on qualifications*

Viewed from Denmark, the following changes regarding international perspectives on qualifications can be observed over the first decade of the 21st century:

- (a) qualifications as a decisive factor in a globalised economy. The most important change is the clear orientation towards competence development as a crucial contributor to a competitive Danish economy;
- (b) learning outcome orientation. All VET, CVT and higher education targets are now written in terms of learning outcomes in accordance with the EQF;
- (c) concretisation of EQF into a national qualifications framework. The process of implementing the EQF in the national qualification framework continues.

The Danish case illustrates how a country that has an economic and social model that is comparable to other Nordic countries has used qualifications as part of a clear strategy for economic development. Qualifications also improve life chances for a wide range of citizens through opportunities for both formal and informal learning and recognition. Economic and social goals are carefully linked, and education and training, qualifications and the wider approach to flexicurity form part of a fairly coherent picture. Decentralisation of decision-making has taken place in education and training over quite a number of years. As a part of this, the social partners have taken on a significant and steady role in the governance of qualifications and in the provision of an overall framework that seeks to be useful and purposeful. New qualifications have also been introduced, particularly for VET and CVT, and these are often intermediate between secondary- and university-level qualifications. Also, VET qualifications, in particular, have been made more flexible, so that learners in the different pathways can qualify with, in many cases, the same qualification. Denmark has attempted to keep the hallmarks of a system of qualifications based on high standards with solid, well-established qualifications. These are developed, specifically in VET and CVT, through a tripartite partnership. A number of mechanisms have been introduced to increase flexibility and to ensure responsiveness to the demands of the global economy, labour market and a wide range of learners.

3.1.2. France

In France qualifications (in French *diplômes* or more recently *certifications*) are traditionally used as the key criterion for access to work and study. The labour market is mainly regulated by collective agreements where workers qualification requirements are set out. In French qualification is defined through several descriptors including the qualification levels required to be considered as qualified to be recruited and paid a wage, thus as a licence to practise. In 1971, regulations were established to identify which qualifications have national currency, in order to protect individuals against organisations offering awards with little value. The identification of valid qualifications was done through the National Homologation Commission, which was replaced by the current *Commission Nationale de la Certification Professionnelle* (CNCP) in 2002, with extended responsibilities. A *Cadre National de Certifications* (CNC, or NQF) was introduced to make qualifications more transparent – in France the term legibility is preferred – in the labour market. The framework relates to work organisation, has

five levels, and contains a grid showing pathways to employment through qualifications in the various economic or labour market sectors. For many occupations, a recognised qualification is a required condition of entry.

There are numerous systems of qualification in France. The State, the social partners, institutions with responsibility for quality assurance, even a range of public and private organisations may be designated as legitimate awarding authorities. However, the value of qualifications differs according to circumstances, and according to their usefulness to users in the labour market.

The creation of a *Repertoire National des Certifications Professionnelles* (RNCP, or VET qualifications catalogue) created an official inventory of all the qualifications delivered in France corresponding to this definition. To be included, the qualification must establish certification processes that cover formal, non-formal or informal learning, and a specific procedure named *validation des acquis d'expérience* (VAE) for the recognition of non-formal and informal learning recognition ⁽⁴⁶⁾.

3.1.2.1. *Main policies impacting on the qualifications system*

According to Maillard et al. (2007), qualifications policies that have had a major impact derive from the development in 1984 of vocational qualifications at the Baccalaureate level (*Bac professionnel*), and in non-university higher education, such as the *Diplôme universitaire de Technologie* (DUT). These new qualifications had several features in common: they are part of a national development led by the government with the full support of the social partners, and they are firmly based on processes of identifying occupational competences and converting these into competence or learning-outcomes-based standards for assessment and VET programme development. The same year 'qualification contracts' were established, providing the opportunity to develop alternative curricula – partly in enterprises and partly in training centres – for young people. This led to a strong interest and investment in apprenticeship in the mid-1990s. This was accompanied by legislation introduced in 1992 and strengthened in 2002 to set up the system of validation of informal and non-formal learning, financed through awarding bodies.

⁽⁴⁶⁾ The RNCP has been freely consultable by the public via the Internet from the CNCP website at www.cncp.gouv.fr.

3.1.2.2. *The changing scope of the validation of non-formal and informal learning*

The French approach (Charraud and Paddeu, 1999) to the subject of validating non-formal and informal learning is based on two main principles:

- it is accepted that an individual can learn in many different places, such as the work place or in a volunteer activity, as well as in a training centre;
- the recognition of competences or learning outcomes can be measured against any accepted and widely used frame of reference, such as a qualification usually delivered by a training institution.

Such awards are recognised by firms, and permit access to further educational training. Other specific awards built to attest that an individual is qualified tend to lack recognition from economic or social actors.

The legislation has introduced new practices in assessment. Nowadays, certification requires that the learner has a future learning plan this may be the individual's or the individual with his/her company or organisation. As with other forms of qualification, a jury decides whether the candidate is successful. However, the jury's role has changed from the traditional role of making a summative decision as to whether a candidate merits an award, to a more positive role of ascribing value to the candidate's experience and providing help for candidates to develop further. This is particularly pertinent when only part of the qualification has been awarded, because the jury has to propose ways in which the candidate can obtain the whole qualification; this may be a mixture or further experience, formal courses, seminars, projects, etc.

3.1.2.3. *Statistics and trends in qualification use*

Every year around 730 000 young people leave initial education and training: 26% with a diploma from higher education, 16% from a short cycle of higher education, 22% with a *baccalauréat*, 18% with a diploma level 3 (EQF equivalent), 8% level 2 (EQF) and 10% without any qualification⁽⁴⁷⁾. Nevertheless, due to the recent economic crisis, young people are now more likely to be job seekers at the end of their studies. The higher the level of qualification, the less likely young people are to be unemployed.

⁽⁴⁷⁾ All statistics information comes from Institut nationale de la statistique et des études économiques (INSEE), INSEE Références, Formations et emploi, June 2009). Available from Internet: <http://www.insee.fr/fr/publications-et-services/sommaire.asp?codesage=FORMEMP09&nivgeo=0> [cited 14.9.2010].

Lifelong learning for adults has received strong support from different government policies since 1971. In 2006, 632 000 job seekers and 9 560 000 employees (44% of the total) and 700 000 independent workers (28%) declared that they had followed some continuing education during the last 12 months. However, the duration of this training is generally short, no more than 20 hours for half the respondents, and approximately 20 weeks for job seekers. In 2005, over 100 000 adults achieved an award through different training funds collected by the State, regions, social partners and firms; this was 50% higher than the 1998 numbers. It may take several years to achieve an award; four in every 10 people who qualify take 10 years.

The introduction of *validation des acquis d'expérience* (VAE), described above, has been a major reform in the qualifications process. It significantly extends the role and procedures of the qualifications system, to reach learners who had not progressed through the more traditional pathways. Since its introduction in 2002, the number of candidates is growing, but efforts still have to be made to increase the uptake.

3.1.2.4. *Indications of changing purpose/functions of qualifications*

Change can be observed in the ways in which qualifications are developed. In particular, consideration is now being given to making access to qualifications more flexible across the diverse range of career paths: *securisation des parcours*. This is signalled clearly in the collective agreement signed by all the social partners in 2009.

A shift of emphasis and importance is taking place, with growing focus on registered qualifications in the RNCP. This means that professional qualifications (and the related occupational standards) are, increasingly, used as the reference point, rather than the more traditional academic qualifications. This can be explained by the new approaches to human resource management for civil servants and in parts of the private sector in which competences applied to occupations, rather than the general level of the applicant's qualification, are of key importance in recruitment procedures.

In terms of funding, continuing education there is now more clearly linked with qualifications targets. Previously, continuing education for workers and job seekers did not generally lead to awards or qualification. VAE is also a means of achieving this goal, and this explains why it has strong support from the social partners.

3.1.2.5. *New methodology and organisation for qualification providers*

The organisation of vocational qualification design was formally established in a 1972 decree which proposed the system of *Commissions Professionnelles Consultatives* (CPC) based on different ministries with training responsibilities. These are tripartite and include social partner and State representatives. This indicates ministries' willingness to engage the social partners, but the quality of the social partner input through this mechanism was uneven. At best, they helped ministries to develop effective new qualifications and programmes, but they were often not inclined to suggest modern standards such as introducing new technologies.

The more recent approach to identifying standards by describing qualifications derives from the work of the Ministry of Education. The methodology used in the ministry, working with its CPCs, was developed from the design of vocational qualifications. Originally, procedures for describing occupational competences and standards used opportunity analysis; this was ad hoc rather than formalised. The system now operates as follows:

- (a) occupational standards are formally determined through a job description according to a combination of activities and competences which may be expected of applicants in a wide range of work situations;
- (b) each block of competences assessment is elaborated with information about the outcomes expected, indicators and modalities used for assessment, and criteria for use by the jury to decide whether the intended learning outcomes have been achieved;
- (c) the content of the training courses is not systematically defined in this new approach. It can be designed by awarding bodies that are also responsible for the quality assurance of the training proposed in the accredited training centres (Ministère de l'Éducation nationale, 2006).

The creation of the catalogue of qualifications (CNCP) in 2002 was an innovative reform for VET qualifications. Four criteria must be met to register an award in the CNCP:

- (a) a professional activities and competences *referential* (comprising occupational standards) has to be produced;
- (b) this is followed by a *referential* that sets out assessment standards. This is also based on competence, or learning outcomes;
- (c) a VAE procedure has to be established to build in procedures for the validation of learning acquired informally or non-formally;
- (d) information has to be provided about the access and progression opportunities of learners.

These developments focus qualifications clearly as a signal for the labour market. However, the new focus and methodology are not yet fully established. The new approach faces barriers and resistance: not all of the drivers are following the same objectives or leading to the same results in terms of changing qualifications. Further, some awarding bodies and providers lack the capability to make the necessary cultural shift.

3.1.2.6. *Changing international perspectives on qualifications*

The European influence is integrated in the creation of the CNCP. The main objectives of the CNCP are linked closely to the transparency approach developed through European collaboration and the French qualification landscape with its different subsystems reflects this. When the RNCP was created in 2003 it was derived from the Europass certificate supplement format. A permanent national workshop has operated since 2004, through which representatives of the CNCP tripartite membership are following implementation and designing a new French framework referenced to EQF.

There is a strong international influence specifically linked to the development of the licence to practise processes used to regulate activities such as sea, air, rail, etc, as well as engineering, energy and some other occupations. Such convergent qualifications are generally named *habilitations*: their scope is limited to specific competences or fields of activity, so they are not considered as qualifications that can be registered in the CNCP or be referenced to EQF. The award process follows different rules that bind awarding bodies according to the international norms decided on. Because such qualifications are required for the licence to practise, the French approach proposes a new system called 'bi-certification' (Caillaud, 2005), where those qualifications are units integrated in a qualification registered in the CNCP. However, both authorities must be involved in the individual certification process: one for the international component, the other for the usual qualification developed by the national awarding body. The current situation is certainly complex, and calls for further resolution.

3.1.2.7. *Qualifications trends in France*

The key trend in the French context of changing qualifications is the evolution of the ways in which qualifications are designed and used. Qualifications can now be seen more as reference points or milestones for life that provide social signals based increasingly on representing competence. Qualifications used to be a single, final milestone defining for life an individual's achievement in education and training. This is no

longer the case, and it seems that the individual needs to acquire further qualifications, often not in traditional ways, to demonstrate his or her currency in the mobile and changing situations of working life.

The other side of this evolution is that the design of qualification has had to become more legible as a signal. Qualifications developers have to explain more clearly how learning inputs are transmitted, and how they are validated with reference to competences or outcomes. This is important for development in several related fields of activity: guidance, training, recruitment and other aspects of human resource management.

3.1.3. Germany

3.1.3.1. *The qualifications system*

In the German qualifications system, the 16 *Länder* are responsible for qualifications which (generally) require completion of a secondary school or higher education programme. The Federal Government, together with the various chambers (representing the craft trades, industry and commerce, agriculture and various professions) are responsible for all qualifications requiring completion of a programme delivered outside formal education institutions. The chambers design and award their own vocational qualifications according to regional needs. Seven qualifications categories can be defined in broad terms, which each respond to different requirements and logical structures:

- (a) general education and vocationally orientated qualifications acquired at secondary level ⁽⁴⁸⁾;
- (b) vocational qualifications acquired in the dual system of vocational training;
- (c) vocational qualifications acquired at full-time vocational schools at upper-secondary education level;
- (d) vocational qualifications acquired at full-time vocational schools at tertiary level;
- (e) advanced vocational qualifications acquired outside education institutions for the purpose of career advancement or specialisation;
- (f) advanced vocational qualifications acquired outside education institutions for the purpose of specialisation;
- (g) qualifications acquired at higher education institutions.

⁽⁴⁸⁾ General education qualifications include the *Hauptschulabschluss* (certificate obtained on completion of grade 9), the *Realschulabschluss* (certificate obtained on completion of grade 10) and the upper-secondary-level leaving certificate (3 types of the *Abitur*) which enables entry to university.

Within the national qualifications system, the *Länder* cooperate closely in designing, certifying and recognising qualifications and coordinate their activities with the Federal Government where necessary. In 2006 the *Föderalismusreform* (reform of federalism) strictly separated responsibilities; this is under discussion again regarding HE qualifications, and in the context of the German qualifications framework under development. Compared to post-secondary and tertiary-level education and training, initial education and training is subject to a much higher degree of regulation and systemic differentiation. This reflects, among other things, the particular responsibilities of both the Federal Government and the *Länder* for providing education and training opportunities for adolescents. The debate, at least over the last 10 years, has been about blurring the boundaries and aiding flexible transition.

In 2007 the situation was as follows:

- (a) about 7.5% leave school without any final qualification, two thirds of which acquire qualification during initial VET;
- (b) upper-secondary qualifications are generally acquired late: the rate of 20 to under 25-year-olds was 72%, thus below the level achieved in 2000. For the age group of 25 to 30-year-olds, the situation is considerably better (85%);
- (c) entrance qualification for universities of applied sciences: 14%; entrance qualification for universities: 30% of all 18 to under 21-year-olds; (total target figure 50%);
- (d) direct transition from VET to higher education is hardly possible: 1% of all admissions so far;
- (e) ratio of higher education entries: nearly 36% of the age cohort (target: 40%);
- (f) rate of higher education graduates: 22% of the age group (target: 35%);
- (g) participation of the 19-65 year old population in (formal/non-formal) continuing general education was 27% and in CVET 26%; 68% participated in informal learning activities. Only a minority of all CVET activities finishes with a recognised qualification, and this figure is constantly sinking (by 30% since 1992) (Authoring Group Educational Reporting, 2008).

3.1.3.2. *Policy positions*

In 2005, the amendment of the Vocational Training Act gave way to more flexible structures in company-based VET. To inspire the articles of the law, the Federal Ministry of Education and Research established the think

tank Innovation Circle on Vocational Education and Training (IKBB). Based on input from working groups on different themes, 10 guidelines for the modernisation and structural improvement of vocational education and training were published (Federal Ministry for Education and Research, 2007b), forming the basis for VET policy in the coming years.

To a large extent the guidelines aim to make VET more flexible and create pathways for lifelong learning, – at the same time strengthening the occupation principle (*Berufsprinzip*)⁽⁴⁹⁾. Throughout the guidelines, opportunities for credit transfer, between schools, dual initial and continuing VET and higher education, are a high priority, transfer. This is seen as a necessity not only to guarantee equality of opportunity but also to meet the increasing demand for higher education graduates.

Within the last decade a transition system (*Übergangssystem*) has evolved. This includes vocational and pre-vocational programmes providing basic vocational training but not leading to a recognised vocational qualification with currency on the labour market. This is a response to an increasing absolute number of school leavers and the supply of dual apprenticeship training places not increasing accordingly. Hundreds of thousands entered this system in the last decade, causing growing political/social concern. New instruments for the transfer of vocational school credits and admission of vocational school graduates to chamber examinations were introduced by the Vocational Training Act 2005 (see below).

In April 2008 the Federal Government adopted a strategy for lifelong learning, linking directly to the implementation of its Advancement through education initiative. The Federal Government is following the recommendations submitted by the Innovation Circle on Continuing Vocational Education and Training (*Innovationskreis Weiterbildung*, IKWB) (Bundesministerium für Bildung und Forschung, 2007) and aims to achieve specific targets by 2015 for the 25 to 64 year olds: to raise participation in organised continuing VET from 43% to 50% and of the low-skilled (with no formal VET qualification) from 28% to at least 40%; to raise participation in all forms of learning, including so-called informal learning, from 72% to 80%.

⁽⁴⁹⁾ According to the *Berufsprinzip*, initial training shall, through a systematic training programme, impart the vocational skills, knowledge and competence necessary to engage in a skilled occupational activity, which is usually subject to the tariff and social security system.

To attain these objectives it is necessary to:

- (a) ease access to continuing VET;
- (b) improve the CVET programmes offered through the On-site learning initiative, by developing a regional educational monitoring system, by extending the AQUA ('Academics gain qualifications for the labour market') programme and by developing new educational and employment possibilities for university drop-outs;
- (c) improve the transfer possibilities between, and the dovetailing of, educational sectors (through upgrading scholarships and by amending the Upgrading Training Assistance Act, extending university courses to be attended during employment).

The national think tank on the technological performance of Germany came up with short-, medium- and long-term recommendations on the demand for HE graduates. In the short term, opportunities for businesses to employ foreign specialists (specialists with a foreign qualification) should be improved considerably. In the medium term, a reduction must be achieved in university drop-out rates by one third per academic year. A target must also be set for a higher proportion of those entitled to attend university to do so by enrolling on a degree course (today around 70%). In the long term, a higher proportion of young people must acquire the Abitur (today 45% of the age cohort) (Federal Ministry for Education and Research, 2007a).

3.1.3.3. *Changing design of qualifications/Qualifications framework*

National educational standards were introduced in the school sector as a reaction to Germany's poor performance in PISA in 2000. Leaving certificates for the end of primary education, the general (*Hauptschule*) and the intermediate (*Realschule*), and for the Abitur, and the establishment of the Institute for Educational Progress (Institut zur Qualitätsentwicklung im Bildungswesen, IQB) marked the beginning of a paradigm shift towards output-oriented control of the education system. To link the individual measures for the observation and further development of educational processes, the Standing Conference of the Ministers of Culture of the States adopted a comprehensive strategy for educational monitoring. The process of implementing the standards is still going on.

In higher education, implementing the Bologna process, the development of the consecutive structure of modular study courses BA/MA and the doctorate, and the further development of accreditation and evaluation also serve the objectives of quality development and quality assurance.

The accreditation of study courses ensures minimum standards for the academic curriculum and the professional relevance of the degrees. In December 2007, the Standing Conference resolved to implement a system accreditation scheme by which the internal quality assurance system of an entire higher education institution is assessed for the quality of its learning and teaching. The effect on the German system of the Bologna qualification format has been strong and contentious. A large number of new 'Bologna compatible' qualifications (12 500) were designed by the universities individually. Some universities/faculties did not adopt the new formats. Some of the new qualifications are overloaded: the contents of former qualifications squeezed into a tight modular structure. As a response to this, the BA/MA qualifications will be revised and redesigned to ensure the quality and coherence of the HE system.

More flexible structures were developed within VET in recent years, and this process is set to continue. The final examination can be taken in two parts, administered at different times; for the final examination credit will be given for the period of training already undertaken according to the rescinded provisions. Initial training in another relevant occupation may be credited towards initial training in the occupation governed by the initial training regulations, taking into account the vocational skills, knowledge and competences acquired in the course of such previous training.

The IKBB proposed to step up the introduction of modular structures (Federal Ministry for Education and Research, 2007b). Modules (*Ausbildungsbausteine*) are tested as a means to help previously unsuccessful training applicants, drop-outs, young people with learning difficulties, and adults returning to learning to make the transition by having their previously acquired skills and competences credited towards the regular training period or enabling their admission as external candidates to chamber examinations. Additional units/qualifications will continue to be developed at the interfaces between initial and continuing training to give talented young trainees an opportunity to acquire creditable skills and qualification modules during their initial training course. To promote the acquisition of advanced vocational qualifications, training regulations will be modularised and competence-oriented to achieve better credit transfer possibilities.

The reorganisation of training occupations is based on specific structural principles. These include, inter alia, the teaching of employable skills based on a broadly designed occupational profile, the introduction of competence modules, where appropriate, and the openness for close

inter-linkage between initial and further training. Of significance is that employers and trade unions are considering the possibility of structuring training occupations in related fields to form groups of occupations with common core skills and options for further specialisation. The aim is to improve provision and coordination in times of shrinking age groups, to speed up the revision of regulations and to foster occupational mobility.

In the Advancement through education qualification initiative, the Federal and *Länder* governments also agreed on a more functional design of the interfaces between school and VET. They have launched an initiative called Qualify and connect. Preparation for, and the transition to, vocational education and training will be improved, especially for disadvantaged pupils. Career orientation will be introduced in all general and special schools as a mandatory subject. The agreements concluded between the Federal and *Länder* governments will be supplemented by various programmes. These range from the introduction of systematic skill profiling of young people before leaving school and testing a system of training modules for previously unsuccessful training place applicants and young people in the 'transition system', to modular return-to-learn programmes for young adults without vocational qualifications.

The Federal Institute for Vocational Training, acting on behalf of the Ministry of Education and Research, developed standardised national skill-based training modules for 14 training occupations. The aim of the Jobstarter connect programme, the Federal Government's qualification initiative, is to integrate young people into the dual VET system at an early stage or enable them to return to training and acquire vocational qualifications on the basis of training modules. At the same time, the programme aims to use these training modules to improve activities run under the so-called 'transition system', align them to, and make sure that they connect with, the dual VET system.

The draft German qualifications framework (DQR) is designed to integrate all existing German qualifications and to be compatible with the EQF. It describes learning outcomes on eight reference levels which direct the referencing of qualifications obtained in general education, higher education and vocational education and training. Whereas the number of levels is the same, the frameworks differ when it comes to the different categories of learning outcomes. The draft DQR is based on an overarching lead concept of action competence which integrates two main categories: 'Professional competence', subdivided into 'Knowledge' and 'Skills'; and 'Personal competence', subdivided into 'Social competence' and 'Self-

competence'. The term 'competence' depicts the ability to use knowledge, skills and personal, social and methodological competences in work or study situations and for occupational and personal development. In 2009 the functionality of the draft DQR was tested by referencing a selection of about 50 qualifications from four domains across all educational sectors and all levels. Based on the findings, the aim is to review the structure of the draft DQR matrix and the validity of the descriptive categories.

The DQR is expected to support the national shift to the learning outcomes approach across the entire system. Based on descriptors for learning outcomes, the DQR is expected to support the permeability of the entire system and allow for access to the system for individuals without formal qualifications. All stakeholders agree on the transparency function of the DQR, the VET sector stressing the opportunity to demonstrate the equivalence of VET and HE. VET sees a more active role for the framework in credit transfer and progression than the general and academic higher education sectors. The same applies to the recognition of informally acquired knowledge, skills and competence. Employers' organisations are stressing the professional competence orientation of all education and some also see the option to use the framework for personnel development., but with no relevance for wage tariffs. The unions are stressing the integration of the system, based on the professional competence orientation but also on social and personal competence beyond the occupation. For them it is important that public responsibility for a full qualification according to the *Berufsprinzip* will not be undermined by the learning outcomes approach, which might lead to individualisation and commercialisation of initial VET (Drexel, 2005). Higher education organisations/ institutions are warning not to expect too much in terms of transfer and progression. Private schools, the providers of continuing training and the organisations providing training for the 'excluded' (for different reasons) consider the framework as an opportunity for becoming part of one integrated system, offering their clients better access.

For some of the stakeholders – across the sectors – it is clear that future qualifications and curricula need to be written in a different way, according to the descriptors in the framework.

It is clearly stated that the DQR would not have a regulatory role. It is still an open question which regulatory arrangements would be needed to establish the institution responsible for the referencing of qualifications to the framework. A big issue is the question of whether, and how, the DQR would have an impact on individual rights on the one hand and on the

power sharing between the different governance structures of the Federal Government and the *Länder* and between various competent bodies of the different sectors.

3.1.3.4. Trends in purposes/functions

In former times the *Hauptschulabschluss* was the main qualification for starting an apprenticeship, the *Realschulabschluss* for starting a full-time vocational school, the *Abitur* for going to university, and the specialised *Abitur (Fachhochschulreife)* for going to a university of applied sciences. There has been a constant shift of people with a *Realschulabschluss* into apprenticeships – they now form the majority – and of people with *Abitur*, which comprise 20% of all beginners. Whereas the *Abitur* was once the entry ticket to university (*Hochschulzugangsberechtigung*), nowadays only about 70% of those so qualified go. To identify and agree on uniform criteria for access to higher education by vocationally qualified applicants, the Standing Conference of *Länder* Ministers of Education took a landmark decision in March 2009: General higher education access will be opened for persons holding master, technician, certified senior clerk and equivalent qualifications; subject-restricted higher education entrance will be possible for vocationally qualified persons after successful final VET examinations and three-year on-the-job experience. HE qualifications are getting more vocational, both with dual study courses (apprenticeships at tertiary level) and with the introduction of the bachelor and master qualifications. Private providers like chambers are increasingly pushing a bachelor professional qualification awarded by them; this is fiercely rejected by the universities and the *Kultusministerkonferenz*.

The most important qualifications in the labour market are initial vocational qualifications (*Ausbildungsberufe*), even though their share is shrinking. The purpose of vocational qualifications is *berufliche Handlungskompetenz* (vocational action competence). The underlying concept is the theory of ‘complete action’ (*vollständige Handlung*), that includes planning, executing, and controlling as opposed to just executing. Initial VET qualifications represent action competence based on practical experience in real work situations, along with relevant specific knowledge and systematic-theoretical knowledge. They are the outcome of a learning process with a strong educational dimension, integrating skills training with the formation of character. Vocational qualifications represent far more than what is needed for certain job functions (Kraus, 2005).

From the 1970s the qualification profile of the German workforce has moved slowly but steadily upwards. Figures for the unqualified went down, those for the university graduates went up; for skilled workers and for advanced qualifications they were relatively stable for a long time but the latter they are reducing slowly but steadily over the last two decades. In 2003 the qualification structure of the workforce (highest qualification) was:

- (a) 12% with no vocational qualification;
- (b) 58.9% with a skilled worker qualification;
- (c) 10.8% with an advanced vocational qualification;
- (d) 18.3% with a university degree.

A forecast of the demand in 2020 shows 9% for those with no vocational qualification, 55.7% for those with a skilled worker qualification, 11.8% for the advanced vocational qualifications and 23.6% for HE graduates (Bonin et al., 2007).

Looking at the use of qualifications in the labour market, the matching of 'dual' qualifications is quite high: 84.3% with such a qualification work at skilled-workers level or above. Horizontal matching is different: 27.4% work in the occupation they were trained for; 33.1% work in an occupation related to their training (making a combined 60.5%); 45.3% can still use much or very much of the knowledge and skills acquired during training; 20.9% use some, a little or nothing. Even those who have changed occupation can still use what they have learned (10% much/very much; 19% some) (Bundesinstitut für Berufsbildung, 2006).

An improving match of all vocational qualifications with actual occupation is shown over a longer period of time in comparison with HE qualifications. Within the German socio-economic panel (SOEP, *Sozio-ökonomisches Panel*) in 1984, 1995 and in 2004 employees were asked whether they would be employed at the level of their qualification. For VET qualifications the match was 81.6%, 82.6% and 82.8%, i.e. slightly rising; for HE qualifications the figures were 87.9%, 83.1% and 80.2%, i.e. clearly declining (Konsortium Bildungsberichterstattung, 2006, p. 185), bringing both closer together. The rather high match in Germany is confirmed by international studies (McGuinness, 2006). The returns on education have not changed much in the course of expansion of the entire education sector (Pollmann-Schult and Mayer, 2004). Even though graduates generally start with a lower salary today and not with a permanent contract, as in earlier times, a university qualification still offers the widest and best choices on the labour market.

In 1980 unemployment rates for the three main groups of employees were rather close at around 5%. Between 1980 and 2005 the rate for those with no qualification climbed to 26% and for those with a VET qualification to 9.7%. For graduates it has been around 4% since then.

3.1.3.5. *Changing scope/credit transfer and recognition of informally acquired competences*

Several changes resulted from the 2005 Act. Preparatory VET has been included in the Vocational Training Act 2005 for the first time. Individuals unlikely to succeed in training for an apprenticeship trade can gain part-qualifications by successfully completing qualification modules developed from the content of recognised apprenticeships (§ 68 et seq BBiG).

Participating in an educational pathway in vocational schools may now be credited in full or in part towards training in a recognised apprenticeship if there are appropriate provisions in an executive order law at *Länder* level (§ 7 BBiG). If an educational pathway at a vocational school or other vocational training establishment is equivalent to vocational training in a recognised apprenticeship, graduates of this educational pathway shall be admitted to the Chamber examination (§ 43 (2) BBiG). *Länder* governments may enact executive order laws to this effect.

The 2005 Act has also relaxed the requirements for access to ‘external students’ examinations’. § 45 BBiG states that persons may be admitted to a final examination in an apprenticeship trade if they can provide evidence that they have been working in the trade for at least one and a half times (previously twice) the training period. Further, this minimum period may be waived if the candidate can demonstrate that he/she has acquired the necessary competences to act proficiently in the occupation.

The Vocational Training Reform Act has introduced the possibility of teaching, examining and certifying competences that go beyond the regulatory minimum requirements. In order to obtain these ‘additional qualifications’, among others, the successful completion of additional optional modules and parts of other training regimes, as well as further training regimes, may be considered (§ 5 (2) 5, § 49 BBiG).

The German system is very much focused on formally acquired qualifications which are linked with entitlements in education and employment. However, concepts and programmes have been developed to promote lifelong learning across and beyond formal qualifications. Four large scale activities are of major significance:

- (a) the 'Learning culture for competence development' programme;
- (b) the 'ProfilPASS' system for ascertaining and reviewing competences acquired in different ways;
- (c) the 'ANKOM' initiative (crediting of vocational competences towards higher education study programmes) in conjunction with the DECVET initiative (development of a credit system for vocational education and training);
- (d) the DFG (German Research Foundation) priority programme 'Competence models for recording individual learning outcomes and for reviewing educational processes'.

These activities, with their theoretical foundation and simultaneous practical approach, are preparing the ground for a changed learning and recognition culture. They are providing essential preliminary work with the long-term aim of achieving recognition of competences acquired by non-formal and informal routes.

Effective practices also exist within the employment system in which informally gained competence is taken into account. This includes collective agreement regulations and procedures in companies which have an effect on recruitment and promotion, mainly internal staff appraisals, such as references, personnel discussions and assessment procedures. There is not one system of recognition of informally acquired competences in Germany, but a wide spectrum of different procedures and concepts, unconnected with one another and subject to different legal regulations and responsibilities. Despite many existing procedures and forward-looking steps, more efforts will need to be made at many levels to develop a culture of recognition.

3.1.3.6. *International perspectives*

The Government aims to gear the national system to international and European standards and qualify its citizens for increasingly international job requirements. The Europeanisation of the German system manifests itself as a proactive reform policy (Trampusch, 2009). This concerns geographical mobility (e.g. doubling the number in VET by 2015) but also the structure, the shape and provision of qualifications.

European instruments like EQF and ECVET have to be compliant with national and regional regulations, even though they are used to foster change. ECVET will not result in the creation of any new laws for citizens with regard to an automatic recognition of learning outcomes or credit points. Planning for the DQR takes full account of the specific

characteristics of the German education system in Europe and also in the wider international arena. With the establishment of the DQR, the EQF shall serve as an instrument for the international comparability of German qualifications. EQF is conceived as a necessary additional classification system to ISCED and the five-level system of the European Directive on the recognition of diplomas (European Parliament and Council of the European Union, 2005); in both classification systems German VET qualifications seem to be undervalued. It is expected that achieving a common language for learning outcomes/competences will result in a more appropriate international positioning for German qualifications. This is important for a more successful marketing of German qualifications/programmes/courses internationally. A qualifications framework is expected to support the Government's initiative for the recognition of 'foreign' qualifications, which is justified with demographic change and the prospect of future skills shortages (Bundesregierung, 2009). In December 2009 a Government White Paper was published on the 'Improvement of the validation and recognition of qualifications and competences acquired in another country'. Legal regulations will be put in place which will entitle everybody to get her/his qualifications and competences validated and possibly 'recognised'. Where crucial parts are missing as regards the respective German qualification, opportunities will be available to acquire these.

For the European change agenda, Germany intends to make haste slowly. The celebrations of 10 years of Bologna in 2009 were disturbed by massive strikes, demonstrations and critical debates. Bologna was pushed forward too quickly, leading to ill-conceived one-size bachelor (three year) degrees with insufficient structures and examination requirements, yet more demanding at the same time. The new modular structure produced a work overload and increased the problems it was supposed to solve: the drop-out rate went up in certain subjects (Heublein et al., 2009). The faculties of medicine and law still reject the Bologna framework structure, as do parts of the faculties for teacher education (the professions). A group of technical universities also reject the abolition of their diplomas in exchange for BA/MA degrees. Nearly all stakeholders agreed that there has to be further reform of the reform initiated through Bologna.

Instead of rushing further changes, there is a recognised need for proper evaluation of changes stipulated by European activities, plus (international) research into the use of qualifications, recruitment practices and competence development. Germany has started a national educational panel study for the last of these.

3.1.4. Ireland

Over two decades Ireland experienced enormous economic and social change. Within that period the population grew from 3.5 to 4.2 million, the workforce increased from 1.5 to over 2 million, unemployment decreased from 16% to 3.7% at one point, female labour force participation grew from 483 000 to 851 000 and recent immigrants comprised 15% ⁽⁵⁰⁾ of the workforce. Education-industry links are loose in Ireland but educational levels and grades are strong labour market signals. The interconnected policy positions, with direct bearing on the Irish qualifications system are ensuring economic competitiveness, maintaining social inclusion and implementing educational reform in support of lifelong learning. Ireland's partnership approach to policy development is a significant factor; it underpins social as well as economic policy development and is a driving force in strengthening equity as well as the employment orientation of education, training and qualifications. The National framework of qualifications (NFQ) based on 1999 legislation ⁽⁵¹⁾ and established in 2003, is a key driver and facilitator of change in the qualifications system.

Raising qualifications levels to meet skills needs has driven qualifications reform for two decades. As the 'knowledge economy' developed and required workers with higher qualifications, government policy motivated young people to raise their qualifications levels, for example by abolishing university tuition fees. Employment opportunities opened for new labour market entrants with different educational profiles, including young and older people ⁽⁵²⁾ with low or no formal qualifications. By the late 1990s, the skills/labour shortages widened; the shift from a lower-skill employment structure to highly skilled work required 300 000 extra employees with a third-level qualification by 2010. Inward migration helped to meet labour shortages, and reduce skills gaps at the higher professional levels. The Expert group on future skills needs (EGFSN) ⁽⁵³⁾ reported that by 2020 the workforce in Ireland was likely to grow to 2.4 million. As 1.4 million workers would still be in employment, at least 950 000 extra new workers

⁽⁵⁰⁾ Migration patterns reversed with mass inward migration, the heterogeneous 'immigrant' population grew from a minuscule percentage to 12%.

⁽⁵¹⁾ Qualifications (Education and Training) Act (1999). Available from Internet: <http://www.irishstatutebook.ie/1999/en/act/pub/0026/index.html> [cited 3.9.2010].

⁽⁵²⁾ The number of women working outside the home rose from 483 000 in 1995 to 851 000 in 2007, an increase of almost 80%.

⁽⁵³⁾ In 1997, the EGFSN was set up to give the government advice on the education, training and qualifications needs of the population.

would be required. It forecast that the demand for workers qualified at NFQ levels 6-10 (EQF, 5-8) would need to rise in that period. This would require increasing the retention rate in upper-second-level schooling to over 90%, raising tertiary-level participation rates from 55% to 72% and upskilling and reskilling half a million people in employment. Aligning the 'one-step-up' qualification strategy to the NFQ reinforces the standing of qualifications and aids data-gathering in relation to targets. Government policy is committed to the further development of the '4th level education system' with its target to have an additional 8 000 researchers by 2010 and to double the number of PhD graduates by 2013.

Despite economic prosperity, Ireland is a less equal society⁽⁵⁴⁾ and has the third highest level of child poverty in the EU. Given the links between qualifications and employability, government policy is geared towards aiding access to qualifications for 'at risk' groups, primarily early school leavers and the long-term unemployed and the newly unemployed, including non-Irish citizens.

At 12.9%, the proportion of early school leavers in Ireland is high⁽⁵⁵⁾. A survey⁽⁵⁶⁾ showed that 28% of young people without qualifications were unemployed one year after leaving school as opposed to 4% of those with a leaving certificate; in that year, the overall unemployment rate was 4.5%. Updating and refreshing the qualifications of older people⁽⁵⁷⁾, including those in work, approximately 30% of the workforce, is a priority; gaining 'threshold' qualifications is of critical importance.

The 'immigrant'⁽⁵⁸⁾ population is compared with the indigenous population by age, (86% under 45), gender (mostly male) and educational attainment (high). Although 43% of 'immigrants' in the workforce have third-level qualifications, 60% of them work in low-skilled jobs (FÁS, 2008): this is likely to have had an adverse effect on keeping their skills up to date, and their special needs must be addressed. Internationalisation of the qualifications system is important.

⁽⁵⁴⁾ The richest 20% of the working-age population earn 12 times as much as the poorest 20%, one of the highest levels of income inequality among OECD countries. The unemployment rate of early school leavers is 18% (National Economic and Social Forum, 2006, p. 124).

⁽⁵⁵⁾ 26% with primary education, 14% with upper-second-level qualifications and 3.3% of with a third-level qualification are at risk of poverty.

⁽⁵⁶⁾ The survey has existed for 20 years. The data in this report are taken from the most recent survey for 2007 (Byrne et al., 2008, Tables 2.1c and 4.3).

⁽⁵⁷⁾ In the OECD's IALS, 25% of adults surveyed had neither the literacy/numeracy skills nor the confidence to take part effectively in society.

⁽⁵⁸⁾ Data on inward migration may, or may not, differentiate between returning Irish nationals, second generation Irish, EU citizens and non-EU citizens; this makes nomenclature difficult.

By the mid 1990s, the post-second-level qualifications landscape in Ireland had become large, heterogeneous and cumbersome. Systems of tradition for VET and higher education were operating in parallel with a growing further education and training sector and a growing tertiary-level sector emerging from the higher VET sector. Frameworks of qualifications were in place: school qualifications; VET qualifications that were referenced to the five-level framework of the National Council for Vocational Awards (1991); higher level VET qualifications awarded by the National Council for Educational Awards (1979 statutory status) and the long established higher education framework (bachelor, master, doctor). The transparency and comparability of qualifications within and across sectors became a pressing issue. Insufficient flexibility in the system hindered access and progression and militated against attempts by the private training sector to gain recognition and certification for programmes. Developing a qualifications system to support lifelong learning became a key driver for qualifications reform.

3.1.4.1. *Changes in qualifications and frameworks design*

The legislation underpinning the National framework of qualifications is most directive regarding the ‘further and higher (non-university) education and training sectors’ and it is within these sectors that NFQ policies and practices are being more rigorously ‘tried and tested’ under the auspices of the National Qualifications Authority of Ireland (NQAI) and the two awards councils set up under the Act ⁽⁵⁹⁾. The NFQ also comprises qualifications awarded by other bodies, including school awards and higher education and training awards made by universities and Dublin Institute of Technology, and aligned awards made by UK bodies and Irish professional bodies. Two routes through the levels of the qualification system are discernible, albeit with increasing mobility between them: the traditional route, with the school leaving certificate qualification that aids access to all further education and tertiary-level qualifications; and the route, with strong links between second chance and further education and training qualifications and tertiary qualifications that can be gained in non-university higher education and training institutions. The goal of the NFQ is to integrate these and new awards into the single, nationally and internationally accepted, entity, through which

⁽⁵⁹⁾ Planning is underway to amalgamate NQAI, HETAC, FETAC and the University Quality Board into one agency.

all learning achievements may be measured and related to each other in a coherent way and which defines the relationship between all education and training awards. The implementation of the NFQ, and its continuing development and impact, are analysed in a recent NQAI study ⁽⁶⁰⁾ which also contains recommendations for further development.

The NFQ is a system of 10 levels differentiated on the basis of standards of knowledge, skill and competence: a broad approach was adopted to developing the learning outcomes. Award standards concern the general (related to level/award type) and specific (related to named awards) knowledge, skill and competence expected from the learner. The NFQ comprises four classes of award type: major, minor, special purpose and supplemental. The 16 major award types include established qualifications and reflect considerable rationalisation of previous awards. The NFQ architecture provides the infrastructure to place 'comparable' qualifications at the same level and is instigating more invasive reform to address issues related to the 'parity of esteem' between qualifications at the same level and issues related to mobility within the qualifications system.

3.1.4.2. *Changes for transparency, comparability and quality assurance*

Reducing awarding bodies from four to one is increasing coherence within further education and training; the awards of the four bodies were rationalised and referenced to NFQ, levels 3-6.

Setting standards is the responsibility of the awards councils and other award bodies. Adherence to the generic standards is not required of schools or universities. Sector and occupational standards for vocationally orientated awards are developed with the involvement of social partners, professional associations, sectors and branches and individual experts, as appropriate. The Further Education and Training Awards Council (FETAC) has operated the Common awards system (credit accumulation and transfer) since 2007. The Higher Education and Training Awards Council (HETAC) adopted the generic award-type descriptors as generic standards and in 2003 all programmes were revalidated in line with NFQ descriptors and new standards developed in a number of disciplines.

Although the NFQ comprises awards that validate standards of knowledge, skills and competences expressed as learning outcomes, how the awarding bodies, and subsequently provider institutions, interpret these,

⁽⁶⁰⁾ See: http://www.nqai.ie/framework_study.html [cited 6.9.2010].

can differ. A pragmatic approach to these interpretations was adopted when referencing awards to the NFQ. Traditional qualifications are more likely to be subject-based, terminal examination orientated and teaching centred, whereas the more 'NFQ-compliant' qualifications more closely reflect the NFQ advocated learning-outcomes-based approach. However, a shift towards a learning-outcomes approach can be perceived in all sectors, albeit to varying degrees. There is more emphasis on learning outcomes in leaving certificate curriculum development.

The language of the Bologna framework, including learning outcomes approach, is in use across the university sector; application of the approach, although on the increase, appears mixed. In universities and schools provision is made for both learning and assessment based on input or on outcomes as well as a combination of both. The NFQ impact study indicates that benefit to be accrued by reorganising learning provision and assessment based on learning outcomes across all sectors still needs to be proven; this requires greater stakeholder commitment and the necessary expertise to implement change.

Putting in place procedures for quality assurance of education and training provision is a statutory obligation. The 1998 Education Act sets out the obligations of the School Inspectorate regarding the quality assurance of educational provision. While the award councils are responsible for the validating programmes and overseeing quality assurance, provider institutions are responsible for maintaining and improving quality. The procedures that apply to all providers are to:

- (a) conduct evaluations at regular intervals by 'persons who are competent to make national and international comparisons';
- (b) conduct programme evaluations by learners and evaluations of services related to every programme;
- (c) publish the findings of all evaluations.

The Universities Act (1997) obliges all universities to establish internal quality assurance procedures and publish the outcomes of periodic evaluations. Under the Act the Higher Education Authority (HEA) was given the role of reviewing procedures. In 2002 the Universities Quality Board was established to, *inter alia*, advise on good international practice; by 2005, a common framework for quality assurance, agreed by all universities, was in place. The NFQ study indicates that policies and processes for quality assurance need to be more than formulaic, evidence of continuous quality development and transparent outcomes of improvement are needed to build the necessary trust between sectors.

3.1.4.3. *Changes to improve access, progression and transfer*

Modularisation and the inclusion of smaller award types (minor, supplemental and special purpose) among NFQ awards, enable learners to build up units of learning at their own pace to meet their needs, refresh or add to their qualifications and update them in the context of new regulations. The NFQ is intended to aid credit accumulation and transfer, based on units of learning and including credit for prior and experiential learning. Providers (or awarding bodies) are responsible for assigning credit value to units of learning. The NFQ study indicates that, although structural barriers impeding access and progression have been removed, institutional barriers have not. The Qualifications Act requires FETAC and HETAC to ensure that providers establish procedures for access, transfer and progression and is a significant mechanism in this regard. Recognition of prior learning (RPL) has been used in Ireland for decades but 'the number of learners who avail of RPL has been and remains small' ⁽⁶¹⁾. There is little data on the scale of RPL, though FETAC and HETAC have carried out surveys. Among the findings were lack of understanding of how RPL works in practice, diverse views on its usefulness, and lack of training, resources and time to organise and implement it. The impact study indicates that functional credit systems and RPL mechanisms need to be more coherent and reliable; progress in these areas is on outcomes-based learning and assessment. Although RPL is widely accepted as a positive development, there is resistance to change in some sectors and in others the change is slow and will take considerable time to embed.

3.1.4.4. *Trends in qualifications*

In 2007, 86% completed a leaving certificate, an increase of more than 16% in two decades.

In 2007, 142 648 awards were made by FETAC compared with 37 292 in 2001. The trend reflects, inter alia, the take-up of minor, supplemental and special purpose awards, for example by workers, job seekers and early school-leavers, aiming for an initial or upgraded qualification. It includes first time awards at levels 1-2 allowing adults to 'step onto the ladder'.

In two decades, numbers participating in full-time 3rd-level education more than doubled, with 44% of all 25-34 year olds attaining qualification; this ranked Ireland in 2nd place in the EU. The proportion of people with a degree increased across all age groups between 2002 and 2008, especially

⁽⁶¹⁾ The Ireland background report for OECD, 2007.

35-44 year olds, where there was a 12% increase (25% to 37%). From 2002 to 2005 the gap in third-level attainment between male and female widened from between 4% to 8% and from 2006 to 2008 between 12% and 15%.

3.1.4.5. *A more highly qualified workforce*

At the beginning of 2008, 77% of persons aged 25-64 were in the labour market, a total of 29% of the working age population had a third-level qualification, an increase from 22% in 2002. Over 30% of the labour force has lower-second-level education or less. The gap between females and males has nearly doubled in the past three years. The percentage of those with lower-second-level education or less has decreased from approximately 40% in 2002 to approximately 31% in 2008. Graduates with a degree or higher had a participation rate of 89% and an employment rate of 87% whereas those without qualifications had a participation rate of 52% and employment rate of 48%. The unemployment rate of the former stood at 2% and 8% for the latter.

3.1.4.6. *Changing purposes of qualifications*

Qualifications are important for social and employment status and betterment. They have a powerful influence on education and training and are used to control flows into, and signal and screen for, the labour market. While the fundamental purposes of qualifications and qualification systems may not have changed, they have undoubtedly become more explicit and are being used to greater effect, as illustrated in the selected examples below.

NFQ-related procedures and processes provide structures for discreet government control of the increasingly heterogeneous and autonomous stakeholders linked to the qualifications system. This is considered important to maintain the quality, integrity and international currency of Irish qualifications and sustain commitments to recognition of lifelong learning. The NFQ aids qualifications monitoring, which supports decision-making in relation to relevant and timely responses to skills and labour shortages and qualifications-related funding decisions. Data are used as a measure of 'human capital' helping to attract foreign investment.

Traditionally, much of the value placed on qualifications was based on extrinsic factors and qualifications-linked social stratification referenced not only to the level/kind of qualifications held but also where they were obtained. By offering and valuing different pathways to qualifications, demonstrating equivalences between qualifications, and aiming to base

qualifications on standards of knowledge, skill and competence achieved, qualifications reform aims to shift the focus from programmes and providers to achievement. The NFQ helps to make qualifications more transparent (standards, learning outcomes, assessment, portability, etc.), which improves decision-making by learners, albeit with an increased need for guidance. It makes visible alternative routes, contexts and modes of learning towards gaining qualifications of equivalence and the 'ladder' of progression options that enable people to plan, at least their next learning step. Quality assurance is increasing confidence in the relevance of qualifications. NFQ structures and processes are engaging labour market actors more actively in qualifications development, which is enhancing enterprise-education cooperation and smaller NFQ awards (minor, supplemental and special purpose) are attractive for enterprises and workers and increase the uptake of accredited learning.

Ireland's transformation into a multicultural nation has had a range of consequences for qualifications policy developments. The EU Directive on the Recognition of Professional Qualifications (European Parliament and Council of the European Union, 2005), and its predecessors, is an important reference for the bodies responsible for the education, training and qualifications for regulated professions. According to the Department of Education and Science, there are 97 such regulated professions (updated list of 2007). Outside this list professional recognition is not required for EU nationals to work in Ireland; it is a matter for employers. For Irish people qualified in a non-regulated profession who wish to work in a country where the professional is regulated the 'Certificate of experience' is required. Qualifications Recognition Ireland is a one-stop-shop service offered by NQAI⁽⁶²⁾. It provides an international qualifications database, in which foreign awards are related to Irish awards in the NFQ, a qualifications assessment service and a service for holders of Irish qualifications who need to have them recognised in the home country, or another as appropriate. The referencing of qualifications to the NFQ and the EQF increases the international currency of Irish qualifications and the readability of non-national qualifications; this is considered an attractiveness factor for the holders of qualifications and employers.

⁽⁶²⁾ See: www.qualrec.ie [cited 22.9.2010].

3.1.5. United Kingdom (England, Wales and Northern Ireland)

The UK has education and training systems, and associated qualifications systems, that are distinct in its four member countries they are becoming more distinct as time passes. The Scottish system has always been different from the other countries and so analysis of change in Scotland is treated separately in Section 3.1.6.

In England, Wales and Northern Ireland (EWNI) more qualifications are being achieved across all levels in the population. A consequence of this is a reduced but significant section of the population without qualifications. Contributing to this growth is the fact that more training in work settings is being recognised in formal qualifications. Qualifications remain a strong influence on education and training curricula, sometimes appearing inseparable.

Despite this growth, and the clear importance of qualifications in EWNI, it is not at all clear that qualifications have become more important in recruitment and selection processes. There is some evidence that qualifications may be less important than previously in securing jobs – except in initial labour market entry. The precise position of qualifications use in recruitment and selection is simply not known⁽⁶³⁾.

The role of qualifications in the labour market has generally received a great deal of attention⁽⁶⁴⁾, as in the involvement of employers more centrally in vocational qualifications, funding models, and promotion of apprenticeships, but the role remains stable and has changed less than suggested by the series of announcements on changing skill needs. However, more policy initiatives are in place and there seems to be a stronger commitment to implementing them.

The relative returns on general, academic and vocational qualifications at different levels of qualifications have remained stable over the years. The variability in the types of qualifications makes generalisations difficult but it seems clear that there are still larger returns for general and academic qualifications and higher level vocational qualifications⁽⁶⁵⁾. At intermediate level, vocational qualifications are generally the poorer relation and this indicates that efforts to promote them are yet to make progress in terms

⁽⁶³⁾ See: <http://www.beyondcurrenthorizons.org.uk/labour-market-structures-and-trends-the-future-of-work-and-the-implications-for-initial-et/> [cited 6.9.2010].

⁽⁶⁴⁾ See: <http://www.personneltoday.com/articles/2009/05/07/50574/leitch-review-skills-targets-doomed-as-uk-lags-behind-competitors-report-warns.html> [cited 6.9.2010].

⁽⁶⁵⁾ See: <http://www.ukces.org.uk/press-release/new-report-vocational-qualifications-can-boost-earnings> [cited 6.9.2010].

of the general differences in value attached to general and vocational qualifications.

Higher education has experienced expansion in enrolments, success rates and in diversity of qualifications offerings at all levels. The introduction of new foundation degrees ⁽⁶⁶⁾ that are employer led is a serious, large scale initiative contributing to the expansion of institutions offering higher education, places on programmes, degrees and titles.

There is a clear trend in EWN towards quality assurance systems across the range of stakeholders and towards lighter regulation of qualifications ⁽⁶⁷⁾. The intention is to create a more flexible qualifications system that meets needs and supports lifelong learning. The new qualifications and credit framework (QCF) launched in 2008 plays a key part in this process ⁽⁶⁸⁾ and the importance attached to this central plank in government qualifications policy should not be underestimated. The QCF is potentially a very powerful tool for bringing flexibility, more relevance and self sustained modernisation into the qualifications system. Implementation of the QCF began in 2009 and it may not be until 2015 that the effects of the QCF in terms of benefits for learners and recruiters will be evident.

Qualifications frameworks generally are seen as important instruments of change. The roles of managing agencies are established to allow frameworks to drive the changes to the number, type, labour market relevance and quality of qualifications.

Employability is becoming a more important issue in policy debate and changes in sets of qualifications (including the establishment of new ones) have been made to aid labour market entry and career progression. There is no concrete evidence that these new 'employability' qualifications ⁽⁶⁹⁾ are sought by employers but their development has been supported by employer organisations.

Employability is a live issue in European discourses and it may be a signal of the UK's increased sensitivity to European qualifications initiatives. However, this sensitivity is still at a relatively low level and the impact of European developments remains minimal.

⁽⁶⁶⁾ See: <http://www.findfoundationdegree.co.uk/> [cited 6.9.2010].

⁽⁶⁷⁾ For a general synopsis of quality assurance in the countries of the UK, see: http://ec.europa.eu/education/lifelong-learning-policy/doc/eqf/ukreport_en.pdf [cited 11.10.2010].

⁽⁶⁸⁾ See: <http://www.qcda.gov.uk/qualifications/60.aspx> [cited 6.9.2010].

⁽⁶⁹⁾ See: http://www.direct.gov.uk/en/educationandlearning/qualificationsexplained/dg_10039031 [cited 6.9.2010].

Institutional change in EWNl has been, and remains, extensive, especially in qualifications bodies close to government and in the provider system. However, awarding organisations seem to be relatively stable organisations. This change in institutional remit and responsibilities may be destabilising the system.

It is still not possible to point to examples of extensive and systematic use of validation procedures for non-formal and informal learning. While opportunities for its use are apparent, there is no strong push to systematise it.

The importance of public perceptions of standards has remained stable and is a strong, often negative, influence on developmental work in assessment methods and awarding procedures.

3.1.6. United Kingdom (Scotland)

The Scottish education and training system was already administered as a separate system when policy responsibilities were devolved from the UK parliament to the newly-created Scottish Parliament in 1999. The regulatory regime is different (and lighter) than elsewhere in the UK. Most school and college qualifications are developed and awarded by a single body, the Scottish Qualifications Authority (SQA). Nearly all its qualifications are unit-based, outcomes-based (with a relatively 'loose' interpretation of the concept of learning outcome) and credit-rated. Qualifications awarded by the SQA, universities and a growing number of other bodies are placed in the Scottish credit and qualifications framework (SCQF), one of the world's first comprehensive national qualifications frameworks.

Nevertheless, Scottish divergence from the rest of the UK is constrained by several factors: the reserved powers of the UK government (for example covering professional regulation and aspects of employment policy); overlapping policy communities and discourses; and shared pressures from the labour market and higher education. Many employers operate across the UK and argue for a common approach to qualifications. National occupational standards are defined at a UK level. Several features of the Scottish qualification system – such as the absence of a general graduation certificate to mark the completion of secondary education – are shared with other countries of the UK.

The Scottish Government is committed to 'creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable growth'. Education and training are seen as an aspect of comparative advantage and a strength on which to build. There is general satisfaction with current qualifications, especially post-school qualifications, and a broadly incremental approach to change. Policy is driven by:

- (a) Curriculum for excellence (CFE), a reform of the 3-18 curriculum in schools and colleges, aims to enable all young people to become 'successful learners, confident individuals, responsible citizens and effective contributors' (Scottish Executive, 2004). It aims to reduce curriculum content in favour of generic skills and enhanced pedagogy and to promote interdisciplinary learning, literacy and numeracy, health and wellbeing, vocational learning, employability skills and wider 'achievements'. New qualifications to support CFE will include:
- (i) (from 2012-13) National literacy and numeracy awards: portfolio-based awards for all 15 year olds (and available to adults) to recognise achievement and encourage cross-disciplinary learning in literacy and numeracy;
 - (ii) (from 2013-14) new National 4 and 5 awards to replace the qualifications taken at the end of compulsory schooling, with a stronger emphasis on skills and the application of learning and more scope for personalisation;
 - (iii) Skills for work qualifications, recently introduced, are awarded for courses in occupational areas to provide 'employability skills' primarily for 14-16 year old school pupils;
- (b) the government's skills strategy aims for a cradle-to-grave lifelong learning system centred on the learner but sensitive to employers' needs (Scottish Government, 2007). It anticipates a substantial role for the Scottish credit and qualifications framework in promoting skills use, supporting links between qualifications, and aiding access and progression;
- (c) recent policies have promoted assessment for learning, increased teacher ownership of this assessment, and aimed to separate assessment for learning from assessment for accountability (Hutchinson and Hayward, 2005);
- (d) policies which affect the public sector in general have an impact on the qualifications system and on the SQA in particular. These include equalities legislation, freedom of information legislation, demands for greater accountability and reductions in public spending.

3.1.6.1. *Changes in the design of qualifications and frameworks*

Many changes which are still emerging in other qualifications systems – such as unitisation, the move to a learning-outcomes approach and the development of credit – are relatively advanced in Scotland. They can be seen as part of a longer-term trend towards a more unified, coherent and

flexible qualifications system. This trend has not removed all divisions, rigidities and barriers within education and training, but increasingly such divisions have other (institutional, funding-related, social, economic) sources and cannot be attributed to the qualifications system.

The trend reflects a series of reforms since the early 1980s, many of which are now embodied in the SCQF. Formally launched in 2001, the SCQF is led by a partnership comprising the SQA, the higher education sector, the colleges and the government. Most mainstream qualifications are in the framework and the process of including other qualifications, especially those not awarded by the SQA or universities, continues. The SCQF aims to extend access, transfer and progression and to make the system more transparent and easier to understand. It is a voluntary 'communications framework', but it incorporates sub-frameworks that retain characteristics of 'reforming frameworks' (Raffe, 2009a).

Because of its long history of developing more coherent and flexible qualifications arrangements, Scotland has more evidence than most countries on the impact of such reforms. The verdict is mixed. The reforms have extended opportunity, created a more inclusive system and reduced some inequalities, but they have not created a 'seamless' system with no barriers to entry or movement within the system. Nor have they created parity of esteem for vocational and academic learning. A review of 25 years' experience of developing unified, outcomes-based and flexible frameworks draws three broad conclusions:

- (a) a unified framework does not remove inequalities of power and esteem in education;
- (b) institutions matter;
- (c) flexibility is not a simple panacea for educational problems (Raffe, 2009b).

A related trend is the rationalisation of qualifications and qualification types. A recent modernisation programme reduced the number of higher national (sub-degree) awards from about 800 to 260. A review of SQA's portfolio led to rationalisation of non-advanced group awards (awarded primarily for vocational programmes), often replacing college-designed group certificates with awards carrying greater national recognition, but permitting greater variation in the design of qualifications of the same qualification type.

Assessment approaches are becoming more varied, making increased use of new technology and e-assessment, and shifting from external to internal assessment; these changes are proceeding slowly (Galloway,

2007; Scottish Government, 2008). There is an aspiration to reduce the burden of assessment for certification, although this has not always been achieved.

3.1.6.2. *Trends in the purposes, functions and use of qualifications*

Examination of the purposes, functions and uses of qualifications shows relatively little change. Average qualification levels among the workforce have risen over time, but recent trends mainly reflect demographic change: better-qualified young cohorts are replacing less-qualified older cohorts in the labour market. The qualifications of new entrants to the labour market have reached a plateau in the past few years.

The role of qualifications in the labour market has changed little, despite current rhetoric about changing skill needs. The relative returns on different types and levels of qualifications have remained surprisingly stable, notwithstanding credential inflation (as more highly qualified people take on jobs in the service sector that were previously occupied by people with fewer qualifications), economic restructuring and recession. Degrees continue to earn high returns. Returns on vocational qualifications tend to be lower than for academic qualifications, although some studies suggest that this difference is smaller than in the rest of the UK and academic and vocational qualifications have similar effects on employment chances. Earnings returns on 'broadly equivalent' qualification levels tend to be lower in Scotland (Gasteen et al., 2003; Bell and Sarajevs, 2004; Futureskills Scotland, 2006; Walker and Zhu, 2007). Surveys of employers indicate that skills shortages are not extensive, but employers are more satisfied with the work-readiness of college and university leavers than of school leavers, whom they perceive to have poor attitudes, weak literacy and numeracy skills and poor core skills (Futureskills Scotland, 2005; Scottish Government, 2009). There has been a modest increase in the number of occupations for which a qualification is required by law, for example in social services, the private security industry and the maritime industry.

Qualifications are used to incentivise, steer and support change in the curriculum, but this is not new: previous curriculum reforms have been qualifications-led. What may be new is not the influence of qualifications but the direction in which it is exerted: qualifications are being used to encourage, and give recognition to, a wider range of modes and contents of learning, including generic and 'employability' skills and non-formal and informal learning.

Formally, the qualifications functions of performance measurement and management have become less important. The government stopped

publishing performance league tables for schools in 2003, but qualifications continue to be important in institutions' own self-evaluation, in quality improvement processes, and in the inspection of schools and colleges (where critics argue that qualifications are too influential).

Despite the general continuity in the purposes and uses of qualifications, the SCQF may have introduced, or put more emphasis on, particular purposes such as:

- (a) giving status and recognition to non-formal and informal learning;
- (b) establishing a 'national language' of learning in Scotland, and making the system easier to understand;
- (c) aiding the rationalisation and coordination of provision and the development of pathways through learning.

As a 'communications' framework, the SCQF may reflect a changing role of qualifications in educational governance, away from a top-down, regulatory role towards a more diffuse, participative and informal model of 'soft governance'.

However, there may be a further trend, towards acknowledging the limitations of qualifications as an instrument of policy. Some policy-makers appear to be more aware of the need for 'policy breadth' and of the limited ability of qualifications alone to achieve such outcomes as flexible progression pathways, wider access, social inclusion or parity of esteem. A recent proposal for wider 'achievement' (as distinct from narrow 'attainment') to be recognised through a qualification, received little support from stakeholders who feared that the qualification would lack credibility and distort the learning and personal development of young people (Howieson et al., 2010). The government's attitude to the role of qualifications in curriculum reform is somewhat ambivalent. It uses qualifications to drive change but it also seeks to insulate education up to age 15 from their narrowing effects on the curriculum and backwash effects on teaching and learning.

3.1.6.3. *The changing scope of the validation of non-formal and informal learning*

The recognition of prior learning (RPL) is a policy priority, expected to promote skills development and inclusion and to meet qualification requirements for specific occupations and demands for professional recognition. Target groups include women returners, older people, the unqualified and refugees and migrant workers. The SCQF published guidelines for RPL in 2005, supported by a resource pack in 2006; more

recent reports have drawn attention to the limited and marginal role of RPL in practice, and the continuing barriers to its wider uptake. A 2008 report noted 'some good practice' by learning providers using RPL for flexible entry or to provide credit towards qualifications, but concluded that RPL was 'not consistently accessible or delivered across geographic, industry sector or education and training sector boundaries'. There was a 'need for capacity building and infrastructure development on the supply side and a concerted marketing effort on the demand side' (Inspire Scotland, 2008; Leney and Ponton, 2007).

3.1.6.4. *Changing international perspectives*

International influences run in both directions. Scotland has influenced qualifications developments elsewhere, especially credit and qualifications frameworks. The SQA engages in four commercial strands of international activity: technical consultancy services to overseas organisations; international awarding; a study and learning visit service; and international endorsement. The scale of its international awarding activity is growing, especially in China, but it is still relatively modest. Nevertheless, SQA is quite unusual among public sector awarding bodies in having such a directly international role in terms of qualifications development and endorsement. Conversely, Scottish qualifications are increasingly influenced by international developments, partly because of market pressures: Scottish qualifications need to be compatible with dominant models elsewhere. The development of the SCQF has, at times, been delayed by the need to remain in tune with slower developments elsewhere in the UK or in Europe.

3.2. Information from other countries

Outside the above in-depth studies, evidence has been gathered internationally from experts within countries who were asked to answer three questions about the national qualifications system. The same questions were prepared for the Eurydice and Refernet networks ⁽⁷⁰⁾. Respondents were asked provide a brief answer to three questions based on their knowledge of the qualifications system and to provide references to any

⁽⁷⁰⁾ It represents recognition that a person has demonstrated learning to certain standards and that the context of qualification spans general or school education, vocational education, higher education and other forms of adult education.

policy documents or evaluation reports where more detailed information might be found. The questions were:

- (a) what is/are the main pressure(s) for changes to qualifications – or the qualifications system as a whole – in your country?
- (b) is there change in the view of policy-makers about the role of qualifications in achieving policy goals?
- (c) what is actually changing in terms of qualifications and the system as a whole in your country?

In the following summary the main points raised by respondents are grouped together. This provides an overview of drivers of change, political priorities and perspective on actual change. No checklists were provided to respondents so the free responses are classified in this analysis. In each of the following sections priority is given to points made by most national respondents. In total, respondents from 45 countries provided answers to all three questions, and, although these respondents are involved in researching qualifications systems, there is inevitably some subjectivity in the reported observations. Bearing limitations in mind, the paragraphs that follow provide useful broad indications of the sense of pressures that are operating across countries.

3.2.1. Pressures on qualifications systems

How pressures come to bear on qualifications systems is difficult to define precisely. The source of the pressure, the way it acts, whether drivers are intentional or unintentional are all aspects which complicate any judgements.

3.2.1.1. Economy and the labour market

Policy-makers see qualifications systems as having influence on national economic outcomes – growth, competitiveness and productivity – and this indicates qualifications are believed to be significant representations of learning, training and standards of knowledge, skills and wider competences. For a developing, modern economy, national learning provision is expected to deliver an educated and skilled workforce. Qualifications are perceived to shape learning provision and offer a metric for learning that is based on sound standards (educational, qualification and occupational). Pressures can be generated from the employment sector for a responsive VET qualification system. For higher education, the internal and international markets are also driving change in what is recognised in qualifications.

Good supplies of people who are competent in relevant areas are seen as a basis for seeking international investment. This creates pressure to ensure qualifications (and systems) have relevance and other currency and are marketable in other countries.

International standards in sectors such as medicine, aviation and informatics are also sources of pressure as sectors that are 'global' will need to demonstrate explicit adherence to international standards and regulations governing the training of experts and manufacture of products to specification.

3.2.1.2. *Social measures*

The development of civil society is also believed to be dependent on effective qualifications systems, playing a part in providing ambition and security for vulnerable groups. If qualifications can enable participation in learning they can help counteract low employment and poverty. There results in pressure to ensure there are minimal barriers to access. Several respondents mentioned the pressure to change qualifications systems so that immigration, migration and other demographic problems can be eased.

3.2.1.3. *International pressures*

There is now international pressure on qualifications systems in addition to market- and standards-driven pressures. International communities exert strong influences on the shape of qualifications: this can arise through benchmarking and monitoring processes exemplified by the OECD PISA activity. International pressure can also come from cooperative agreements such as those that operate in the European Union, as some of these agreements are set in law. For countries with developing social and economic positions, alignment with international groups (such as the EU) and their policies is desirable and this alignment creates pressure to develop qualifications systems along particular lines.

3.2.1.4. *Education and training*

Within education and training there are sometimes pressures that drive qualifications systems in certain directions; for example, several countries believe that private investment in what is normally a public system is an important transition. This means that qualifications can have a role as a quality assurance tool or regulatory instrument across an increasingly diversified sector. An example of this is the increased use of external

assessment in qualifications as opposed to allowing providers to make key decisions about the standards of learning they deliver. A greater private element can also mean that qualifications systems need to be efficient and show effects of efficiency measures. There is an increasing need for systems to be accountable and therefore transparent. Several countries believe that the use of learning outcomes has a key role in making systems transparent.

There are some developing aspects of education programmes that have implications for qualifications, for example developing preliminary and intermediate VET, developing key competences, and validating non-formal and informal learning.

3.2.1.5. *Lifelong learning policy implementation*

Many countries have explicit policies to develop an infrastructure to support lifelong learning and some perceive the lack of qualifications flexibility as a barrier to development. Paying attention to the lifelong learning needs of learners implies a diversification of approaches to learning provision and its recognition. There is a need to examine the interfaces between curriculum, assessment and qualification: this creates pressure. Two common aspects of provision that are seen as goals for lifelong learning policies are the enhancement of initial VET (apprenticeship) and the general quest to raise qualification levels in populations.

3.2.2. **Qualifications systems: the view of policy-makers**

If qualifications systems are subject to a range of pressures and change is becoming more commonplace, it is interesting to ask whether policy-makers are becoming more interested in understanding and using qualifications to implement policies. There is a wide range of perceptions among policy-makers: some have initiated, created and supported new laws that embrace qualifications and others warn of expecting too much from qualifications systems. Some remain to be fully convinced qualifications systems are useful tools and are ambivalent about the ways they are used. There is evidence for policy-makers viewing qualifications as having a role in:

- (a) improving VET and increasing capacity and skills in the workforce;
- (b) enabling validation of non-formal and informal learning;
- (c) bringing social partners together;
- (d) creating higher trust in HE qualifications;
- (e) a means of motivating people to learn by making education more

- attractive, make qualifications more transparent and easier to understand;
- (f) encouraging increased learner autonomy and responsibility;
 - (g) enabling individuals to make more informed decisions about learning choices;
 - (h) improving the coherence and logic of the education and training system;
 - (i) drawing closer together the worlds of school/college and work;
 - (j) improving the efficiency of provision;
 - (k) improving quality standards and provider accountability.

However, these ambitions are only part of the picture as there is good empirical evidence that some policy-makers have broader, education system-wide ambitions for qualifications developments. These include driving social change and aiding and steering the reform of all education and training.

The level of policy-maker interest in qualifications systems will vary according to local circumstances. In addition to any pressures from manifestos and the electorate there is evidence of employers and employment sectors applying pressure for reform, with ways of improving trade and competitiveness to the fore.

There are social aspects of qualifications systems – for example equality of access, currency of nationally endorsed qualifications – that capture the interest of the national media and force policy-makers to pay attention to qualification procedures. The media also take note of national performance when countries are ranked in terms of general qualifications levels.

Finally, education budgets are large and qualification systems are expensive. The accountability for spending on such a scale is also drawing policy-maker attention to value for money and efficiency in qualifications systems.

3.2.3. Aspects of change

In all countries surveyed there is change in some part of the qualification system. The survey aimed to gain a general idea of the kinds of changes – as opposed to discussions of changes or the creation of laws – that were happening in 2009. This theme is developed more fully in Chapter 5. Evidence points to a relatively stable system of qualifications in some countries and it is important that, in the text that follows, areas of change are identified that may only be relevant to an aspect or one education sector; the remaining aspects or sectors may not be subject to change.

Table 3. Commonly reported aspects of change

In some countries State-centred systems of schooling and VET were undergoing change based on a **more market-driven approach**, with more devolved responsibilities and involvement of private sector companies and processes.

Significant changes to VET qualifications have occurred in many countries with attention being paid to improving the apprenticeship (alternance) system to ensure higher levels of participation of learners and companies. The recent economic crisis was considered to have weakened training provision and this was perceived to be especially problematic for the future when an upturn in economic activity would require good levels of skills supply. There was appreciation that VET programmes that had enjoyed high status were less valued now and that general qualifications had possibly increased in currency. Changes aimed at improving employability were high priority in some countries. Some countries had clearly changed the expectations of professional bodies and how professional qualifications related to other national provision – it is not clear to what extent this has led to changes in qualifications arrangements.

In higher education, there have been various activities aiming **to align university programmes (and qualifications) better with the level descriptors in the Framework of qualifications for the European area of higher education** (FQEAHE or Bologna Framework). The focus on learning outcomes within higher education was not so prominent. Some countries noted the expansion of collaborative arrangements between institutions where a qualification was delivered and awarded in partnership. The quest for better interfaces between higher education and VET has led to the development of new qualifications, such as associate degrees, and to institutional characteristics such as recruitment policies. Changes aimed at striking a better balance between graduate employability and the focus on research in universities were also identified.

New systems **for validating non-formal and informal learning** was a common change but there were few national systems described and it may be the case that establishing the legal and institutional framework was the main activity rather than new national and systematic levels of validation.

An **expanding use of standards**: there was sectoral activity aimed at developing and reviewing occupational standards and profiles in systematic ways across a range of sectors. These standards were often seen as the basis of learning-outcome-based curricula and qualifications.

The **use of learning outcomes** was a theme in several responses, with some examples of significant moves to set whole education systems into transition towards more competence-based teaching, learning and assessment.

Some curriculum changes were introduced in response to new qualification requirements that involve specifying learning outcomes. **Modularisation** of professional education had also initiated reforms. Some countries identified reforms (rather than changes) that aimed to make the **whole system of work-based training, assessing and qualification more modern, responsive and coherent**. The primacy of the curriculum and the role of teachers was identified as a policy goal that had implications for changing the qualifications system rather than the other way around.

Frameworks and registers of qualifications were identified as a common change. Most countries reported framework development across all sectors although the new frameworks were not always intended to be a unified development across the different sectors. Improving communication of the qualifications opportunities to learners was important.

Credit arrangements were receiving attention in several countries and modularisation was a key theme in making qualifications progressive for learners. In some countries credit systems were developing and leading to many systemic changes: in terms of governance of the qualifications systems, new interfaces with learners and providers and shared responsibility for designing and operating credit arrangements.

Methods of **ensuring quality** were being introduced but there were mixed messages. Some centralised the function in the form of a remit for a new body; others devolved responsibilities for quality by setting out criteria that providing institutions would use.

New governance bodies were being established in some countries, often to manage qualifications frameworks or new quality assurance arrangements. Some of the new bodies were intended to coordinate VET-related work from definition of occupational standards, stakeholder engagement through to the assessment and certification of learning.

Assessment methods were being modified in line with more competence-based approaches and to capitalise on modularisation. Electronic assessment was also mentioned as a significant development in some countries.

New qualifications arrangements sometimes required **new activities in information, advice and guidance (IAG)** for learners. Some countries identified a growing role for IAG in a world where lifelong learning was expected to be the norm.

3.3. Summary of evidence

There is wide variance between countries and within countries in the aspects of qualifications that are changing. Qualifications systems and education and training sectors are also diverse and can be changing in one aspect while others remain stable.

There is a clear difference in the way that the term qualification is understood and used in different countries. The EQF definition, while useful and important, is necessarily technical and does not cover understandings of qualification in a social and identity sense; nor is it linked closely with the ability to work competently, nor to the sum of personal capabilities. For practical European cooperation, there are early signs of convergence around the concepts defined in the EQF. This is challenging to – and challenged by – those who hold a wider view of what qualifications mean in their working context. There is no consensus about the terms qualification and competence.

3.3.1. Higher profile in policy-making

There is substantial evidence that qualifications are seen as increasingly important tools for achieving policy objectives in terms of economic

outcomes. Modernising qualifications so that they are a better bridge between the labour market and education and training is high on national agendas. There is also a social dimension that is pushing qualifications into more prominent positions as tools for improvement: incentivising social groups to participate in learning and assessment is understood to be a means of combating social exclusion, enhancing social cohesion and increasing prosperity. Qualification recognition is regarded as important when large-scale immigration/migration and other demographic changes pose problems.

International standards programmes have highlighted the need to push up achievement; qualifications still seem to be a good proxy for measuring learning, alongside international surveys. This combination seems to be more appropriate than the 'years of schooling' indicator.

To make qualifications fulfil policy expectations there is a clear drive to make the national provision coherent and of unquestionable quality.

3.3.2. Solid changes and stable positions

In seeking evidence of change it is important to recognise where stability is dominant. Where change is often long-term rather than quick response, stability can justify making incremental change that is likely to preserve public knowledge of systems and confidence in them. This is probably the most common position in countries with specific zones of concrete development activity, such as in VET. In summary, there are more qualified people than previously, with higher educational achievement than previously. Most of these are qualified for work, and this is an increasingly important point of reference across qualifications systems.

There is some evidence of growing commercialisation of public provision, including certification, and the awarding of qualifications in VET. However, most institutional structures for operating qualifications systems are stable, especially where tripartite governance is important. It may be the case that, while institutions may seem to remain stable, their roles and responsibilities are changing. There is a tendency for responsibility for functions of qualifications systems to be delegated to responsible bodies and this is strongest in the case of quality assurance. New bodies have been formed; in some cases, bodies have been divided and in others they have been merged. Umbrella or apex bodies are formed, while in other cases government-funded agencies have major responsibility for a sector of education, or several aspects. There remains a general tendency to locate accreditation and regulatory functions in bodies close to government.

3.3.3. Significant shifts in the role, form and functioning of VET qualifications

VET and VET qualifications, relative to other sectors, considerable attention. Training standards, occupational standards/profiles and qualifications are always closely related and there is dynamic interchange between them. Qualifications system can shape VET curricula and provision; at the same time qualifications are responsive to the system in which they exist. Reforms of VET qualifications have been significant in many countries, with attention being paid to optimising employment relevance and improving the apprenticeship (alternance) system to ensure higher levels of participation of learners and companies.

3.3.4. Making people more employable

Changes in the role of qualifications in recruitment and selection are difficult to identify from the country evidence. The fact that there is growing interest in personal and social competences, personal achievements and generic skills is possibly an indicator that qualifications are a significant but partial representation of a candidate's abilities and potential. Employability is a common policy goal but there is no concrete change to report except that there is an increase in people achieving VET qualifications.

3.3.5. More permeable institutional interfaces

Evidence suggests attempts to weaken and make more permeable the traditional institutional barriers between schools and VET and between VET and higher education. Qualifications play a role in this by use of credit and exemption arrangements. The quest for better interfaces between higher education and VET has led to the development of new, more flexible qualifications. The increased use of learning outcomes is important.

3.3.6. More transparent and coherent sets of qualifications

The issue of the right number of qualifications, particularly VET qualifications but also higher education titles, is under discussion. The arguments for a larger number or fewer seem balanced.

There is a distinct move towards learning outcomes in most countries, with concrete activity in some of them. All education and training sectors are moving to learning outcomes: there is extensive use in VET but schools and higher education offering a mixed, but generally less advanced, picture.

Qualifications frameworks are being widely developed or improved; generally they are seen as important instruments of change as well as communication tools.

3.3.7. Broader forms of assessment, validation and certification

There is now growing evidence indicating that new schemes for assessing and validating non-formal and informal learning are developing but the level of use is unclear in most countries. The new schemes are expected to promote skills development and inclusion and to meet qualification requirements for specific occupations and demands for professional recognition.

There is also some evidence of assessment methods being modified to reflect competence-based approaches and modularisation. There are examples of the use of new technology and e-assessment and shifting from external to internal assessment, although all these changes are proceeding slowly.

3.3.8. Greater focus on standards

There is a general trend towards the more formal use of standards (training, occupational and educational) in the design of qualifications. These standards were often seen as the basis of learning-outcome-based curricula and qualifications. Criteria for the use of standards signal qualifications as a vehicle for linking education and training with the labour market.

3.3.9. Creating conditions for better quality learning

The link between qualifications and curricula was identified as important in the country evidence. Qualifications could have an influence the curriculum in terms of improved pedagogy, recognising generic skills, employability skills and wider achievements.

There is a trend toward designing quality assurance systems so that responsibility for this function is spread throughout the stakeholder groups and possibly towards lighter regulation of qualifications.

3.3.10. Introducing flexibility

There is evidence of change such as development of modularisation, unit assessment and credit arrangements but few examples of operational national schemes for credit were identified. Other aspects of change leading to flexibility included the development of smaller qualifications (in VET and HE), or the availability of partial qualification.

Lifelong learning policy implementation also signalled changes in general perceptions of qualification as something developed through life in terms of competences rather than a one-off event early in a person's life. Evidence of practice was not available to show this policy in action.

3.3.11. Responding to international activities

International influences on qualifications systems are believed to be leading to changes in practice. Globalisation is the recognised big challenge. International trade and investment is driving the need for higher achievement in transparent qualifications that are good for the labour market. Compliance with international professional standards also plays a part in qualification design.

Countries also mention design of national accreditation procedures, frameworks, catalogues and transcripts of achievement being derived from European tools.

In addition to the stability that is often associated with incremental, rather than rapid., reforms to qualifications systems, VET and higher education systems provide some clear evidence of more rapid change. The examples cited in this chapter also serve as a reminder that qualifications reform does not always achieve the expected outcomes, and may result in unexpected outcomes.

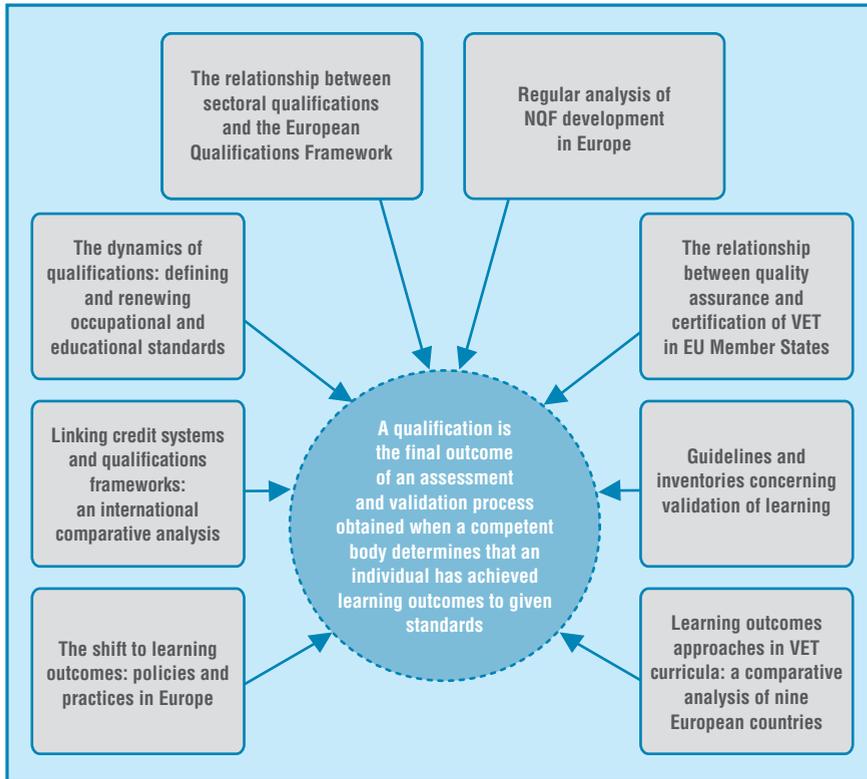
Cedefop research studies

4.1. The range of studies

Since 2009, Cedefop has published a series of studies focusing on topics such as the growing use of learning outcomes in policy and practice in European education and training systems, the renewal of education and training standards, and credit and quality assurance. These studies are summarised and reviewed in this chapter. They provide a useful source of information and evidence for this study because they bring to light many current aspects of the developing qualifications situation in Europe. They point to trends in the development of qualifications systems, such as improved engagement of stakeholders, increased use of learning outcomes and a growing emphasis on standards, quality assurance and the recognition of a wide range of learning. This makes the studies especially relevant to this report.

Standards provide the basis against which assessments are made and qualifications awarded. The study ‘The dynamics of qualifications: defining and renewing occupational and educational standards’ (Cedefop, 2009c) looks at ways qualifications standards are developed and used and how stakeholders engage in defining and developing them. Standards are often, but not always, expressed in outcome terms. Together with programmes, qualifications and certificates, standards are part of an education and training landscape in which learning outcomes are growing in importance. *The shift to learning outcomes: policies and practices in Europe* (Cedefop, 2009b) is a review of the understanding and use of learning outcomes across all aspects of education and training systems. The specific use of learning outcomes in VET programmes in education and training is the focus of *Learning outcomes approaches in VET curricula: a comparative analysis of nine European countries* (Cedefop, 2010c). Another study, *Linking credit systems and qualifications frameworks: an international comparative analysis* (Cedefop, 2010b) explores the possibilities and

Figure 5. The range of Cedefop studies and analyses and the EQF definition of qualification



complexities of credit frameworks, accumulation and transfer, and how these may change some quite fundamental aspects of the qualifications process. Cedefop's work on the relationship between sectoral qualifications and the European qualifications framework (EQF) raises a number of these issues, and focuses attention on current developments in qualifications in the business sector. Finally, *The relationship between quality assurance and certification of VET in EU Member States* (Cedefop, 2009d) examines in some detail a range of developing approaches to quality assurance of qualifications and other aspects of VET. While the studies do not cover all aspects, they do cover a range of areas of current interest and concern to policy-makers, as well as to social partners and providers.

In 2009, Cedefop presented in its first overview over NQF developments in Europe (Cedefop, 2009e), a survey that will be updated regularly. An area within qualifications systems that is in need of exploration is the landscape of qualifications that might be associated with the higher levels of the EQF. In addition to the well-known higher education qualifications, the accreditation of intermediate qualifications and those developed by, for example, professional bodies, is less well known.

Each of these studies provides insights into the ways qualifications systems are structured; some highlight changes that are taking place. We now consider each in turn to explore what they tell us about qualifications systems today, and what trends they identify.

4.2. The dynamics of qualifications: defining and renewing occupational and educational standards

The study describes the current situation in VET standards and stakeholder involvement in 32 European countries. It provides a definition of different conceptions of standards, and handles some of the complexities and ambiguities, particularly when there is ambiguity in the ways inputs and outcomes are used. The study indicates trends, and the formalisation of the roles of key stakeholders, such as employers, in the development, application of standards and in the increasing use of learning outcomes.

4.2.1. Two main types of standards

In general, VET qualifications relate to two main categories of standards: occupational and education-training standards.

Occupational standards are classifications and definitions of the main jobs that people do. Occupational standards should be written as competences and formulated in terms of outcomes. They exist in one way or another in all European countries, but each nation has its own style of derivation and presentation of the standards. An important reason for defining standards is to enable national education and training institutions to develop qualified people skilled in the right areas for the labour market

Standards also serve other purposes, notably:

- (a) qualification design;
- (b) defining 'state of the art' working practices that help companies to modernise;

- (c) shifting the focus of the national labour market into new areas, often services;
- (d) analysis of labour market skills gaps and shortages.

Occupational standards form a bridge between the labour market and education. This means that educational standards – in particular, standards for assessment, syllabuses and pedagogies – can be developed from them.

Education-training standards focus on what people need to learn, how they will learn it, and how the quality and content of learning is assessed. Educational standards are normally written as teaching and qualification specifications, for which the emphasis is usually placed on input (subject, syllabus, teaching methods and process, and assessment). For example, to be a skilled plumber you need to study specific subjects at a certain type of institution for a fixed number of years.

4.2.2. Standards and assessment methods

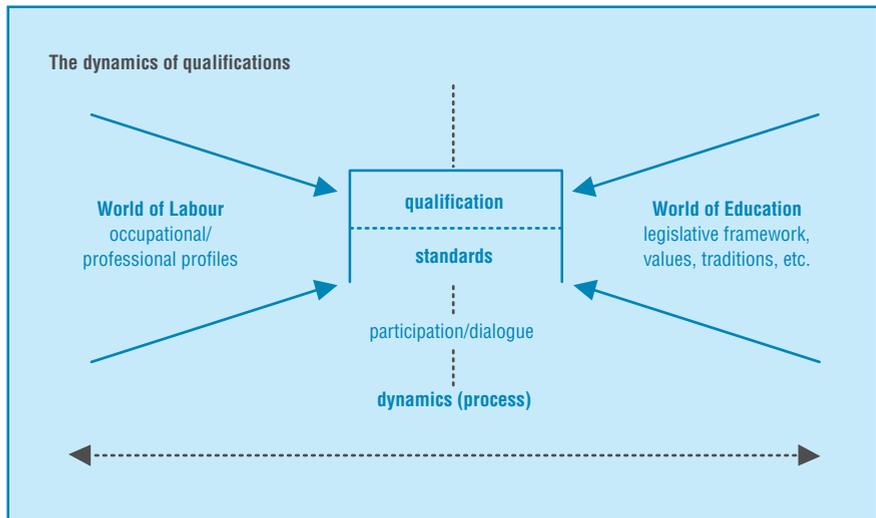
Both kinds of standards link closely to assessment methods: judging whether a person has obtained learning outcomes to a given standard. Assessment methods and systems have developed rapidly over the last decade, not least in opening up the validation of non-formal and informal learning. The degree to which the assessment methods used are influenced by the occupational standards and how they are specified in the education-training standards is critical. How the two types of standards come together as qualification standards and bridge the worlds of work and education is illustrated in Figure 6.

VET qualification standards are the result of interaction between the world of work (embodied by social partners) and the world of education (education professionals, including teachers).

4.2.3. The trend towards occupational standards

There is a clear trend to developing occupational standards. Twenty European countries have occupational standards or are developing them. Currently, five countries classify occupations using occupational standards, and five more use them as a benchmark for assessing competence in work. Thirteen countries link occupational standards with a qualification. Most of these countries already use outcome-based standards, probably because they are better suited to competence assessment. Twelve of the countries studied have no occupational standards.

Figure 6. **The relationship between educational and occupational standards**



4.2.4. Social partner engagement

The participation of social partners in standard-setting procedures is becoming formalised. However, the capacity of different stakeholders to articulate their needs is a major challenge. Formal representation is not sufficient if stakeholders lack the time and resources to feed into the partnership; this is the case particularly in emerging occupations and in sectors comprising small and medium-sized enterprises (SMEs). This lack of capacity may be critical in situations of rapid change.

4.2.5. Responsiveness to the labour market

The use of standards in VET helps to improve the responsiveness of qualification systems to changing labour market needs. This hinges on training specifications (educational standards) that are developed being based on employment requirements (occupational standards). Even where occupational standards exist, they may be poorly handled under the control of teachers through curriculum forming. This may limit both the outcome orientation of teaching and learning, and the assessment of competence.

4.2.6. Modularisation

The report concludes that modularisation is clearly an international trend. Most countries have started to use sets of standards to modularise training and, in some cases, qualifications. However, the report does not clarify whether there are links between modularisation and credit systems.

4.2.7. Ways of defining qualification standards

Stakeholders use a wide variety of methods and information sources to define qualification standards. Whereas some countries have developed their own methodologies, based on clear sets of ideas and principles, others do not give information on their practices, or rely on involvement of experts and practitioners to identify competence requirements. This diversity, combined with poor transparency, may imply a lack of methodological reflection, and raises the question of the quality (and quality assurance) of standards. It also raises the issue of whether peer learning and standards would improve if the various stakeholders adopted a common language at national level and internationally.

4.2.8. Changing qualifications issues

Standards, in whatever form, are central to qualifications systems. The indications are that their use is becoming extensive. The stakeholders responsible for the formulation of standards have to be able to express these in appropriate ways in qualifications systems.

The interaction between educational and occupational standards is critically important. This interaction is probably the most effective way to maximise the relevance of training to the labour market. However, it is difficult to engineer new systems and it is often easier to take a gradual approach by trusting teachers, reviewing occupational standards, and conducting surveys and forecasts of labour market needs. The interaction between the two types of standards demands continuous dialogue. In future, qualifications across the different sectors of education and training will potentially become more efficient if stakeholders use qualifications frameworks and quality assurance processes to support the development of standards.

The standards used in higher and general education are more likely than VET qualifications to be based on provider decisions about content and quality of learning. This difference between use of standards in VET and general education may be refined or blurred by increased use of learning outcomes.

The study indicates that learning outcomes play an increasingly important role in all systems of standards. They have multiple advantages, and this includes opening up training to learners and employers. Learning outcomes can make it easier to link training and competences across all parts of education, and across national borders. Qualifications systems can be seen as a series of mechanisms or controls for translating basic standards into a means of ensuring qualified people of consistently high value for the labour market.

4.3. Linking credit systems and qualifications frameworks: an international comparative analysis

This study explores the relationships between qualifications frameworks and credit systems and their implications for the design and award of qualifications and progression opportunities. In particular, credit offers the possibility of more flexibility for learners and in terms of constructing individualised learning pathways, and through administrative and regulatory arrangements that aid accumulation and transfer of credit. Rather than survey developments across the European Union, the study provides a commentary on issues relating to the design and implementation of systems of credit accumulation and transfer.

4.3.1. What does 'credit' mean?

The study clarifies the distinction between credit arrangements, credit systems and the use of a common credit points convention. It distinguishes between:

- (a) credit transfer arrangements, which are means to enable vertical or horizontal transfer of credit;
- (b) credit accumulation arrangements, which quantify the volume of credit through the accumulation of credit points ⁽⁷¹⁾;
- (c) credit systems that combine rules for accumulating and transferring credit, using an established, systematic approach within a subsystem of education, or across several subsystems.

⁽⁷¹⁾ Even though in certain systems the two concepts are very closely interlinked and are not distinguished (e.g. ECTS).

In its most comprehensive form, a common credit points convention bridges different national qualifications systems. This requires some homogeneity in the design and structure of qualifications, so credit systems are more common at the level of subsystems (whether in higher or general education, or in VET) or within single awarding bodies, such as a ministry, university or large private provider.

How credit arrangements are articulated with learning outcomes and levels – for example through a qualifications framework – depends on the shared concept of qualifications in the particular system. Credit may have a passive or an active function. The passive function uses a common credit points convention to describe existing qualifications in terms of points, levels and volume. In the active function, the credit system of levels, learning outcomes, units and points actively shapes the way in which a qualification is designed and how the learner achieves it.

4.3.2. Potential benefits from combining qualifications frameworks with credit arrangements

Evaluations of the impact of qualifications frameworks, specifically in the UK and South Africa, point to long timescales in moving from publication of a framework (output) through a stage of use by institutions (effects) to benefit for end users such as learners and employers (impact). Even NQFs with modest objectives take time before the wider stakeholders can use the framework confidently to navigate the complexity of qualifications systems. This process is likely to take even longer – and be more complex – if the frameworks are ambitious and incorporate, in particular, credit accumulation and transfer arrangements.

The number and diversity of interests of the stakeholders also makes the translation of qualifications frameworks and credit arrangements into flexible opportunities for learners a challenge. Frameworks and credit arrangements have the potential to support flexible opportunities, but this does not necessarily mean that education and training institutions will use them in practice, nor that learner demand for flexibility will increase.

The study identifies these specific benefits.

4.3.3. Making systems more open and flexible

Qualifications frameworks and credit arrangements provide opportunities for learners to have greater flexibility, but in practice this depends on a

number of other factors such as learners' awareness and incentives to participate, financing mechanisms and the capability of learning providers to make the system work.

The operating mechanisms for frameworks to enhance flexibility vary. Qualifications frameworks operate through classification of qualifications according to certain criteria (levels based on level descriptors, typically based on learning outcomes). Frameworks are managed in one or several registers (or catalogues), thus showing how qualifications from different subsystems are related. Credit arrangements enable learning outcomes achieved in different institutions, learning contexts and systems, or over a period of time, to be used cumulatively towards achievement of a qualification.

4.3.4. Influencing qualifications design

Credit arrangements regulate how the learner accumulates credits or points to build achievement of a qualification. An important judgement is the extent to which a credit system, as it is introduced, is to be more or less restrictive with regard to the design of qualifications in the different education and training subsystems.

4.3.5. Supporting transfer, accumulation and progression

Accumulation and transfer of credit, and progression, are not necessarily interrelated. The study emphasises that current quantitative evidence for credit transfer is limited; actual demand remains unclear. The study concludes that individuals' increased use of flexible learning paths, once the qualification system has become more flexible, calls for activities to inform and motivate individuals to use them, as well as the incentives for education and training providers to promote them.

Qualifications frameworks may be used to define more flexible entry criteria to programmes. While such measures can reduce formal barriers to progression, much depends on the extent to which education and training institutions are seeking to increase their allocation of non-traditional learners.

The use of units, in combination with the use of levels, can enable awarding bodies to design learning pathways with multiple entry and exit points. This means that learners can have credit from lower levels recognised, but also that they can exit at different points with qualifications at different levels (i.e. if they decide to leave earlier they will have a lower level qualification). It also means that learners can enter the pathway at different points provided they have the necessary prerequisites or that they undergo some additional learning. An important means of aiding

credit accumulation and transfer is the use of common units (i.e. the same unit is used to contribute to several qualifications) or the identification of equivalence between units (i.e. the units are not the same but acceptable as equivalent).

4.3.6. Integration of NQFs and credit arrangements

The study observes two main approaches. In the first, NQF and credit arrangements are used jointly to classify qualifications. The qualifications framework uses, in addition to the structure of levels, the dimension of volume of learning to classify qualifications. A common credit points convention is used to label each qualification with a number of credit points which express the size of the qualification.

In the second approach, the two instruments are integrated to enhance credit transfer and accumulation. This typically means requiring that all qualifications are based on units or modules and that the rules on how these are accumulated and how they can be transferred are specified. It may also be a requirement to specify how a qualification relates to other qualifications in the framework. A framework which integrates credit in this way requires more detailed administration; information about level of learning outcomes and volume of learning, as well as issues such as assessment, need to be verified for each unit/module and not only for each qualification.

The study shows that the perspectives of stakeholders on the two instruments are different. While qualifications frameworks require some sort of centralised management and administration, most of the current credit arrangements are local, based on partnerships with high trust, and operating within broad national rules. The stakeholders with greatest direct interest in credit arrangements are learners and education and training providers; they are less directly interested in aspects of the classification of qualifications through frameworks. This aspect is mainly an issue of concern for employers and awarding bodies, and for government agencies that regulate qualifications.

4.3.7. Governance

The study concludes that the larger the number and the greater the breadth of stakeholders involved in introducing and maintaining a qualifications framework, or developing and using fully developed credit systems, the more detailed the guidelines tend to be. Consequently, there is a marked need for an authoritative governance structure, or structures, working through partnership. The feasibility of such approaches needs to be carefully

examined in each specific context. The governance of credit arrangements, conventions and systems all call for a range of decisions and mechanisms. To be effective, governance arrangements should be closely related to the existing divisions of powers and responsibilities in the system. Moving towards centralised governance of credit arrangements through credit systems is likely to be problematic in highly decentralised systems. The more centralised the system, the more readily it can take and implement a policy decision to adopt the credit accumulation and transfer approach.

4.3.8. Changing qualifications issues

The report shows that qualifications frameworks are generally more prominent and operate at higher levels in the system than credit arrangements, and that the latter can be as simple as some bilateral agreements between institutions. The predominantly localised use of credit makes it difficult to form judgements about the extent of the use of credit arrangements overall, and to estimate whether their use is growing significantly.

The need to achieve lifelong learning demands that qualifications systems become more flexible. The report shows that frameworks and credit arrangements are significant tools for delivering this flexibility. However, the relative lack of fully developed national systems of credit accumulation and transfer, compared to more localised and bottom-up systems, means that there is still a lack of reliable national experience to learn from.

The study brings to light a need to define more clearly what flexibility means in practice for learners, providers and employers, and to define more precisely how qualifications frameworks and credit arrangements can support flexibility.

As qualifications systems seek to become more innovative and, at the same time, are becoming more complex, developing effective administrative arrangements becomes challenging. This is irrespective of whether these are to be within or associated with ministries, or independent umbrella or apex agencies, or new agencies. How can these administrative arrangements enable, rather than hinder, innovation and the development of flexible learning and qualification?

It seems that flexibility provided through credit systems that are built on the platforms provided by qualifications frameworks can potentially create conditions for innovation in qualifications systems. Is it possible to envisage, for example, new ways of extending the validation and certification of non-formal and informal learning? Similarly, credits may provide a means

of flexibility as more learners seek to cross entrenched institutional or qualifications boundaries.

4.4. Sectoral qualifications and how they are evolving in relation to the EQF

The EQF is intended to be a meta-framework that spans NQFs and other qualifications and frameworks in national settings. In theory, qualifications frameworks based in business sectors can also relate to the EQF. However, this raises significant issues to resolve before the stakeholders at national, employment sector and European level can be comfortable with the procedures for referencing to the EQF, and satisfied with the results. Resolving some specific issues is a prerequisite for achieving the level of trust and applicability on which EQF success depends. This study aimed to review a range of current sectoral initiatives and initiate a high-trust process based on effective and transparent referencing of employment sector qualifications and frameworks to the EQF.

4.4.1. Research questions and objectives

The research addresses the following questions:

- is there a need, triggered by the development of qualifications outside the national systems or frameworks, to turn the EQF into a reference point for independent qualifications awarded by sectors and companies?
- what is required, in terms of mechanisms to generate and enhance mutual trust, to develop the EQF into a common meta-framework for all the qualifications, including those awarded outside national systems and frameworks?

The study considers developments in construction, personal services (specifically, hairdressing), automotive, transport (specifically, sea transport), ICT, financial services, logistics, retail trade and tourism. The study covers these sectors in depth and contains extensive information about how qualifications reflect the particular circumstances of the sector or industry.

4.4.2. Diverse practice that the EQF might support

The analysis confirms the range of differences between the sectors that the study covers, and also a trend to internationalisation of qualifications in these sectors. The conclusion is reached that sectoral frameworks could

gain value from referencing to the EQF, especially when the range of sectoral qualifications is widest. The EQF could respond to the complexity and range of sectoral qualifications and frameworks by making the relationships more transparent. The resulting transparency could help to make sectoral qualifications more coherent, and to overcome duplications in the qualifications available.

The study analysis suggests that this objective can be pursued by linking sectoral frameworks directly to the EQF, and indirectly through national qualification frameworks (NQFs). Employers can be motivated to engage in this process, because enterprise has the incentive to establish best practice, particularly if there is a cost benefit. The report suggests that companies will also be able to capitalise on the competence of employees if a sectoral qualification underpins lifelong learning to support worker' flexibility and mobility, through linking to the EQF. These are rather broad conclusions, which cannot yet be verified empirically.

4.4.3. Referencing to the EQF through NQFs

The study identified sectoral qualifications that are couched within national education and training systems and others developed outside national systems, and managed by non-traditional education and training actors. In some countries it is already clear that – independently of the sector in question – qualifications will have to be included in the national qualifications framework to be linked to the EQF; in others some company-based qualifications are seen as complementary to and outside the national qualifications framework.

4.4.4. Sectoral frameworks

The study identified several major trends concerning the need for sectoral frameworks, the methods used for referencing and the approaches to using learning outcomes. In some cases a framework is needed to manage the high degree of heterogeneity in a particular sector across EU Member States. In other cases, it enables fine-tuning of broad descriptors to make them operational at the local level, for example in classifying occupations and planning training courses, qualifications, and career paths.

Where referencing focused mainly on qualifications belonging to national systems, there was less evidence of the need to develop a sectoral framework. In contrast, a strong interest in linking 'external' sectoral frameworks to national systems can be observed. Referencing is often achieved by referring to broad descriptors derived from professional tasks, duties and expectations, and not necessarily by reference to all the

EQF categories. Quality assurance is generally only taken into account superficially (as in the application of the sectoral framework for the construction industry) or not at all (as in the case of the transport sector).

There is a marked need for sectoral frameworks covering qualifications developed outside traditional formal education channels managed by public authorities. Sectoral qualifications frameworks follow two models:

- (a) ‘catalogues’ of qualifications. These aim to cover working and learning conditions, making the link with occupations and job profiles specific. They refer to current qualifications used in the sector;
- (b) competence frameworks covering the skills needed in jobs in the sector.

The emergence of sector- or company-based solutions may be a response to the following needs:

- (a) to increase the labour market relevance of qualifications;
- (b) to provide training and qualifications tailored to the specific needs of the sectors or the companies;
- (c) to increase transparency of qualifications and of mutual recognition of certificates, supporting worker mobility and improving opportunities for lifelong learning;
- (d) to support transfer of qualifications and competences (between countries, enterprises, occupations, tasks, levels) and to develop systems of establishing and assessing learning outcomes, including non-formal learning;
- (e) for making visible transversal knowledge, skills and competence.

4.4.5. Concerns of national authorities

Many national education and training authorities are concerned that the development and promotion of qualifications at sector/company and (in particular) international level will reduce transparency, threaten quality and generally undermine mutual trust towards qualifications. Some stakeholders fear that linking these qualifications to the EQF will create a false image of reliability and trust. Sectoral organisations and associations argue that the rapid changes in markets and technology require more flexible and tailored solutions that serve the needs of individuals and enterprises better.

4.4.6. Changing qualifications issues

The study points to diversity in sectoral activities related to qualifications. This is an expected result of traditions of tailoring qualifications arrangements to the specificities of each sector. This aspect poses serious questions:

- (a) if we can assume that the tailoring of qualifications systems leads to labour market relevance and valued qualifications, then is the creation of the EQF a threat to responsiveness?
- (b) if not, where is the limit to internationalisation of sectoral qualifications, if it is not to be over-restrictive?

The stakeholders engaged in this study agree that lack of transparency and trust is a problem today. EQF is seen as part of a future solution, but tensions have to be addressed and a careful balance between European and more local dimensions has to be achieved.

The study's conclusion that there is a lack of explicit quality assurance arrangements has implications. If there is to be improved value and trust in sectoral qualifications, quality assurance, which is at best implicit or superficial, will need to be made more transparent.

There is an apparent expansion of sectoral qualifications frameworks, although it is not clear from the study how these frameworks are formed. Yet the set of needs that they are possibly meeting are clearly important. It appears that a number of the issues connecting sectoral frameworks with the EQF remain to be resolved.

4.5. Regular surveys of NQF development

Reflecting the increased importance of national qualifications frameworks, Cedefop decided in 2009 to initiate regular mapping and analysis of these developments. This activity covers the 27 members of the EU, the two candidate countries to the EU (Croatia and Turkey) plus Iceland and Norway. The two reports finalised so far (Cedefop, 2009e; Cedefop, 2010d) confirm the importance and priority attributed to NQFs across Europe. While this can be partly explained by the pressure imposed by the EQF and its 2010 and 2012 deadlines ⁽⁷²⁾, countries increasingly tend to see NQFs as key instruments influencing national policies and reforms in education, training and employment.

4.5.1. NQFs with a lifelong learning perspective

All the countries covered by the reports aim to develop and introduce a national qualifications framework for lifelong learning responding to the

⁽⁷²⁾ Countries are invited to refer their national qualifications levels to the EQF by 2010 and to introduce an explicit reference to EQF levels in their certificates and diploma by 2012.

EQF. Most of these countries aim for comprehensive frameworks covering all levels and types of qualifications and seeking stronger integration. This is significant as it shows increased attention to the overall coherence and permeability of education and training systems and their ability to promote lifelong and lifewide learning. The emerging NQFs reflect the national systems they are supposed to operate within. While differences in specific objectives and design features are seen, it is generally accepted that frameworks should introduce an explicit set of qualifications levels and level descriptors, that they must reflect the learning outcomes approach and that a broad range of stakeholders – from education, training and employment – must be involved.

4.5.2. NQFs at different stages

The analysis shows that countries have reached different stages of development and implementation. An increasing number are now moving from early conceptualisation and design to stakeholder consultations and advanced testing of their frameworks. In some cases (for example Belgium Flanders, Estonia, Lithuania and Portugal) formal adoption has been achieved. Those countries with already established frameworks (Ireland, France, UK) have carried out reviews or are in the process. The recent external evaluation of the Irish Framework (Collins et al., 2009) draws attention to the long-term challenges involved in the practical implementation of frameworks. The 2010 report pays particular attention to the relationships between the NQFs for lifelong learning (developed in response to the EQF) and the qualifications frameworks for higher education (developed in response to the Qualifications framework for European higher education area in the Bologna process). This relationship is at the core of the development of comprehensive frameworks and requires clarification and sometimes redefinition of the borderlines between existing education and training subsystems (and stakeholders). The sometimes tense discussions on the relationship between VET and HE remind us that the success of NQFs depends on their ability to involve stakeholders and to address conflicts of interest. The analysis shows that the involvement of stakeholders varies between countries. If a significant number of countries establish 'pro forma' frameworks only loosely connected to existing systems and practices this could undermine current positive developments. Overall, there is national momentum in the development of NQFs; whether this can be sustained and strengthened depends on the involvement of stakeholders and the extent to which they see the added value of the NQFs.

4.5.3. Changing qualifications issues

The rapid development of NQFs, as documented in the Cedefop studies, may come to change the way countries view their qualification systems. While most cases are still at an early stage of development, NQFs are now becoming influential in several ways:

- (a) having emerged in response to the EQF, the new NQFs signal openness to international dialogue and cooperation on qualifications to a degree not seen before. While the efficiency of this voluntary approach still needs to be proven, in particular in terms of promoting increased mutual trust between countries and systems, the rapid development of the EQF and its corresponding NQFs signal that internationalisation of qualifications is now seen as a reality which has to be dealt with;
- (b) they promote the learning outcomes approach in a more systematic way than previously observed, in particular by introducing similar principles and criteria for defining and describing qualifications across levels and types of education and training. On a long-term basis this could result in more coherent qualifications, but it also raises the question of whether a 'one-fit-for-all approach' could have negative consequences;
- (c) they challenge existing dividing lines between education and training subsystems and their qualifications. This is particularly evident in relation to higher education, where NQFs now tend to open up towards higher level qualifications (6-8 of EQF) outside universities;
- (d) the rapid development of NQFs raises serious questions about their sustainability. While European development has been externally driven by the EQF to a degree, the coming years will illustrate the extent to which NQFs will influence the national qualifications agenda and whether they are able to take on a role as instruments for reform.

4.6. The relationship between quality assurance and certification of VET

The overall objective of this study was to identify similarities and differences between countries in quality assurance of certification and to use this to reflect on the feasibility of a set of common European quality principles in certification. The project built a picture of quality assurance in certification, offering conceptual clarification of what is involved in the process.

The study suggests six stages of quality assurance within the certification process:

- (a) design of assessment: regulations and guidelines for standards; assessment methods; validity and reliability;
- (b) delivery of assessment: requirements or guidelines that govern conditions for assessment to be undertaken, such as use of internal/external examination centres, presence of external parties;
- (c) design of validation: regulation or guidelines of how validation is organised;
- (d) delivery of validation: regulation and accepted practice regarding when and by whom validation is done;
- (e) design of recognition: rules that regulate or advise on the recognition process, such as the validation committee or the conduct of the awarding body;
- (f) delivery of recognition: rules concerning who can deliver recognition and award a qualification, such as the accreditation of providers, or appointment of awarding bodies.

The study offers insights into the quality process for each stage. For example, for assessment, a range of approaches are observed and classified (see Table 4).

4.6.1. Actors in the quality processes

Most VET systems work with a range of actors responsible for undertaking quality processes. These include governmental departments that are likely to formulate overall policy and strategy, oversight and monitoring agencies,

Table 4. Quality assurance and validation processes

Quality assurance	
Use of centrally set standards to define assessment criteria	Monitoring or evaluation of assessments
Centrally defined assessment methods	Systematic training of assessors (including teachers who undertake assessment)
Centrally defined assessment specifications	Approval of assessment design by competent body
External examination centres	Regulation of assessment processes regarding, not their content, but their process
External examiners	Description of assessment methods as part of accreditation criteria
Assessment committees with external actors	
Multiple assessors	
Inspection of assessment	
Validation	
Validation stage is independent from the assessment stage	
Validation committees with participation of different parties	
Centrally organised validation	
Centrally set evaluation grids/ grading keys or criteria to grade performance	
Weak criterion referencing	

awarding bodies, education and training providers, examiners, and the individual learner who undertakes the qualification, usually with a goal in mind. Alongside these actors, often involved in the various stages, are stakeholders such as employers and trades unions. How the responsibilities for the quality assurance of certification processes are divided between the various actors is one of the key differences between the national systems for VET covered in the study.

Three broad models of quality assurance are distinguished: the prescriptive model, the cooperative model and the self-regulated model (see Table 5).

Table 5. **Three models of quality assurance**

The prescriptive model

In the prescriptive model, assessment methods are centralised. They are designed and specified by one awarding authority. This same body is responsible for the marking the assessment, quality assurance, validation and awarding a certificate. The education provider, while potentially having a great deal of responsibility in other important areas such as teaching, mentoring and curriculum development, is little more than a conduit between the individual learner and the awarding body in the assessment and certification.

The cooperative model

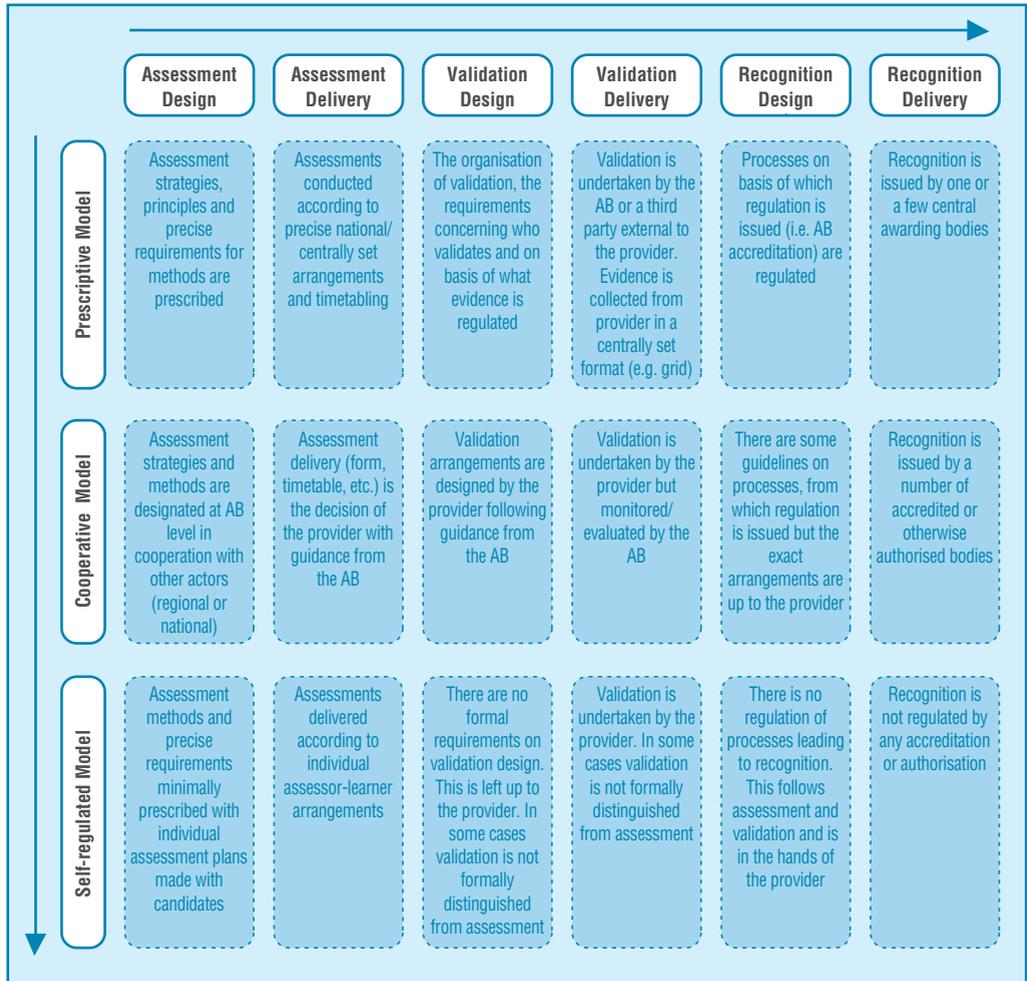
In the cooperative model, awarding bodies retain the responsibility of designing assessment criteria and broad methodological boundaries, while decisions concerning the exact form and content of the assessments used for VET qualifications are left to providers. The providers may also be responsible for conducting the marking or even grading of the examinations, but this responsibility is closely supervised by the awarding body. Providers may have to submit their decisions to scrutiny, or remain within certain guidelines. The ultimate responsibility for ensuring the certification quality lies with an external agency. The model essentially relies on mutual cooperation and trust, both in formulating practices and in undertaking them.

The self-regulated model

In the self-regulated model the VET provider designs and undertakes assessment validation, and is also the awarder of the qualification certificates. The provider takes on the responsibility of quality assuring all aspects of the certification process itself, without deferring to any higher government ministry or agency.

The study helpfully summarises the intersection between the six stages and these three kinds of stakeholder involvement, and this is reproduced in Figure 7. It also illustrates the quality processes associated with recognition.

Figure 7. A summary of quality assurance process and models of regulation



NB: AB= awarding body

4.6.2. From implicit to explicit standards

In some countries assessment standards remain implicit. Making these standards explicit is an opportunity to strengthen the reliability and the validity of assessment across the country's system. Explicit standards are a sound reference for quality assurance: it is easier for the institutions and actors concerned to judge whether the assessment process is reliable and

valid. Further, the shift to learning outcomes in the design of qualifications standards, and consequently in assessment practices, is part of the process of making standards explicit. This may improve relevance for the labour market and also for society of criteria against which learners are assessed.

Making standards explicit also brings some consistency as the tendency towards more autonomy of VET providers ⁽⁷³⁾ develops and increases the possibilities for providers to adapt the assessment to learner needs and to available resources. It becomes even more important to ensure, through quality assurance requirements and guidelines, that the standards against which learners are assessed are applied consistently across the country or qualification system.

4.6.3. National qualifications frameworks as an organiser

The development of qualification frameworks offers the opportunity to strengthen quality assurance in VET and sectoral qualifications. Current quality assurance (QA) processes can be strengthened by ensuring that VET and sectoral qualifications are referenced to the qualifications framework. For continuing training (CVET), the development of NQFs and of learning outcomes-based standards may improve quality by encouraging the process of making explicit the standards that are currently often implicit in these areas.

4.6.4. The trend to regulation of quality assurance

Achieving consistent application of standards in all aspects of the quality process relies on two dimensions:

- regulation and binding guidelines, in processes such as who has to participate in an assessment; what assessment methods to use; what assessment criteria to use, etc.;
- trust and autonomy, in the competence and experience of the actors and agencies involved.

The combination of the level of regulation and the extent of autonomy varies from country to country. There is a tendency for countries that traditionally place emphasis on autonomy to introduce stronger regulation in certain aspects of assessment, while countries that traditionally place emphasis on centralised regulation show no tendency to extend aspects of autonomy.

⁽⁷³⁾ Eurydice (2008) describes how schools and teachers are increasingly gaining new responsibilities across Europe. Though this publication describes the situation in general education, the situation in initial vocational education and training (IVET) is similar to that of general upper-secondary education in many countries.

4.6.5. Changing qualifications issues

In all the quality processes explored, standards are of central importance; this is consistent with other indications that these standards are expanding in importance and coverage. There seems to be a trend towards quality assured provision in assessing and certifying qualifications.

The study also highlights the expanding role of NQFs in quality processes. The expansion in the number of NQFs is evident elsewhere, but what is not clear is whether these new frameworks are an opportunity to improve quality assurance, or whether they have been designed to carry this function.

The use of NQFs as a quality tool gives an indication of a centralising tendency for quality assurance processes. This trend is clear in the report and in other evidence. With autonomous QA systems there is high investment in teachers.

To what extent is the establishing of a central quality body (a regulator) an efficient way of dealing with the various tasks: is there economy of scale? The study has provided evidence of an expansion of the number of bodies carrying a quality assurance role.

It seems that national differences in quality assurance across Europe, at least for VET qualifications, are significant. Are existing arrangements a barrier to change?

4.7. The shift to learning outcomes: policies and practice in Europe

Trends in education and training policies and practices show that European countries are increasingly referring to learning outcomes when setting overall objectives for education and training systems and when defining and describing qualifications. As well as continuing to focus on input factors like the duration, location and particular pedagogical methods underpinning a qualification, attention is increasingly directed towards what a learner is expected to know, understand and is able to do at the end of a learning process. This tendency is clearly reflected at European level where cooperation in education and training has increasingly adopted the learning outcomes approach as a defining principle. All the European instruments and principles currently being developed and implemented – notably the EQF, ECVET and the level of attention now being paid to key competences – are based on this approach.

The study shows that learning outcomes, however defined, are increasingly the basis of standards, curricula, assessment criteria and NQF descriptors. The trend of increasing use provides a rationale for making this shift central to discussions of changes (now and into the future) in parts of the qualifications system.

Learning outcomes feature as a component of lifelong learning strategies and are required to perform multiple functions in national education and training systems: recognition of prior learning, the awarding of credit, quality, learning plans, key competences for life, credibility for employers. They are also involved in modernising the governance of education and training as systems are reformed to encompass lifelong learning, and expected to be accountable for the high levels of public funding invested.

Expectations raised by the learning outcomes approach high. Many see the shift as:

- (a) an opportunity to tailor education and training to individual needs (to promote ‘active learning’);
- (b) a way of reducing barriers to lifelong learning;
- (c) a way to increase the accountability of education and training institutions and systems;
- (d) elements of a common language enabling better dialogue between education and labour market stakeholders.

4.7.1. Moving towards practice

The study allows us to look at whether these expectations are the basis for policy implementation and whether actual change is leading to benefits for stakeholders. The shift to learning outcomes can be summarised as follows.

4.7.1.1. General education

Increasingly, learning outcomes are being introduced as a guiding mechanism to inform general education reforms. The emphasis is on defining learning outcomes to shape the learner’s experience, rather than giving primacy to the content of the subjects that make up the curriculum. Learning outcomes are being used in a range of countries to point the way to modernising schooling systems, acting as a renewing and reforming influence at different levels: governance, systemic reform, curriculum, pedagogy and assessment.

4.7.1.2. *Vocational education and training*

The drive to redefine qualifications and curricula using learning outcomes has been most clearly seen in VET. Programmes of study and the mix of school- and work-based learning are now focused increasingly on the learning outcomes called for in society and in working life. The clear point of reference is the kinds of skills that are required for success in working life.

4.7.1.3. *Post-compulsory general education*

Across Europe, the post-compulsory phase of general education is the part of the education system that has been least influenced by reforming ideas about learning outcomes. This is largely because, while upper-secondary general education has an educative function, this can be overshadowed by the selective function. A consequence is that general upper-secondary education remains closely tied in many – though not all – cases to detailed curriculum or syllabus requirements, often assessed by final written examination, and closely fitting the entry requirements of higher education. If learning outcomes begin to have a formative impact on university curricula and pedagogies, this may then have a consequential effect on the curriculum, pedagogy and assessment in upper-secondary general education.

4.7.1.4. *Higher education*

Learning outcomes also have an increasingly prominent role in higher education. However, the evidence is that the learning outcomes approach, on which there is broad agreement at the European policy level and often also in Member States, is being adopted more slowly in higher education institutions. The agreed formulations of generic and specialist competences, as they are called, are only gradually being introduced to reformed higher education courses and modules. Even if progress is slow, the learning outcomes perspective may point towards a major shift in the reform of higher education teaching and learning in the longer term.

4.7.2. **A fit-for-purpose tool**

It is claimed that most European countries are planning to use or already using learning outcomes. However, the applications are diverse and specific to one or more of the contexts described above. A key point made in the study is that it is important, when considering the role of learning outcomes, that reforms should be fit-for-purpose. There is danger in seeing learning outcomes as a universal tool that can be used unreflectively in multiple settings.

4.7.3. A range of applications

Learning outcomes are prominent in the development of national qualification frameworks in Europe. Here, the identification of learning outcomes can be an organising factor to make explicit the achievements of a wide range of learners, irrespective of the types or modes or duration of learning and training undertaken.

Growing priority is being given to recognising informal and non-formal learning in many European education and training systems. This is supported both by the increasing use of learning outcomes and attempts to make qualification systems more coherent and more legible.

It might be expected that learning outcomes will have an impact on assessment methods. However, the evidence gathered for this report suggests that learning outcomes currently have limited impact on the ways in which learning is assessed.

Learning outcomes are used as one way of driving efficiencies, evaluating the effectiveness of national education systems and sectors, and permitting a move away from time-based programmes. It is often argued that, if the intended learning outcomes and objectives of a programme of study are clear, this opens the way for schools, teachers and learners to be more flexible about how to achieve the identified outcomes.

4.7.4. Changing qualifications issues

The study highlights a significant trend in the use of learning outcomes, though some of the actions are still at the planning stage. The question arises about the implications of this trend for aspects of the qualifications system and the users of the systems. It is clear that transparency and explicit standards will have significant effects on such features as coherence, progression, permeability, quality assurance and the currency of qualifications. They will also affect the work of stakeholders such as those that design and use standards and teachers that design curricula, teach and assess learning.

The lack of impact of learning outcomes on assessment needs to be understood. Is it that the assessment system carries with it qualities (such as consistency of standards over time) that make change problematic? Is it the case that assessors (often teachers) need to be trained to use learning outcomes in assessment in consistent ways? If so, this is a significant barrier to implementation.

A key point made in the report is that learning outcomes are often strongly linked to a lifelong learning agenda through the personalisation of curricula

and qualifications. This personalisation is perhaps another manifestation of the need for the qualifications system to be flexible. Is it therefore the case that the shift to learning outcomes will have a strong influence on achieving more lifelong learning?

The report suggests the move towards learning outcomes needs to be kept in balance with the continuing importance of input aspects. The following are important considerations:

- (a) programme and teaching specifications can be supplemented with outcome information (as in the Bologna process);
- (b) competence-based qualifications can be structured around inputs;
- (c) assessment/evaluation methods can use both inputs (completion of programmes) and outcomes (objective assessments);
- (d) recruitment and selection practices can use both input and outcome information.

4.8. Learning outcomes approaches in VET curricula: a comparative analysis of nine European countries

This study (Cedefop, 2010c) focuses on the interrelationship between standards – particularly standards based on learning outcomes – curricula, assessment and qualifications, specifically in VET. This Cedefop study is especially useful for examining learning outcomes and curricula, since literature on the use of learning outcome approaches on curricula and learning programmes in vocational education and training is scarce and mainly rooted in national contexts.

The study points out that, in some countries, it is difficult to distinguish between curricula, standards and qualification. Therefore, it is important to identify patterns of change in curricula and to identify how these changes might have a significant impact on qualifications systems. In countries where training curricula constitute the standards, and where completion of programmes leads to qualification, it is worthwhile to identify the expected learning outcomes from such a programme. These may be explicit, implicit or, in some cases, absent. However, qualifications that are described by learning outcomes may, by design, be more distant from institutions, programmes and pedagogies.

4.8.1. VET curriculum reform

VET curricula are being reformed across Europe. The empirical research shows that the nine countries examined in this project are currently, or have been recently been, engaged in curriculum reforms in VET and, emphasis is being placed on learning outcomes. Two main trends are evident (Braslavsky, 2001):

- enrichment: the parameters addressed by VET curricula are increasing. Curricula are becoming policy instruments to meet the goals of a wider range of stakeholders. Accordingly, recent curriculum reforms have been accompanied in a number of countries by consultations and debates on the values and goals of VET;
- increased flexibility: learning outcomes being used as key instruments for organising new or individualised learning pathways, which are often based on modularisation and increasing levels of autonomy for teachers.

These trends can be observed to different degrees in all countries under scrutiny. However, there are differences in the balance between input and outcomes and between the understandings of learning outcomes. These differences can partly be traced back to the aims of curriculum reforms and the particular national context, with underpinning ideas and beliefs about learning.

4.8.2. A broadening concept

While the notion of curriculum is still a basis of different ideas and understanding (Braslavsky, 2001), the concept of curriculum has become broader. The concept has changed from being embodied in a static document indicating the subject knowledge to be acquired at the completion of an academic year, towards a dynamic and comprehensive framework embracing occupational standards and defining learning outcomes, assessment procedures and teaching and training methods. This development explains why there is little current agreement on where curriculum matters end and where the rest of education, learning and training begin. There is, however, a broad consensus that curricula contribute to quality and relevance of education and training provision. Qualifications, in turn, contribute to curriculum relevance and draw on curricula for currency among users.

4.8.3. A diversity of teaching methods

It might be expected that the use of learning outcomes to define curricula would reduce the scope for teachers to experiment with different pedagogies

to improve learning. However, the study observes increasing importance granted to these aspects in most curricula, resulting in the publication of detailed guidance materials for teachers and trainers. Depending on national traditions, changes in teaching methods are initiated via support and projects based on local initiative and voluntary engagement or via regulations and the introduction of compulsory learning arrangements in the curriculum.

Curriculum reforms included change and adaptation of teaching and learning methods. Active learning is promoted in all countries as an essential element of competence-based curricula. Generally, the new forms of teaching and learning in VET aim for better combination of theoretical and practical learning and greater involvement and activation of the learners in the learning process. However, empirical research demonstrates that there might be sometimes a huge gap between the written and the taught curriculum.

4.8.4. Competence and professional profiles

In some countries, debates about the concept of ‘competence’ have led to a consensus about several dimensions of competence which should impact on curricula (and therefore on qualification). For example competence might be expected to have these dimensions (Houchot and Robine, 2007):

- (a) transversality: competences are not bound to one specific academic discipline and they concern various situations;
- (b) contextualisation/decontextualisation: competences must be developed and evaluated in situations as close as possible to real life;
- (c) complexity: tasks and situations requiring competences are increasingly complex, requiring individuals to use different resources, such as knowledge, know-how, abilities, attitudes;
- (d) integration: competences integrate various disciplines and aspects (abilities, attitudes, knowledge).

These can be related to the link established in curricula between the professional profile, described in terms of functions and activities, competence standards and associated knowledge.

4.8.5. The shift towards learning outcomes

All the countries in this study have introduced or are in the process of introducing learning outcomes in VET curricula, but that important divergences concerning the definition, the function and the operationalisation exist. Three uses of learning outcomes were identified, defining:

- (a) the overarching goals of education and training;
- (b) the learning outcomes of a whole study programme;
- (c) the learning outcomes of specific units of training.

One of the main arguments in favour of outcome approaches is the flexibility they allow regarding the learning process, putting the learner with his/her individual needs and resources at the centre of the learning process. As a consequence, outcome approaches call for a new role for teachers and trainers. The challenge confronting every country attempting curriculum reform is to provide sufficient support to teachers and trainers to give them the means for implementing it. Comparison of the country studies suggests that this might be the most difficult challenge.

4.8.6. More work-based learning

The transfer to the work context of knowledge and skills acquired in education systems is at the heart of curriculum reforms aiming to transform learning and teaching practices. This is especially to be observed in systems with a tradition of school-based vocational learning. There is a common concern for employability of young people and their transition to the labour market seems to play a role in launching curriculum reforms across Europe. Using learning outcomes supports the cooperation between schools and companies, given that they refer directly to work processes and are therefore better understood in a context of human resource development than content specifications.

4.8.7. European influences are shaping curriculum reforms

The European Union has been an important external driver for curriculum reforms in some of the countries examined in this study. Beyond the influence of the EQF and ECVET in the last few years, which is mainly felt at the level of qualification systems, EU projects and European Social Fund funding have also had an impact on the introduction of outcome-approaches in curricula and teaching practices.

4.8.8. Flexibility and transparency

Providing learning opportunities to all, including people at risk of dropping out of the education system, is seen in some countries as an important driver for outcome-oriented curriculum reforms. The study distinguished between two types of responsiveness: the institutional and the pedagogical-didactical aspects.

The institutional aspect encompasses a set of distinctive features which make the VET system 'demand-driven', meaning that learners have the opportunity to choose the time, the place and the form of learning which best suits their needs. The following curriculum elements were found to be characteristic of demand-driven systems (Grollmann and Rauner, 2007):

- (a) learning is modularised, allowing learners to choose from a set of modules those which are best suited to their needs and preferences;
- (b) qualifications or partial qualifications are offered on different levels;
- (c) workload can be adapted to learners' needs (full-time and part-time training);
- (d) mobility between different training institutions is possible;
- (e) prior learning, be it formal, informal or non-formal, is recognised for the award of qualifications and in provisions concerning entry requirements for training programmes;
- (f) assessment is organised frequently, not just once a year;
- (g) teachers and trainers in schools and companies have a high degree of autonomy to plan learning activities and define learning arrangements according to learner needs.

The country studies indicate the introduction of increasing flexibility in VET systems through more demand-driven curricula. A key aspect of flexibility in VET curricula is modularisation. Modules are units of learning which can be combined with a certain amount of flexibility. In VET, modules tend to replace traditional subjects.

Reforms involving assessment methods in VET qualifications are also observed across all the countries. The range of assessment methods has widened, and a shift is taking place from summative to formative assessment.

4.8.9. Changing governance

The shift to learning outcomes may represent a basic change in governance modes of VET systems. Different strategies to induce this change can be observed in the nine countries in the study. From the country reports it is possible to identify a trend towards greater autonomy of training providers and local authorities in the wake of competence-based curricula reforms. This trend can be linked to a broader context of change in education governance, marked by a tendency to decentralise decision-making in several areas (Karlsen, 2000).

4.8.10. Changing qualifications issues

While the links between curricula and qualifications are well known, the direction of influence is difficult to define. To what extent does curriculum reform stem from changes in what is to be assessed for qualification and to what extent does qualification change to reflect curricular validity?

The study confirms earlier work reporting the strong and important link between curriculum provision (content, assessment, pedagogy) and standards (educational and occupational). It also reminds us that change to qualifications systems is driven by factors that are of the education and training system, not just by the external demands of employers and government strategy: the education and training providers are actors and stakeholders.

A question that has not yet been addressed is how the influence of standards on curricula compares across national boundaries. Specifically, is there convergence or divergence?

The study focuses on curriculum and pedagogy and the links with wider changes in VET systems. Thus it raises issues such as: does quality in curricula depend critically on teachers? How do teachers know they are respecting original definitions of content and standards? What quality assurance is available to them, and appropriate?

Devolving responsibility for curriculum planning to lower levels in the education system raises interesting comparisons with findings in other areas. Is a centralising influence in assessment necessary and, if so, how does this link to developing practices in teaching and learning, which is becoming decentralised?

Permeability and progression are aims in common with those of qualifications system development. Transparency is another commonality. The European influence is a little more difficult to understand beyond funding pressures. The suggestion is that European influences on qualifications systems may be carried forward into curriculum development. Further evidence of this may be found in the work being undertaken through the European Commission on key competences for the school curriculum and lifelong learning.

4.9. Future skill supply in Europe: medium-term forecast up to 2020

In 2009 Cedefop published the first pan-European forecast of its kind (Cedefop, 2009f). Skills supply is a crucial function of VET and vocational qualification is a common proxy for skills and competence in individuals. The findings in the medium-term forecast are therefore of direct relevance to the changing qualifications study. The forecasting report also includes, as a basis for the forecasts, some scenarios. There is much value for the study in the statistics that have been collected and collated. Some general findings follow.

The main finding of the forecast is that the level of qualifications and skills is rising across Europe, particularly among younger people and even more so among women. But inequalities in the level of education persist across Member States. The forecast shows a declining number of people with low qualifications in almost all EU countries and a steady rise in medium (mostly vocational) and high qualifications, both among the labour force and among the general population.

A substantial rise in the number of adults in the labour force with a high level of education (ISCED 5 and 6) is predicted: more than 20 million for the EU-25, equivalent to a 40% increase between 2007 and 2020. The supply of adults with medium-level qualifications (ISCED 3 and 4) that are available to work is also expected to rise over the period. In Europe, many people at this level have graduated from vocationally oriented programmes. An increase of over six million people would imply close to 0.5% average annual growth. Almost all EU countries should expect to see a contraction in their labour force supply of people with low-level qualifications (up to lower-secondary education; ISCED 0 to 2). Overall 17 million fewer adults in this category are expected to be available for work in 2020.

4.9.1. Age-related patterns

Young people, aged 15-24, are projected to experience only moderate increases in high-level qualifications, while the numbers of those with medium- and low-level qualifications are expected to decline. This can be partly attributed to the general decline in the total numbers in these age groups and to the fact that young people are still in the process of acquiring qualifications (hence the slow growth in the number of those with high-level qualifications).

For older age groups (25+) the increase in the numbers with high-level qualifications is much sharper, especially for women. The age group 30-39

is projected to experience some of the biggest increases in high-level qualifications.

The number of people holding medium-level qualifications as their highest level is projected to decline for all groups aged up to 39, but to increase for groups aged 40+. This is an indication of cohort effects as people age and the fact that younger people are nowadays generally better qualified than older people.

The qualification structure of those aged 65 and over also changes substantially with time as the younger cohorts with medium and high-level qualifications move into this group. For example, the number of low-skilled people in this age group is projected to fall to around 49% in 2020, compared to 67% in 2000, and in the labour force (economically active) it is projected to fall to 41% from 63% during the same period. The number of people with a medium-level qualification as their highest level is projected to increase the most.

4.9.2. Changing qualifications issues

The statistics and analyses are important in considering effects of qualifications systems on employment. The study has implications for issues that are dependent on the numbers of qualified people, such as skills shortages, credentialism, over-qualification, currency of qualifications.

The statistics are a point of reference for decisions on future trends in qualifications. It might be possible to illuminate how they will affect the 'stock' module and the 'flow' module.

The statistical use of qualifications data, as in future use of learning-outcome-based measures, is an important issue raised by this report.

4.10. Summary of evidence

The cumulative results of Cedefop studies offer a sound resource for reaching conclusions about change in qualifications systems. However, it must be borne in mind that all the studies covered, except for *The shift to learning outcomes: policies and practices in Europe*, focus on aspects of VET systems and developments; VET is the richest sector in terms of sources used in this chapter. Nevertheless, several of these studies have attempted to discover what the current position is with regard to different elements of qualifications systems. This is a helpful baseline for discussions of change, tracking changes currently taking place. The Cedefop studies

describe and analyse in detail a range of aspects of VET qualification systems today, as well as wider aspects of qualifications systems.

The VET sector is notably active in terms of reforming – attempting to optimise – training and qualifications. Therefore, VET probably has a stronger dynamic of change than exists for the broader use of qualifications across all education and training sectors.

Several of the studies began by sampling a set of countries that would provide insights into the research topic. It is possible that these samples might lead to bias if they are used to generalise trends, in particular because the research design of several of the studies focuses on VET. Nevertheless, Cedefop has extended the range of coverage of some studies to incorporate a wider set of national examples and subsystems of education and training.

The studies identify some important changes, including a clear indication that competence-based approaches to curriculum and qualifications are gaining ground (though at a different pace in the different sectors of education and training); so is outcomes-based assessment, at least in VET. Quality assurance arrangements, like learning outcomes, are impacting in an increasingly important way on different aspects of education and training qualifications and systems. Credit arrangements are developing, perhaps more hesitantly, and are diverse in design and expected functions. National qualifications frameworks are developing in many countries, as are more international sectoral qualifications frameworks.

Referring to the classification of changing aspects of qualifications systems set out in Chapter 2, the Cedefop studies in question suggest the following:

- (a) changes in the conception or meaning of qualifications: VET qualifications, though not necessarily other kinds, are shifting from a conception of what (and where, and for how long) the curriculum entails, to a much sharper idea of the knowledge, skills, attitudes and competences that the learner is intended to acquire. Even so, the idea of what ‘competence’ and ‘competent’ means varies from one national setting and culture, to another:
 - (i) key competences are becoming higher profile and, alongside other approaches based on competences, this is changing the way in which people think about qualifications;
 - (ii) differences in the practices in education sectors, for example in defining the standards by which curricula are developed and

qualifications awarded, will be opened up for examination and those that are fundamental to the sector will need to be agreed by stakeholders and explained to wider publics, for the sake of transparency;

- (b) changes in the drivers that lie behind qualifications and their reform: the studies serve to emphasise that meeting the needs of the labour market, and improving both skills and adaptability levels of citizens, have become prime drivers of qualifications change. This has raised the importance of the stakeholders in the labour markets, the social partners. At the same time, technological, social and demographic drivers remain highly important. Qualifications are intended to engage cohorts of disenchanted or excluded learners, and also to carry quality assurance, so that they remain trusted, and are seen as reliable selectors for high status pathways, such as university entry:
 - (i) it seems likely that stakeholders in qualifications systems, particularly the social partners, will become more involved in the design of qualifications and possibly in playing a part in assessment processes. There are indications that sustained involvement may be limited by their capacity to respond to need;
 - (ii) standards (educational, training/occupational) are now clearly central to qualifications systems. The indications are that their use is broadening and that establishing more transparent approaches to standards through quality assurance is generating other changes in qualifications;
- (c) changes to the purposes and functions of qualifications: the studies show that qualifications continue to perform both economic and social purposes and functions that are important in 21st century European society, providing continuity with developments already happening towards the end of the 20th century, and accelerated in the years 2000 to 2010. Though the form varies, there is perhaps more continuity than change in the basic orientation. Aspects such as the international dimension are growing in importance, though the environment is receiving little attention as a theme in the Cedefop studies and in the wider debates relating to qualifications:
 - (i) the internationalisation of 'qualification levels', which is given impetus through referencing to the EQF, will focus attention on a range of issues related to trusting other stakeholders, such as private qualification providers and national quality assurance systems. The proof of fidelity will need to be explicit and communicated well

- if trust is to be established, and the EQF is to become an important practical point of reference;
- (ii) statistical reporting of achievements in education and training have traditionally been based on participation and completion figures for phases of education. The adoption of learning-outcomes-based frameworks makes it possible for reporting of achievement to be much more accurate in future and responsive to the differential achievement within age cohorts;
 - (iii) tailoring of qualifications systems, which normally leads to more labour market relevance and more highly valued qualifications, may become restricted and inhibited by the need to show an obvious relationship to the EQF;
- (d) changes in the qualification process and procedures: it is clear from the studies that much change is going on in relation to technical aspects of qualification processes and procedures. This includes such aspects as the use of new sets of standards based on clearer ideas of quality management, a shift towards modularised and unitised programmes of study, the growing importance of the validation of informal and non-formal learning, and the use of learning outcomes in the design of qualifications, curricula and smaller units of learning and changes in what is assessed and how the validity of assessment is quality assured. Credit accumulation and transfer seems to be an important, if problematic, element in this picture of changing processes and procedures:
- (i) standards (educational, training/occupational) are clearly central to qualifications systems and the indications are that their use is broadening;
 - (ii) flexibilities in credit systems and the platforms provided by qualifications frameworks can create conditions for innovations within qualifications systems;
 - (iii) the development of NQFs may lead to a centralising tendency for qualifications system management, and regulation of quality assurance;
- (e) creating systems in which most or all citizens become lifelong learners: all the Cedefop studies, indeed the whole of the European Union's approach to collaborative working in education and training, has this theme at its centre, as part of optimising the contribution of education and training to achieving the European economic and social goals. Some of the study conclusions related specifically to the development

of lifelong learning policies and approaches, by identifying both mechanisms and barriers; in other studies this is more implicit:

- (i) the need to achieve lifelong learning demands that qualifications systems become more flexible. NQFs and credit arrangements are, potentially, significant tools to deliver this flexibility. Major changes in recording learner achievement, in the form of a transcript of lifelong learning recognition, are likely and emphasis on validating a wider range of learning outcomes, including the results of informal and non-formal learning, is likely to continue to expand;
- (ii) qualifications are adapting to meet lifelong learning needs, and indications are that rationalising numbers of qualifications and their types is a difficult task. With this in mind and new tools such as learning-outcome-based NQFs available, how can guidance from information, advice and guidance (IAG) professionals be optimised?
- (iii) learning outcomes are often strongly linked to a lifelong learning agenda through the personalisation of curricula and qualifications. This personalisation is perhaps another manifestation of the need for the qualifications system to be flexible. How can more personalised learning agendas be established where qualifications in themselves contain a large volume and are not particularly amenable to becoming more flexible? Is it the case that the shift to learning outcomes or a competence-based approach will have a strong influence on achieving more lifelong learning?

4.10.1. Ideas for further research

The country evidence suggests that more research could be carried out on assessment practices for qualifications of different types in different settings:

- (a) there is a need to understand the benefits of qualifications that are deeply embedded in national qualifications arrangements as opposed to those that adopt some of the emerging international styles (EQF levels, learning outcomes, international standards);
- (b) how do institutions relate to one another in a systematic way to make the award of qualifications? Are there model systems?
- (c) all indications suggest that NQFs evolve as time passes. What kinds of direction are likely in different circumstances? Will some become more comprehensive? Others may evolve to become regulatory NQFs with a shift in quality assurance procedures.

Changes in qualifications and qualifications systems

This chapter presents the main conclusions of the study. It draws on the theoretical understanding outlined in Chapter 1 and uses evidence and conclusions presented in Chapters 2, 3, and 4.

It is clear from theory that qualifications should play an important role for stakeholders and it is clear from the evidence that they do. Individuals use qualifications to signal their personal, social and professional status and it is reasonable to argue that qualifications have a strong influence on a person's life. Employers and recruiters generally use qualifications as proxies for knowledge, skills and wider competence and particularly value initial qualifications with labour market currency awarded at the outset of a person's career. To an extent the labour market interacts with education and training through the medium of qualifications. Providers of education and training use qualifications as a measure of output and as a measure of the quality of institutional performance. Increasingly, policy-makers are viewing qualifications and qualifications systems as tools for wider reforms.

5.1. Qualifications systems, qualifications and change

To award a qualification requires a range of operations and interactions of institutions and stakeholder groups. These systems can take many forms and some can appear more systematic than others. The OECD (2007) defined qualifications systems ⁽⁷⁴⁾ as:

⁽⁷⁴⁾ The EQF Recommendation uses this definition (European Parliament; Council of the European Union, 2008).

‘including all aspects of a country’s activity that result in the recognition of learning. These systems include the means of developing and operationalising national or regional policy on qualifications, institutional arrangements, quality assurance processes, assessment and awarding processes, skills recognition and other mechanisms that link education and training to the labour market and civil society. Qualifications systems may be more or less integrated and coherent. One feature of a qualifications system may be an explicit framework of qualifications.’

The main implication for this study of such an inclusive definition is that diversity within qualifications systems makes it difficult to generalise and argues against a model type of qualifications system. A second implication is that change in a qualification or qualification type needs to be seen in the context of the system that generates it. However, it is clear that qualifications determine the shape and functions of qualifications systems. For example it is accepted that for an employment sector qualification, the social partners, especially employers, need to be involved in specifying the competences to be attested by the qualification. Similarly if a qualification has ‘national’ status there needs to be high-level national endorsement of the assessment and awarding process. It is normally the case that institutions in charge of designing qualifications also determine the recognition/value of the qualification, giving it societal status and representation. This aspect is important and explains why some qualifications have a higher hierarchical value in some societies than others. A qualifications system and the qualifications within it are in dynamic equilibrium with shifts of influence from one to the other.

It is easy to gain the impression that change (modernisation) is a necessary and common part of qualifications systems and evolution needs to be accelerated whenever possible to respond to the needs of individuals, the economy and society. However, it is also the case that some see stability as a desirable goal that allows qualifications within the system to be embedded in cultures and become established as a measure of social standing.

Thus there is danger of confusing change in qualifications (as awards to individuals that meet certain standards), with changes in qualifications systems that might, for example, be aiming towards a greater inclusiveness of social partners or a more efficient set of awarding operations. Both qualifications and qualifications systems are important for this study, since each shapes the other.

5.2. Typologies of change

Qualifications and qualifications systems are complex entities and it is useful to define how they can be understood in terms of components that might be changing.

Table 6. **Categories of change**

Dimension of change	Examples
Change in conceptions of qualification	<ul style="list-style-type: none"> Concepts of qualification Concepts of a qualification system Concepts of a qualification level The competence concept (knowledge, skills, personal and social) Concepts of standards
Change in the drivers of change in qualifications systems	<p>National</p> <ul style="list-style-type: none"> The direction of national social and economic policy Knowledge creation and knowledge transfer process Social inequity and the activities of all bodies to reduce it The creation of a qualifications market The labour market and regulatory agreements Education and training interests Funding models for education and training <hr style="border-top: 1px dotted #000;"/> <p>International</p> <ul style="list-style-type: none"> Policy learning in relation to qualifications systems Benchmarking projects Exchanges and activities, e.g. projects and policies of international organisations, multinational companies, professional bodies with international agendas
Change to the purposes and functions of qualifications	<ul style="list-style-type: none"> Documentation of outcomes Capacity-building effects (professions/labour market) Learner-related effects Systems development and management Improvement strategy Funding and provision Other more general effects such as protection of consumers and meeting international licensing requirements

Dimension of change	Examples
Change in the qualification process	The use of sets of standards (occupational, educational, validation, certification) Learning outcomes as the basis for curricula, qualifications and certification Assessment arrangements Use of qualification levels to compare different types of qualifications (NQFs) The use of catalogues/registers of accredited qualifications The extent of differentiation between education and training sectors Modularisation/unitisation The assessment and recognition of key competences Institutional arrangements (infrastructure) for qualifications Validation of non-formal and informal learning Quality assurance processes Credit systems and the accumulation/transfer of learning Reference to meta frameworks
Change in the roles of qualifications systems in terms of lifelong learning	The status of the individuals as the main beneficiary of qualifications The validation of non-formal and informal learning as a basis of certifying learning and enhancing access to the qualifications system Qualifications systems and personal identities Coherence of qualifications systems Transparency of qualifications systems Changing rates of return (personal and public, financial and social) Changing arrangements for providing information, advice and guidance

5.2.1. Categories of change

Taking into account the evidence in Chapters 2-4 and maintaining a view of all of the dimensions ⁽⁷⁵⁾ of qualifications systems, it is possible to classify change according to five different categories. These are summarised in Table 6.

5.2.2. Depth of change

One of the most difficult aspects to define and document is the depth of change in national qualifications systems. Such is the diversity of practices that it is sometimes difficult to generalise about the extent to which a policy is more than just an idea and is having an effect on users of qualifications. It is also difficult to take into account scale of change: a change to assessment methods in a single qualification, although important to users,

⁽⁷⁵⁾ A first attempt to define the components of qualifications systems is described in Behringer and Coles (2003).

is not comparable to a system wide change such as creating the conditions for a more demand-led VET system. The following typology has been developed for this study to give an idea of the depth of change:

- (a) type 1, policy discussions: no concrete implementation, for example discussions about the best approach to recognising the qualifications of immigrants;
- (b) type 2, policy: the direction is agreed but again there is no concrete implementation, for example a law is passed to develop an NQF;
- (c) type 3, implementation: the infrastructure for change is put in place such as funding, management and a communications strategy ⁽⁷⁶⁾, for example a body is set up to manage and coordinate the assessment and validation of experience;
- (d) type 4a, practice through pilot schemes: a sample of people use the new arrangements, for example a learner is taught and assessed according to a new modular programme and qualification;
- (e) type 4b, full-scale applied practice: all old methods are adapted to the new methods;
- (f) type 5, effect: the new system delivers benefits to individuals, organisations and society, for example more adult learners are engaged in lifelong learning and skills supply to the labour market is improved.

So it is possible to define ‘rhetoric about change’ in terms of the first three types and to define concrete change as the remainder, with implementation forming a distinct bridge between rhetoric and concrete change. This is an important idea since it clearly shows the different stages to be considered when change is analysed. The early stages of rhetoric are sometimes denigrated in discussions as ‘empty’ stages that are not yet connected with real change. This may be unhelpful in considering change as it is obvious from the evidence, particularly the country evidence, that these early stages are intended to open up ideas and refine strategies prior to any concrete action; they are critical to the success of later action. In political terms it might be that these early stages are testing the popularity of actions with those who will be responsible for implementation or those who could be directly affected by them.

The later stages are also worthy of further discussion. Just as rhetoric is seen as a stage of preceding action, anything post implementation is

⁽⁷⁶⁾ A key factor for change is changing ‘mind-sets’, building confidence and trust in policy in advance of implementation so that policy change is ‘owned’, takes account of current realities and can be prepared for.

sometimes seen as ‘post action’. Yet full-scale implementation does not necessarily lead to the intended impact on the intended recipients on the scale anticipated, so the ‘effect’ stage is critically important and, when complete, represents the true maturation of a change programme.

5.3. Change in conceptions of qualification

The increased attention given to the qualification process in Member States (and in other countries) since the first discussions of comparability ⁽⁷⁷⁾ ⁽⁷⁸⁾ in the 1980s and transparency ⁽⁷⁹⁾ of national systems in 2000 has made explicit the differences in the ways qualification is understood. These differences exist not just between countries but also within countries. The fundamental differences in understanding are based on the importance given to any of the following:

- (a) completing a programme of formal learning;
- (b) successful outcome of an examination or test;
- (c) proving knowledge, skills and competences in a range of learning outcomes;
- (d) being competent across all aspects of a job specification;
- (e) holding a certificate issued by a competent body or bodies;
- (f) the official register of titles.

These different understandings are important and are discussed at various points in this report. In this chapter we are concerned only with evidence that there is change in the ways these different conceptions are used and understood in populations.

5.3.1. The meaning of qualification

The diversity of meanings of qualification is deeply embedded in countries and quite stable but not exclusively associated with different educational sectors:

- (a) while qualification in higher education will often depend on demonstrating (through examination) mastery of a body of knowledge within a subject discipline, this is too broad a generalisation and alternative competence approaches are prominent in some applied fields;

⁽⁷⁷⁾ Under discussion in preparations for the *Council Decision on the comparability of qualifications* (Council of the European Communities, 1985).

⁽⁷⁸⁾ Transparency also a key theme in Bologna in the 1990s related to ECTS and the Diploma supplement.

⁽⁷⁹⁾ European Commission and Cedefop. Minutes of the meeting of the European Forum on the Transparency of Qualifications, Brussels, 9 February 2000.

- (b) in school education, tests and examinations are often used to demonstrate knowledge and skill in subjects but in some subject, and when more general qualities of an individual are assessed, these will be judged by competence-based approaches;
- (c) in the workplace the demands of the job may require qualification to focus on practical competence and on competence in cognitive skills that call on applying knowledge.

The dominant, common understanding of qualifications seems to be dependent on sociological factors that are strong because they are slow to adapt to a multitude of pressures for change. Any change in understanding that may be happening could be due to:

- (a) development and dissemination of European-level definitions and implementation, including peer learning;
- (b) the transparency necessary for learner mobility and larger migration flows;
- (c) the need for 'small', usually additional, qualifications that qualify people to perform certain tasks newly required in a job;
- (d) the need to design new standards for common professional identities or metiers;
- (e) the growing 'international qualifications' market;
- (f) international benchmarking;
- (g) multinational companies;
- (h) shifts towards competence approaches that embrace a wider range of abilities;
- (i) learning outcomes and transparency;
- (j) NQF descriptor definitions;
- (k) changes in the social position (or relative power) of key stakeholders such as employers, leaders of higher education.

This study concludes that the EQF definition is widely accepted within top-level framework-related activities. It is also influencing understanding of experts and officials by placing more importance on formal assessment and validation processes that are based on any type of standards in some settings than would normally be the case.

It is possible that, in some countries and settings, experts and officials are using this EQF based understanding as an object of public policy. Policy-makers may believe the conceptions of qualification currently in place are problematic and a more articulated concept of qualification is necessary if progress is to be possible in social and economic terms.

5.4. Pressures for change

Qualifications reform is often part of a planning process, but it may also be an adaptive response to a rapidly changing situation, such as new developments in labour market demand or an unexpected increase in the number of learners seeking qualifications. Qualification systems have important and complex social and economic connections, which may limit the capacity of policy-makers to adjust and reform qualifications. Further, successful reform depends on the extent to which policy-makers are able to identify the important needs and trends, and translate them into effective policies and practices. The relationship between pressures and change is not a simple one.

This section of the report explores the range of pressures for change that act, currently, on qualifications systems. These are the drivers.

5.4.1. Drivers at the national level

Many of the drivers are now demand-led (OECD, 2007). They arise from political, economic, social and cultural developments, demography, and technological change. They also derive from feedback within education and training about how qualifications should reflect new approaches to curriculum, assessment, and pedagogy.

On a general level, governments aim for wealthier, fairer, smarter, healthier, safer, stronger and greener countries and this depends on successful learners, responsible citizens and effective contributors to economies and communities. This often means that qualifications must play a part by including appropriate content for learning programmes, shaping assessment methods and supporting quality assurance processes. It also implies that qualifications are not restricted to recognising formal education processes, but are increasingly open to recognising learning wherever it happens.

Most European countries face pressures to increase participation rates as a result of social and economic change. This may apply in particular aspects, such as combating high levels of school drop-outs or improving qualifications among the unemployed, meeting skills needs for technical occupations or high-skilled graduates, or for improving the skills of those who have been in the labour market for some time. These pressures impact on qualification systems. The increasing emphasis that countries are placing on meeting the needs of the target groups has the effect of increasing the importance of the learner as stakeholder, and therefore as – either potential or in fact – the learner becomes a significant driver of change in qualifications systems and processes, rather than a passive recipient.

5.4.1.1. *Economic drivers*

Country evidence suggests that economic pressures are the strongest. In the long term, the aim is to ensure sustainable economic growth and competitive advantage through research, innovation, and increased productivity. This means meeting the demands of the labour market and ensuring balance between demand and supply of skilled workers. Optimising levels of employment is also important. Good economic performance and a good skills supply from the labour market can make a country attractive for investment. The creation of a qualifications market and private sector involvement in adult education is often a part of the response to these economic pressures.

Currently, in 2010, policy-maker main emphasis is on policies and funding arrangements that can support recovery from the global financial crisis. Unlike previous recessions, where education and training were among the prime areas to face cutbacks in funding and provision, many governments are seeking to maintain levels of education and training provision and funding. They are attempting to adopt policies that can preserve and improve skills levels for a high skills economy once recovery takes place. Yet governments face financial difficulties, and aspects such as qualifications reform may not be seen as a high priority in a period of scarce resources.

5.4.1.2. *Social, cultural and demographic pressures*

Social and cultural pressures focus on qualifications systems to help address problems such as social exclusion and inequality of educational opportunity. As is well documented, people with existing qualifications have better opportunities for access to further learning and qualifications than do people with the low level of qualifications. Creating job opportunities for young people is an important priority for the policy-makers, as are policies that enable people to get a foot on the qualifications ladder. The demographic pressures caused by the ageing of European populations has led most governments to consider ways of upgrading and changing the skills of older workers, so that they can remain in the labour market for longer: this both improves the supply of relevant skills and decreases the call on social security budgets. However, it is increasingly recognised that older workers can only do work that is appropriate to their condition. Similarly, high levels of migration bring about pressures to improve the recognition of qualifications and skills of immigrants. In all of these instances, the policy intention is often greater than what is actually being

achieved. In federal systems, qualifications are expected to play a role in presenting common or coherent national outcomes from diverse regional arrangements for education provision.

5.4.1.3. *Technical pressures*

Technical pressures are growing in importance, in particular to ensure that standards are established and maintained. Increasingly, policy-makers and providers are using learning outcomes or a competence-based approach to respond to these diverse drivers. The identification of competences is used increasingly to validate learning at work, while public confidence, especially for long-standing and well-known qualifications, is a driver that can both generate and act as a barrier to reform.

5.4.1.4. *Regulation of labour market entry*

Some countries use qualifications as a means of regulating labour market entry more extensively than others. This, too, can both generate and inhibit change in qualifications. Some EU Member States have highly regulated labour markets in which a qualification that is specific to the occupation is a requirement for entry into many jobs. In these situations, pay and conditions are likely to be affected by collective agreements between the social partners, often involving government. These requirements are not static and they vary according to the changes and prevailing drivers of change that are operating. Some countries are trying to increase the flexibility of the labour markets, by reducing to some extent the amount of regulation for labour market entry.

Even in countries where there is a limited requirement for qualifications as a licence to practise, changes are taking place and evidence suggests that the licence to practise requirement is increasing. This may demand regulation of new occupations or others that were not previously regulated, for example through new requirements placed on health and safety, customer care or environmental standards, rather than through collective bargaining. Further, the regulating bodies for a wide range of occupations in which rapid and continuing changes are taking place, tend currently to extend validated in-service training – or additional qualifications requirements – for the renewal of licences to practise.

5.4.1.5. *More diverse use of qualifications data*

Some of the pressures on qualifications systems relate to more diverse use of qualifications data. The use of qualifications data to support

economic planning, skills forecasting and education and training provision is well established. Qualifications data is also used for national as well as international comparative studies, and it is clear that this use can have a strong backwash effect into qualifications systems. This may be, for example, the need to revise standards in main qualifications types, or a determination to improve standings in international comparisons, where these are unfavourable to the country concerned.

5.4.2. International drivers

There is now a higher level of interaction between countries in approaches to education and training and qualifications, and interactions with international companies and organisations. International pressure on qualifications systems is clearly seen and includes integration into the international community, responses to the projects and policies of international organisations, multinational companies, and professional bodies with international agendas. This includes the open method of coordination within the EU and the statistical monitoring programmes from around the world, particularly through OECD activity. There is also international pressure on qualifications from the EQF and the Framework of qualifications for the European area of higher education (FQE/AHE, or the Bologna framework), as well as the internationalisation of some sectors of the economy. International bodies now carry out research, gather statistics and monitor standards of education. The feedback from these activities can have direct and indirect effects on policy, stimulated by, for example, publication of OECD's *Education at a Glance* (OECD, 2009a), or *Trends Shaping Education and Training* (OECD, 2009b).

In business, international standardisation is becoming more important and is reflected in qualifications. In particular international companies market globally known brands and a part of the international prestige of these companies depends on standards and predictable quality. Therefore, there is a strong trend for training and other HR standards, and even processes, to be standardised in different countries. Often the qualifications and awards systems of international companies are not transparent outside the company itself, but within the company they tend to be consistent across national borders.

This skills and qualifications of migrant workers tended to be under-recognised, so labour mobility presents issues for national agencies and company systems. European markets, for example, have developed more quickly for goods and services than for mobility of labour. Globalisation is

pushing for more transparency in qualifications and qualifications systems, both within Europe and across the borders of the EU.

5.4.3. How do policy-makers see qualifications systems?

Generally, qualification systems are seen as a tool to be used for reform, although some bodies contest this position and hold clear alternative points of view. Responding to pressures, policy-makers see lifelong learning as a key idea, especially if adult learning can lead to broader participation and higher levels of attainment. This brings the qualifications system firmly onto the policy agenda. The main areas of interest for policy-makers include:

- (a) to move towards, or improve, qualification systems that are better linked, and offer people – as lifelong learners – suitable opportunities to engage with learning at all points in their lives and learning careers;
- (b) to improve the contribution of qualification systems to economic performance and to make the appropriate links between education and working life;
- (c) to improve the links between different kinds of qualifications (including higher education and VET), and hence the efficiency of the systems as they engage learners, employers and education providers. Governments are often attracted to developing and regulating this aspect through the device of a national qualifications framework (NQF).

As the national case studies in the previous chapter showed, the specific interests of policy-makers in developing qualifications systems include:

- (a) improving VET and increasing capacity and skills in the workforce;
- (b) enabling validation of non-formal and informal learning;
- (c) bringing social partners together;
- (d) creating higher trust in HE qualifications;
- (e) providing a means of motivating people to learn and making education more attractive;
- (f) making qualifications more transparent and easier to understand;
- (g) encouraging increased learner autonomy and responsibility;
- (h) enabling individuals to make more informed decisions about learning choices;
- (i) improving the coherence and logic of education and training;
- (j) drawing closer together the worlds of school/college and work;
- (k) improving the efficiency of provision;
- (l) improving quality standards and provider accountability.

National media are also playing an increasingly important role in forming public opinion on qualifications. The publication of national and international

comparative statistics, in particular, has raised the issue of the quality of education and training and the value of the resulting qualifications.

However, some policy-makers call for realistic expectations of what qualifications and qualifications systems can achieve. There is some evidence that qualifications are seen, on the negative side, as a bureaucratic entity with the potential to hinder innovation and business and economic freedom. Sometimes there is an ambivalent attitude to the role of qualifications in curriculum-led reform processes by policy-makers: qualifications are expected to drive change in education and training, yet there is a need to protect education from the narrowing effects that qualifications can have on the curriculum, teaching and learning.

The national political, social, cultural and economic environments are distinctive in different European countries. Even so, some aspects of development are more or less common. For most countries, qualification systems that had previously been selection processes for limited numbers of individuals are becoming qualification as a social entitlement for a large percentage of the population. The target is to engage (and to continue to engage) different groups of learners: this is generally driven by a 'high skills' agenda. In modern societies, this also means that there is tension as some powerful groups seek to preserve the advantages they gained from a more restricted and less meritocratic system.

Although this report has traced some changes in the drivers that are impacting on qualification systems, it is also clear that there is, in this respect, a considerable measure of continuity rather than a sudden change. The drivers have combined to accentuate the importance of making sure that qualifications meet the needs of the main users in a more knowledge-oriented society and economy, and that there is a clearer link between different kinds of qualification and more openness, enabling more open approaches to lifelong learning to develop.

5.5. Change to the purposes and functions of qualifications

Some functions of qualifications are well established and obvious in most settings, for example to codify the profile of learning and to signal the level and value of this learning. Qualifications are also used in recruitment and, through this, to regulate the supply of skills for the labour market and pay structures. Another function is encouraging individuals to learn by the

recognition (personal and financial) that are promised by qualification. It is also clear that education and training systems are monitored through measurement of national volumes of qualification success. To fully understand the changing world of qualifications it is important to look for new and disappearing functions and also to probe deeper into established functions and look for evidence of change within them.

5.5.1. Current purposes and functions

Qualifications can serve many purposes and have functions that are planned and unintentional. The main intended functions can be classified into the following categories.

5.5.1.1. *Documentation of outcomes*

This is the obvious main purpose of qualifications: to describe to a user the qualification holder's knowledge skills and competences that have been assessed, validated and certificated. A qualification may go further and describe the evidence on which the qualification was awarded, for example marks in an examination or the acceptable quality of a portfolio.

5.5.1.2. *Capacity-building effects (professions/labour market function)*

A qualification has currency or exchange value in a recruitment market and represents a sign (rather than a description of actual content) that the holder of the qualification has a certain value for an organisation in relation to a job or a programme they are recruiting for. A qualification can help a user control the building up of capital in their organisation by legitimately selecting between different people applying for positions. Taken across a sector, the flow of people into the sector can also be controlled by using the qualification as a kind of threshold. Qualifications might be used to control the pay, status and rights of workers in an organisation or even require that previously admitted people achieve an additional qualification in order to maintain their knowledge skills and competences.

Governments can use qualification-level information to adjust the supply of appropriately qualified people to the workforce by raising or lowering requirements or by incentivising people to reach qualified status in specific areas.

5.5.1.3. *Learner-related effects*

Learning programmes can be of variable quality and qualifications which are based on fixed standards are a means of guaranteeing the quality of learning provision for learners. Once awarded, they confer on the learner

a status that may bring rewards such as a job, better pay and inclusion in a community of practice. A qualification may also signal to the learner potentially useful orientation for work and study.

5.5.1.4. *Systems development and management*

Qualifications can function as benchmarks of quality of learning provision, not just for individuals but for parts of education and training systems. They can be used to shape the curriculum and also to provide feedback to providers and managers about performance; they can bring control and accountability. The content of a qualification – and the way it is assessed and validated – can be defined in such a way that it induces reform in education and training. Since assessment is known to be a major influence on pedagogy, this can also be influenced by qualification.

Users of qualifications, for example companies in a specific sector, can decide that a qualification defines some knowledge skills and competences (a model of competence) that they wish to value. Qualifications, in attesting to this learning, can become part of a zone of mutual trust. If professions take control of qualifications in this way the qualifications can be used to define and protect standards in the profession.

Too much variation in the standards applied in learning provision or in qualifications can lower confidence in the value of the learning or qualification. Regulating quality by imposing procedures and standards on providers, the status of awarding bodies, and the status of other bodies involved in qualifications systems, can be managed and, at the same time, the regulatory procedure can bring added coherence to the sets of standards that underpin qualifications.

Qualifications, or the learning provision leading to them, is often publicly funded. A function of qualifications is to help determine where this funding is best spent and to ensure responsible use of the funds.

5.5.1.5. *Improvement strategy*

The functions described above show that all participants in the qualification process, from learner to quality regulator, receive feedback on the effectiveness of their activity by means of qualifications. For example, teachers and trainers can use qualification specifications and results to understand the strengths and weaknesses of their provision.

Companies can use qualifications data (particularly the knowledge, skills and competences that qualifications attest) to manage a work force and innovate in work practices.

5.5.1.6. *Other more general effects*

Some functions are so broad that they do not fit easily into categorisation. For example, a qualification of a tradesperson can be used to protect consumers and deliver public good such as care for children with security.

There is an important international function of qualifications. In addition to the fact that aggregated data on qualifications success is used for international monitoring, regulated professions, where public security is at its most important, such as aircraft safety, are also strengthened by international standards for qualification of workers.

5.5.2. **A typology for purposes and functions of qualifications**

This study has been able to take account of a wide range of information on functions of qualifications; the following typology is an outcome of the study based on analysis of evidence. It contains a short descriptive definition of each function and does not supply value judgement on the effectiveness or ethical credentials of each function. While the typology is offered as a comprehensive analysis and listing of functions, it does not represent an exhaustive analysis of each function. This requires careful more specific work beyond the scope of this study.

The proposed typology attempts to minimise overlap between the functions and to be as definitive as possible within each class, conveying the nuance of different functions based on empirical use of qualifications. However, some perception of overlap is inevitable in complex systems.

These functions are possibly changing over time and evidence for some

Table 7. The purposes and functions of qualifications

	Function	Description
1	Documenting outcomes of learning	Providing accurate and fair accounts of knowledge, skills and wider competences. The technical function of qualifications relating to measurement. Principles laid down by assessment emphasise the importance of validity and reliability of assessment, including clear construct specification and adequate domain sampling.
2	Supporting specific, valid inference(s) regarding the candidates' possession of specific knowledge, skills and/or understanding	The nature of the inference that can be made on the basis of the assessment. The 'claim' made by the qualification is crucial here, and is conditioned by the form of reporting adopted in the qualifications; for example, the contrast between a qualification being oriented to a claim that a person has reached a particular general level of attainment, compared with a qualification which makes a very specific claim about the possession of a particular array of knowledge, skills and competences.

3	Signalling	Indicating that the individual has attained a specific level of education and/or training or has specific attainments. The signalling can relate to the very specific components of the qualification, or can extend to inferences made by selectors in relation to when and how the qualification was attained – for example, the distinction between attaining a degree as an adult learner rather than during the 19-25 age range; the distinction between gaining ostensibly the same qualification in institutions of different status.
4	Valuation of different aspects of knowledge, skills and understanding	Different weightings can be given, within the assessment and reporting arrangements, to different aspects of knowledge, skills and competences. This contributes to patterns of ‘signalling’ and ‘valuation’ in the system. This can be explicit, as when a qualification gives a differentiated report (for example, a profile), or implicit, when embedded in the assessment system (for example where weightings for components are not made generally available such as when written outcomes are given a higher weighting than performance outcomes).
5	Discrimination and selection	Supporting inferences about attainment in order to split a group of people into those suitable for a specific role or programme and those who are not. Essential to this is the predictive validity of qualifications, for example, differentiating between those who are likely to drop out of an educational programme and those who are less likely so to do.
6	Controlling flows into specific occupations and regulating the labour market	Historical instances of changing qualification requirements for the purpose of reducing or increasing the numbers eligible for practice in an occupation. Raising levels has been associated with protection of the wage rates, status and/or entitlements of the existing members of that occupation; reductions have been seen where a State is anxious to increase numbers in a specific profession.
7	Empowering citizens	General notions of higher levels of qualification being associated with social, economic and personal goods. This can be associated with analysis of the poorer life chances of the less-qualified, with a notion of a nation being less effective due to a lower level of qualification in the population, with notions of equipping individuals with greater facility for international labour migration.
8	Realigning the control of professions	Where changes in qualification requirements have been used to affect relative shift in the status of professions and/or subgroups within professions, and to realign patterns of autonomy and control, but within and between professions.
9	Measuring the level of skills and knowledge in the national, sectoral system	Where qualifications are used as a proxy for the volume of skills, knowledge and understanding, or the volume of learning that is occurring. National and international surveys and routine monitoring have frequently used this proxy measure.
10	Measuring the performance of the education system	Focuses on aspects of qualifications which may bear a relationship with performance; for example, time taken to acquire qualifications among those taking the qualifications, cost of different programmes linked to specific qualifications, etc.

11	Ensuring linkage of content of programmes (training) to work	A drive to link qualifications more tightly to the content and requirements of specific work roles, with the aim of increasing both validity and efficiency of the qualifications.
12	Recognising the actual knowledge, skills and competences required in performance	The process of qualification development being used as a means of analysing with precision the requirements of performance in a domain, feeding back into general understanding of the nature of performance and into the design of, for example, learning programme, certification requirements.
13	Fill gaps and update requirements in knowledge, skills and competences	Qualification (and relicensing and/or professional updating) for the purpose of attending to emergent problems in professions that relate to knowledge or skills gaps (for example, communication skills in medical professions; ethical behaviour in financial services).
14	Guaranteeing the quality of provision for learners	Operating as a safeguard for learners electing to participate in programmes of assessment and/or learning (and to fully or part-fund participation). Learners may have very specific interest in the value of a qualification in relation to particular aims or goals (for example labour market progression, entry into a specific profession).
15	Guaranteeing the quality of provision for funding agencies	Operating as a safeguard for those funding (fully or in part) the learning and/or assessment programme associated with a qualification. Funders may have very specific interest in the skills, knowledge and competences resulting from a qualification (for example, they are funding the qualification to improve specific productivity) or general interest (for example, where the country is concerned with general benefit from the use of State funding for qualification purposes, is ensuring responsible expenditure of public funds).
16	Affecting the identity of learners	Associated with concepts of ‘socialisation into a profession’, or ‘signalled’ membership of a professional group. Attaining a qualification is can be associated with enhanced personal esteem and self-image, with many adult who return to study emphasising increased self-confidence as a result of attaining a qualification. Negative effects, for individuals, of failing in one’s effort to gain a specific qualification should be acknowledged.
17	Effecting social integration	Linked to identity and to ‘empowering citizens’, the attainment of qualifications can support social integration – a sense of status and belonging – reintegrating individuals into more prolonged engagement with lifelong learning processes. As with identity formation, the negative effects, for individuals and society, of failing in an effort to gain certification should be acknowledged.
18	Conferring status on qualified individuals	Elevating in, in a general sense, the status of individuals. Related to ‘signalling’ above, qualifications can make visible and convey ‘latent’ or ‘hidden’ skills knowledge and understanding.
19	Processes of recognition, accreditation and ‘valuation’ of prior learning	Making their skills, knowledge and understanding available to individuals, society and the economy. This feeds into the enhancement of learner identity, improved skill flow into work processes and improved use of knowledge, skills and understanding in individual enterprises.

20	Managing competences within enterprises	Using qualifications as a contribution to means of managing development of knowledge, skills and understanding in an enterprise, and the distribution of knowledge, skills and understanding.
21	Offering inclusion	Using qualifications provision as a means of directing opportunity and benefit at specific social groups.
22	Providing orientation, guidance	Qualification 'pathways' and qualifications 'frameworks' can provide clarity of purpose to individuals in respect of 'life plans' and aspirations, and can provide specific motivation for participation (deriving from notions of 'requirement' and 'benefit').
23	Controlling the education and training system generally and the qualifications system specifically	Qualifications are an instrument of control and an expression of the model of control in operation and the distribution of power between the State, professional bodies, social partners, assessment agencies, learner groups, etc. Issues of power and control are many and complex, both nationally and internationally.
24	Enacting reform in education and training	The form and content of qualifications are amenable to ready change (by policy-makers, etc.) and thus are often a 'first choice focus' in reform efforts, with reformers attempting to capitalise on the 'wash back' effect from qualifications into the curriculum ⁽⁸⁰⁾ . If qualifications are also prominent in accountability measures, this effect can be pronounced.
25	Influencing the content of learning programmes	The 'wash back' effect from qualifications into learning programmes; implicitly through programme design tuned to deliver the qualification or explicitly through the development of programme specification linked to qualifications outcomes.
26	Conditioning or shaping pedagogy	Some qualifications have a commitment to a specific mode of learning and state this explicitly or require assessment processes which strongly dictate pedagogic approach.
27	Conditioning or shaping assessment	The balance of the purposes of assessment; for example the relative weight of formative, diagnostic and summative assessment can be conditioned by the qualification specification.
28	Developing zones of mutual trust (between users of qualifications)	Common qualifications, qualifications equating, and/or signalling through qualifications can be highly instrumental in establishing zones of mutual trust, supporting international and national mobility.
29	Providing an accountability mechanism	Qualifications have been used as a principal mechanism of performance measurement in accountability systems for education and training providers. Such systems are used to draw inferences about performance at teacher/trainer level, departmental level, school/enterprise level and other higher units (for example, regions).

⁽⁸⁰⁾ It is important to note here the existence of unintended consequences in relation to 'wash back' and the fact that qualifications reform, while relatively easy, may not disturb other, more significant sets of relations affecting the shape of, and trends in, education and training.

30	Invoking specific models of competence	Qualifications can be used as the vehicle for expressing (and perpetuating) certain models of competence, both the explicit and also the implicit model of competence embedded in the form and content of the qualification. Qualifications can thus be a mechanism for social reproduction, including perpetuation of distorted models of competence, erecting barriers to participation and attainment of certain groups.
31	Giving status to institutional/provider offering	The attainment of 'approved centre' with the right to offer and/or award a specific qualification can provide important status to the standing of an institution's programme offer.
32	Shifting control from one agency to another	As a status- and benefit-carrying instrument, the award of 'qualification awarding' powers and 'approved centre' (for provision of assessment and/or learning) carries considerable power. This can be used for adjusting control from one agency to another, within the education and training system.
33	Shifting control for assessment in the system	A change in the assessment regime in a qualifications – for example, away from written assessment to performance assessment or vice versa – can have a profound effect on the locus of control in assessment processes; this can radically affect quality assurance arrangements, cost of assessment, the need for assessor development and support, etc.
34	Protecting the content, standing and identity of a profession	A qualification can express, embody and/or codify a complex agreement relating to interests of the State, social partners, qualification users such as learners and teachers and other actors with a specific role in the sector.
35	Providing feedback to learners (formative and diagnostic function)	Where the assessment associated with a qualification can be used, or explicitly is intended to support, formative and/or diagnostic assessment.
36	Helping teachers and trainers understand the strengths and weaknesses of their provision (evaluative function)	Where information from the pattern of attainment and/or characteristics of the manner in which learners are attaining, or reacting to, the qualification (and the associated learning and assessment arrangements) can be used for refining the programme design, or other aspects of provision (such as additional support, information and guidance, staff skills set, etc.).
37	Introducing innovation	Where qualifications (complete qualifications or parts) can be used by the State to introduce elements of innovation (such as an emphasis on equality, increased use of technology) or by enterprises (for example, revision of production processes) to do the same.
38	Protecting consumers	Providing protection to consumers by assuring certain behaviours, practices and/or outcomes.
39	Delivering public benefits	Where qualifications not only carry aspects of consumer protection but guarantee that certain public benefits (for example, public health) are delivered by the systems/institutions which use the qualifications.
40	Meeting international licensing requirements	Qualifications can be explicitly focused on securing the requirements of international licensing.

change has been gathered in this study. The following section describes the change, though the typology above is a new and sophisticated tool that has elements yet to be validated as a way of reporting change.

5.5.3. Main changes to purposes and functions of qualifications

To define change in purposes and functions of qualifications demands broad consideration of the evidence across all settings; this is a difficult task and conclusions will always be arguable. However, the evidence of this report suggests the following changes and areas of stability in qualification functions.

The function of qualifications as the principal means of securing progression in work or study has weakened with other factors becoming more prominent. The change in this function is discussed in more detail below.

The increased transparency achieved through the use of learning outcomes to describe qualifications, the trend for development of NQFs and credit-based approaches, and the increase in the number of smaller awards has increased the potential for linkages between qualifications in the different parts of education and training. There are indications that this function could become more important in the future.

The learning recognised by qualifications has increased through new means of validating non-formal and informal learning and may expand to cover more general skills and attributes.

Current activity to broaden international understanding of qualifications and qualification levels in countries, through European tools such as the Bologna process, EQF, ECVET and Europass, coupled with increased international recruitment and staff mobility in companies, has increased the understanding and potential currency/value of national qualifications on the international market.

The function of qualifications to be based on educational and occupational standards set independently by stakeholders has increased in importance. The function as a tool for reform is receiving more attention from policy-makers.

Regulation of qualifications by central (usually government) authorities has always been strong but there is evidence of more extensive regulation for qualifications relevant to school education and VET.

Qualifications are increasingly used as a metric to bring accountability to parts of the education and training system.

There has been no evidence of change in the functions of qualifications related to:

- (a) acting as a metric for supply and demand in the labour market;
- (b) acting as a metric for international comparative research;
- (c) collective bargaining;
- (d) workforce development;
- (e) the value of qualifications for individuals and their motivational effect on learning.

5.5.4. Discussion

The implications of the changes in purpose and function of qualifications outlined above are now explored further.

5.5.4.1. *From the perspective of an individual*

Individual learners are the main users of qualifications and the qualifications process offers opportunity for inclusion, protection and security (in the job market) and status in personal identity. The demand for qualifications from users seems to be steady at a high level. Skills forecasts suggest that demand will increase in future. So how will the evolving qualifications systems affect individuals? Qualifications will still offer incentives to individuals to demonstrate their learning and potential and prepare themselves for progression in a career or in study. The indications are that individuals will feel better supported by the measures in place to increase transparency: the use of learning outcomes to describe curricula, expectations in assessment, and what qualifications signal to users. However, the rise in numbers of qualified people may result in pressure on individuals to add some positional advantage by documenting their experience in work or volunteering activities and identification of unassessed generic skills they possess.

More extensive regulation of qualifications systems may also offer some security that qualifications have the quality to be considered with confidence. The international benchmarking of qualifications against the EQF will give some added support and security for those who are seeking to work in another country.

5.5.4.2. *Qualifications as a bridge between education and work*

Although it is difficult to conclude that the function of linking education and training with work is becoming stronger or weaker, it is clearly a policy priority. There continues to be high investment in matching supply and demand and growing higher levels of knowledge, skills and competences for the labour market. It is logical that this will give greater emphasis to linking content of programmes to work, to measuring the level of skills

and knowledge in the workforce, and to regulating aspects of the labour market through qualifications (access to jobs, pay, status, rights). If this is true, then social partner interest and roles in qualifications systems should be growing and qualifications should be clearly shifting to representing competences defined by occupational standards. Both of these effects are clear in the evidence in this report.

In a perfect system the shift to making some qualifications more job-specific would help to balance the supply and demand for skilled workers. However, turbulence in national and global economies, and the consequent effects on levels of employment, means that under- and overqualification ⁽⁸¹⁾ are more likely and could have effects on wages, motivation and productivity.

There are major differences between countries on the appropriate level of specificity of qualifications, with some countries preferring a large number of highly specialised qualifications. Others have evolved a system where a much smaller number of more general qualifications offer a more flexible approach to skills supply to the labour market. There is a new position developing in some countries where the decisions on specificity are left to the sectors themselves through the potential to build qualifications by drawing on bank of units of qualifications; the market decides the most appropriate level of specificity.

There is a tendency for qualifications to be overestimated as a driver for the economy, so that more people with higher-level qualifications will lead to a better match between education and training supply and labour market demand. Evidence suggests that qualifications are, first, not a secure proxy for knowledge, skills and competence, and, second, there are other much more effective drivers for economic growth and productivity than skills.

5.5.4.3. *Qualifications in recruitment and selection*

There is a range of functions of qualifications that can be described as human capacity building and workforce related. We know of the signalling and screening uses of qualifications is important but to what extent is the logic of formal qualification being replaced by a logic of validating experience? As we consider all the evidence in the report it becomes possible to see qualifications in a bigger context.

The evidence presented from recent literature, as summarised in

⁽⁸¹⁾ Underqualification means workers do not have the full set of competences to carry out their work; overqualification means they have competences that are not required in their work.

Chapter 3, confirms that qualifications play a significant role in recruitment but there remains a tendency for recruiters to look for other indications of the potential of candidates. From the viewpoint of this study it is important to see qualifications in the context of all the indications that are valued when judging the suitability of individuals for positions. The evidence in the report shows two points clearly:

- (a) there is a drift towards formally assessing, validating and certifying learning and representing it as qualifications. These qualifications are regarded as a proxy for knowledge, skills and competence and have currency in the labour market. More people in Europe have qualifications and the average levels of these qualifications are rising;
- (b) some aspects of learning are difficult to treat in this way; for example, generic competences, work experience, social and volunteering experience and other broader competences. These aspects of learning are not sufficiently well understood and defined to be given any fixed currency within qualifications but are important and growing in importance.

It is possible to see what Bishop described as general intellectual development as something entirely separate from the learning in these two points. In terms of recruitment, it is useful to treat this intellectual development as an indicator of some future potential to perform. This potential is often associated with general qualifications and with the institutions that provide general or academic education. The literature on measuring the potential of individuals to show increased knowledge, skills and competence at some later stage in life is often linked with capability⁽⁸²⁾ which can, among other qualities, be seen as the ability to learn from experience and, more than that, have the confidence to do it (Stephenson and Weil, 1992). There is no consensus (Brown, and McCartney, 2004) on whether a person's potential is an absolute quality and is therefore fixed in an individual, or something that can be developed in an individual; nevertheless it is a characteristic of an individual that matters in some recruitment processes. Potential is seen as 'future competence' because the popular understanding of competence is about proof from past performance that someone knows and can do things in a specific context.

For a useful appreciation of qualification it is important that it is seen in relation to the extent to which it represents the full range of competences and also

⁽⁸²⁾ Capability is seen as having two dimensions: potential (something inherent in an individual) and content: (what the individual already knows and can do).

reflects potential. Qualifications can represent current knowledge, skills and competence, can signal aptitude in key competences (soft skills) and also the potential of a candidate to be 'future competent'. However, it is unlikely that one form of qualification can act in these three ways simultaneously in a given recruitment process. The concept of qualification as we now understand it is, from particular recruitment situations, always imperfect as a signal.

If qualifications evolved to be better at representing an individual's abilities and potential, there is a chance that some of the current valued characteristics (signals) would be reduced in effectiveness. For example, if a qualification aimed to show potential by valuing the traditions of certain proven institutions to recruit and educate people with potential, the signal about proven specific competence may diminish. It is better that qualifications are fit for some purposes and that, where they are inadequate, recruiters look elsewhere for desired signals. Qualifications could then be a part of representation of an individual's abilities. An individual could aim to optimise all aspects of representation so that they might be successful in recruitment. A recruiter could clarify all they require, including qualifications, in the form of a model of representation.

The concept of representation is useful because it is comprehensive and allows the user to build a picture of their capabilities, while allowing a recruiter to be more specific about what is sought in a candidate. Representation can usefully accommodate the changing value of qualifications in different settings. French research shows that the territorial nature of qualifications affects their value and this is important as there is a trend, albeit slow, towards the globalisation of qualifications.

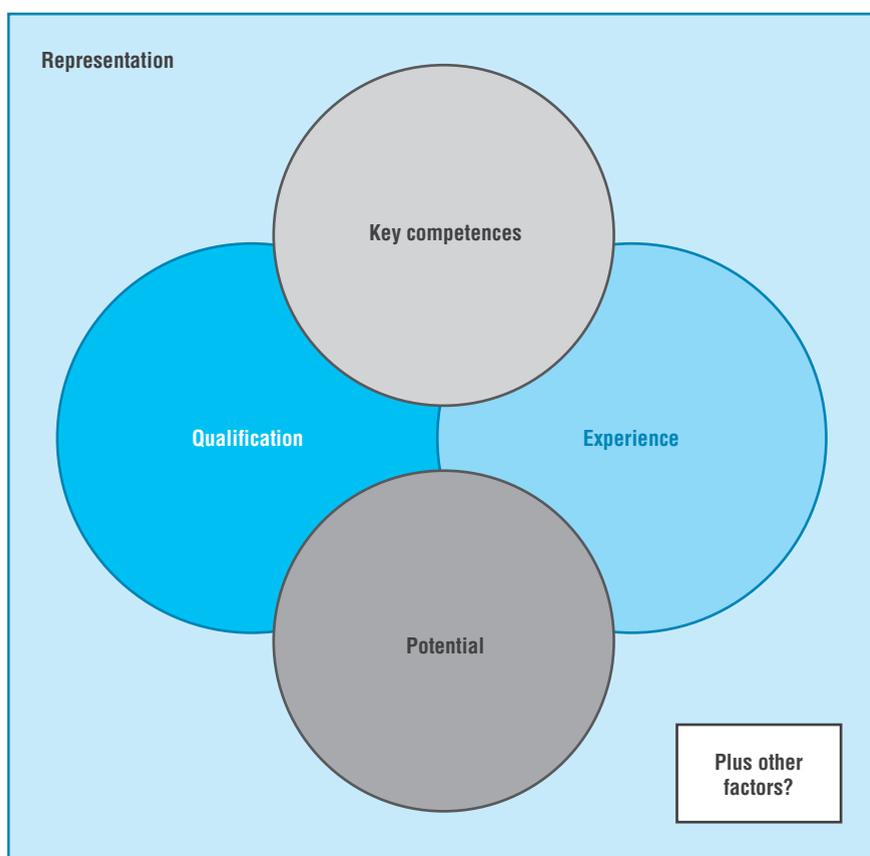
Representation is also a useful idea because it embraces and makes explicit factors that are known to be important in creating currency but are not always clearly embodied in qualifications. Such factors are the occupational standards on which a qualification is partially or perfectly based, the extent to which social partners contribute to the design and assessment of the qualification, the part non-formal and informal learning is recognised, the quality of the providing institution, and the extent to which learning has advanced since the award of the qualification. Representation of specific key competences can be made explicit through assessments and also through evidence from experience. It can be made explicit through evidence of learning through work as well as other proxies for potential such as metacognition and other thinking-related achievements.

Qualification can be seen as one major way of enhancing representation but it is possible to have representation of a person's learning without

formal qualification or any aspect of the process. For example, a person can demonstrate competence to a provider or a colleague, an artefact can testify to it.

If the arguments for representation are accepted, the role of qualifications in recruitment and selection can be seen as more limited and more specific.

Figure 8. **The concept of representation**



5.5.4.4. *Management and monitoring of education and training*

Qualifications are used as a means of management and development of education and training. It is argued that qualifications influence the content of learning programmes, shape pedagogy, provide accountability, funding systems, bring coherence to the sets of standards that underpin qualifications and protect the standards of the professional. It is also argued that qualifications systems are zones of mutual trust between different stakeholders in the process. These stakeholders include individuals, learning providers, awarding organisations, professions and government.

While it is clear that, with increased regulation, the involvement of national or regional government in qualifications systems is generally increasing, it is much harder to be sure that the management functions of these bodies are increasing. In some countries the devolution of responsibility for qualifications systems is a policy objective. The main change is that the interest of governments in qualifications systems as tools for policy implementation is increasing and qualifications, as a measure of performance in increasing access to validated learning and success in meeting the required standards, is now widespread.

One important aspect of qualification system management is monitoring take-up and success in learning and qualifications. The international dimension to this process, particularly providing evidence for international comparative surveys, has been shown to be of increasing importance. There is an emerging issue, raised in the evidence, that the metric for national figures for qualification is based on figures for completion of programmes and not success in meeting the standards for a qualification. With the rapid development of NQFs, and the increasing adoption of learning outcomes, there is a need to refine the metric for measuring learning to take account of outcome-based measures instead of input-based ones.

5.5.4.5. *Regulation and quality assurance of qualifications*

One of the major functions of qualifications is to act as a regulator of quality, offering some kind of safeguard to communities in sensitive areas. It is possible to observe qualifications being used to regulate:

- (a) the curriculum and pedagogies for delivering it: changes to qualifications specifications in terms of content (learning outcomes) and assessment (assessment criteria) are known to have a 'backwash' effect on the teaching approaches used. This effect can be strong and in some situations the qualification specification is *de facto* the curriculum specification. The specification of educational standards is a process

- of curriculum regulation;
- (b) the performance of learning institutions: qualifications are used as a metric to judge efficient use of resources in education and training;
 - (c) the disbursement of public funds to education and training: – funding to institutions can depend on the numbers of learners recruited to qualification-based programmes, the completion of programmes by these learners and the level of success of these learners in examinations and tests;
 - (d) the standards for learning levels that are cross-institution, national or international, including professional standards: this is a major regulatory function that is used when a benchmark of education – such as a bachelor degree – is offered by many different institutions. Governments will regulate the minimum standards of learning in different regions with national benchmarks, for example NQFs. International companies that recruit across different countries will regulate the standards of entry through qualifications;
 - (e) the balancing of supply and demand of skills to sectors in the labour market (use of forecasts): this is a major regulatory function of qualifications where the demand (caused by exiting skilled workers and sector growth or decline) is balanced by recruitment of learners on to qualification-based programmes;
 - (f) minimum standards for entry to the labour market: qualifications are used to guarantee the quality of services to customers and to maintain professional standards over time;
 - (g) earning levels: qualifications are often used in collective bargaining arrangements and national legislation for levels of remuneration;
 - (h) standards for the delivery of services (health and safety): a major regulatory function of qualifications that guarantees public safety, for example in education through the qualification of teachers or in aircraft maintenance through specification of the training and qualification of servicing engineers;
 - (i) the employment rights of workers and students across national boundaries: embodied in the European Directive for Professional Recognition (European Parliament and Council of the European Union, 2005) whereby qualifications offer automatic recognition in EU countries.

5.5.4.6. *International functions*

The function of qualifications as international benchmarks of standards

has always been clear. However, with the increasing globalisation of trade, the free flow of information via the Internet, and increased migration flows, countries are possibly even more aware of the comparisons being made about qualifications and standards across national boundaries. It is clear that the development of international metrics such as ISCED and the EQF are helping countries make comparisons.

The rise of international sample-based surveys of educational and skills performance is also supporting the international comparative function of qualifications, even though these surveys are not using qualifications as metrics. PISA, PIRLS and TIMSS ⁽⁸³⁾ have emerged as increasingly influential measures of attainment. Some countries are using the outcomes of the surveys for the further development of their qualifications systems: while the surveys are carefully designed to be sensitive to national settings, they assert common standards by virtue of placing all participating nations on common scales. They provide powerful common metrics for national qualifications and have had demonstrable effects in terms of engendering national concern for relative performance. They stimulate new convergent arrangements (for example, in Germany, the development of new national standards for the 'European cooperation in education and training for the period up to 2020 should be established in the context of a strategic framework spanning education and training systems as a whole in a lifelong learning perspective. Indeed, lifelong learning should be regarded as a fundamental principle underpinning the entire framework, which is designed to cover learning in all contexts – whether formal, non-formal or informal – and at all levels: from early childhood education and schools through to higher education, vocational education and training and adult learning.' (Council of the European Union, 2009, p. 3).), and shift emphasis in national qualifications and curricula (for example in the light of the relative strengths of European and Asian systems, a shift in Asian States, towards a focus on mathematical application and on creativity). These are substantial effects.

Qualifications systems are being opened up for examination by the process of linking national systems to the EQF or to the FQE/AHE or Bologna Framework. Currently this work is in its early stages but the implications of the process are already clear. The new function of a qualification as a formal representative part of a national system and its comparative standards and

⁽⁸³⁾ PISA (Programme for international student assessment); PIRLS (Progress in international reading literacy study); TIMSS (Trends in international mathematics and science study).

quality is now a reality. Not only will qualifications be benchmarked with an EQF level but it is also possible that the quality assurance information associated with the EQF might be better understood by people from other countries. Qualifications, especially the large and popular ones, will now be bridges between countries in terms of the outcomes of significant parts of education and training.

5.6. Change in the qualification process

In this section the focus shifts from changes in functions of qualifications to changes in the process of designing and awarding qualifications. There is possibly a stronger set of shifts in the form of qualifications (and in process of generating qualifications) than in function.

There are four main conclusions about change in the qualification process:

- (a) there is change in the process of generating qualifications that aim to meet labour market needs, such as in the use of learning outcomes and competences, standards, more effective quality assurance, and attempts to involve stakeholders/employers;
- (b) there is a set of changes that aims to increase flexibility, such as modularisation, credit, smaller qualifications, NQFs and the validation of non/informal learning;
- (c) while these two sets of change are important at the level of policy-making (types 1 and 2 in the depth of change typology, see Section 5.2.2.), they are at various stages of implementation (3 and 4 in the depth of change typology) and few examples exist of benefits to users being measured and explicit (type 5 in the typology);
- (d) generally there is change in use of qualifications that is more quantitative than qualitative; more qualifications are being achieved but the form of those qualifications is only changing slowly.

Some aspects of these conclusions are discussed further below.

5.6.1. The use of explicit standards

The use of sets of standards (occupational, educational, assessment, certification) is increasing. Learning outcomes are increasingly being used as the basis for curricula, qualifications and certification. These two trends are likely to influence the way the qualification process is conducted:

- (a) the standards on which qualifications are based are owned by a range of stakeholders and this will possibly lead to a broadening of

- partnership in qualification awarding;
- (b) they are likely to open up the qualification process for more scrutiny by interested observers, including those wishing to make comparison across education sectors, business sectors and between countries;
 - (c) explicit standards tend to favour more objective, criterion-referenced assessment methods, so the fitness for purpose of current assessment arrangements may be challenged.

Learning outcomes do not make qualifications the same: they become better understood in relation to one another when the different qualifications subsystems within and across countries use the same definitions for learning outcomes, with the same impact on the related learning processes.

Widespread use of learning outcomes is well supported by policy and practice and is one of the stronger, more common trends, though it is just one method of defining expectations of learning; another is embedded in the work of professionals to deliver high quality programmes. These teachers and trainers take it as their task to use their knowledge and experience to interpret standards and broad aims to create the right environment for the development of competent people. It can be argued that learning outcomes alone cannot fully capture the qualities of the learner and of the learning process delivered through programmes. The use of learning outcomes responds to the needs or interests of some stakeholders, for example the labour market representatives, because they describe competences in a way which is relevant for the workplace. However, other stakeholders, or the broader society, may have interest in more tacit and non-codifiable aspects of learning which are difficult to capture in learning outcomes' statements. It is important to note that:

- (a) programme and teaching specifications can be supplemented with outcome information (as in the Bologna process);
- (b) competence-based qualifications can be structured around inputs;
- (c) assessment/evaluation methods can use both inputs (completion of programmes) and outcomes (objective assessments);
- (d) recruitment and selection practices can use both input and outcome information.

Learning outcomes bring transparency to education, training and qualifications and are not necessarily a replacement for what currently exists. In the broadest sense, the use of learning outcomes has a technical purpose, as in making existing standards (expectations in terms of knowledge, skills and wider competence) much clearer than is currently the case. This can support involvement and feedback of labour market representatives regarding the relevance of qualifications standards

for the labour market. Such representatives, who are not necessarily experts in education and training processes and pedagogy, have a better understanding of what to expect from a graduate when the qualification is expressed in terms of learning outcomes. It can also enable the assessment process to become more fit-for-purpose.

The move to a more explicit, outcomes-based expression of learning is supported by many theoretical positions. There is widespread theoretical support for teaching and learning methods that enable individuals to reflect on their learning needs and their preferred learning process. Learning outcomes support these methods. The various taxonomies of learning are based on understanding a hierarchy of conceptual stages that learning outcomes can be used to describe. In defining occupational standards, processes such as functional analysis depend on making explicit the components of a job purpose; these look very similar to expected learning outcomes and make it possible to be more scientific about systems management. The theorisation of communities of practice requires clear understanding of what is to be learned and how it is best learned: cognition, personal growth and professional development will be supported by clear statements (such as learning outcomes) of what is expected of practitioners. The development of zones of trust (Cedefop, Coles and Oates, 2005) can exist without learning outcomes and may be stronger for the hidden agreements they can embody; however, their growth and expansion will always be dependent on widely accepted explicit standards.

It is difficult to identify precisely and unambiguously the effect of a change from use of implicit expectations of learning (possibly based on the duration of a programme, the learning institution and the teaching specifications) to explicit statements of what learning outcomes will offer. The number of variables, contextual complexity and other ‘interfering factors’ will diffuse any potentially useful conclusions that might be expected. For objective evidence of success we are limited to the professional judgements of experts, policy-makers, politicians, social partners, institution managers, etc. There are some research-based reports that help to inform us about the effects of learning outcomes, notably the various Cedefop studies and Bologna implementation reports and a series of evaluations conducted nationally that shed indirect evidence of the effects of learning outcomes.

5.6.2. Modularisation and credit

The introduction of a national credit accumulation and transfer system – including rules for designing and accrediting units of assessment and

their combination into full qualifications – is an enormous undertaking that requires long-term commitment to an open system of qualifications that will engage learners and recruiters. This type of system is one end of a spectrum that starts with the division of a programme of learning into small, distinct modules. Along the spectrum are arrangements that allow for unit assessment and reporting, credit being awarded for learning acquired outside a provider’s programme, exemption from programme requirements, partial qualification and so on. These arrangements between the extremes of the spectrum can lead to expansion in the numbers of smaller awards and joint awards (between two awarding bodies). When defining trends towards more flexible qualifications systems based on modularisation and credit it is not possible to have any single model of such a system in mind. There is interest and practice in modularisation and credit, positioned between type 1 and 3 in the typology of depth of change with an increase in examples of practice for type 4a (see Section 5.2.2.).

5.6.3. Arrangements for validating non-formal and informal learning

There are many systems in existence for validating non-formal and informal learning, and the number is increasing. The important question is how far formal systems of qualification are being expected to accommodate validated assessments of non-formal and informal learning? This is much more difficult to answer than the question about the availability of validation. The answer demands there is a requirement to use the same standards for formal and non-formal validation and there is the same formal qualification outcome for any learning that meets these standards regardless of the route to that learning. If we expect these two conditions to be met, we see another spectrum ranging from legal and institutional arrangements designed to guarantee these conditions to a clear position where successful completion of the formal programme is the only means to secure formal qualification. In between are a multitude of possibilities that can be characterised by the statement ‘in principle there is no reason why validated learning cannot be acceptable as evidence towards a formal qualification’. In general this makes it possible to classify the depth of the trend towards validation of non-formal and informal learning as between types 2 and 4 (see Section 5.2.2.).

5.6.4. Management of the process of qualification

There is evidence of higher profile for qualifications in government policies and consequent government involvement through innovative reforms,

regulation, and institutional change. VET qualifications are usually at the centre of this new management system, sometimes designed to devolve greater responsibility to employment interests. One of the manifestations is the wider, formal involvement of stakeholders in management as well as design processes.

There are some indications that private investment and management of aspects of education and training, and possibly qualifications systems, is increasing. There is little evidence of concrete change here (type 3 and above in the typology of change (see Section 5.2.2.)).

Managing qualifications systems so that they are conducive to innovation in qualifications and the systems themselves was seen as important, with particular attention placed on the potential in qualification frameworks and credit arrangements.

5.7. Change in qualifications systems supporting lifelong learning

Lifelong learning is a policy goal in all countries and is based on encouraging people to make the most of talents and opportunities; plus the fact that initial education is just that. Changes in society and working life demand some kind of lifelong and life-wide adaptation.

Setting aside that learning has value in its own right, and that assessment, validation and certification may not add value for some individuals in some circumstances, most people would benefit from some kind of recognition of their learning at whatever their stage of life. Opportunities for lifelong recognition should follow lifelong learning.

Learning in the different settings of life and work can be complex and, for most people, the flexibility to learn and have the learning validated is important. From a learner point of view the process of validation may need tailoring in terms of content, timing, duration, cost and certification. Qualifications systems may not be flexible enough and may, for some individuals, present a barrier (or not be a sufficiently strong incentive) to lifelong learning and its recognition ⁽⁸⁴⁾.

Incentives for lifelong learning are linked to responsiveness to users, flexibility and a personalisation of learning and qualifications. This concept of per-

⁽⁸⁴⁾ For a full discussion of incentives and barriers to lifelong learning offered by qualifications, see OECD (2007).

sonalisation or tailoring provision to meet the needs of users is present in many discourses about developing learning and recognition (type 2 in the depth of change typology, Section 5.2.2.). The means of adapting qualifications and systems to make them more flexible are discussed in more detail below.

The qualifications system can be seen as a kind of market place where users (mainly individuals and recruiters) can make choices. In an effective market, the choices users make influence the goods on offer, so it may be useful, in a consideration of changing qualifications, to consider the needs of the main users. It may also be instructive to reflect on the main changes currently taking place – such as the development of NQFs, use of learning outcomes, e-assessment, internationalisation of qualifications – to determine the extent to which they serve the interests of individuals and recruiters.

Some of the ways in which qualifications could adapt are now examined in the light of evidence in this report.

5.7.1. More people are more qualified

In times of growth, people get qualified to give them positional advantage in terms of potential returns; in time of depression and crisis people seek qualifications to gain positional advantage in terms of security. In either situation, people with qualifications are growing in number and an increasing proportion of such qualifications are gained after initial schooling and training. It is also the case that all levels of qualification are important, as seen in the study (Berthet et al., 2008) of the attractiveness of qualifications certified by the French Ministry of Education. Generally, individuals feel that a qualification is important for getting a job. This is especially true for the highest levels, but also for people of lowest qualification level; training and qualification are the best way to progress towards a new qualification.

In terms of quantity, the move towards lifelong recognition is good; however, there is considerable evidence that people may be overqualified for their job, indicating that they have validated knowledge, skills and competences that are under used in their normal working life.

5.7.2. Transparency

Transparency is a key element of national and European discourse about qualifications systems. The logic for this is that qualifications are sought by learners who are job seekers and need to know about the currency of the qualification in terms of certain progression routes. There are also other factors that optimise that currency such as:

- (a) the bodies that design and manage the qualification are competent to do so;
- (b) there are clearly communicated links to labour market rewards;
- (c) there is clarity about what learning is recognised;
- (d) it is part of a progressive track where one qualification can lead to another;
- (e) it is part of the process for regulating entry into occupations;
- (f) it is constructed to have the potential to provide credits towards other qualifications;
- (g) is supported by socially accepted rules or norms.

Other factors are important, such as the size of the qualification and its cost.

Transparency is important if all of these factors are accessible to the user. From the recruiters point of view the transparency of the system allows the signal provided by the qualification to be fully appreciated. It is possible that transparency of qualifications and systems is being improved as a result of better links between education and work.

A commonly reported change is the introduction of national qualifications frameworks (NQFs). These attempt to clarify the characteristics of qualifications that are included in the framework as well as their quality. A prominent feature of many NQFs is the intention to link the different educational sectors through the use of common levels of NQFs that are described in terms of learning outcomes. Social partnership for NQF development is respected and many new NQFs have implementation plans that give priority to partnership working; in some cases new agencies have been established to manage the process. Most countries mention the EQF and the Framework of qualifications for the European higher education area as influencing the design of NQFs. All of these factors are designed to increase value and offer clearer communication of the scope and nature of qualifications. NQF design is often associated with the development of databases of accredited qualifications; these can be useful for transparency, especially in terms of choosing qualifications for specific career paths.

While some NQF developments are more research based than others, the evidence from evaluation of the value of NQFs in terms of transparency is limited and it is not possible to make statements about effects (type 5 in the typology of depth of change, Section 5.2.2.). However, the intensity of the development in terms of types 1 and 2 in the typology is clear.

A related trend is the development of international qualifications frameworks for specific business sectors. These frameworks have mostly

developed in sectors that have high levels of worker mobility or international regulations (types 4 and 5 in the depth of change typology, Section 5.2.2.). They offer clear qualification progression from the viewpoint of the sector but they are seen as offering further complication to national systems and in relation to general international agreements on qualifications levels, such as that embodied in the EQF. The development of the latter has initiated activity in sectors with a significant international dimension (such as in ICT industries or in marketing) and this has raised issues of transparency, quality assurance and trust for managers of national systems and users of qualifications. There is little evidence of collaboration between the managers of international and national frameworks to bring coherence and transparency to the different frameworks.

5.7.3. The trend towards more flexible systems

In addition to steps to increase transparency there is evidence of concrete changes to both qualifications and the systems that enable qualifications to be awarded.

5.7.3.1. *Recognising modules and shorter programmes*

Qualifications may be becoming smaller. Beyond compulsory schooling, in both VET and higher education, we have seen concrete developments in modularisation of curricula (type 5 on the scale of depth of change) and the introduction of unit assessment and credit transfer arrangements (type 4) (see Section 5.2.2.). The expansion of accreditation of units of assessment and of shorter programmes that lead to new qualification titles may be seen as steps toward flexibility and meeting the needs of qualifications users (learners and recruiters).

A modularised approach (curriculum, assessment of units and certification) is being implemented in most countries and it is expected that this will support the recognition of prior learning (see Section 2.6.3. and below). However, it raises issues for education and training. The modular approach is considered by some to challenge the holistic approach to assessing a wider concept of achievement through the experience of training and so runs counter to looking for aggregated attainment of a series of specific modules, even if these modules are focused on generic competences. The priority afforded to recognising overall achievement as opposed to more specific attainments seems to vary between countries. Another issue is that with more, smaller qualifications being added to the menu for learners, it is likely that the whole system will become too complex

and opaque. Despite the introduction of NQFs, it is clear from the evidence that the use of professionals in offering learners information, advice and guidance is developing (generally type 3 and 4 in terms of depth of change (see Section 5.2.2.)).

5.7.3.2. *Merging of formal, non-formal and informal means of validation*

Education and training providers, qualifications agencies ⁽⁸⁵⁾ and government ministries aim to guarantee the quality and currency of qualifications for learners and other users. This kind of regulation of qualifications distinguishes formal, national qualifications from the informal qualification processes that exist in all settings. Evidence suggests that the use of learning outcomes (based on explicit standards) to define qualifications has the potential to bring formal and informal routes to qualification closer together and therefore challenges existing governance structures to become more transparent and open. The opportunity for individuals to gain at least partial recognition for the learning they have already achieved through life, study and work increases flexibility for them and potentially supports a lifelong learning trajectory. Evidence of effect (type 5 in the depth of change) is light but there is discussion and testing (type 2 and 3) (see Section 5.2.2.) of a more open approach to accrediting learning in many settings.

5.7.3.3. *Increasing permeability*

Permeability in progression routes – enabling learners to broaden their learning or change track and career path – is clearly important in education and training discourse; in many countries barriers are being removed, especially at the interfaces between VET and higher education (type 3 and 4 in the depth of change typology (see Section 5.2.2.)). Permeability increases flexibility for learners and means that more choice may incentivise more (lifelong) learning. Permeability and flexible tracks are not the only incentive to lifelong learning and it is clear that, even with relatively rigid tracks, attempts to ease access to these tracks can aid learning for some individuals.

⁽⁸⁵⁾ These may be government-sponsored bodies, professional bodies, private organisations or charities.

5.7.4. In conclusion

Taking the evidence summarised above, and combining it with the range of theoretical perspectives outlined in Chapter 1, it is possible to conclude that:

- (a) qualifications are social objects that are embedded in complex systems that are inherently stable;
- (b) change in qualifications has to be understood in terms of the system that generates it. We can understand change as embedded in conceptions of qualifications, the driving forces that shape them (including theoretical perspectives), the purposes and functions they serve, the process of creating and awarding them and their role in contributing to lifelong learning;
- (c) change begins with discourse and is shaped into policy and strategies by social processes. Implementation is a further stage and effects of change are the final part of the journey;
- (d) conceptions of qualifications are diverse and dependent on deeply embedded social and cultural environments. There are indications that the EQF definition of qualifications is widely accepted and influencing conceptions in these different environments;
- (e) pressures for change that operate on qualifications (and systems) are diverse and generally increasing in intensity. The economic pressure is strongest, especially in terms of VET qualifications but also for higher education qualifications. Pressures for the inclusion of individuals in education and training are evident as are pressures to maintain an objective basis for the standards on which qualifications are based;
- (f) international comparative surveys, and the policies of international bodies that are relevant to qualifications, are exerting strong pressures on national qualifications systems in terms of both their effectiveness and their form;
- (g) policy-makers increasingly see qualifications (and systems) as tools to enable broad policy intentions such as economic and social development;
- (h) the purposes and functions of qualifications are generally stable in type but some types of function, such as the power to act as a metric for performance of the education and training system, have increased, while others such as acting as the main way for people to progress in work, have weakened. Generally the role of qualifications in supporting international mobility has strengthened;

- (i) the process of awarding qualifications has changed in prominent use of labour market information, such as occupational standards, and involvement of social partners. Generally there are developments that make the process more flexible, such as modularisation, credit arrangements and the recognition of wider learning;
- (j) qualifications play a strengthening role in implementing lifelong learning policies by offering lifelong recognition; already more people hold higher-level qualifications than previously. The means by which qualifications support lifelong learning is principally through transparency and flexibility;
- (k) qualifications and the process that generates them are more transparent than previously. Particularly influential is the use of learning outcomes in curricula, assessment processes and in qualifications descriptors. The development of NQFs is also believed to offer advantages for qualification systems transparency;
- (l) qualifications (and their systems) are becoming more flexible through development and accreditation of smaller qualifications and units of assessment, through the merging of the recognition of learning developed through formal means and learning gained outside formal programmes, and finally through increased permeability of tracks through education and training;
- (m) these trends, based on the evidence collected for this study, are examined further in Chapter 6 for their predictive power and in Chapter 7 for their implications for those who advise and make qualifications policy.

Changing qualifications: the future and implications for policy-makers

6.1. Introduction

This chapter builds on the analysis of the earlier chapters to open discussion about how the role of qualifications may develop in the future in different European countries and settings. The particular question addressed concerns the kinds of policies and actions that stakeholders may consider to be most useful in qualifications reform in the decade ahead, 2010 to 2020.

To give an idea of different futures, a set of four scenarios will be set out using the information and conclusions reached so far. Scenario methodologies have come into increasing use in recent years as a tool that planners can use to work more effectively on long-term choices for reforms in education and training, and their impacts. Considering different scenarios can help managers at a sectoral, national and European level to think about and plan how the future may turn out, particularly when there are policy tensions to be resolved and uncertainties to face. Further, weighing in the balance the likelihood, feasibility and attractiveness of the different scenarios presented can help thinking about and planning strategies, policies and actions over a given time scale. With the focus on qualifications, the scenarios in this chapter aim to provide an analytical tool for stakeholders, as they consider different aspects of the development of qualifications in their particular context. Using an approach based on scenarios and strategies can also help to think through complex variables and data in a way that remains fairly straightforward.

Contexts vary greatly from country to country in Europe, and also from one sector of education and training to another. There is no single model type of a qualifications system, nor of future modifications. It only makes sense to see change in qualifications in the setting of the changing system that generates it: changes in qualifications are usually part of a wider picture of change, such as changing ideas about the skills and competences that

the graduate needs, opening up access to wider populations, or reforming qualifications to reflect changes that are taking place in the curriculum. The approach of different countries and governments to qualifications in Europe is plural not singular and future reforms are also likely to follow different directions, depending on the culture and contexts in which they are housed. A further point is that, so far as qualification reform is concerned, the process of change or modernisation is usually at least matched by a preference for stability or for slow and steady development on the part of some of the influential groups in society.

This chapter will first set out a resume of some of the main aspects of qualifications change. Based on two of the most important axioms, four different scenarios will be suggested. Then, the policy implications for reform activity can be explored, varying dependent on the policy trajectory towards one or another of the scenarios.

6.2. **Résumé of changes to qualifications systems**

Qualifications are likely to fulfil several purposes at the same time. Often they are intended to promote learning and to create the circumstances that allow people to progress through different stages and pathways to enhance their personal capabilities, improve their social status or economic position, and form part of the development of the individual's identity so that, in current thinking, they can become lifelong learners. Qualifications are also intended to respond to economic needs and policies and are used to try to ensure a reasonably good match between the supply and demand for skills in the labour markets. Qualifications generally have important social roles, including such diverging functions as giving all citizens a fair and equal chance of access and progression and, at the same time, limiting selecting in the numbers of people who may qualify for specific occupations or areas of further study. Nowadays, qualifications are also increasingly used as part of the planning process to achieve wider aims in education and training, and as part of the international dimension that includes aiding migration and comparative analysis of different systems and countries. Qualifications also have considerable impact on the organisation of, and approaches used in, education and training provision: curriculum, assessment, pedagogy, etc.

To make sense of this complicated picture, changes in qualifications and qualification systems are probably best identified by considering the dimensions of change and the depth of change.

In the dimensions of change, five distinct aspects can be differentiated:

- (a) changes in the conception or meaning of qualifications: the shift, for example, from the idea that a person has graduated from school or training centre or a particular university to the concept that the graduate has acquired some clear kinds of knowledge and exemplifies how qualifications may change in concept or meaning;
- (b) changes in the drivers that lie behind qualifications and their reform: changes in the labour market, for example in technology or in the organisation of work, may mean that entry to work requires new kinds and levels of skill, and in qualifications. Similarly, large numbers of people in a particular age cohort who are expecting to achieve qualification may be a driver if previously only small numbers were seeking to qualify;
- (c) changes to the purposes and functions of qualifications: the introductory paragraphs of this chapter suggested a number of ways in which the functions and roles of qualifications may change, including aspects such as the economic and social purposes of qualifications, and their role in generating systems of lifelong learning in the knowledge society economy;
- (d) changes in the qualification process and procedures: many changes taking place in qualifications and systems refer to the technical side of how they are constructed and conducted. This includes such aspects as the use of new sets of standards, the shift towards or away from modularised and unitised programmes of study, and changes in what is assessed and how the validity of assessment is quality assured;
- (e) over the past decade or so, qualifications increasingly have a role in the more concerted attempts by government and other stakeholders to create systems in which most or all citizens become lifelong learners. Creating more coherence and pathways between different types and levels of qualifications and opening up validation or recognition to citizens who do not have formal qualifications are good examples of this dimension of change.

For the purpose of policy analysis and policy development it is important to identify what kind of changes are taking place or are intended; it is also important to identify the extent of change that actually takes place. Because this links policy with implementation, and because policy-into-practice is often a weakness at sectoral or national level, analysis of the extent or depth of change is just as important as the kinds of change that may be occurring. We can identify five dimensions of depth:

- (a) policy discussions: discussion or debate is taking place about change, but there are as yet no clear plans for a policy or implementation;
- (b) policy: the direction is set, perhaps through a law or a high-level decision, but there are as yet no clear plans or strategies for implementation;
- (c) implementation: the infrastructure to make change happen is in place and arrangements such as a leading organisation and funding arrangements have been decided on;
- (d) change in practice: pilot schemes and full-scale implementation mean that providers or other stakeholders are taking policy through to the final stage, which is full implementation associated with changes in practice;
- (e) effect: the new system brings benefit to learners, stakeholders, organisations or society. Reform or policy change can be evaluated.

Combining the dimensions of the extent or depth of change with the kinds of changes that are taking place in qualifications and systems provides fertile analysis. It helps to make the distinction between the development of policy and the mature process of policy formation and implementation. It helps also to distinguish between policy rhetoric and further implementation.

The report has identified some 40 roles and functions of qualifications, some of which can be expected to change over the next decade. For clarity, these can be grouped under a smaller number of headings:

- (a) documentation of outcomes: indicating the diploma or certificate achieved and, increasingly, the knowledge, skills and competences gained;
- (b) capacity-building effects: the currency or exchange value of a qualification, in the labour market and/or for further study. In many occupations, a qualification has the function of a licence to practise, and may lead to entry-level pay and conditions. In any case, qualifications are an important bridge between education and work;
- (c) learner-related effects: based on reputation or standards, qualifications give status to the learner, and open up (or close down) opportunities, for example, in the labour market;
- (d) systems development and management: qualifications are used, increasingly, as a mechanism to reform other parts of education, such as approaches to teaching and learning and curriculum. Also, they are used to evaluate the quality or efficiency of systems;
- (e) improvement strategy: agencies such as schools and employers use qualifications to monitor development, provide feedback and improve performance;

- (f) more general effects: some functions are broader than the above categories. These may relate to internationally applied standards, and also to standards of health and safety, consumer protection, environment, etc.

In terms of systems development and management, certain key changes in the qualification process have become prominent. First, change in the process of generating qualifications now places more emphasis on identifying standards clearly. Second, qualifications aim to meet wider social and, in particular, labour market needs through approaches such as the growing use of learning outcomes and competences, standards, more effective quality assurance, and attempts to involve stakeholders, including employers. A third set of changes aims to increase the flexibility of the ways in which qualifications can be achieved and combined, such as personalised approaches to learning, modularisation, credit, smaller qualifications, NQFs and the validation of informal learning and non-formal learning. These changes link closely with attempts to develop policy approaches and practical arrangements for learners that support lifelong learning, which in itself has become the prime aspiration of sectoral, national and European education policies.

We can also identify the main drivers of qualifications change and reform:

- (a) emerging players, specifically employers and social partners, seek to influence qualifications reform;
- (b) the voice of the learner is becoming more prominent and independent;
- (c) governments attempt to balance economic and social goals according to circumstances;
- (d) international companies have a strong, and often self-interested, impact;
- (e) university leaders drive higher education reforms, and prefer stability in school qualifications;
- (f) education and training providers maintain control of qualifications supply through more open partnership;
- (g) European and international agencies have a growing impact on qualifications reform;
- (h) bottom-up initiatives from firms, schools, universities, etc., generate new ideas and practices;
- (i) underlying pressures of globalisation, IT innovation, demographic change and calls for environmental responsibility are diffused but important pressures.

6.3. Scenarios for the development of qualifications

The résumé suggests a number of key dimensions that policy-makers have to consider. Two dimensions of qualifications development, from the evidence of the study, seem to stand out as particularly important and likely to remain important over the decade ahead. As stated in the conclusions to Chapter 5:

‘Pressures for change that operate on qualifications (and systems) are diverse and generally increasing in intensity. The economic pressure is strongest, especially in terms of VET qualifications but also for higher education qualifications. Pressures for the inclusion of individuals in education and training are evident as are pressures to maintain an objective basis for the standards on which qualifications are based.’

Many European education and training systems have been, in the past, both supply-driven and inflexible about meeting the needs of many learners. Policy-makers are seeking the most effective balance along two dimensions. On the one hand, reform programmes seek to balance responsiveness to demand and a proper concern for well-governed supply of qualifications. On the other hand, governments, providers and stakeholders seek to achieve coherence in qualifications systems, while, at the same time, achieving learner-centred approaches that can meet the diverse needs of people in all social groups, as lifelong learners. Policy-makers are seeking to identify and reach an effective position on a continuum between a flexible qualifications system focused on learners and a coherent system comprising solid, dependable qualifications. There is a similar need for balance between a supply-led and a demand-driven approach to governance and reform of qualifications.

6.3.1. The flexible and nimble/solid and coherent continuum

At one end of the continuum – focus on the flexibility in the qualifications system – qualifications are geared most clearly to providing the learner with ease of access, associated with flexible modes of knowledge and skills acquisition and assessment to meet the preferences and needs of a wide range of learners, along with bite-sized modules and credit-based qualifications that the individual can build up at their own pace and to their own specification. This also means that employers can invest in bite-sized

certification for groups of employees where this meets their needs, rather than longer and more expensive forms of qualifications.

A focus on 'solid' qualifications, in contrast, places the main emphasis on developing and maintaining a coherent system that comprises qualifications that gain trust and currency precisely because they are solid, well known and can stand the test of time. The characteristic here is system coherence that can achieve wide social recognition, thus bringing benefits to the learner even though the system has rules that give the learner limited flexibility to navigate at will.

6.3.2. The supply-led/demand-driven continuum

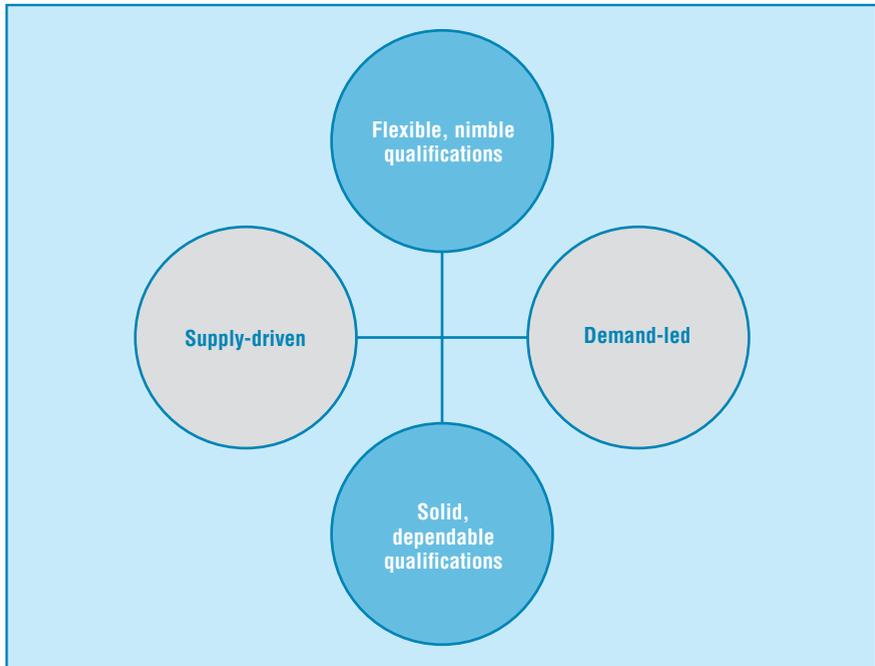
The second dimension concerns the role of education providers (ministries, local authorities, education professionals, etc.) in the governance and reform of qualifications as contrasted with the role of the demand side. This aspect, which also casts light on changing roles of qualifications in their particular contexts, seems set to remain important for a considerable time ahead.

When the supply side dominates, the main objectives are to achieve efficiency within the system, with effective formal links between qualifications and, nowadays, the aspiration for as many people as possible in each age or social group to have access to qualifications of one kind or another. Here, it is likely to be seen as important to uphold traditional standards and to ensure a sufficient flow of learners into each of the different qualification tracks, following system aims and objectives that the ministries and providers of education have set themselves.

A demand-led system is more responsive to the voice of drivers who are located outside the main arrangements for providing education. These drivers may be important voices in society, such as social, political or religious groups. In particular, the demands raised by the social partners and employers in the labour market have become more prominent. The employer argument is that a prime role of most or all education and training – not only vocational education and training – is to ensure a good supply of employable people for the labour market: people equipped with the knowledge and generic and specialist skills needed for increasingly complex and knowledge-intensive working situations.

The dimensions provide a useful map onto which policy-makers can plot both where their current qualifications (whether whole qualifications systems or particular subsystems) sit, and the possible and optimal directions of travel, according to prevailing values and aspirations, that reforms can take.

Figure 9. **Scenario dimensions for qualifications and qualification systems**



Policy-makers might identify their national position as having a strong focus on qualification system flexibility and have in place dynamic measures to ensure that the social partners have a major role in identifying education and training needs: this position is somewhere in the top-right quadrant. Currently the dominant policy aspirations for qualifications developments in both England and Scotland, and perhaps also Ireland, best fit this description. If the evaluation of this solution is that the system has started to be incoherent, and has too many expensive overlaps in terms of a qualifications market, then reforms might be selected to shift the qualifications systems more towards a solid and dependable qualifications focus or to a more even balance on the supply-driven and demand-led continuum.

In contrast, a country with a strong education and labour ministry lead (supply-driven) and an emphasis on traditional qualifications, leading either to academic progression or to low-status vocational qualifications, can place itself in the bottom left quadrant. Reform objectives may be set to make the system more responsive, by moving towards a stronger measure of demand-side

lead and probably to a stronger focus on the learner. Spain and Portugal are both probably following this trajectory. A decade or two ago, many European systems of qualifications were located here, not least among the countries from Central and eastern Europe who joined the EU in 2004 and later.

Policy-makers in France, Germany and perhaps Denmark, on the evidence contained in the case studies, would see their system of VET qualifications as being located in the bottom right quadrant (solid, dependable qualifications that are demand-led) and their general and traditional higher education qualifications as being towards the bottom-left: solid and dependable qualifications that are supply-driven.

Greater flexibility and responsiveness to demand are common themes in the policy discourse at European and Member State levels. However, this does not necessarily mean that the appropriate strategy for all is to move uncritically towards a polar position of flexible, bite-sized qualifications strongly conditioned by demand-led considerations. A large number of European stakeholders would contest this position. Country strategies are likely to be more nuanced than this, and here lies the usefulness of the scenario construction that allows planners to conceptualise and model a number of possible solutions.

Four contrasting scenarios for qualifications development over the period 2010-20 are set out in Table 8.

Table 8. Four scenarios for the development of qualifications, Europe 2010-20

<p>SCENARIO 1: Flexible qualifications, supply-driven</p> <p>Learners can navigate qualifications flexibly, which leaves space for learners to choose how they qualify. Education and training providers are in control, emphasising traditional goals and values, efficiency, cost-effectiveness and making sure that large numbers can qualify.</p>	<p>SCENARIO 2: Flexible qualifications, demand-led</p> <p>Learners can navigate qualifications flexibly, which leaves space for learners to choose how they qualify. Governance systems ensure that the social partners and community interests are strong partners in qualifications development, emphasising labour market signals, as well national and community values.</p>
<p>SCENARIO 3: Solid, dependable qualifications, supply-driven</p> <p>Learners face large, benchmark national qualifications and systems that govern access, participation and progression. This limits flexibility. Education and training providers are in control, emphasising traditional goals and values, efficiency, cost-effectiveness and making sure that large numbers can qualify.</p>	<p>SCENARIO 4: Solid, dependable qualifications, demand-led</p> <p>Learners face large, benchmark national qualifications and systems that govern access, participation and progression. This limits flexibility. Social partners and important groups in civil society have a lot of influence over how qualifications are structured, mainly at the national level.</p>

Even if Scenario 3 is a recognisable point of departure for many European countries (and probably not an engaging point of arrival), variants of each of Scenarios 1, 2 and 4 are likely to be legitimate or attractive outcomes for the policy-makers working with particular European qualifications and qualifications systems.

Before considering policy responses and mechanisms for qualifications reform, it is worth repeating that policy-makers are faced with both achieving positive outcomes and balancing conflicting demands and expectations.

6.4. Policy implications

Qualifications systems are complex and contain tensions. Policy-makers have to balance factors such as the protracted building of consensus as opposed to rapid development of qualifications to meet emerging labour market requirements, formal regulatory frameworks as opposed to looser linkages with greater flexibility, and locally developed and accepted qualifications with high currency but only in local situations, as opposed to nationally and internationally portable qualifications developed, for example, within a national qualifications framework. Funding limitations focus attention on lowering the cost of developing and operating the qualifications, quality assurance, professional training, etc., as opposed to focusing on quality in delivery of assessment and of learning.

The dimensions of the scenarios (Figure 8) and the scenarios statements (Table 8) invite policy-makers working on the reform of qualifications to:

- map their current situation onto the scenarios;
- identify the position that they seek to achieve in the light of government/ stakeholder aspirations for development and reform of qualifications, considering feasibility and risks;
- plan the main aspects and trajectory of qualifications reform, bearing in mind that usually a reform of qualifications is only one part of a wider set of reforms.

Three examples illustrate how this might work.

Example 1: country A

Country A has low levels of participation in post-compulsory and higher education, a comparatively low equilibrium in the supply of skills on the labour market, and many barriers to potential learners returning to education and training. The decision-makers consider that the qualifications are too much

supply-driven and that the traditional qualification structure is inefficient and out of touch with learner and employer needs. The decision is taken to reform over time to a more demand-led system in which qualifications are flexible and can be acquired in a variety of ways by learners in their different situations.

Reforms hinge on three main areas of concern. First, to make changes to governance so that the social partners have a central role as partners in identifying training needs in post-compulsory and higher levels of VET. Second, to break down the traditional, even monolithic, rules that restrict access to qualifications at all levels, so that barriers to entry are lower, and more flexible and learner-friendly arrangements are established. Third, to place the whole emphasis on a more open access dynamic within the qualifications system, so that both younger and older citizens are encouraged to engage as lifelong learners.

These three areas of concern provide the cornerstones for a reform strategy, and each is associated with several specific policies.

Area of concern	Associated policies
Develop social partners' role in shaping education and training	National consultation on creating VET and higher qualifications that are responsive to labour market needs
	Establish national representative councils engaging employers and trade unions in qualifications design and implementation
	Ensure that all universities, vocational colleges and schools have industry representatives on their boards
Introduce regulations to make qualifications more flexible	Introduction of national qualifications framework
	Progressive requirement that all qualifications become modular in design
	Gradual introduction of credit framework that allows accumulation and transfer between qualifications
	Regulations and arrangements in place to recognise the outcomes of informal and non-formal learning
Motivate more people to become lifelong learners	New public/private cost sharing arrangements and financial incentives for disadvantaged target groups
	Maximum flexibility to allow learners control over where and when they study
	Distance learning and maximum use of ICT is developed
	Each learner has a unique learner record and number, so that evidence can be accumulated

Each of these policies is planned to unfold over time, and a series of actions is attached to every policy, to have effect at different levels and phases of the qualifications system. Further, policy-makers are quickly aware that effective implementation of the key strategies will require several associated lines of action. These are mainly advocacy and communication of the reforms, teacher training, leadership management and accountability, managing resources, quality assurance, curriculum and assessment reform, and educational research. It is quickly recognised that full implementation will take more than a decade, so politicians plan for consensus and continuity.

Example 2: country N

Country N considers that its system of social partnership and community engagement - national, regional and institutional - as effective in keeping up-to-date its system of qualifications, based on tradition, well-established and demanding. There is too much emphasis on traditional academic standards, and not enough on creativity and meeting the needs of individual learners. Without wanting to introduce a modular approach, the policy-makers are seeking to provide the learners with more flexible and open opportunities and a decision is taken to opt for a limited set of reforms.

Area of concern	Associated policies
Adjusting qualifications to meet new needs and accommodate the changing culture of young learners	A progressive set of key competences is introduced for all stages of school and qualifications, including teacher training
	Within existing qualifications, some new options are introduced, encouraging learners to mix general and vocational areas of study
	Approaches to information advice and guidance are reformed, with improved entitlement to personalised learning plans
	A voluntary system of online student feedback is introduced
Create some flexibility without a full reform of qualifications	Community engagement and a cross-curriculum project are introduced for all general education and higher education qualifications
	A new applied learning programme (ALP) and applied learning qualification are introduced into the NQF to sit between the general and vocational pathways

All these changes can be established and regulated centrally, so the reforms are planned for a five-year period. However, initial and continuing teacher training become major requirements, as does a new approach to school leadership to begin to change the culture of schools and colleges.

Example 3: country Y

Country Y established some years ago a very flexible system of qualifications based on flexible accumulation of modules and units that can be transferred from one setting to another, thus giving learners considerable control over the content and pacing of their acquisition of qualifications. At the same time, national and local sector groups ensure that vocational education and training is responsive to national and international developments. The problem is that few users understand clearly how the system is intended to work and, contrary to intentions, the qualifications system lacks legibility and, perhaps, coherence. Policy-makers want to make the system more readily understandable to improve public levels of trust and confidence, and functionally less complicated and more coherent.

Area of concern	Associated policies
To raise public levels of trust and understanding of the decentralised, flexible and learner-centred system of qualifications	Impact evaluation and a public enquiry into qualifications and assessment standards reasserts the importance of some of the traditional disciplines
	New QA systems, with greater external emphasis on external evaluation
	Public awareness campaign to improve employer and parent trust
	New regulations to simplify pathways and rationalise learners' wide range of choice
To make the system of qualifications less complex	Tighter rules of combination are introduced, with more emphasis on whole qualifications, rather than individualised accumulation of modules
	NQF is modelled around three clear pathways for schooling: the higher education variants, opportunities for gaining workplace qualifications, and how adults can gain access

These hypothetical examples can be traced in current and future scenarios, and the areas of concern and associated policies form a well-known beginning to action planning approaches.

Reforms to qualifications may also be an end in themselves, for technical aspects, just as they may be part of a wider reform programme and reflect shifts in what to be qualified means, as well as shifts in purposes and functions. Qualifications reform is increasingly seen as an important part of the development of lifelong learning policies.

The OECD study (Coles and Werquin, 2007) also helps policy-makers to establish the links between the scenarios for qualification systems and available strategies and mechanisms for motivating lifelong learning. The study took account of the role and interests of three main groups of

stakeholders - individuals, employers and providers - and used these to identify a range of policy mechanisms. The study helpfully distinguishes between the policy responses ⁽⁸⁶⁾ influential stakeholders can adopt, and a range of mechanisms that can support the policy response as planning moves to implementation of reform. The kinds of qualifications policy responses open to policy-makers are summarised as follows ⁽⁸⁷⁾.

Policy responses to harness qualification systems to motivate lifelong learning	Mechanisms to support the implementation of policy, so that qualification systems support lifelong learning
Increase flexibility and responsiveness Motivate young people to learn Link education and work Aid open access to qualifications Diversify assessment processes Make qualifications progressive Make the qualifications system transparent Review funding and increase efficiency Better manage the qualifications system Change stakeholder behaviour	Communicating returns on learning for qualifications Recognising skills for employability Establishing qualifications frameworks Increasing learner choice in qualifications Clarifying learning pathways Providing credit transfer Increasing flexibility in learning programmes leading to qualifications Creating new routes to qualifications Lowering cost of qualifications Recognising non-formal and informal learning Monitoring the qualifications system Optimising stakeholder involvement in the qualifications system Improving needs analysis methods so that qualifications are up to date Improving qualification use in recruitment Ensuring qualifications are portable Investing in pedagogical innovation Expressing qualifications as learning outcomes Maximising coordination in the qualifications system Optimising quality assurance Improving information and guidance about qualifications system

⁽⁸⁶⁾ Policy response refers to a 'formal national policy statement covering the intention to develop major parts of the qualifications system in order to bring about improved lifelong learning'.

⁽⁸⁷⁾ Adapted from OECD, 2007, Chapter 4 and Executive Summary.

Used this way, scenarios planning can play a role in policy formation on qualifications reform. It can help to link aims to practice and to distinguish between policy aspiration and implementation. A common set of key concerns can help to organise the specific policies and the particular actions appropriate to different strategies and directions of travel.

European education and training policy has concentrated on a limited number of policy areas. In qualifications reform, most of these would seem to be robust across the different scenarios, assuming that trajectories are towards variants of Scenarios 1, 2 and 4. This includes NQF developments, the recognition of informal and non-formal learning, improved quality assurance (differing formulations may be appropriate to different scenarios and contexts), a well considered shift to learning outcomes with a strong emphasis on key competences (competence-based education and training), enhanced systems of information advice and guidance, and the priority placed on mechanisms to improve social cohesion and social inclusion. Credit accumulation and transfer has proved a complex issue at many levels, and may be more appropriate in the trajectory to Scenarios 1 and 2; Scenario 4 may be appropriate to more limited, closed systems of credit accumulation. Blurring the boundaries between VET and higher education may be appropriate to Scenarios 1 and 2 but more difficult in Scenario 4. None of these policies and actions will take quite the same form in every scenario.

6.5. Implications

This chapter has described scenarios that policy-makers can use to characterise where their qualifications system (or a particular subsystem) currently sits. This approach can then be used to identify the applicable and preferred directions of reform.

Combining this analysis, based on the evidence in reported in this study, with the results of the recent OECD study linking qualifications systems to motivating lifelong learning, offers the policy-maker a fairly clear method of identifying some key issues for the reform process and helps to identify the policy responses and policy mechanisms that can support reform. This involves linking scenarios (identifying the status quo and preferred and likely direction of travel) with a set of key areas of concern. The different directions of reform will require different policies and actions. Nevertheless, some aspects of policy and reform seem to be common to all the scenarios and are therefore robust.

This chapter sets out a method and makes a start; it also reflects on the robustness of European education and training tools for qualifications reform that may be highly appropriate to Scenarios 1 and 2, but somewhat less appropriate to Scenario 4. Nevertheless, Scenario 4 will remain a legitimate objective for a significant number of countries. Clearly, policy-makers will work with the appropriate tools and evidence, each in their specific context and environment.

Changing qualifications: synopsis and implications

A functioning qualification requires policies, funding, institutions, standards, procedures and administration. A necessary condition is that a range of stakeholder groups must work together a systematic way. For individuals to achieve qualifications, teachers and learners have to perform their roles in socially accepted – and evolving – ways, and the learning usually has to be subject to objective or rigorous validation. After this, recruiters and other users of qualifications must endow them with some recognition in terms of status or currency, if the qualifications are to function in the labour market, the education system, and in society. After this complex process, qualifications offer benefits to the individuals who have achieved them and to other users.

Qualifications systems are multifaceted and their reform is usually a complex process. Often, there are barriers to reform and resistance on the part of some of the stakeholders. This tends to make qualification systems stable entities that evolve rather slowly. This stability may not be a problem, since the custom and practice in the system combined with the durability of qualifications, allows some qualifications to become embedded in the informal and often tacit knowledge of citizens and their communities: in consequence, particular qualifications are well regarded and retain their value for stakeholders in the qualifications market. At the same time, interest groups in the qualifications system such as teachers, universities, sector representatives and political leaders may protect their traditional positions and hinder attempts to change qualifications systems, arguing that there is a close link between the durability and currency of qualifications. While some stakeholders may seek stability, others may seek renewal.

Social and economic policies, social and economic contexts, and the more sophisticated technologies available, are factors driving change in qualification systems.

Social and economic policies are designed to improve the lives of citizens; in all European countries, education, training, and, specifically,

qualifications are increasingly the focus of attention as instruments for meeting policy objectives. Robust and often complex qualifications systems are now being examined for potential reform.

At the same time, changes are taking place in the social and economic context in which qualifications systems exist. For example, the national boundaries within which almost all qualifications used to be defined and used are now more permeable. Globalisation and information technologies have opened up national economies, labour markets and qualifications systems. Companies, workers and students are increasing mobile, and this has resulted in interest in international qualifications that meet the needs of international companies and a need for a more ready legibility of a country's qualifications by its international partners. Politically, strong international pressure is created by the trend towards international monitoring of individual attainments and the international reporting of the aggregated national outcomes.

Digital systems are a third, technical, source of change. They provide a new wealth of resources of information and learning for the learner – whether enrolled student or informal learner – and for teachers, trainers and awarders of qualifications. Online availability of information, advice and guidance, tests on demand, assessment, databases of achievements and databases of opportunities for work or study are changing the operations of qualifications providers. Importantly, the scope of learning that can be validated is becoming more diversified, as are the ways in which this can be used in recruitment and other human resource processes.

The areas of qualifications and systems that are considered as having potential for change so that they perform better for citizens, their communities and the economy can be summarised as:

- (a) a significant drive for learning outcomes: now used with increasing frequency to improve descriptions of qualifications and programmes that have been based traditionally on teaching specifications, qualifications are described by the duration and place of learning and qualifications levels that exist implicitly in countries;
- (b) classification of qualifications through the introduction of national or sectoral frameworks: there has been an explosion in the number of NQFs being developed in different countries across the globe from a handful in 2008 to over 150 in 2010;
- (c) more emphasis on social and, in particular, economic needs through qualifications: the policy goal is to achieve better matching of the supply of knowledge, skills, attitudes and competences (from education) to

the demand for knowledge, skills attitudes and competences (from society and particularly from the labour market). This also involves closer linkages between higher education and VET sectors;

- (d) developing the qualifications system to recognise and validate the learning of individuals independently of the route that they have taken: as more policy-makers and learners engage with the complex idea and process of lifelong learning, and as more workplaces emphasise the importance of continuous learning, some of the distinctions between the outcomes of formal and informal learning have become redundant. New emphasis is placed both on the role of informal and non-formal learning alongside the formal, and on giving people more flexibility, for example to build up modules and units from different tracks or programmes in a way that best meets their needs and purposes;
- (e) paying attention to generic skills such as key competences, but also qualities such as personality and emotional intelligence;
- (f) using qualifications and qualification reforms to improve levels of access, participation and validation: the use and reform of qualifications is widely harnessed to improve participation in learning and, therefore, to raise the qualifications levels of the national population. This may mean looking for flexibility in what are sometimes seen as unresponsive qualifications systems, through personalisation of provision, modules and credit arrangements.

As qualifications and systems around the world evolve to accommodate all or any of the potential change areas, validation is central to discussions. This is because validation is central to the whole qualification process: it sits between assessment of knowledge, skills and competences and certification of them. Validation is best understood as the process through which evidence of learning is judged to meet objective or, at least, reliable standards. Improvements in procedures can lead to several benefits:

- (a) use of learning outcomes makes the basis of the standards for the validation process more transparent. This leads to greater trust in the relevance of qualifications on the part of users;
- (b) national qualifications frameworks set out clear overarching standards for validating levels of learning. The levels established are commonly understood. These levels are also trusted, because they can be associated with better and more comprehensive quality assurance systems;
- (c) if actors on the demand side of the qualifications development process can better express what they require to be validated, qualifications

can be adapted or new ones developed, and providers can also adopt processes to achieve outcomes that are closer to what is needed. This explains the drive towards competence-based qualifications, which – like other factors in this report – has to be carefully balanced to meet the range of roles and functions required of qualifications;

- (d) validation that is independent of routes to learning leaves learners with more options for presenting their knowledge, skills and competences in a purposeful way that can lead to recognition of the learning that they have achieved. Learners can also make use of the full range of opportunities to learn what their whole environment offers, rather than be limited to the sometimes narrow confines of formal qualification routes;
- (e) opportunities to develop generic skills are usually embedded in the context of learning programmes or work practices, but they are often not assessed and reported. Effective, flexible validation methods can make generic skills more visible;
- (f) validation processes can be tailored to optimise how an individual's learning can relate to the standards and assessment criteria used for validation.

An important condition for success is that, in all the cases cited above, validation methods have to maintain the currency of, and trust in, particular qualifications and the qualification system as a whole. Care is taken to ensure that standards are objective and transparent, and that they reflect international benchmarks. If new modes of assessment or validation are introduced into a qualification or system, the rules through which they operate have to be as robust as the more traditional modes of assessment and validation.

It may be the case that too much is expected of qualifications. The greater specificity that is often sought in describing the knowledge, skills and competence and other attributes that are needed for jobs (or is offered by a citizen) risks raising unachievable and possibly damaging expectations of what a qualification can provide. Qualifications can play an important part in representing the needs of a recruiter (and the 'offer' of a citizen) but they cannot do this as well as performing a whole range of social, individual and lifelong learning functions. This concept of representation (of a range of qualities deemed important by recruiters) is one that might help free qualifications from excessive expectations and leave them more fit-for-purpose.

The range and transparency of the knowledge, skills and competences and personal attributes of individuals can be improved through use of learning outcomes. However, learning outcomes may not fit the standard

packages of qualifications. In practice, some competences may require less formal assessment and validation, best carried out by recruiters as they apply a sophisticated set of recruitment techniques in their own context to ascertain the best match between the jobs they are trying to fill and the people who might fill them.

Increasingly, and especially after initial education, evidence suggests a diminishing, albeit significant, role for qualifications in recruitment and promotion. Other features of knowledge, skills and experience rise to prominence among the things that differentiate one applicant from another. Qualifications may be necessary, but they tend less to be the deciding factor.

If it is accepted that qualifications cannot meet all purposes, it is possible to emphasise the role and functions that qualifications perform well, so that they can be better aligned to a more limited set of purposes. This can improve the ways qualifications are designed and used, and how qualifications systems are managed.

It may be that future alternatives will be needed to supplement commonly used, large-scale national and sectoral qualifications. If these qualifications are to be fit for the purpose of certifying that large groups of individuals have met the broad educational and occupational standards for a sector or group of occupations, then other more tailored outcomes of validation might be more appropriate the demands of specific employment or education contexts. This tailoring process could involve particular combinations of more specific modules or units, which involve people learning from diverse sources, including digital and virtual ones. These learners may seek some electronic assessment and validation for their learning, since technical solutions to these functions are in rapid development. The main point is that with such individualistic solutions to learning becoming accessible, recognition systems will also tend to become more individualistic. In consequence, they will probably remain distant from the larger and more formal quality-assured qualifications systems.

There is potential for a more diverse set of tools for representing the knowledge, skills, wider competences, attitudes and personal styles of individuals that may better match the representation of the requirements of recruiters. Qualifications will play a large part in this representation but their limited fitness for purpose will mean that other ways of describing the attainments and qualities of individuals will be needed. Through this representation it will be easier to see the role of qualifications in terms of matching education outcomes to the labour market, and allowing individuals to interface better with the systems that sit at the boundaries of

education and the labour market; skills needs analyses and occupational specifications in terms of knowledge, skills and competence.

Validation is likely to play a future role beyond its normal function in qualifications, becoming more refined and sophisticated as it is applied more widely in different settings. Even with lighter touch quality assurance, this kind of validation is unlikely to replace the need for formal national qualifications. However, a qualifications system that puts diverse, fit-for-purpose validation processes in a more prominent position for representing some aspects of learning may meet a wider range of needs.

Broader use of validation also creates some problems. Since 2000, different forms of validation have been monitored and many projects and applications have received government and European funding. There has been expansion in the use of wider methods of validation in public, private and the third sectors. However, with just a few notable exceptions, there has not yet been a breakthrough so that these methods can play their part in national qualifications systems. There seems to be a structural barrier that inhibits the expansion of these types of validation to larger scale application. This is the major tension to be resolved if validation is to deliver the benefits described above and allow national qualifications to play a strong and reliable role in the representation of knowledge, skills, competences and other attributes. The challenge for national governments, private providers and third sector bodies is to examine again how the barriers can be removed, so that the drive for more and better validation methods can be energised.

To conclude, the objective of the study has been to support policy-makers in their understanding of qualifications and qualifications systems, as they consider and take strategic decisions to support the development of effective lifelong learning and lifelong recognition. The study has provided some conceptual clarifications, it has documented change, and it has reported some areas where there is no obvious change.

This report has produced three layers of synthesis. Taken as a whole these are intended to add value to national and European thinking and research into different aspects of the changing roles, functions and uses of qualifications. The first is a review of evidence from literature, country policy and practice and a set of Cedefop studies. The second layer of synthesis brings all of these sources together. In this concluding chapter the study has aimed for an overview of the changing roles, functions and uses of qualifications and qualifications systems. This analysis indicates where the key to improved future qualifications systems might lie.

List of abbreviations

APEL	Accreditation of prior experiential learning
AQF	Australian qualification framework
CFE	Curriculum for excellence (Scotland)
CHEERS	Careers after higher education (Germany)
CNC	<i>Cadre national de certifications</i>
CNCP	Commission Nationale de la Certification Professionnelle
CPC	Commissions Professionnelles Consultative
CVET/CVT	Continuing vocational education and training/Continuing vocational training
DARES	Direction de l'Animation de la Recherche et des Statistiques
DQR	<i>Deutscher Qualifikationsrahmen</i> (German qualifications framework)
ECTS	European credit transfer system (for higher education)
ECVET	European credit transfer system for VET
EHEA	European higher education area
EQARF	European quality assurance reference framework (for vocational training)
EQF	European qualifications framework
ETF	European Training Foundation
EU	European Union
EVA	Danish Evaluation Institute

EWNI	England, Wales and Northern Ireland
FÁS	National Training and Employment Authority (Ireland)
FETAC	Further Education and Training Awards Council (Ireland)
FQEHEA	Framework of qualifications in the European higher education area
GIA	General intellectual achievement
HE	Higher education
HEA	Higher Education Authority (Ireland)
HETAC	Higher Education and Training Awards Council (Ireland)
IAG	Information, advice and guidance
IALS	International adult literacy survey
ILO	International Labour Office
ISCED	International standard classification of educational development
NARIC	National academic recognition and information centre
NCVER	National Council for Vocational Educational Research (Australia)
NFQ	National framework of qualifications
NQAI	National Qualifications Authority of Ireland
NQF	National qualifications framework
OECD	Organisation of Economic Development and Cooperation
Ofqual	Office of Qualifications and Examinations Regulation
PIRLS	Progress in international reading literacy study
PISA	Programme for international student assessment

QA	Quality assurance
QCF	Qualifications and credit framework (England, Wales, Northern Ireland)
RNCP	<i>Repertoire national des certifications professionnelle</i>
RPL	Recognition of prior learning
SAQA	South African Qualifications Authority
SAQF	South African qualifications framework
SCQF	Scottish credit and qualifications framework
SMEs	Small and medium-sized enterprises
SQA	Scottish Qualifications Authority
TIMSS	Trends in international mathematics and science study
UKCES	United Kingdom Commission for Employment
VAE	<i>Validation des acquis d'expérience</i>
VET	Vocational education and training

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Qualifications (or certificates and diplomas) are of crucial importance in modern societies. Individuals use qualifications not just to signal their personal, social and professional status; their access to education and training and the labour market is largely dependent on qualifications held. This study analyses the roles and functions of qualifications in Europe today and shows how these are changing. Based on a combination of sources – ranging from an extensive review of recent research on qualifications in different social science disciplines to detailed country cases reflecting empirical research in the field – the study aims to provide an overview of a field of increasing importance to researchers, policy-makers and individual citizens. The extensive work of Cedefop on qualifications is reflected in the study.

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