



RESEARCH PAPER

No 5

Linking credit systems and qualifications frameworks

An international comparative analysis



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We provide information on and analyses of vocational education and
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Foreword

The launches of the European qualifications framework (EQF) in 2008 and the European credit system for vocational education and training (ECVET) in 2009 prompted examination of experiences with similar tools in Europe and in other countries. Following European recommendations on both these, implementation in national, regional and sectoral contexts started. Cedefop felt the need for both an overview and a critical analysis of national and European developments on credit systems or similar mechanisms, qualifications frameworks and the relationships between the two.

Credit systems and qualifications frameworks are interwoven. The EQF recommendation ⁽¹⁾ mentions *'close links between the European qualifications framework and existing or future European systems for credit transfer and accumulation in higher education and vocational education and training, in order to improve citizens' mobility and facilitate the recognition of learning outcomes'*. Taking the argument further, the ECVET recommendation ⁽²⁾ calls for *'facilitating the compatibility, comparability and complementarity of credit systems used in VET and the European credit transfer and accumulation system (ECTS)'*. Against this policy background, this study deals consequently with those three tools and the qualifications framework for the European higher education area (EHEA framework).

It is already a challenge to consider the plurality of vocational education and training and higher education contexts in one study. Added to this is the complexity of dealing with the national meso-level and the European macro-level. Questions emerge of how credit systems and qualifications frameworks are embedded and path-dependent, how they are interlinked and integrated to support validation and recognition of learning outcomes, or how to aid individuals in progression and access to education and training. This study is pioneering for several reasons:

- it focuses on the European education area as a whole, covering progress within the Bologna and the Copenhagen processes;

⁽¹⁾ Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European qualifications framework for lifelong learning. (2008/C 111/01.) *Official Journal of the European Union. C 111/1 - C 111/7. 2008.*

⁽²⁾ Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European credit system for vocational education and training (ECVET). (2009/C 155/02). *Official Journal of the European Union. C 155/11 - C 155/18. 2009.*

- it considers the development of common European tools as well as national or regional ones;
- it considers together the credit systems and qualifications frameworks developed for specific purposes (and not always compatible with one another);
- it prompts to reflection on the future of those tools at European policy-making level;
- it identifies national and European levers for their further development in terms of governance and design.

In a new phase of European education and training policy, this study is conceived as an input to policy-making and policy learning at national and European levels. It should feed developments by providing evidence of successful and less successful endeavours linked to credit systems and qualifications frameworks. Especially in its section on future options for development, it points at drivers, enablers for change, which could inform current European and national decision-making processes. This research work relates to Cedefop activities in qualifications frameworks, learning outcomes and qualifications. It contributes to evaluating common European tools and fostering increased coherence between them in an overarching lifelong perspective, an activity on the agenda for the coming years.

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Director of Cedefop

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Executive summary

Qualifications frameworks and credit systems have convergent objectives in developing learning paths so individuals can build on what they have achieved independent of the education and training system or learning context in which the learning took place ⁽⁴⁾. The mechanisms through which they aim to do this differ. Qualifications frameworks operate through classifications or registers of qualifications according to certain criteria (level descriptors, typically based on learning outcomes) showing how qualifications from different subsystems inter-relate. Credit systems are put in place to enable learning outcomes achieved in different institutions, learning contexts (education and training institution, work, voluntary activities or leisure), systems (vocational or academic education and training) or over a longer period of time, to be used towards achievement of a qualification. They operate by identifying equivalence in content of different qualifications (or programmes), discrete assessment of components of qualifications (or programmes) and rules based on which learning outcomes can be accumulated towards the award of a qualification.

This study analysed qualifications frameworks and credit systems in six EU Member States and two non-European countries ⁽⁵⁾ focusing on how these influence the design and award of qualifications, administration and management of qualifications systems and the development of learning pathways (conception of related and progressive programmes/qualifications) and individual learning paths (progression possibilities for the individual). It is based on a qualitative and exploratory research design using semi-structured interviews and literature review. The sample of countries was selected to cover established as well as emerging qualifications frameworks and qualifications systems with different approaches to credit transfer and accumulation. The research also encompassed the European credit systems (ECTS, ECVET), and qualification frameworks (EHEA framework, EQF). It proposes a set of scenarios for their evolution based on status quo and drivers for change.

⁽⁴⁾ Both instruments can also have other, less convergent objectives such as rationalisation or streamlining of qualifications offer or management of education and training programmes.

⁽⁵⁾ Australia, Finland, France, Germany, Slovenia, South Africa, Spain, the UK-EWNI (England, Wales and Northern Ireland) and the UK- Scotland.

Qualifications design and award

National qualifications frameworks follow different purposes, from being transformational devices to descriptive tools. They are very much embedded in the cultural settings and historical developments of specific education and training systems as well as socioeconomic background. The review of qualifications frameworks developments shows great variation in the extent to which these influence directly the way qualifications are designed and awarded. Qualifications frameworks are always embedded in a broader context of qualifications systems, where the rules on qualifications design and award are not necessarily linked to the frameworks but each subsystem (and possibly each awarding body) can have its own regulations.

Some of the qualifications frameworks studied have the ambition to integrate the regulation feature of qualifications systems and to develop a homogeneous approach to qualifications design across the whole system. The extent to which this happens depends on how the qualifications subsystems are formalised and structured. The design of a qualifications framework implies the existence and enforcement of rules of qualifications design and award (there can be more than one set of such rules) but these are not necessarily a feature of the framework itself. Certain frameworks only influence qualifications design in subsystems where this is not done through other means. The analysis also shows that imposing a unique approach to qualification design and award bears the risk of distorting the 'fitness for purpose' of different types of qualifications. Rather than implying a common approach to qualifications design and award, most frameworks are built on the respect of some core principles (such as the existence of learning outcomes based standards or curricula and of quality assured assessment), observation of quality assurance rules, and mutual trust among institutions competent for referring qualifications in the framework.

Similarly, credit systems may be more or less restrictive in the design of qualifications from different education and training subsystems. In this respect, it has been useful to distinguish between credit arrangements, credit (points) convention and credit systems. The first emphasises the solutions to validate and recognise credit in general. The second concerns the existence of a common approach to quantifying credit. The third concept reflects the 'systemic' dimension through which rules to accumulate, validate and recognise credit are embedded (a priori) in qualification design by systematically requiring that qualifications are designed in components (units or modules) and making the rules on how credit is accumulated and transferred explicit and embedded in qualifications design.

The study shows that the design of credit systems is more common and adapted to qualifications subsystems (rather than the whole system) as it requires strong centralised management as well as a common approach to qualifications. The use of a common credit points convention for the qualification system is much more common and flexible with regard to the different subsystems. The analysis also underlines that the actual use of credit arrangements for progression and permeability depends on a number of factors that are independent of the way qualifications are designed and awarded: these include the motivation of education and training institutions, their funding arrangements, or the existence of a demand from the side of learners.

Transfer, accumulation and progression

The research identified several patterns in the use of qualifications frameworks and credit systems to support transfer, accumulation and progression.

Rather than using qualification titles to regulate access, as is traditionally the case, qualifications frameworks may be used to define entrance criteria to programmes, thus potentially enlarging the progression possibilities for learners without traditional qualifications. However, this typically regulates only the right for learners to apply; whether they get access to the programme is normally decided by the institution where they seek access. While such a measure may diminish certain barriers to progression, its use will still depend on the extent to which education and training institutions are seeking more learners or whether they have sufficient demand from traditional learners. Further, stipulating that a certain level of learning outcomes gives the right to access higher levels does not yet solve the issue of identifying whether the necessary prerequisites (in terms of content of learning outcomes rather than level) are mastered, thus giving learners real chances to complete the programme successfully.

The use of units combined with levels can enable awarding bodies to design learning pathways with multiple entry and exit points. This means that learners can evolve in the pathway by having 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 ⁽⁶⁾). 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. While this approach is enabled by the existence of units and levels, it requires a coordinated approach to the content of qualifications and the design of

⁽⁶⁾ Provided they have completed the necessary units.

programmes. To be able to offer learners such seamless progressive pathway, proximity between institutions delivering the education and training, and in some cases the integration of the full offer within a single institution, is crucial.

Another option of integrating credit systems in qualifications design 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). This approach requires that, when designing new qualifications, the content of other qualifications/ units is examined to see where overlap exists. It requires that information about the content of units is collected and centrally stored (in a register, for example) or that other means for identifying common or equivalent units are set up.

In addition to these patterns, which all require centralised administration, other approaches rely on the autonomy of education and training centres, and their local cooperation, and are typically based on demand from learners or employers (if there is a particular skills shortage).

The study also notes that the three ways of making learning paths more flexible (transfer, accumulation and progression) are not necessarily interrelated and that transfer can be possible without accumulation, or the reverse, and that both are independent of possibilities of progression. It highlights that quantitative evidence for credit transfer taking place is scarce and demand remains unclear. It concludes that the use of flexible learning paths by individuals requires, in addition to adaptation of structures and systems, activities to inform and motivate individuals to use these possibilities, as well as the motivation of education and training institutions to offer them.

Another aspect analysed is the political management and administration of qualifications frameworks and credit systems. For qualifications frameworks, management and administration may be more or less complex depending on:

- how structured are the qualifications subsystems of the framework. It can be seen that, if these are already structured and quality assured, the framework itself is more likely to rely on trust than on regulation. If they are open to qualifications from a very broad range of awarding bodies which are not otherwise regulated, more stringent rules and monitoring are necessary;
- how much is coherence in qualifications design expected by the framework. Some frameworks are only concerned with the way level is allocated to a qualification. Others also control the way qualifications volume is expressed in terms of credit points and some are concerned with both level of learning outcomes and volume for units rather than qualifications.

In all cases, setting up a qualifications framework, using a common credit points convention or designing a credit system, implies decisions on who has the competence to allocate level and credit points to a qualification and, in some cases, its components.

Two main patterns can be seen in integrating credit systems and qualifications frameworks:

- the two instruments are used jointly to classify qualifications;
- the two instruments are integrated to enhance credit transfer and accumulation.

In the first case, the qualifications framework uses, in addition to the structure of levels, the 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. As the study shows, this becomes particularly relevant when small specialised qualifications (such as those designed for adults) are aligned to the same levels as the qualifications from the formal system. This form of integration requires that, in addition to agreeing the process through which qualifications are allocated a level, a process through which their volume is measured is set and monitored. Rather than designing processes to monitor how credit points are allocated, several countries studied decide the volume of learning for specific qualifications title a priori (e.g. stating that a bachelor degree is 180 credit points) thus making sure that all qualification with that title have equivalent volume.

Another pattern of integrating qualifications frameworks and credit systems is a requirement for the framework to embed credit systems systematically in all qualifications in the framework. This typically means 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 others in the framework. A framework which integrates credit in this way requires more detailed administration as information about level of learning outcomes, volume of learning and issues such as assessment needs to be verified for each unit/module and not only for each qualification.

The analysis of modes of integration of qualifications frameworks and credit systems also shows that the stakeholders and their interests and roles in using the two instruments are quite different. While qualifications frameworks require some sort of centralised management and administration, credit arrangements are mostly local, based on partnerships and operating within broad national rules on issues such as education and training provider competence to recognise learning from elsewhere. The stakeholders with greatest direct interest in credit

arrangements are learners and education and training providers. These stakeholders are less directly interested in aspects of qualification classification through frameworks. This is mainly an issue of concern for employers and awarding bodies or bodies regulating qualifications.

On the basis of an analysis of the relationship between these two instruments nationally, the study identified the following aspects which can enable change of European qualifications tools (ECTS, ECVET, EHEA framework and EQF) towards greater convergence:

- the principles and concepts underpinning the tools and creating a common European language to describe qualifications. While some convergence already exists (e.g. common definitions between EQF and ECVET) it could be further enhanced;
- European-level governance in implementing and monitoring these tools. The current governance structures for these four tools operate without much coordinated approach to implementation.

It also identified a number of uncertainties which could drive the development of these tools in one direction or another:

- (a) the extent to which EU tools will be embedded in national legal frameworks and practices;
- (b) whether countries developing credit systems in VET will 'label' them as ECVET or whether this will remain a label for transnational credit transfer;
- (c) whether mobility in VET will develop further and will become a more common element of VET pathways;
- (d) whether countries see the benefits of undertaking two separate referencing exercises (to EQF and the EHEA framework);
- (e) whether the EU governance structures and implementation strategies will be able to address the discrepancies in implementation that will arise;
- (f) which aspects of these tools will become most prominent? Will countries be mainly interested because they offer possibilities of international understanding of their national qualifications or will they mainly want to support domestic reform?

Based on these assumptions, the research identified three main scenarios (including status quo) and two alternatives. All options are described in terms of their nature and possible impacts, they are not analysed in terms of probability nor their feasibility but are inputs to further debate:

- in the first option the four tools develop separately in governance, concepts and pace;
- in the second option, a single overarching qualifications framework encompassing all education and training segments develops, as well as a

single credit system. Both develop along a common set of concepts and governance structure;

- in the third option, the four tools merge into a single integrated European credit and qualifications framework.

1. Introduction

This study analyses the relationship between qualifications frameworks and credit systems, and the implications for:

- qualifications (their design and award);
- progression opportunities for learners and flexibility in constructing individualised learning pathways;
- administrative and regulatory arrangements that enable accumulation of credit.

It reflects on the possibilities for a common European credit and qualifications framework. In the course of the study it became obvious that the term 'credit systems' can only be used as a proxy to describe the variety of approaches, so the term 'credit arrangement' has been introduced to underline the broader role of credit in the context of validation and recognition. In line with the original objectives of the research, specific attention is paid to credit systems and systems using a common credit points convention.

The study analysed the existing situation and the developments foreseen in six EU Member States and two non-European countries: Australia, Finland, France, Germany, Slovenia, South Africa, Spain and the UK (England, Wales and Northern Ireland (UK-EWNI) are analysed separately from UK-Scotland). In parallel, the study examined European tools for lifelong learning: the European qualifications framework (EQF), the qualifications framework for the European higher education area (EHEA framework), the European credit transfer and accumulation system operating in higher education (ECTS) and the European credit system for vocational education and training (ECVET).

Research has been recently undertaken into the nature and development of qualifications frameworks (see for example Tuck, 2007; Raffe, 2009; Cedefop, 2009e). The goal of this study was to go beyond the existing considerations of national qualifications frameworks (NQFs) (see Section 3.3.1.) and to analyse the development of credit arrangements. Therefore, this study combines the topic of qualifications frameworks with that of credit systems and explores how these separately and jointly influence the design and award of qualifications and support individualisation of learning paths. Further, unlike other current research, this study not only explores established frameworks but also analyses developing ones in Europe. This analysis enables capture of the dynamics between developments in European tools and national policies and reforms.

This report first presents a critical overview of European tools (Section 2) outlining their objectives, characteristics and implementation arrangements, as well as the challenges or issues they are facing. It then describes the methodology and presents the analytical framework used to analyse qualifications frameworks and credit systems in the countries studied (Section 3).

Section 4 presents an overview of qualifications frameworks and credit systems in the countries studied, highlighting the country-specific contexts in which these operate and describing examples of recent reforms. The functions of qualifications frameworks and credit systems in describing qualifications systems and actively influencing qualifications design are analysed in Section 5. The way these mechanisms shape individual learning paths and the possibilities for transfer, accumulation and progression are then examined in Section 6.

Section 7 presents types of integration between credit systems and qualifications frameworks, used as a basis for possible scenarios for a European credit and qualifications framework in Section 8. Finally, Section 9 presents a synthesis of conclusions.

2. Lifelong learning policies in the European context

In the context of the Lisbon strategy for growth and jobs ⁽⁷⁾ which aims to make Europe the most competitive economy, education and training reforms are an important element of the open-method of coordination ⁽⁸⁾ for modernising the European social model (European Council, 2000). The Presidency conclusions of the Lisbon European Council stated that higher priority should be given to lifelong learning as a basic component of the European social model (European Council, 2000). Consequently, the creation of conditions for improving lifelong learning has been at the heart of many European and national education and training policies. This priority was recently reaffirmed by the *Council conclusions ... on a strategic framework for European cooperation in education and training which state 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’ (European Council, 2009a, p. 3).

The above citation illustrates the way the concept of lifelong learning is understood in European policies as a continuum which:

- spans from early childhood education to adult learning;
- concerns all forms of learning: formal (organised and structured, intentional from the point of view of the learner, 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) ⁽⁹⁾.

⁽⁷⁾ For more information and background on the Lisbon strategy for growth and jobs see: http://ec.europa.eu/growthandjobs/faqs/background/index_en.htm [cited 29.3.2010].

⁽⁸⁾ The open-method of coordination aims at achieving convergence of Member State policies through European guidelines, indicators and benchmarks, mutual learning, monitoring, evaluation and peer-review. See European Council (2000).

⁽⁹⁾ For full definitions see Cedefop (2008a).

Key goals of lifelong learning policies across Europe include permeability between different education and training and qualifications systems, permitting progress vertically (upgrading qualifications and competences) or horizontally (re-qualifying or changing learning pathways). This requires changes to current systems to make sure these are open as well as compatible and coherent. Lifelong learning policies also aim to enhance participation in learning by stimulating demand for learning (motivating individuals and employers but also voluntary and non-governmental organisations to use and further develop education and training provision) and making sure that the provision is adapted to the needs. Therefore, making lifelong learning a reality has a broad agenda: the quality and availability of appropriate provision; motivation of individuals to engage in, but also of employers to support, lifelong learning; the quality and availability of guidance systems; and the financing of education and training. Qualifications frameworks and credit systems are at the core of this study but are only one aspect of the spectrum of lifelong learning policies.

While this study does not analyse other types of mechanism supporting lifelong learning, it cannot ignore the fact that qualifications frameworks and credit systems operate in a broader context of policies and practices. This study builds on previous research in qualifications systems and lifelong learning (OECD, 2007), (Cedefop, Le Mouillour, 2005), (Cedefop, Coles and Oates, 2005). It develops the findings of the OECD study (OECD, 2007) that explored the role of qualifications systems in promoting lifelong learning and identified 20 mechanisms that underpin qualifications systems with the potential to improve lifelong learning. This study 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' (OECD, 2007, p. 10).

This citation illustrates the role of qualifications systems in regulating qualifications and consequently education and training provision and also in influencing individual choice in learning paths by communicating the possibilities open to them. These functions of regulation and communication are explored further in this study with specific regard to qualifications frameworks and credit systems.

2.1. Interaction between European and national education and training policies

The need to strengthen lifelong learning across Europe has been promoted at European level in the last decade (see for example the European Council, 2002b) contributing to the design of national lifelong learning strategies and approaches (European Commission 2007). This has been achieved through the open method of coordination (OMC) in education and training as well as in employment. The basis for the OMC is the definition of European Council, Parliament and Commission competences in education and training. As set out in the Treaty of Amsterdam, education and training policies or other instruments designed at European level can only be incentives:

To contribute to the objectives set in the EU Treaties concerning education and training, the Council ... *'after consulting the Economic and Social Committee and the Committee of the Regions, shall adopt incentive measures, excluding any harmonisation of the laws and regulations of the Member States'* (European Communities (1997), Title XI, Chapter 3) ⁽¹⁰⁾.

This non-regulatory character of European education and training policies and instruments will remain unchanged under the Treaty of Lisbon. In practice this means that, at European level, Member States agree on common objectives (agreed by the Council) for which tools or guidelines are designed. Member States are free to choose whether and how they use or implement these in their national contexts. The idea behind the open method of coordination is that this should help Member States define and develop their own policies by building on established successful practices and policies in other countries.

The mechanisms of policy-making in higher education under the Bologna process are different. The Bologna process is an intergovernmental process based on ministers' decisions as well as cooperation between higher education universities and student representatives. As a purely inter-ministerial process with no supranational legislation (not even a soft form) the Bologna process operates through exchange (similar to the OMC) and ministers' decisions that are directly translated into national actions. The Bologna process is not based on any treaties, formal divisions of competences or decision-making processes. Its success relies on the extent to which ministers implement agreed measures at national level and the buy-in of higher education institutions which have important autonomy in most participating countries. However, the Bologna process has the potential to put forward measures that more radically impact upon national higher

⁽¹⁰⁾ The Treaty of Lisbon foresees a stronger role of the European Parliament alongside the Council.

education and training systems than the OMC, if that is what the ministers decide. That is why it was possible to introduce measures such as the adoption of a common structure of three levels through the Bologna process. The non-binding character of EU education and training policies and the explicit exclusion of harmonisation measures would make such decisions impossible as part of the OMC.

European developments in qualifications frameworks and credit systems, (both as part of the Bologna process and the OMC in education and training) have had, and are having, an impact on national policies. For example, the introduction of ECTS in the majority of EU countries was predominantly triggered by commitment to the Bologna process. First developed as a tool purely for transnational mobility, after its integration among the Bologna process priorities (Sorbonne Declaration 1998 and consequent communiqués, see Table 1), many countries have adopted ECTS into their national legislation and higher education policies (Education, Audiovisual and Culture Executive Agency (EACEA, 2009)). The European ministers' commitment to the Bologna process has also triggered development of a national qualifications framework (NQF) for higher education and the structuring of qualifications in three levels (first, second and third cycle) following the adoption of the EHEA framework. Similarly the adoption of EQF at European level has inspired or created momentum for the creation of national qualifications frameworks.

Because of this interaction between European and national measures this study will first present the European tools before presenting the analysis of the national ones in Sections 4 and 5. Understanding the European decision-making processes is also crucial for the development of scenarios for a common European credit and qualifications framework which is presented in Section 8.

Before describing the different European tools individually, Table 1 presents the chronology of their development and envisaged implementation.

Table 1. **Chronology of European qualifications tools**

	European tools in the context of the open method of coordination		Higher education – Bologna process tools
	ECVET	EQF	
1989-1995			ECTS pilot initiative as part of the Erasmus programme
1995-1999			Implementation of ECTS as one of the action lines of the Erasmus sub-programme of Socrates
1998			Sorbonne declaration (four countries)
1999			Bologna declaration (30 countries) – promotes a system of higher education based on, among others, two main cycles and use of credit (such as ECTS)
2000	Adoption of the Lisbon strategy (including establishment of the OMC)		
2001			Prague communiqué – calls for development of a European qualifications framework
2002	Copenhagen declaration (initiates the Copenhagen process in VET) calls for a credit transfer system in VET and for improvement of transparency, comparability, transferability and recognition of competences and/or qualifications		Testing and various development initiatives (including the so called Dublin descriptors, Tuning, Trans-European evaluation project)
2003			Erasmus University Charter which requires institutions participating in Erasmus to have a credit transfer system in place (e.g. ECTS)
2004	Development of ECVET - 1st technical working group - including a proposal for a structure of eight qualifications reference levels	Maastricht communiqué – calls for establishment of EQF covering VET, general and higher education	
2005		March Presidency Council conclusions call for adoption of EQF in 2006 Public consultation on EQF	Bergen communiqué – adoption of the EHEA framework based on three cycles and commitment to develop NQFs call for using credit not only for transfer but also accumulation
2006	Public consultation on ECVET	Commission proposal for EQF	Development of NQFs Self-referencing to EHEA framework
2007			
2008	Commission proposal for ECVET	Adoption of EQF	
2009	Adoption of ECVET	Testing and referencing	
2010	Testing and progressive implementation	Countries are expected to reference their NQFs/NQS to EQF	
2011			
2012	Countries should create conditions for gradual implementation of ECVET	All new qualification documents should contain reference to EQF level	
2013		Report to the Parliament on EQF implementation	
2014	Report to the Parliament on ECVET implementation		

Source: Based on Bracht et al., 2006; Commission staff working documents and recommendations on EQF and ECVET; ministers' declarations under the Bologna process and communiqués under the Copenhagen process; Bologna working group on qualifications frameworks.

2.2. Qualifications tools within the Bologna process

The European higher education area framework (EHEA framework) was developed as part of the Bologna process with a view to establishing a common structure of qualifications based on three main cycles. The European credit transfer and accumulation system (ECTS) was first developed and tested as part of the Erasmus programme for higher education student mobility and integrated into the Bologna process only later. However, as this section will show, the integration of ECTS into the Bologna process accelerated its implementation nationally.

2.2.1. European credit transfer and accumulation system (ECTS)

ECTS was the first European tool to have an impact on how higher education qualifications are structured and delivered. First tested in the period 1989-95, its primary objective was to ensure that learning periods spent abroad as part of the Erasmus programme ⁽¹⁾ were recognised to avoid students having to pass additional courses or examinations when they return to their home institutions. At that time it was mainly understood by higher education institutions as a credit transfer system; its accumulation function, though already present in the features of the system, was not really used (Wagenaar, 2006). It is only with the integration of ECTS into the Bologna process, from its very start in the Sorbonne declaration and the consequent communiqués, that the role of credit and of a modular structure of programmes in creating flexibility for learners and removing obstacles among systems became acknowledged.

2.2.1.1. What is ECTS?

ECTS has these principles:

- (a) credits are based on the workload students need to achieve expected learning outcomes;
- (b) workload indicates the time students typically need to complete all learning activities;
- (c) the measure of volume for ECTS credit is based on the principle that 60 ECTS credits are attached to the workload of a full-time year of formal learning (academic year) and the associated learning outcomes;

⁽¹⁾ The Erasmus programme is a funding measure to support international mobility of European higher education students within Europe. It funds mobility periods of one or two semesters. In the period 2007-13 Erasmus is a sub-programme of the lifelong learning programme.

(d) credits are allocated to entire qualifications or study programmes as well as to their educational components (parts of programmes) (European Commission, 2009).

Other features of ECTS are not explicitly acknowledged in the key features but are a condition for making credit transfer and accumulation possible. These are the assessment of each educational component and the existence of partnerships among institutions whose decisions feed into recognition decisions. Though not directly recognised in the ECTS key features, these aspects are embedded in the Erasmus student charter, which all institutions organising mobility under the Erasmus programme have to respect. The charter states that:

- the home and host universities have to have an inter-institutional agreement and sign a learning/training agreement with the student prior to the mobility period;
- students receive a full transcript of record at the end of their mobility period ⁽¹²⁾.

The use of ECTS for credit transfer, as part of the Erasmus programme (which accounts for most, but not all, organised higher education student mobility within Europe ⁽¹³⁾), is aided by additional conditions other than those made explicit in the ECTS key features.

Table 2. **Some facts about higher education mobility in the EU**

In 2006 in the EU-27:

- Erasmus exchange students represented less than 1% of total enrolments at ISCED 5A level, with an average stay of six to seven months;
- In total there were 153 000 EU-27 students in 2006-07 who participated in the Erasmus programme;
- 2.5% of higher education students (ISCED 5 and 6) were studying in another EU country (outbound mobility).

Source: Eurostat and Eurostudent (2009) and data on Erasmus student mobility 2006/2007. For more information, see the Erasmus statistics on DG EAC website: http://ec.europa.eu/education/erasmus/doc920_en.htm [cited 19.11.2009].

⁽¹²⁾ For further information see the European Commission website of the Erasmus Charter: http://ec.europa.eu/education/erasmus/doc1057_en.htm [cited 22.3.2010].

⁽¹³⁾ Organised mobility covers student exchanges and does not take into account students who decide to study abroad and organise enrolment on their own initiative. Comprehensive data on organised mobility other than that covered by the Erasmus programme is currently not available.

The accumulation of ECTS credit is typically ⁽¹⁴⁾ based on requirements expressed in programmes together with the more general national regulations which usually stipulate the minimum (or exact) volume of credit that has to be accumulated to gain a qualification. This is strongly influenced by the fact that higher education qualifications across Europe *'are often not clearly separated in their definition from the programmes of study leading to them'* (Bologna working group on qualifications frameworks (2005, p. 31). Institutions may use it to give more or less flexibility to their programmes (through the use of optional subjects) but this is fully their decision. Because of its focus on programmes (rather than standards that are independent of the subjects taught) ECTS is a tool that supports curriculum management in higher education institutions (see also ESU, 2009 ⁽¹⁵⁾; EUA, 2007 ⁽¹⁶⁾).

2.2.1.2. How is ECTS implemented?

ECTS started as a measure that higher education institutions were adopting on their own initiative. In the first piloting period, 145 institutions were involved; by 2000 over 1 000 institutions were using it (Adam and Gehmlich, 2000). Once ECTS became a pillar of the Bologna process the involvement of higher education ministries accelerated its introduction. In most countries, the use of ECTS is now underpinned by legislation and compulsory for all (accredited) higher education institutions. A Eurydice study shows that, in 2008-09, of the EU 27 only five countries did not implement ECTS by law. Those countries that put legislation in place made ECTS a compulsory feature of higher education programmes. However, some Bologna countries (e.g. the UK) maintain their own national credit systems and others (e.g. the Czech Republic) introduced ECTS on a voluntarily basis (EACEA, 2009).

The integration of ECTS into national legislations makes it become the national credit (points') convention, which is not only dependent on European guidelines but also embedded in national rules and regulations (such as accreditation criteria for higher education programmes, funding, etc.). Therefore, a distinction can be made between:

⁽¹⁴⁾ In certain countries ECTS is also used as a credit system for post-secondary VET qualifications which are based on qualifications standards (not on programmes); in these cases credit accumulation is based on standards.

⁽¹⁵⁾ ESU (2009, p. 88): 'ECTS credits ... should be clearly associated with workload. Only through that can ECTS be used as a means for planning the curricula in a way that is feasible for students to achieve the desired learning outcome in the correct timeframe, and therefore be a tool for the promotion of student attainment and the completion of studies'.

⁽¹⁶⁾ EUA (2007, p. 36): 'As a credit accumulation system, ECTS is able to support curricular reform and facilitate flexible learning paths ...'.

- the ECTS as a European tool described in the ECTS key features and users' guide (European Commission, 2009) and based on a set of principles and guidelines;
- the ECTS as a national credit system adopted in a specific country (by legislation) and subject to national rules on duration of programmes and academic years, etc. which may serve purposes additional to those described in the European guidelines.

2.2.1.3. Continuing discussion on ECTS

The distinction noted above, added to the fact that higher education institutions have important autonomy in designing programmes as well as in recognising credit from elsewhere, means that the actual use of ECTS at national and institutional levels is diverse. Annex 5 of the *ECTS users' guide* (European Commission, 2009) shows that the exact measure of volume for one ECTS credit varies from 20 hours of workload (UK) up to 33 hours (Iceland). Further, several countries do not specify the exact range of hours of workload per one credit (e.g. Latvia, Lithuania or Norway). The EACEA (2009) study shows that the majority of institutions in the EU-27 countries make little use of learning outcomes in credit allocation and rely on workload, contact hours or a variety of means in allocating credit. The surveys of national students' unions organised by the European Students' Union (ESIB, 2007; ESU, 2009) also show great variety in implementation, mainly in:

- the extent to which workload is calculated assessing the time necessary to complete all required learning activities rather than on basis of contact hours or other means such as prestige;
- the extent to which the use of learning outcomes for ECTS is used thoroughly.

Another difficulty in ECTS implementation is the extent to which it is properly used as an accumulation system. The idea behind the principle of accumulation is that learners achieve learning outcomes progressively and these are assessed progressively, so that they do not have to demonstrate all the learning outcomes in a single point in time (e.g. end of year examination). Nor are the same learning outcomes assessed more than once (EUA, 2007). The introduction of ECTS should have brought incremental assessments of programme components, but this does not seem to have been systematically the case. The ESU (2009) survey and the *Trends V* report (EUA, 2007) ask whether higher education programmes were profoundly restructured or whether the changes were only cosmetic when implementing ECTS (ESU, 2009, p. 93; EUA, 2007, p. 37). Finally, both surveys

also underline difficulties with using ECTS for transfer, noting that in certain institutions students have difficulties in having their credit recognised:

'These continued high levels of non-recognition have two possible implications: institutional recognition procedures are not working optimally; and/or ECTS is not being used properly. The evidence gained during the site visits would suggest that while the former is prevalent, the latter is also frequent' (EUA, 2007, p. 39).

2.2.2. The qualifications framework for the European higher education area

The objective of the Bologna process was, from the start, to modernise higher education systems to increase their competitiveness and maximise their contribution to developing European human capital ⁽¹⁷⁾. The creation of a common structure of qualifications that would create compatibility and comparability among the different European systems but also contribute to improving lifelong learning and international recognition of European qualifications, is seen as one of the conditions for creation of a European area of higher education. It is in this context that the EHEA framework was designed and adopted in 2005 (Bologna working group on qualifications frameworks, 2005).

2.2.2.1. What is the EHEA framework?

The EHEA framework is based on three levels (and possibly one sub-level) that correspond to the major qualifications awarded by higher education institutions. The terminology used in the EHEA framework is that of cycles (rather than levels) and the term degree is sometimes used interchangeably with the term qualification, showing the focus of the EHEA framework on the main higher education qualification titles.

The levels are described using two dimensions:

- (a) learning outcomes descriptors: general statements of graduates' learning outcomes concerning knowledge and understanding, applying knowledge and understanding, making judgements, communications skills and learning skills;
- (b) credit: the first two cycles are allocated a range of ECTS credits (first cycle 180-240 ECTS, second cycle 90-120 ECTS).

'The EHEA framework, namely its descriptors, also refers to another important concept in higher education which is the concept of the "field of study" or profile' (Bologna working group on qualifications frameworks, 2005, p. 72). Though the EHEA framework does not propose a typology of profiles/fields of

⁽¹⁷⁾ These objectives are acknowledged in all the ministerial declarations and communiqués that support the Bologna process.

study it refers to the term 'field of study' in its descriptors of knowledge and understanding.

A very important feature of the EHEA framework is its 'progressive' character: the three cycles are designed as a progressive sequence where:

'First cycle degrees should give access [in the sense of the Lisbon Recognition Convention] to second cycle programmes. Second cycle degrees should give access to doctoral studies' (*Realising the European higher education area*, 2003, p. 4).

This does not mean that a first cycle qualification gives access to all second cycle qualifications, but that each first cycle qualification should give access to at least one second cycle qualification. Because of this feature of the EHEA framework, the descriptors, unlike the EQF ones, are designed as 'end of cycle' descriptors:

'They [the descriptors] offer generic statements of typical expectations of achievements and abilities associated with awards that represent the end of each of a Bologna cycle' (Bologna working group on qualifications frameworks, 2005, p. 37).

The credit ranges associated with first and second cycle in the EHEA framework imply that:

- programmes preparing for qualifications at the level of the first cycle typically last between three and four years;
- programmes for qualifications at the level of the second cycle last between one and a half and two years.

In practice this does not exclude the existence of particularly accelerated programmes; however, it is implicit that these should not be the norm. The use of ECTS credit to describe the size of programmes that lead to qualifications at these two levels is based on the political willingness to create convergence in the structure of higher education programmes. In the past, countries had very different structures of higher education programmes: in some countries only long programmes (lasting five or six years) existed (e.g. most eastern European countries) while elsewhere a number of intermediary qualifications were used (e.g. France had a structure of 2+1+1+1 years: DEUG, *Licence*, *Maitrise*, DEA or DESS).

2.2.2.2. *Implementing the EHEA framework*

The EHEA framework was designed as a meta-framework to which national higher education qualifications would be referenced. Countries are not expected to use EHEA framework descriptors in their national contexts but they are required to demonstrate the link between the national levels (and consequently

the level descriptors) to the Bologna level descriptors. They are also required to develop a national qualifications framework (NQF). This process is called self-certification. The self-certification process is undertaken by the competent body for the NQF. It is based on a set of commonly-agreed criteria and follows a set of agreed procedures which include publication of the self-certification report and its underpinning evidence, involvement of international experts, and publication of NQF quality assurance (Bologna working group on qualifications frameworks, 2005, p. 89-90).

In terms of its governance, the promotion and maintenance of the EHEA framework is not the competence of the European Commission. The framework is promoted jointly by the Bologna Secretariat, the Council of Europe and a group of experts (Coordination group on qualifications frameworks ⁽¹⁸⁾).

Six countries have already completed their referencing: Belgium Flanders, Germany, Ireland, the Netherlands, the UK-EWNI and the UK-Scotland. Other countries have started the development of higher education frameworks ⁽¹⁹⁾. In Ireland there is no specific framework for HE but the levels from the overarching NQF which concern HE qualifications are referenced to the EHEA framework (NQAI, 2006). In some countries, the development of a framework for higher education is now being integrated in the development of an overarching NQF, as in Malta and Finland.

2.2.2.3. *Continuing discussion on the EHEA framework*

The use of level descriptors based on learning outcomes at European level requires that countries willing to reference their qualifications frameworks to the EHEA framework design their qualifications using learning outcomes. This, in many countries, is a revolution in how higher education qualifications are designed as it moves away from the traditional view of qualifications placing most importance on subject-specific knowledge. The recent Bologna stocktaking report (Rauhvargers et al., 2009) highlights that establishing NQFs in higher education is likely to take time because of the important work required to develop and describe learning outcomes-based qualifications/programmes.

In higher education, in addition to the paradigm shift of using learning outcomes in level descriptors, a related feature of the EHEA framework is the introduction of a three-cycle structure. This structural shift that the EHEA framework represents has already been, at least formally, accomplished. The

⁽¹⁸⁾ For more information see qualifications framework part of the Bologna website: <http://www.ond.vlaanderen.be/hogeronderwijs/bologna/qr/qr.asp> [cited 29.3.2010].

⁽¹⁹⁾ For further detail on progress in developing NQFs in higher education and referencing to the EHEA framework see *Bologna process stocktaking report 2009* (Rauhvargers et al., 2009).

EACEA (2009) report shows that all the EU-27 countries have a structure of three cycles ⁽²⁰⁾. However, the Eurydice (2007) report highlighted that certain fields of study are an exception and qualifications remain accessible only through long programmes. This includes, in many countries, medicine and related study fields but often also architecture and engineering. The report does not analyse the reasons for this 'resistance' but, given that these studies often lead to qualifications in regulated professions, one may wonder whether the lack of bachelor degrees in these fields is based on issues such as the employability of first cycle graduates. The Eurydice (2007) report shows that, in some countries (Belgium, Denmark and the Netherlands) where medical studies are delivered through three cycles, first cycle graduates cannot practise a profession within their field of study. However, the EUA (2007) report suggests that employability of first cycle medical graduates (where such qualifications exist) who achieve a second cycle qualification from another field of study is good. These considerations also show the existing dichotomy between first cycle qualifications being considered, and consequently designed, as professionalising and enabling insertion on the labour market, or as being a stepping stone towards an array of more specialised second cycle qualifications.

As noted above the three-cycle system has now been formally adopted in countries and it is also being progressively implemented (i.e. students are enrolling in programmes that have the new structure). However, the extent to which this implementation is actually leading to the desired objectives of modernising curricula, creating greater flexibility for learners and increased access and exit points (which are recognised in the labour market) remains a question. These are the major issues observed, even though the extent to which these apply varies significantly from country to country and even from institution to institution:

- (a) the extent to which real changes are made to programmes: in some cases these are simply 'cut in two' or the content of a longer programme is 'squeezed' into a shorter duration;
- (b) the amount of flexibility offered to students: it is not uncommon that students with a first cycle qualification have little choice in selecting a second cycle qualification;
- (c) recognition of 'new' qualifications (e.g. first cycle where these did not exist) in the labour market is problematic, which is partially related to low awareness of employers on Bologna reforms (EUA, 2007; ESU, 2009).

⁽²⁰⁾ In 2006-07 only Sweden and the German-speaking community of Belgium did not introduce a three-cycle structure and Spain has done so only partially. The remaining EU-27 countries either already had it in place or were gradually introducing it (Eurydice, 2007, p. 16).

2.3. Qualifications tools within the Copenhagen process

The Copenhagen process (European Ministers for Vocational Education and Training (VET); European Commission, 2002) for enhanced cooperation in vocational education and training (VET) sets three main objectives: promotion of mutual trust; transparency and recognition of competences and qualification and the consequent establishment of the basis for increasing mobility and facilitating access to lifelong learning. EQF and ECVET were developed as part of this political process. Both tools are relatively new as their respective European recommendations date from 2008 for EQF and 2009 for ECVET.

2.3.1. European qualifications framework for lifelong learning (EQF)

The EQF (adopted in 2008) aims to promote, at European level, a better understanding of foreign qualifications and hence improve recognition of qualifications. It also has a greater ambition, which is to serve as a catalyst to support reform of national qualifications systems to strengthen the use of learning outcomes (rather than learning inputs) to design and describe qualifications. It also aims to improve the match between qualifications and labour market needs, aid validation of non-formal and informal learning (NFIL) and enable transfer of qualifications across different qualifications systems (European Commission, 2008).

These different issues that the EQF has the potential to address meant that, once there was a political mandate by the Council to develop the EQF (European Council, 2004b), its development and adoption were relatively quick when compared to other European tools ⁽²¹⁾, showing the strong European political commitment.

2.3.1.1. What is EQF?

EQF provides a structure of eight levels based on learning outcomes descriptors in terms of knowledge, skills and competence. The EQF level descriptors were designed so that each level can be compatible with various national qualifications levels (in terms of education and training sector, programme duration, etc.) because the level descriptors are neutral when it comes to:

- the education and training sector (general, vocational or higher education);

⁽²¹⁾ For example, the adoption of the European framework on key competences took six years (work of the working group started in 2001 and the framework was adopted at the end of 2006) (European Commission, 2005a). The ECVET development and adoption took nearly eight years (from 2002 when the TWG was established until mid-2009).

- the learning context (formal, non-formal or informal);
- the duration of programmes leading to qualifications.

This is enabled through use of parallel formulations in level descriptors which refer to field of study or work, for example see Table 3. It is also aided by the EQF definition of the qualification which does not refer at all to participation in programmes but to the outcomes of assessment and validation and the underpinning standards (European Parliament and European Council, 2008). However, the EHEA framework does not officially have a definition of a qualification. The one used in the background report to the framework (Bologna Working Group on Qualifications Frameworks, 2005; p. 30) does refer to the fact that qualifications are normally achieved following a programme.

Table 3. **EQF level descriptors for Level 5**

Knowledge	Skills	Competence
The learning outcomes relevant to Level 5 are:		
comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	<ul style="list-style-type: none"> • exercise management and supervision in contexts of work or study activities where there is unpredictable change; • review and develop performance of self and others

Source: European Parliament and European Council (2008), Annex II (level descriptors).

Unlike the EHEA framework, EQF makes no reference to credit. Therefore the EQF levels can serve as reference for qualifications systems where programmes leading to qualifications have different durations.

A further distinction from the EHEA framework is that EQF level descriptors do not describe the learning outcomes of a learner at the 'end of each level'. First, the idea of an 'end' is not compatible with the EQF principle that qualifications can be achieved through different learning pathways (not only the formal one) of which it may be difficult to describe a beginning and an end. Second, the EQF levels may have different numbers of national levels referenced to them, of which some may have lower, less specialised or complex learning outcomes than others. Because of this characteristic of the EQF, and unlike the EHEA framework, EQF does not contain any reference to access or progression. This is a national matter.

Another distinctive feature of the EQF is its explicit link with validation of non-formal and informal learning. This is explicitly set out as one of the EQF objectives ⁽²²⁾ but also as one of the criteria for EQF referencing (see below).

2.3.1.2. EQF implementation

Like the EHEA framework, EQF is also a meta-framework to which national qualifications systems or frameworks will be referenced. Unlike the EHEA framework, which requires countries to develop NQFs, EQF leaves the possibility open for countries to reference the levels of their qualifications systems to the EQF without designing a NQF. However, the feasibility of this approach, in systems which lack explicit qualifications descriptors ⁽²³⁾, remains to be proven as the referencing process progresses. In 2009, only countries that had already designed NQFs had undertaken referencing (e.g. Ireland, Malta, the UK). Across Europe, most countries are engaged in developing NQFs, most of which have an overarching character (covering all sectors of education and training). The EQF adoption clearly gave a strong political impetus to these national developments (Cedefop, 2009a, Annex 1).

EQF is being implemented through the open method of coordination (OMC) in education and training which has established an advisory group that has developed the criteria for countries to reference their qualifications frameworks or systems to the EQF. The EQF advisory group is best described as the governance structure. The referencing criteria it designed are similar to those used in the EHEA self-certification process (National Qualifications Authorities, 2009). Those criteria are related to issues such as the legitimacy of those undertaking the referencing, the transparency of the referencing process, the proof of existence of quality assurance processes in the qualifications system references, and the proof that the EQF principles are respected. The EQF Recommendation (European Parliament, European Council, 2008) requires that each country establishes a single national coordination point (NCP) responsible for referencing to the EQF. The NCPs will maintain the referencing and inform about it as well as about the national qualifications.

⁽²²⁾ The EQF Recommendation states that it should contribute to modernising education and training systems, the interrelationship of education, training and employment and building bridges between formal, non-formal and informal learning, leading also to validation of learning outcomes acquired through experience. European Parliament and European Council (2008) paragraph 13.

⁽²³⁾ For example, compatibility between the Irish NQF and the EHEA framework has been demonstrated not through the level descriptors but through the Irish HE awards descriptors.

2.3.1.3. *Continuing discussion on EQF*

EQF is still in its early stages of implementation and, as noted above, only a few countries have undertaken the referencing process: Ireland (National Qualifications Authority of Ireland, 2009), UK-England and Northern Ireland (QCDA, 2009) and UK-Scotland (SCQF, 2009) have completed this process, while Malta has submitted its referencing report (Malta Qualifications Council, 2009). The deadlines are tight for the referencing to be finalised in 2010; several aspects are difficult to tackle:

- (a) the use of learning outcomes in qualifications systems across Europe varies greatly; though many countries are in the process of developing learning outcomes-based approaches in general education, VET and higher education, this process is not yet completed (Cedefop, 2009c). However, the use of learning outcomes is a condition for credible and valid referencing to the EQF;
- (b) EQF requires countries to put in place a single national coordination point (NCP) which would be responsible for referencing. This NCP has to be credible and legitimate with all the sectors of education and training concerned, otherwise the credibility of the process would be undermined. However, nomination of such a point appears difficult, and fewer than half of EU Member States have identified or created a suitable structure;
- (c) EQF also requires that the qualifications referenced to the NQF/NQS, in turn referenced to the EQF, are quality assured and that these quality assurance processes are made transparent. In many countries the quality assurance of different education and training and qualifications systems is a complex set of arrangements, many of which are not formalised in a single code of practice (see, for example, Cedefop, 2009d). The Irish referencing report notes that the existence of a diversity of quality assurance arrangements *'present a particular challenge in terms of describing the system as a whole, particularly for an audience based outside the country which is unfamiliar with education and training in Ireland and the range of qualifications offered within the system'* (NQAI, 2009, p. 68). Taking into account that many countries have not formalised their quality assurance arrangements yet, the extent to which referencing by 2010 can be credible can be questioned;
- (d) the relationship between EQF levels and level descriptors and national levels and level descriptors. The EQF was designed as a 'translation' tool that would enable different systems to communicate with each other through a common grid. It is not meant to fit the diversity of national qualifications and the number of levels used that best describe the national system may be smaller or bigger than the EQF levels. Further, the fact that eight levels

describe the national system does not mean that these fit the EQF eight levels exactly (e.g. some countries may not have qualifications that would correspond to EQF level 1, as is the view held in France). However, most countries that are developing new NQFs are working on an eight-level structure (Cedefop, 2009e). Therefore one can wonder to what extent the new NQFs will be designed to fit the national system or to fit the EQF. The latter case could create a distance between the description of the system through the NQF and the reality of qualifications and their relationships in the country.

2.3.2. European credit system for vocational education and training (ECVET)

The Education and training 2010 work programme identified a number of common objectives, including:

- increasing mobility and exchange: and as part of that objective aiding validation and recognition of competences acquired during mobility ⁽²⁴⁾;
- creating an open learning environment that promotes *flexible learning paths for all* (European Council, (2002a) C 142/01).

These are the main goals to which ECVET is expected to contribute. As highlighted in the Bordeaux communiqué:

'The expected effect [of ECVET implementation] is further development of intra-European mobility, more significant development of individualised career paths, better recognition of informal and non-formal learning, better transparency and mutual trust between education systems' (European Ministers for Vocational Education and Training et al., 2008, p. 2).

ECVET development started in 2002 with the setting up of the ECVET technical working group (TWG). This group has identified that the development of a European credit system for VET is a long-term aim (TWG progress report, 2003, p. 12) and before such a system becomes a reality smaller steps and experimentations needed to be undertaken. The two feasibility studies for ECVET *ECVET reflector* (Forschungsinstitut Betriebliche Bildung and BIBB, 2007) and *ECVET connexion* (ANFA and MENESR, 2007) identified that the European VET qualifications systems represented a great variety of approaches to assessment and certification. Some are based fully on final assessment, others on accumulation (Forschungsinstitut Betriebliche Bildung and BIBB, 2007) but also a variety when it comes to the conception of VET qualifications (based on

⁽²⁴⁾ Lack of recognition of mobility exchanges was identified as a possible barrier to the impact of the Leonardo programme on employability of learners. See Ernst and Young (2003, p. 16).

knowledge, skills and competence, linked to a narrow spectrum of occupations, linked to a broad spectrum of occupations or based on a flexible approach of combining competences (ANFA and MENESR, 2007)). Because of these differences in 'readiness' for a single credit approach to ECVET, implementation would have been difficult (see below).

The ECVET TWG identified the need for a common understanding of qualifications levels to enable credit transfer. It also concluded that ECVET would need to be based on a set of common principles that would lead to creation of trust and underpin national development of credit systems and credit points convention (TWG progress report, 2003). These principles are presented below.

2.3.2.1. What is ECVET?

ECVET is based on a set of common principles that concern the design of qualifications as well as arrangements for credit transfer and accumulation. These are:

- (a) qualifications are designed based on learning outcomes: learning outcomes (knowledge, skills and competence) enable to identify whether the learning in one context (country or system) is comparable to that in another;
- (b) they are structured in units of learning outcomes: these are smaller components of qualifications that are assessed, validated and recognised. The assessment of units enables progressive accumulation and transfer;
- (c) units are assessed and the outcome of assessment is documented, constituting credit. Information on the learning outcomes achieved and the assessment enables other institutions to trust that the knowledge, skills and competence of the learner are appropriate;
- (d) credit can be validated and recognised in the context of other qualifications systems;
- (e) partnerships among competent institutions facilitate recognition of credit because the institutions have trust in each others' qualifications as well as assessment;
- (f) qualifications and units are described using ECVET points. This description gives information about the size of qualifications and the relative weight of units within a qualification. This is done using a reference to a typical VET programme which leads to a qualification: 60 points are allocated to the learning outcomes expected to be achieved in a year of formal full-time VET. This convention for allocation of credit is similar to the one used in ECTS.

Unlike ECTS, ECVET makes it clear that the use of a quantitative reference in terms of points has only a descriptive function and that the core of transfer and accumulation is learning outcomes structured in units. In addition, the point of

departure for ECVET is not the training programme and its components but the qualification. The qualification can be achieved through different programmes but also through validating non-formal and informal learning. Such validation is explicitly promoted by the ECVET Recommendation ⁽²⁵⁾.

2.3.2.2. ECVET implementation

The way countries implement ECVET depends fully on their decision. The ECVET Reflector (Forschungsinstitut Betriebliche Bildung and BIBB, 2007) study identifies two possible approaches to implementing ECVET:

- for transnational mobility only, meaning using it as a credit transfer tool while either having a national credit system or credit points convention in place, or implementing ECVET only for certain qualifications or parts of qualifications with a mobility element;
- for transfer and accumulation nationally, to increase flexibility and permeability of the different national VET systems.

The Commission staff working document *Delivering lifelong learning for knowledge, creativity and innovation* (European Commission, 2007) identified that many countries were developing flexible and accumulative approaches to VET (namely through the use of modules or units) which favour the introduction of a credit approach (European Commission, 2007).

The ECVET Recommendation (European Parliament and European Council, 2009) suggests that, by 2012, countries will create conditions for progressive implementation of ECVET. Meanwhile, countries and the Commission are invited to experiment with ECVET (through the lifelong learning programme ⁽²⁶⁾).

For the moment, two countries, Germany and Finland, have launched national initiatives that are explicitly related to ECVET. However many countries are currently restructuring their VET systems in a way that is compatible with ECVET by developing units of learning outcomes (for instance Spain and Slovenia) or national credit systems (for instance Slovenia).

It is currently unclear what approach countries will take when setting up ECVET nationally. Will they decide, as was the case for ECTS, to underpin the use of credit by legislation and make it compulsory for the entire VET system(s)? Or will they leave the possibility open for VET providers or awarding bodies to use credit, based on the ECVET principles, in their own context ⁽²⁷⁾? Some

⁽²⁵⁾ The Recommendation states that [ECVET] 'particularly facilitates the development of flexible and individualised pathways and also the recognition of those learning outcomes which are acquired through non-formal and informal learning' (European Parliament; European Council (2009), paragraph 8).

⁽²⁶⁾ European funding programme for mobility exchanges but also for design of innovative approaches in education and training.

⁽²⁷⁾ This is the approach taken to the use of credit in Ireland.

countries which already have rules and practices on use of credit in form of credit systems or by using a credit points convention (e.g. Ireland, Scotland), are currently reflecting on how to link their national approaches to credit with ECVET. What remains to be seen is whether links between national approaches and ECVET will emphasise the quantification aspect of ECVET as an instrument to measure volume of qualifications and their components or whether they will be formulated around the ECVET principles for transfer and accumulation.

2.3.2.3. *Continuing discussions on ECVET*

While the ECVET consultation process revealed a strong interest from countries and stakeholders ⁽²⁸⁾ as well as an overall acceptance of the ECVET principles, it also showed certain reservations or conditions for its successful implementation ⁽²⁹⁾.

- **Preservation of European VET system diversity**

Countries have different conceptions of VET qualifications and certain stakeholders felt that, based on experience of ECTS introduction in most countries, national ECVET implementation (beyond the scope of mobility) would threaten such conceptions ⁽³⁰⁾. Several countries emphasised the need to maintain their conceptions of qualifications (e.g. the occupational concept in Germany ⁽³¹⁾, the comprehensive approach to VET in Austria ⁽³²⁾) and to avoid fragmentation of qualifications as well as introduction of a model that is too flexible in learner choice of units and standards underpinning qualifications.

- **Transparency and mutual trust**

Transparency and mutual trust are clear conditions for transferring credit across systems. In the context of 27 countries (or more) each of which may have more than one VET system (school-based and apprentice system may coexist, initial upper-secondary, post-secondary and continuous VET, etc.) it is a challenge. To be able to recognise credit from a different system, one needs to know not only the learning outcomes (which are documented) but

⁽²⁸⁾ Most country responses were based on a national consultation that raised interest among stakeholders concerned. For consultation responses see: http://ec.europa.eu/education/ecvt/results_en.html [cited 29.3.2010].

⁽²⁹⁾ Michel Aribaud (European Commission), presentation during the Presidency conference, Realising the European Learning Area, 4-5 June 2007.

⁽³⁰⁾ See for example the *Position of leading German business organisations in response to the ECVET consultation* (German Business Organisations 2007).

⁽³¹⁾ See the German response to consultation (BMBF, 2007).

⁽³²⁾ See the Austrian response to consultation (Bundesministerium für Unterricht, Kunst and Kultur, 2007).

also how these are assessed, and how the quality of the learning outcomes and assessment is ensured. It must be certain that the learner has really achieved what is described in the document (transcript of record) he or she carries.

The OMC in education and training is still a relatively new process but European exchanges, among competent authorities, are slowly contributing to building trust. Similarly, the exchanges among VET providers or sectoral organisations (for example through the lifelong learning programme) are already contributing to building zones of mutual trust.

- **No bureaucracy**

This was a general request of most of the consultation responses. ECVET will be directly used by VET providers (including companies) and teachers who will send out or receive learners from other systems. To be accepted and used by them it needs to be simple and clear. They need to know easily what the learners have already achieved, where to integrate them in terms of the training programme they deliver, and how and when to assess them. However, given the variety of VET qualifications, putting ECVET in place, even in the context of mobility, requires preliminary work on analysis of qualifications (are they comparable? what learning outcomes do they have in common?) and how these are delivered (what are the assessment criteria? is the assessment acceptable for the other partner institution?). This preparatory work requires resources and commitment, as can be seen from the work of the current ECVET pilot projects. However, part of this work will be greatly assisted by the EQF implementation as well as the use of tools such as Europass for ECVET.

- **Compatibility with ECTS**

A very common request in the public ECVET consultation (November 2006 to March 2007), compatibility with ECTS is necessary in the perspective of lifelong learning and progress from VET to higher education and vice versa. However, the higher education community had, and still has, concerns over the compatibility of the two approaches to credit, as confirmed by the interviews for this study. This is mainly related to the very strong focus of ECTS on workload (even if the learning outcomes aspect is becoming more predominant) and curricula, which is not the case in ECVET. The VET community could also question the lack of clarity of assessment criteria and how these relate to the learning outcomes of a qualification to the ECTS. Therefore, though compatibility between the two systems can be formally

established (both use the same convention of 60 points for volume allocation for instance), at this stage of development both tools have different conceptions underpinning their approach to credit. The extent to which this is a real obstacle or not to credit transfer remains to be demonstrated.

Finally, as with any credit system (see also Section 6.2.), ECVET will have to face the challenge of institutional willingness to accept credit from elsewhere, as well as the issue of incentives for institutions to accept credit.

2.4. Relationship between qualifications frameworks and credit systems at European level

Studying the relationship between qualifications frameworks and credit systems is at the core of this study. Certain commonalities are found in the four existing tools but they also have a number of differences. Their main commonalities are:

- responding to common general objectives of improving transnational mobility by recognising foreign qualifications or components of qualifications;
- contributing to lifelong learning and development of human capital across Europe.

All the four tools are, in principle, based on qualifications described using learning outcomes and a learning outcomes-based approach to assessment. However, the approach to learning outcomes across the different education and training sectors may not, in practice, be the same and the extent to which it is actually implemented varies (Cedefop, 2009c). Further, EQF and ECVET share a number of definitions (that of a qualification but also of learning outcomes). They also share openness to non-formal and informal learning and their objective to support validation of these forms of learning in view of achieving qualifications.

The main differences among these tools are:

- (a) their sectoral or overarching character;
- (b) their relationship (or not) with programmes and curricula;
- (c) the implementation arrangements (centralised or decentralised, based on legislation).

Table 4 presents the main differences in principles and concepts across the four European tools. These differences are also examined further in Section 8 on scenarios.

Table 4. **Differences in concepts and implementation arrangements between the European tools**

		EQF	EHEA framework
Qualifications Frameworks	Concepts	<p>Inclusive of all qualifications</p> <p>Makes no reference to programmes or their duration</p> <p>No statements concerning progression possibilities</p> <p>Learning outcomes defined as knowledge, skills and competence</p>	<p>Only concerns the main higher education qualifications (diplomas or degrees)</p> <p>Through the use of ECTS ranges constrains the duration of programmes for first and second cycle (3-4 years and 1-2 years respectively)</p> <p>Defines the progression possibilities: first cycle gives access to second cycle which in turn gives access to third cycle</p> <p>Learning outcomes defined as: knowledge and understanding; applying knowledge and understanding; making judgements; communications skills; learning skills</p>
	Implementation	<p>Does not require NQF development</p> <p>Based on countries referencing their NQFs/NQS to the EQF, i.e. identify which levels of the NQF/NQS correspond to which levels of EQF and prove and document this correspondence in a transparent manner, with EQF levels to be used as broad references</p> <p>Does not necessitate implementation of any specific number of levels at national level</p> <p>Requires a single national contact point for all sectors</p> <p>Criteria for referencing similar to EHEA</p> <p>Coordinated by the European Commission</p>	<p>Requires NQF development</p> <p>Based on countries verifying the compatibility of their HE qualifications with the EHEA framework descriptors, i.e. the Bologna descriptors to be used as a typical description of achievement</p> <p>Requires a structure of higher education based on three cycles (possibly a fourth short-cycle).</p> <p>Requires a single structure to be in charge of the HE framework self-certification with EHEA</p> <p>Criteria for referencing</p> <p>Coordinated by the Bologna Secretariat and the Council of Europe</p>
		ECVET	ECTS
Credit systems	Concepts	<p>Units are components of qualifications (these are considered independent of the programmes that lead to their achievement)</p> <p>Strong link between qualifications standards and requirements on what can be accumulated to a given qualification (qualifications standards may be more or less open depending on the system)</p> <p>Emphasis on accumulation of credits and not points</p> <p>Clear distinction between credit and points (the quantitative descriptive dimension of credit)</p> <p>ECVET points can be allocated to units based on different approaches: workload, the 'relative weight' of a unit within a qualification</p> <p>Strong focus on assessment, its quality assurance and use of assessment standards based on learning outcomes (e.g. a unit description should contain this information)</p> <p>Clearly and explicitly open to non-formal and informal learning</p>	<p>Educational components are based on qualifications or study programmes. These can be modules, course units, dissertation work, work placements and laboratory work.</p> <p>Emphasis on accumulation of credits (in relation to the relevant qualification level).</p> <p>The formulation of learning outcomes is the basis for estimating workload and hence for credit allocation.</p> <p>Strong emphasis on using workload as basis for credit definition and allocation</p> <p>Assessment is part of the individual credit award process based on the decision at institutional level</p> <p>Becoming more open to non-formal and informal learning</p> <p>Stronger emphasis of accumulation of learning outcomes for progression</p>
	Implementation	<p>Progressive and in a very early stage</p> <p>Two possible approaches: for mobility or as a national system.</p> <p>Involves various types of competent intuitions that have different functions depending on national systems (ministries, providers, chambers, etc.)</p>	<p>Advanced</p> <p>Most countries adopted ECTS by legislation and made it compulsory</p> <p>Universities and other higher education institutions are the main actors involved (homogeneous context across Europe)</p>

The relationship between the ECTS and the EHEA framework in the context of higher education is as follows.

ECTS credit ranges characterise two of the three levels of the EHEA framework. This has the objective of creating convergence in the size and structure of higher education qualifications. It is achieved by creating three main cycles of which two are associated with typical duration: 3-4 years for first cycle qualifications⁽³³⁾ and 1.5-2 years for second cycle, with a minimum of one year⁽³⁴⁾. There is no ECTS credit range associated with the third cycle (doctorate) and the use of a credit approach at this level is not required.

ECTS credit is always attributed a level at which it is awarded. Only credits awarded at the appropriate level can be accumulated towards a qualification, as stipulated in the national or institutional progression rules (ECTS users' guide, European Commission, 2009, p. 16). This does not exclude the possibility that a specific credit from the first cycle can sometimes be accumulated towards a second cycle qualification (e.g. students can have the option to choose an additional foreign language as part of their masters studies and this could be a beginners course normally part of a first cycle degree).

Another aspect of this relationship, but this time more related to the national implementation of credit approaches and NQF for higher education, is the use of learning outcomes descriptors for designing both qualifications/programmes and programme components.

The relationship between EQF and ECVET is currently articulated mostly in terms of complementarity and common use of certain concepts. While the EQF Recommendation (European Parliament and European Council, 2008) makes no reference to ECVET, the ECVET recommendation expresses the complementarity between ECVET and EQF in these terms:

'While the main objective of the EQF is to increase the transparency, comparability and portability of acquired qualifications, ECVET is aimed at facilitating the transfer, recognition and accumulation of learning outcomes of individuals on their way to achieving a qualification' (European Parliament and European Council, 2009, paragraph 12, p. 12).

Further, EQF and ECVET have the same underpinning logic enabled through the use of learning outcomes: openness to all forms of learning (formal, non-formal and informal) and the distinction between qualifications and education and training programmes.

⁽³³⁾ Expressed as 180-240 ECTS credits.

⁽³⁴⁾ Expressed as 90-120 ECTS credits with a minimum of 60 ECTS credits.

The ECVET technical specifications make it clear that ECVET will use EQF levels as a reference for deciding on comparability of qualifications and on the possibility to transfer credit. As noted above, in the context of higher education this does not imply that only units at the same level as the whole qualification can be transferred. This will depend on the qualification requirements of each specific system.

3. Methodology and analytical framework

This section presents the methodology, definitions and the analytical framework used to examine the national qualifications frameworks and credit systems.

3.1. Methodology

This study followed a qualitative research design based on two strands: data collection on qualifications frameworks and credit systems; and scenario development. Both are briefly described below.

3.1.1. Data collection

The analysis of EU tools was based on review of official documents governing these tools (recommendations, communiqués, etc.), surveys and research into their use and introduction, position papers and consultation documents and minutes and reports from related working groups (where available).

The national data collection had three phases: following desk research, mapping was carried out of the national situation in the development of qualifications frameworks and credit, and also of other aspects of the qualifications system governing transfer and accumulation. Based on the mapping document, semi-structured interviews were undertaken in all countries. In total 38 interviews were undertaken.

Caveat: the profile of respondents denotes a certain bias towards the official position on the instruments being analysed. To counterbalance this bias, the point of view of an external actor (researcher or employers' representative) was also explored in most countries. The goal of the study was not to assess the impact or the success of these instruments at national level but to explore their nature, how they inter-relate and the possibilities they offer for individualisation of learning paths. Considering these objectives, the bias towards the official position does not constitute a major flaw in the methodology. Further, as often as possible the official position is contrasted with available research or evaluations findings.

3.1.2. Scenario development

The set of scenarios for a common European credit and qualifications framework as presented in Section 8 was developed using a standard scenario-building approach. This approach is based on the steps presented in Table 5.

Table 5. **Scenario building approach**

<p>Step 1: Describing the setting The present situation, the European context (legislative, economic) and national interaction with the EU context.</p> <p>Step 2: Identifying drivers Drivers are factors that change the present situation from one configuration to another.</p> <p>Step 3: Drivers' analysis What is known and unknown about the drivers.</p> <p>Step 4: Assessment of the importance and uncertainties Trends and critical factors underpinning the drivers.</p> <p>Step 5: Selection of the scenario logic Formulation of a set of different possible scenarios.</p> <p>Step 6: Development of scenarios Their analysis in terms of 'what would the situation look like'.</p> <p>Step 7: Assessment of implications The impacts of the different scenarios as compared to the present situation.</p>

The main inputs for the scenario development included analysis of existing European tools. and interviews: six at EU-level with relevant Commission officers (connected to EQF, ECTS and ECVET), plus with stakeholder representatives (EUA and UAPME) and with an independent HE expert member of the EHEA framework working group. These interviews fed into the first two steps of scenario development. A small scenario development workshop run by Cedefop fed into steps 3-7 and the developed scenarios were circulated among a small group of experts with a good understanding of the European policy-making context as well as of the existing tools.

3.2. **Definitions and terminology**

The following definitions were used in this study to ensure common understanding of the meaning of terms and concepts. Where available, definitions from the Cedefop *Terminology of European education and training policy* (Cedefop, 2008a) or from European documents (e.g. recommendations on EQF and ECVET) were used (European Parliament and European Council, 2008; European Parliament and European Council, 2009). For some terms, there are currently no agreed European definitions. Therefore, this section only provides a descriptive explanation of how this term is understood for the purpose of this study.

3.2.1. Qualification and related terms

The EQF defines qualification as ‘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’ (European Parliament and European Council 2008, page 4). This definition is used for this study even though certain countries covered use slightly different national definitions which may refer either to the qualifying character to enter the labour market or to the completion of education and training programmes. The EQF definition has the advantage of being inclusive of different types of qualifications, including those awarded by formal education and training systems but also those awarded by providers of non-formal training or following validation of non-formal and informal learning.

The EQF definition shows the relationship between a qualification, the assessment and validation processes and the existence of a standard. However, the distinction between a qualification and a training programme is much less clear in many countries where a qualification is closely related to successful completion of a specific programme. In these countries it is unlikely that the same qualification would be achieved through different programmes with different durations (such as initial and continuing education and training), while in other countries (such as Ireland or France) this is quite common ⁽³⁵⁾.

This study also uses other terms: qualification titles and qualification types.

Qualification titles are understood as the different denominations used to name qualifications, such as bachelor degree (UK, Scotland), *Brevet de Technicien Supérieur* (France), advanced certificate (South Africa). In many countries the use of certain qualifications titles is regulated and subject to requirements on learning outcomes, training, assessment, etc. that underpin the design and award of the qualification. Typically, only institutions that meet certain criteria may award qualifications with these titles. The qualification titles are usually a well-defined group of qualifications; typically they do not span over more than two levels but may also exist only on one level of qualifications framework. However, certain titles are used in a completely deregulated manner, such as certificate.

Qualification type is understood as a broader group of qualifications that may have certain common characteristics but may be different in terms of levels, volume or possibly programmes leading to them. Certain qualifications frameworks differentiate between qualification types and may differ in how they are referenced to the framework. For example, the French CQP (*Certificat de*

⁽³⁵⁾ See Cedefop, 2009b, for discussion on the nature of standards underpinning qualification across Europe.

Qualification Professionnelle) is a qualification designed, delivered (typically the learning is on the workplace) and awarded by sectoral organisations which may have very different volumes as well as scope. The Slovenian qualifications system differentiates between three qualification types: those awarded by the formal system, those designed by employers and which can be achieved through work-based learning or awarded after validation of non-formal and informal learning (NVQs), and other qualifications such as those awarded by the private sector which do not have national standards (e.g. in adult learning).

3.2.2. Qualifications framework and qualifications system

The study differentiates between the concept of qualifications framework and qualifications system. While the first reflects the explicit structure of the system, the second refers to rules and practices through which qualifications are designed and achieved. The definitions used in this study are taken from the Cedefop terminology (Cedefop, 2008a):

- Qualifications framework is an instrument for developing and classifying qualifications (e.g. at national or sectoral level) according to a set of criteria (e.g. using descriptors) applicable to specified levels of learning outcomes. In this study, when the term qualifications framework is used alone (without further specification) it refers to a national framework. Otherwise the study specifies that the framework refers to higher education or VET only.
- Qualifications system comprises all recognition of learning outcomes and other mechanisms that link education and training to the labour market and civil society. These activities include:
 - (a) definition of qualification policy, training design and implementation, institutional arrangements, funding, quality assurance;
 - (b) assessment, validation and certification of learning outcomes.

When the term qualifications system is used, without further specification, it refers to the national qualifications system which, in most cases, contains subsystems with specific rules.

Qualifications subsystems are understood to be the set of activities and rules related to recognising learning outcomes (qualification design, learning provision and qualification award) governed by a single awarding organisation. This organisation may be a ministry but it may also be an awarding body such as a university, sectoral organisation or a private body. The subsystems may be more or less constrained by a regulating organisation or a structure (e.g. a qualifications framework).

3.2.3. Credit and related terms

Credit, as used here, is a set of individual learning outcomes which have been assessed and which can be accumulated towards a qualification or transferred to other learning programmes or qualifications (based on the terminology used for ECVET (European Parliament and European Council, 2009)). It is therefore taken to mean an assessed achievement, not necessarily related to a measure of the volume of learning. This definition is different from that used in some national contexts or even at European level, in higher education, where credit is directly related to learner workload or notional learning time ⁽³⁶⁾. This choice was made here because credit transfer and accumulation arrangements are not necessarily related to the volume of learning and certain qualifications systems promote credit transfer policies which use other approaches than the numerical expression of volume.

The Cedefop terminology defines a credit system as follows:

Credit system is an instrument designed to enable accumulation of learning outcomes gained in formal, non-formal and/or informal settings, and aid their transfer from one setting to another for validation and recognition. A credit system can be designed:

- by describing an education or training programme and attaching points (credits) to its components (modules, courses, placements, dissertation work, etc.);
- by describing a qualification using learning outcomes units and attaching credit points to every unit.

This is also the definition initially used in this study but the analysis of national approaches makes it possible to further distinguish, next to credit system, between:

- credit arrangements, which enable or aid recognition of credit gained by an individual through, for example, the existence of equivalencies, use of exemptions, existence of units/ modules that can be accumulated and transferred, the autonomy of providers who can individualise pathways, validation of non-formal and informal learning;
- credit points convention which defines a common approach to measuring the volume of learning that describes credit.

A credit system is based on the systematic use of components of qualifications (units/modules) and has clearly described and formalised rules on how components can be accumulated and transferred. Credit systems

⁽³⁶⁾ In ECTS, credit is 'based on the workload students need in order to achieve the expected learning outcome ... where 60 ECTS credits are attached to the workload of a full-time year of formal learning ...' (European Commission, 2009, p. 11).

systematically embed credit arrangements into qualifications design. This includes arrangements such as the use of common or equivalent units, articulation of the content of qualifications among each other, and building qualifications up from a pool of units. The requirements to build accumulation and transfer possibilities into qualifications design are binding for actors in the system (subsystem).

The conceptual distinction between credit system and credit points convention is made here even though some countries/systems do not distinguish between the notion of credit and its measure in terms of volume (e.g. this is the case in ECTS).

3.2.4. Transfer, accumulation and progression

The process of transfer is the means through which learners are able to have learning which took place in one context (country, system, and institution) recognised in another. The expression credit transfer refers to the process through which credit achieved and recognised in one setting can be taken into account for other qualifications or education and training programmes.

Individuals can accumulate learning outcomes that were achieved in different contexts in order to be awarded qualifications. This process is governed by national, sectoral or institutional requirements on what learning or learning outcomes can be accumulated to which qualification. These rules constrain or open up (depending on the qualifications system) the possibilities of education and training paths which the learners can follow to achieve qualifications. In countries where credit systems are in place, credit accumulation is a core function. However, as with transfer, other means of accumulation unrelated to a formalised credit system may exist (credit arrangements). In certain countries units that form a qualification may be acquired progressively, through continuous training or validation of non-formal and informal learning, even in the absence of a credit system.

The term progression is broader than transfer as it refers to the possibilities to move vertically and horizontally in the qualifications system. Progression is related to the existence and openness or narrowness of entry requirements but also to aspects such as the articulation of the qualifications content that ensures people have the prerequisites to continue. For transfer to be possible, progression has to be enabled.

3.2.5. Units and modules

In this study the term credit refers to a set of transferable assessed learning outcomes. In a national system, credit can refer to two types of component in the qualifications system:

- units of learning outcomes;
- modules.

While the term unit is used here to mean a component of a qualification that can be assessed, validated and recognised, the term module is used to address a specified element of a training programme. While both units and modules can be assessed, the former are typically assessed through summative assessment (as part of the certification process) and the latter are assessed in a formative way (necessary to progress in the education and training pathway).

This study makes the distinction between units and modules when presenting the different national systems. However, this vocabulary is not always applied in each country. For example, the Spanish VET qualifications system uses the vocabulary of competence modules (though the nature of these components indicates that they comply with the definition of units as used here) and training modules. Some countries do not distinguish between modules and units as they do not make a strict distinction between education and training programmes and qualifications.

3.2.6. Education and training pathway and education and training path

Other concepts frequently referred to are those of a 'pathway' and a 'path'. These can be understood from two perspectives:

- that of the education and training system and how the system conceives progression from one level to another.

For example, some systems contain specific pathways within a field of study or concerning qualifications related to the same economic sector. These pathways have qualifications at different levels and potentially of different sizes that are interrelated. This means the learning outcomes of higher qualifications build on those of lower qualifications and similarly broader ones encompass learning outcomes of more narrow qualifications. Such pathways are characterised by multiple exit points and may be more or less open when it comes to entry.

- the perspective of the individual who, based on his/her personal choices as well as other circumstances, goes through a number of learning experiences (formal, non-formal or informal) which contribute to developing his/her knowledge, skills and competence.

While pathway is used to describe the possibilities (within the qualifications system) an individual can follow to achieve a qualification, the term path qualifies the sum of learning activities an individual undertakes. Using the Cedefop definitions below (Cedefop, 2008a), this distinction will be maintained here:

- an education or training pathway is a set of related education or training programmes provided by schools, training centres, higher education institutions or VET providers, and that facilitates individuals' progression within or between activity sectors;
- an education or training path is the sum of learning sequences followed by an individual to acquire knowledge, skills or competences.

3.3. Key components of the analytical framework

To address the objectives outlined for the study, the research analyses existing credit systems and qualifications frameworks, focusing on the themes described in the analytical framework below.

3.3.1. Credit systems and use of a points convention and qualifications frameworks

Previous research and reflections have identified ways of categorising qualifications frameworks either according to how they relate to different education and training subsystems (European Commission, forthcoming) or depending on the level of change they imply for existing policies and systems (ILO categorisation in Raffe, 2009).

The first approach focuses on the scope of the frameworks and it distinguishes between:

- (a) sectoral frameworks, which cover only one education and training subsystem, for example higher education or VET;
- (b) bridging frameworks, which cover all (formal) subsystems through a single set of levels but are underpinned by sectoral frameworks. The bridging framework is nearly a meta-framework, like the EQF, but within a country. The level descriptors, for example, are designed to accommodate a variety of more detailed descriptors at subsystem level;
- (c) integrated frameworks, which cover all subsystems without necessarily the existence of sectoral frameworks. There is a single set of descriptors used across all the subsystems.

The second approach distinguishes between descriptive, reforming and transformational frameworks. These categories present a continuum in the extent

to which a framework imposes new rules and practices on the existing qualifications system. The descriptive types of frameworks communicate in a new and easily readable way the relationships between qualifications in the qualifications system as it currently exists. An example cited by Raffe (2009) is the Scottish framework. The transformational framework is designed as 'system-to-be': it sets what qualifications should be and how these should be designed (rather than describing the existing situation) and requires the existing qualifications offer to be redesigned accordingly. The example cited by Raffe (2009) is the first version of the South African framework. A reforming framework is an in-between case where some transforming features are present but the link with the existing qualifications system and subsystems is ensured. The Irish NQF is cited as an example (Raffe, 2009). Similar distinction was already made by Young (2007a and 2007b) who showed that, while certain frameworks are designed as an active tool to reform education and training systems (see also Section 3.3.2.), others are a tool to improve legibility of qualifications within the system (passive function).

The perspective taken in this study is different from the ILO approach described above. It is based on the assumption that most qualifications frameworks, and also credit systems and systems using a common credit points convention, will combine descriptive and regulatory aspects (actually all frameworks have a descriptive function). The idea here is not to categorise these instruments but to explore how they relate to each other in their different functions.

This study takes the point of view that both instruments have an active (possibly regulatory) or a passive (descriptive) function. The word 'active' rather than 'regulatory' is used here because the way the QF/CS-CPC influence the qualifications system may actually be softer than regulation (e.g. serving as a benchmark or quality assurance instrument). Actually, all qualifications systems or their subsystems are regulated as by nature they are based on rules on how qualifications are designed, learning is delivered and qualifications are awarded. Private or professional sector qualifications subsystems are self-regulated. The regulation may be a feature of the qualifications framework but it may also be a feature of legislation on the education and training system or subsystem, an element of the awarding body code of practice, an aspect of accreditation procedures, etc. It is, therefore, difficult (and probably not so useful) to distinguish between regulation of qualification design and award as required by an NQF and as required by the system.

A qualifications framework which may appear as non-regulatory could, in reality, be underpinned by clear and strict regulation on, for example, the use of

units to design qualifications or the process (consultation with stakeholders, etc.) through which the qualification has to be designed. For example, in Finland the future qualifications framework does not envisage imposing change on the existing status quo but the qualifications system is governed by legislation which determines who designs and updates qualifications, how this is done and how qualifications are awarded (these regulations are less stringent for higher education) (for example Cedefop; Kyrö, 2006). In Slovenia, the qualifications subsystems governed by the ministry of education have undergone important changes in regulation in the past decade to modernise design and award processes (for example Cedefop, 2008b) on which the future NQF will be based⁽³⁷⁾. The Scottish credit and qualifications framework (SCQF) does not prescribe beyond the use of learning outcomes and credit, how and what qualifications should be constructed or awarded (Raffe, 2007a and 2007b and SCQF, 2007). However, the authorities in the SCQF partnership who are able to reference qualifications in the SCQF have such a regulatory role.

Taking into account the definition of a qualifications framework and a qualifications system (Section 3.2.1.) this study shows that frameworks with an important active role integrate functions of the qualifications system.

Credit systems and credit points convention have a passive role, describing qualifications or programmes and their components by using points as a measure of volume for example, and an active role. In the latter they support transfer and accumulation by dividing qualifications/programmes into smaller elements that are assessed. They may also set rules on what can be accumulated towards a qualification and how accumulation is undertaken.

Another way of looking at these instruments is by distinguishing between the technical mechanism they introduce, which concerns how qualifications are designed and awarded, and the process necessary for policy objectives to be translated into reality for individuals.

The idea behind this distinction is that achieving policy objectives behind this mechanism (Section 3.3.2.) does not automatically follow from the implementation of the mechanism and its application to qualifications. It requires willingness, commitment and a change of attitudes of parties concerned, including education and training institutions and also employers. Understanding qualifications frameworks and credit systems as a process is similar to the concept of institutional logic used by Young (2007a and 2007b) regarding qualifications reforms. According to Young, the intrinsic logic of reforms is the rationale that underpins the design of policy measures, such as the assumption

⁽³⁷⁾ The NQF mechanisms (structure of levels, level descriptions, etc.) are already designed. The processes for operationalising the NQF are being developed and negotiated.

that if qualifications are designed in a coherent manner this will improve progression. However, the institutional logic lies in the division of powers and the interests of institutions involved in the implementation of the reform and the way these impact on how the reform objectives are fulfilled.

Credit systems define a set of rules on how learning can be accumulated to achieve a qualification. To achieve their objectives, credit systems (transfer, accumulation and progression) rely on a process in which the parties involved (e.g. institutions or teachers) exercise, or not, their competence to recognise credit awarded in other contexts.

Similarly, qualifications frameworks are mechanisms which make explicit the hierarchy of, or relationship between, qualifications through a set of levels. These levels are based on descriptors or other understanding of the hierarchy of qualifications such as the level of professions these qualifications lead to (as in France). However, the frameworks rely on an implementation process which includes arrangements on how it is managed and by whom and the consequent mutual trust. The actual use of the framework requirements for design and delivery of education and training programmes, as well as assessment and the opening up of access and of qualifications to non-traditional learners, depends on the extent to which the stakeholders concerned have interest in following these and buy into the mechanism of the framework.

The Cedefop study (Cedefop, Coles and Oates, 2005) already highlighted the importance of processes that underpin qualifications framework in promoting mutual trust (which is behind the objectives of most frameworks):

'It is the control of the lists [frameworks], the very different ways in which different bodies run admissions to the lists [frameworks], handle new and special cases and build up case law, which are crucial in explaining how these ZMT [Zones of Mutual Trust] mechanisms operate, are maintained and stay credible' (Cedefop, Coles and Oates, 2005, p. 40).

This citation also illustrates that, while the technical aspects of credit systems and qualifications frameworks (the mechanisms) are important in creating a 'common vocabulary' (i.e. use of the same principles), the related processes of governance, funding and control are crucial in making these instruments a 'living language' (i.e. that they effectively serve as basis for exchange and communication).

This distinction between qualifications frameworks and credit systems as mechanisms and processes having an active and a passive role is summarised in Table 6.

Table 6. **The dimensions of credit systems and qualifications frameworks**

	What are qualifications framework/credit systems-use of a credit convention?		What roles do they have in qualifications systems?	
	A mechanism	A process	Active role	Passive role
Qualifications Frameworks	Set of levels. Set of procedures according to which qualifications are referenced to those levels. Catalogue(s) of qualifications offered.	Includes or excludes certain qualifications (and consequently those awarding them). Empowers or constrains certain organisations.	Regulate or influence the way qualifications are designed and awarded using level descriptors. Ensure the quality of qualifications 'recognised' through the framework.	Describe the relationship between qualifications through a structure of levels. Communicate the range of recognised qualifications offered.
Credit systems	Units/modules and related assessment. Credit points. Rules to accumulate credit. Rules on who can validate and recognise credit.	The responsibilities, motivations and willingness of parties concerned (providers, awarding bodies etc.) to practice transfer and to open-up qualifications and programmes.	Require qualifications to: <ul style="list-style-type: none"> ● be specified through a measure volume (credit points) ● use units/modules ● refer to rules to accumulate credit. Empower certain actors to recognise credit.	Describe the size of a qualification or its component. Describe the relationship between components.
Learners' perspective	Related to the learning pathway – enables to construct a pathway and to define entry and exit points.	This influences institutional decisions that impact on individuals' learning paths: decides whether they are given access or recognition.	Defines the possibilities to construct learning pathways.	This enables learners to 'navigate' the system – related to the learning path.

The passive or active role of both instruments, as well as the extent to which both instruments interact (as mechanisms or processes) are analysed in this study.

3.3.2. Objectives of qualifications frameworks and credit systems

The national context has an important impact on the way that qualifications frameworks and credit systems are designed, their functions and their characteristics, their development and practical benefits. At national level, the NQF can be an important tool to structure, rationalise, describe, regulate and quality-assure the national qualifications system. Such frameworks also have the potential to improve connections between qualifications and the labour market and the possibilities for learners to access education and training and achieve qualifications. Depending on the objectives followed by the country, they can

serve a number of goals. The OECD highlights these key functions of qualifications frameworks as:

- (a) better match qualifications with knowledge, skills and competence and better relate qualifications to labour market needs;
- (b) bring coherence to subsystems of qualifications (e.g. HE, VET) by creating an overarching framework for them;
- (c) support lifelong learning by opening up access, targeting investments and recognising non-formal and informal learning;
- (d) assist involvement of different stakeholders in education and training and the design of qualifications (OECD, 2005, p. 7-8).

Additional objectives defined in this study are:

- (a) ensuring the quality of qualifications recognised nationally by regulating the quality assurance conditions for these qualifications;
- (b) aiding transnational understanding of qualifications by acting as a tool to recognise migrant qualifications and also for attracting foreign students.

As with qualifications frameworks, credit systems can have different national goals. The following functions were identified:

- (a) transfer of learning outcomes within and between qualifications systems and across different learning contexts;
- (b) accumulation and mutual recognition of either educational activities (modules) or components of qualifications (units) by contributing to the definition, assessment and possibly certification of parts of qualifications;
- (c) cooperation between education and training providers, teachers and learners;
- (d) transparency of learning processes and qualifications;
- (e) mobility of learners within and across the qualifications systems, and also professional mobility;
- (f) flexibility of learning periods and of the content of programmes;
- (g) simplification of certification and recognition procedures (e.g. possibility of partial or full qualifications) (Cedefop, Le Mouillour, 2005, p. 35).

These two lists are not meant to be exhaustive but to illustrate that these instruments are expected to serve multiple objectives which may make them an attractive policy tool but implies a complex set of procedures and processes. To understand the relationship between the two instruments at national level it was important to have a good understanding of the motivations for putting credit systems and qualifications frameworks in place.

3.3.3. Relationships between credit systems and qualifications frameworks

The definitions, and description, of the different possible functions, of a qualifications framework and of credit systems suggest that both have certain common objectives and are also complementary in certain aspects. Some of the policy objectives for credit systems are complementary or even overlap with those of qualifications frameworks, mainly when it comes to cooperation, transparency and opening up of access to programmes and qualifications. However, the way in which they may be used by learners may differ.

Individual learners are directly concerned by credit aspects, such as the possibility of transferring and accumulating learning outcomes, so they use the credit systems directly to construct their learning path. Qualifications frameworks support the possibilities for credit transfer and accumulation by the way they influence qualifications structures and the way qualifications relate to each other. They are used by qualifications authorities, education and training institutions, and employers but less directly by individuals.

Taking into account the general characteristics of credit systems and qualifications frameworks, outlined in Section 3.3.1., the assumption behind how these two instruments operate jointly (as mechanisms) is that, in general:

- (a) qualifications frameworks and arrangements underpinning these frameworks:
 - (i) by using levels, make explicit the relationships between qualifications, thus clarifying areas where credit transfer can potentially occur (assuming that transfer can only take place if the level of learning is appropriate) as well as clarifying the possibilities for progression;
 - (ii) through requirements on qualification design and award, bring coherence to how qualifications are constructed (e.g. use of learning outcomes and units) and awarded (conditions regarding assessment) thus enabling transfer and progression, which are improved if qualifications are built on a common basis;
 - (iii) may support, because of a common description of qualifications as well as the shared process of referencing qualifications to the framework, trust in qualifications that are referenced in the framework, so improving the possibilities of transfer and progression dependent on trust in qualifications/units certified by other institutions or awarding bodies;
- (b) credit systems:
 - (i) break down qualifications into smaller components (units or modules) that are assessed and so aid transferability. By using units it is easier to identify which components of the qualification towards which the learner

wants to transfer her/his previous achievements have already been achieved. Since these units are assessed it is possible to trust that the learner has not only participated in the education/training activity preparing for the unit but that the learning outcomes have actually been achieved;

- (ii) establish connections between qualifications by identifying common components and so improving the possibilities of transfer;
- (iii) the use of a common credit points convention can introduce a means of comparing the volume of learning involved (while frameworks compare the level of learning outcomes) clarifying the possibility for equivalence between units or modules.

Credit systems and qualifications frameworks also share certain assumptions regarding the processes on which their success relies:

- (a) the coherence of qualification design (use of learning outcomes, units, credit points) will improve the understating of qualifications and their components by employers and education and training institutions. This will enable stakeholders to make better judgements on qualification holders;
- (b) improved understanding and clearer relationships among qualifications will be translated to opening up of access to programmes and the conditions for achieving qualifications to non-traditional learners;
- (c) the reformed requirements in design of qualifications (e.g. focus on learning outcomes, unit-based structure) will influence the way programmes are designed, as well as teaching and assessment methods, to enable greater flexibility for individuals.

It is beyond the scope of this study to confirm or refute the above three assumptions by identifying evidence on impact of qualifications frameworks or credit systems. This would require representative (quantitative and qualitative) data on learner progression and insertion in the labour market, and on the way qualifications pathways are constructed and used. This study has a more exploratory approach to identifying how the two types of instruments articulate together. These assumptions were used to formulate four dimensions in analysing the relationship between credit systems and qualifications frameworks from the perspective of lifelong learning. These dimensions are:

- (a) the coherence of the description of qualifications (passive role) which promotes a common language across the qualifications subsystems and education and training institutions;
- (b) the coherence of qualifications design (active role) that aids recognition of qualifications or parts of qualifications in other subsystems or institutions;

- (c) the governance necessary to put in place qualifications frameworks and credit systems, meaning to implement the framework and credit requirements;
- (d) the openness of qualifications systems resulting from processes underpinning the use of framework and credit mechanisms.

4. National qualifications frameworks and credit systems

The countries selected for this study have different approaches to using qualifications frameworks and credit arrangements and are also at different stages of development of these instruments. Not all the countries analysed already have qualifications frameworks and/or credit systems in place. Further, the approaches they have chosen for implementing these instruments vary.

This chapter examines the current status of these instruments in the countries studied. These are then analysed according to their active and passive functions (as presented in the analytical framework) in Section 5. Section 6 analyses the way the qualifications frameworks and credit systems are used to support transfer, accumulation and progression. It also highlights the processes necessary for these mechanisms to operate.

4.1. Qualifications frameworks characteristics

Table 8 presents an overview of the framework and credit development in the countries covered. Four of these countries were in the process of developing a NQF (Germany, Spain, Slovenia and Finland). However, these four countries were not at the same stage of development and were also not starting from the same position. Germany had a framework for higher education and Finland a proposal for such a framework since 2005 before development of the overarching NQF.

This section discusses the frameworks in a comparative perspective paying particular attention to their interaction with the qualifications systems and subsystems ⁽³⁸⁾.

4.1.1. Framework relationship with education and training

While most of the frameworks studied encompass at least several sectors of education and training, the way they relate to, or interact with, these sectors varies, depending on how the sectors were organised prior to the NQF.

⁽³⁸⁾ For a more comprehensive vision of the state of play of the European qualifications frameworks covered here and their descriptions, see Cedefop (2009e).

The existence of subsystem frameworks (even if only in the form of a proposal) has an influence on the process of designing an overarching framework; clear path-dependency can be observed. Having a subframework in place means that an agreement on framework mechanism (levels and level descriptors) and processes (governance) have already been established in part of the qualifications system, and are likely to resist changes that could be imposed by the overarching framework. For example, the German HE NQF (already self-certified with the EHEA framework) is likely to remain the main reference for the higher education sector. Its descriptors are more detailed than the overarching NQF proposal descriptors and are specifically designed to fit the HE sector ⁽³⁹⁾. These are the descriptors already used for accreditation and this will remain the case. Some of the interviewees noted that, in the short term, the higher education sector was mainly concerned with maintaining the HE framework and supported the overarching framework development as long as it did not imply changes to their existing organisation. The stakeholder position analysis carried out by the TransEQFrame project (BIBB, 2008, p. 8) also supports this view. It shows that the German Rectors' conference supports the view that the NQF should serve as reference for more detailed sectoral frameworks. A proposal for a HE framework in Finland was developed in 2005 but, because of the EQF development, the ministry took no decision on it and later decided to develop an overarching framework to which the HE proposal was integrated, with modifications.

Path-dependency can also be observed in countries where qualifications structures, other than frameworks, already existed. The French qualifications framework is based on a structure of levels that was originally used as a statistical tool and a means to anticipate qualifications needs (Bouder, 2003; Bouder and Kirsch, 2007). Similarly, in Slovenia a classification of qualifications was designed in 2006 to serve as a statistical tool to record qualifications achievements (including non-formal learning) of the population in a uniform manner across the different administrative sectors (pensions, social security, etc.) (National Institute for Vocational Education and Training, 2008). This structure (in terms of number of levels), the terminology, the typology of qualifications and the level descriptors it introduced, are the mechanisms of the Slovenian NQF; the processes of governance are being developed.

⁽³⁹⁾ The description and the way the German HE framework is used for qualification design and programme accreditation is described in the Self-certification report with the EHEA framework (Federal Ministry of Education and Research, BMBF) and the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* of the Federal Republic of Germany (KMK and BMBF, 2008).

The qualifications frameworks in countries studied also differ in scope. To use the categorisation used by the European Commission (forthcoming) and presented in Section 3.3.1., these can be described as:

- (a) sectoral: when it comes to the German higher education framework, the UK-EWNI higher education framework or the Spanish qualifications system in VET (which is not a qualifications framework as such) ⁽⁴⁰⁾;
- (b) bridging (i.e. a communication instrument across existing subframeworks): for example the South African framework (in its revised form) which is based on three subframeworks (schools, higher education and sectoral VET qualifications);
- (c) integrating: the UK-EWNI QCF but also the SQA subframeworks ⁽⁴¹⁾ (of the Scottish SCQF) are integrating in that all qualifications they cover must follow the same requirements. In both cases the qualifications are from different sectors, even though they do not cover the whole spectrum of qualifications in the country. For example, the QCF covers post-16 qualifications (from general education, VET, adult learning). Higher education qualifications can also be entered in the QCF, but higher education institutions are unlikely to enter the traditional HE awards (bachelor, master, etc.) but rather the qualifications aimed at adults or developed with employers.

Some of the frameworks studied are difficult to describe as belonging to one of the above categories because, even though they cover a number of subsystems, they interact in different ways with the different subsystems. For example, the French framework integrates all types of qualifications (including those developed and awarded by social partners or private providers) following certain rules regarding their design and description (and other criteria when it comes to the qualifications not awarded by ministries). However, the qualifications developed by the different ministries that have this competence, do not necessarily follow the same rules regarding qualifications design (e.g. use of units) and award. Each ministry regulates the subsystem it governs. Therefore, the French framework has the features of both an integrating and a bridging framework. It is integrating with regard to qualifications from subsystems outside the remits of competent ministries but bridging regarding the ministries' own qualifications.

⁽⁴⁰⁾ For more information about the National catalogue of professional qualifications in Spain see Planas (2005) or Homs (2009).

⁽⁴¹⁾ The Scottish Qualifications Authority (SQA) has the responsibility for development, assessment and recognition of a range of qualification types which constitute sub-frameworks of the SCQF (e.g. the SVQs or the Higher National are a subsystem of their own). For more information see the SQA web-site (www.sqa.org.uk) and the SCQF diagram (<http://www.sqcf.org.uk/AbouttheFramework/Overview-of-Framework.aspx>) [cited 29.3.2010].

Similarly, the Australian framework contains a mixture of integrating and bridging features. It offers a single nomenclature of qualifications titles, as well as specifying the protocols for the award of qualifications (i.e. who in different sectors has the competence to award qualifications and what structure the qualifications documents and student records should follow). It also includes common policies and guidelines that concern all sectors (in developing links and progression routes among qualifications) but these are indicative (i.e. not binding). However, the titles are always presented according to the sector that awards them ⁽⁴²⁾ and each sector has its own specific rules concerning qualification design and award (Australian qualifications framework, 2007).

While the Australian framework fulfils a number of functions (equivalency and linkages, quality control and coherence) it does so '*only partly or for some sectors, and/or weakly*' (Keating, 2003, p. 279). This relationship à *géométrie variable* (differentiated integration) between an NQF and different subsystems might also arise in Germany (where the HE sector is already structured according to the HE framework) or Spain (where a five-level structure exists in VET (Homs, 2009) and a HE framework is being developed). It shows that a framework that covers a number of education and training systems does not necessarily have the same impact on all sectors, depending on the existing regulations and structures (see also the discussion on active and passive functions of NQFs in Section 5).

The variation in framework interaction with subsystems also depends on the underpinning processes, mainly the interests of organisations concerned (awarding bodies) to have their qualifications referenced in the framework. Referencing in the framework may be related to a 'pull factor' such as access to public financing to encourage awarding bodies to use it. This is, for example, the case in the UK-EWNI and also in France ⁽⁴³⁾. Another pull factor may be the visibility and credibility the framework gives to qualifications, mainly in the context of awarding bodies interested in attracting new learners or learners from abroad. The referencing may also be a requirement (for example in higher education for programmes to be accredited or recognised) but awarding institutions may not see value in it for their own interests. They may do the minimum necessary to

⁽⁴²⁾ For more on how the Australian QF is represented, see:
<http://www.aqf.edu.au/AbouttheAQF/AQFQualifications/tabid/98/Default.aspx> [cited 29.3.2010].

⁽⁴³⁾ The financing of continuing training for people in employment is managed by sectoral organisations (Organisme Paritaire Collecteur Agréé, OPCA) that are bound to use their funds for training leading to qualifications in the National Repertory of Vocational Qualifications (RNCP). Similarly, employer funding for apprenticeships can only be used for qualifications in the repertory. For more information about use of sectoral funds for training, see Cedefop (2008c). Regional funding is also becoming linked to the RNCP (see: Commission Nationale de la Certification Professionnelle, 2008b).

comply with the requirements without modifying their practice (for example the discussion on introduction of three cycles in higher education in Section 2.2.2.).

4.1.2. The 'inclusive' character of certain frameworks

The frameworks studied also differ in their ambition to include learning from outside formal or public education and training. Some, like the Australian framework, include only qualifications awarded by accredited education and training providers (i.e. in 2009 the framework did not, and could not contain, for example, vendor qualifications).

In the first instance, the German NQF is expected only to cover qualifications from formal education and training. There is currently discussion and reflection on approaches to include non-formal and informal learning in the framework. Similarly, the Finnish framework will, in the first stage, cover only publicly-delivered learning; the inclusion of other qualifications (e.g. from the adult learning sector) will be considered at a later stage.

Table 7. **Approaches to inclusion of qualifications from outside formal education and training in NQFs**

In France, the qualifications not awarded by any of the competent ministries have to 'qualify for a profession', i.e. be recognised in the labour market, and this needs to be supported by data on graduate labour market entry. Other criteria concern aspects such as the way qualifications have to be described, the way they are accessed (to be accessible through validation of non-formal and informal learning).

In Scotland, private education providers can become 'credit rating bodies' provided they satisfy certain conditions set by the framework partnership. Further, workplace learning can also be included in the Scottish framework if it is 'credit rated' (i.e. allocated a level and a credit value) by a credit rating body. For such learning to be credit rated, the qualification/programme has to be based on learning outcomes, formally assessed with a recorded result, quality assured (documented external QA of assessment) and have a minimum volume of one credit⁽⁴⁴⁾.

To be involved in the QCF, private providers or employers can: follow the process for becoming a QCF recognised awarding body; work together with an existing recognised awarding body that will develop the qualification, quality assure it and accredit the employer; or work with a third party that will quality assure the qualification (provider, sector regulator, trade association or professional body)⁽⁴⁵⁾.

Source: Commission Nationale de la Certification Professionnelle (FR), Scottish Credit and Qualifications Framework Authority (UK-Scotland), Qualifications Curriculum Development Agency (UK-EWNI).

Others, like the Slovenian framework, will cover qualifications from formal education and training but also those designed by employers' representatives

⁽⁴⁴⁾ See: <http://www.sqa.org.uk/sqa/7597.html> [cited 29.3.2010].

⁽⁴⁵⁾ For more information, see: <http://www.qcda.gov.uk/18857.aspx> [cited 29.3.2010].

and those which can be achieved through in-company training or through recognition of non-formal and informal learning (NVQs). Certain frameworks including the French, the Scottish or the UK-EWNI, are open to a wide range of qualifications (including private or employer-led ones) under certain conditions.

Different strategies exist for inclusion of qualifications from outside formal education and training in the NQFs. Examples are presented in Table 7.

The main reason for including qualifications from outside public education and training provision in the framework is the willingness to make transparent the full qualifications offer, including learning opportunities that are outside the formal system. This is specifically of interest for those responsible for adult learning as adult learning provision (including the publicly funded part, such as for the unemployed) is often fragmented and lacking in transparency (NIACE, 2006; Buchter and Gramlinger, 2005). This fragmentation of adult learning (including continuing vocational education and training) is an obstacle for learners making choices about their learning paths, for the guidance staff responsible for advising students (Charraud, 2007), and also for those making decisions about funding of this provision ⁽⁴⁶⁾. This third group is particularly relevant given that most decisions about adult learning funding are decentralised and the framework can help funders to set priorities (e.g. people with qualifications below a certain level, which is the case in the UK). Also related to the aspect of public funding is the ambition of qualifications frameworks to ensure the quality of training provided outside the public offer ⁽⁴⁷⁾.

The openness of qualifications frameworks to learning certified outside public provision requires tighter rules for referencing qualifications in the framework. If the framework puts aside qualifications designed and awarded by a heterogeneous group of players, it has to make sure that this process does not undermine the meaning and trust in the framework structure. In the most open frameworks (like the ones in UK-EWNI or UK-Scotland) qualifications may come from this variety of bodies which have different approaches and expertise in designing, delivering, assessing and recognising learning:

- (a) recognised awarding bodies (such as SQA);
- (b) universities and other higher education institutions;
- (c) employers' representatives, designing and possibly awarding qualifications delivered through apprenticeship training;

⁽⁴⁶⁾ See the working document on continuing training and its challenges in France (Dayan, 2008) which illustrates the complexity of decision-making with regard to publicly financing continuing training in a country with numerous education and training subsystems. See also: Cedefop, Green et al. (2001), p. 100.

⁽⁴⁷⁾ Cedefop, Walsh and Parsons (2004) conclude that the quality of training offered as part of active labour market policies is often lagging behind.

- (d) private providers of learning, which is especially relevant in the context of adult learning (vocational but also non-vocational, such as NGOs for literacy provision);
- (e) employers; for example, a major employer such as the National Health Service is also a major learning provider for its staff.

This range of stakeholders also reflects the understanding of the term qualification in Anglo-Saxon countries compared to the continental Europe. In the latter, the qualifications provided by actors in the last two bullet points would most likely be considered as certificates or spoken of as training/learning opportunities rather than 'qualifications'. That is also the position expressed in the French qualifications framework.

The framework therefore requires mechanisms through which:

- (a) standard description of the qualification is ensured to enable external actors to make decisions;
- (b) decision about the level of that qualification is made in a reliable and valid manner;
- (c) consistency in the award of that qualification is ensured, meaning that the learners who hold the qualification have actually achieved the learning outcomes at the level stipulated.

All these aspects require the framework to have a strong active role with regard to qualifications coming from outside the public domain. It also means that the frameworks which are open necessitate governance structures that can enforce the above mechanisms.

4.1.3. Qualifications framework dimensions

In the countries studied certain differences also exist when it comes to qualifications framework structures. All except the Australian framework have a basic structure of qualifications levels as one of their dimensions. Until 2009, the Australian framework was not based on levels but on guidelines on qualification titles. However, introduction of an explicit structure of levels was being considered as one of the revision options in 2009 (Australian Qualifications Framework Council, 2009a; see also below).

The structure of levels is based on explicit level descriptors in terms of learning outcomes in Germany, Finland, the UK-EWNI and the UK-Scotland. The Spanish national register of VET qualifications is also based on levels of learning outcomes. The South African framework will contain level descriptors but these are not yet in place; the structure of 10 levels has already been decided and, for

general and further education and higher education subframeworks, it is already known which qualification titles will be located at what levels ⁽⁴⁸⁾.

In Slovenia the structure of eight levels also already exists (based on the classification of qualifications Klasius, which combines an approach by content of programmes/qualifications and learning outcomes) and is used to describe and monitor the qualifications system. The learning outcomes level descriptors are also contained in this classification and are accompanied by an indication of typical entrance level (completed compulsory schooling) and the typical duration of the reference formal qualification on that level (Republika Slovenija Vlada, 2006, p. 46).

The structure may also be based on level of occupation(s) to which the qualification typically gives access: the French framework locates qualifications on a structure of five levels based on the level of occupations. This use of the labour market insertion as an indicator for qualification level has to be seen in the historical context in which it was designed. However, it presents difficulties: should the immediate level of occupation after achieving the qualification be taken as a reference or should the level achieved a certain number of years after being awarded the qualification be used ⁽⁴⁹⁾? Discussions on the evolution of this structure continue (Cedefop, 2009e) and European developments in qualifications frameworks are part of these discussions.

One interesting possible evolution was mentioned during the interviews in France. The existing French structure of five levels is currently being reconsidered under the influence of the EQF development. It is possible that France could evolve towards an eight levels framework, in line with the EQF eight levels. The current lowest qualifications in the national register would correspond to level 3 of EQF, so levels one and two of a potential French eight-level NQF would remain empty, or would contain no qualifications from the formal system. However, certificates (not considered as qualifications in the French system) exist at those levels and are likely to use the reference to them. Finland also envisages leaving some of the eight levels of its NQF empty (levels 1 and 3) but these could be used again at some future point.

While there is a clear move towards using learning outcomes based descriptors to structure qualifications systems, the extent to which these are actually used for qualifications design varies greatly (Section 5.3.5.). However

⁽⁴⁸⁾ For example, from the general and further education sub-framework: the basic certificate will be on level 1, national senior certificate for adults will be on level 4, etc. – see UMALUSI (2008, p. 13-14); from the higher education sub-framework: higher certificate will be level 5, advanced certificate level 6, etc.: see South African Government Notice No 928 of 5 October 2007, Appendix 1 (Department of Education, 2007).

⁽⁴⁹⁾ For the discussion about the structure of levels in the French framework see for example: Espinasse (2007); Vanneau et al. (2007) and Dauty (2007).

this is partly due to the fact that the frameworks covered here are at very different stages of development and implementation.

In addition to the structure of levels, certain frameworks also have (will have) additional dimensions:

- (a) qualification types:, as used in: UK QCF (based on the size of qualifications as determined in terms of credit points); Slovenia (distinguishing between qualifications from formal education and training occupational qualifications ⁽⁵⁰⁾, and others); France (qualifications governed by competent ministries, social partners or other qualifications ⁽⁵¹⁾); the SQA subframework also distinguishes between three major qualification types (units, courses and national certificates);
- (b) qualification titles. as in the structure of the Australian framework; the SQA subframework also distinguishes between a number of qualifications titles (national courses, standard grades, etc.);
- (c) common credit points convention: German HE framework, South African framework, QCF (UK-EWNI), and SCQF (UK-Scotland). Introduction of the measure of volume at the level of the framework is also being proposed as part of the Australian framework review.

Note that some qualifications system (such as Slovenia or Finland) use credit points within the framework subsystems but these are not made a feature of the NQF (i.e. they are not part of the NQF specifications and requirements).

⁽⁵⁰⁾ Developed by the sector councils and which can be achieved through both formal education and training or recognition of non-formal and informal learning, or a combination.

⁽⁵¹⁾ This distinction is used for referencing of qualifications to the National Register.

Table 8. **Synthesis of situation in countries studied**

Country	Qualifications framework	Credit arrangements, credit systems and credit points convention
Australia	The Australian qualifications framework (AQF) was introduced by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) in 1995. The AQF grew from the register of Australian tertiary education (RATE) that described the nine levels of qualifications and the associated titles in tertiary education in Australia prior to 1995. In 2009 the AQF was under review.	In 2009, the AQF did not include a common credit points convention for qualifications or units. Several HE institutions have their credit points conventions. In 2009, AQF was undergoing reform which foresees putting in place a common credit points convention (1 credit point = 10 hours of notional learning time) (AQF Council, 2009a, p. 22). AQF contains guidelines and principles on credit arrangements: how learning from different subsystems and non-formal and informal learning can be recognised and also how credit from VET can be recognised toward HE and vice-versa. These credit arrangements guidelines are being strengthened. One of the federal states (Victoria) has put in place a common credit system. The qualifications system of vocational training packages can be described as a credit system (qualifications are built-up from units and identical units have to be recognised by other providers) (Misko, Beddie and Smith, 2007, p. 70).
	Coverage: all nationally recognised general education (schools), VET, HE Currently not open to other qualifications (e.g. vendors)	Coverage: various. The training packages apply to all VET in Australia. The Victorian credit matrix is an instrument of one federal state.
Finland	A proposal for national framework for qualifications and other competences was finalised in June 2009. This integrated (following certain modifications in level descriptors) the proposal for a higher education framework which was developed in 2005.	In higher education ECTS was introduced by legislation in 2005 as part of the reform of degree structure. It is used by all HE institutions. It replaced the existing credit points convention. In the VET credit system qualifications are based on units and these use a common credit convention. Credit arrangements based on validation of non-formal and informal learning are encouraged by national policy. Similarly, credit arrangements to pass from one university to another or one type of higher education to another are encouraged by national policy.
	Coverage: general education, VET, HE; only qualifications from the formal system	Coverage: independent approaches for HE and VET.
France	A classification of qualifications was introduced in 1969 and, since 2002, this and the National Register of qualifications together form the national qualifications frameworks.	ECTS was introduced in 2002 (though some universities used it before) by legislation which also requires the structure of programmes in terms of semesters and modules (<i>unités d'enseignement</i>). It covers all tertiary qualifications (including VET). There is no credit points convention in secondary VET. However the system of VET qualifications of the national education ministry can be described as a credit system (without points) where units can be accumulated and some mechanisms for transfer of credit are also in place. Providers also have some autonomy to recognise learners' credit by a practice called <i>positionnement</i> which enables them to exempt the learners from part of the training pathway. Credit arrangements based on recognition of NFIL are a national policy and an individual right.
	Coverage: all qualifications that give access to a profession and satisfying certain criteria (such as being accessible through validation of NFIL).	Coverage: credit points convention: tertiary education and training (including certain VET qualifications); credit arrangements: all subsystems.

Country	Qualifications framework	Credit arrangements, credit systems and credit points convention
Germany	A proposal for a qualifications framework was presented in 2009. This proposal will be tested in 2009-10. A framework for higher education was adopted in 2005 and referenced to the EHEA framework in 2009.	In higher education ECTS is used based on the decision of the Ministers' Conference (2005 structural guidelines). There is no credit system in VET, a credit points convention is not used and, in general, VET qualifications are not based on modules or units (except for some advanced VET qualifications and certain preparatory VET programmes). Credit arrangements to progress from VET to HE are legally possible but the practice varies greatly. Credit arrangements among different VET subsystems are also legally possible (e.g. it is possible to recognise one year of training from preparatory classes to the dual system) but their use remains limited (though exact data is not available). That is why credit arrangements for progression across different VET systems are being tested (DECVET initiative).
	The proposed NQF will cover: general education, VET and HE (formal learning only, at this stage of development).	Coverage: credit points convention in higher education; limited credit arrangements within VET and from VET to HE
Slovenia	In 2009, Slovenia was developing a qualifications framework. The mechanisms of the qualifications framework are already based on the classification structure of eight levels, which is used as a statistical tool (Klasius introduced in 2006). In addition the NQF is underpinned by national registers of qualifications standards, qualifications catalogues, framework programmes (VET). The governance processes of the NQF are being developed.	Since 2004 ECTS is used in HE including VET at higher levels. It is part of accreditation criteria. Since 2006 all upper-secondary VET and also in NVQs (*) are described using a common credit points convention. The credit system for upper-secondary VET qualifications is based on units that can be accumulated progressively. Recognition of credit is the providers' responsibility and supported by government policy (possibility of appeal for learners). Both VET and HE use the same credit points convention: 1 credit point = 25 notional learning time (VET)/workload (HE). Credit arrangements through validation of NFIL are supported by national policy.
	Coverage: all sectors of education and training (general, VET, HE), types of qualifications (also those designed by employer representatives and that can be achieved after recognition of NFIL and adult learning)	Coverage: VET and HE
Spain	In 2009, Spain was putting in place its qualifications framework for HE on the basis of a 2007 Royal Decree and developing its national qualifications framework. The HE framework and the National Register of VET Qualifications will create the basis for development of an NQF.	The ECTS credit points convention is used in HE (since 2003). VET does not use a credit points convention. VET qualifications in the Register are based on units as well as modules. Units can be achieved as partial qualifications. Both units and modules can be accumulated. Some transfer is possible as units are common (in form of options mainly). The Spanish VET system can be described as a credit system without points ⁽⁵²⁾ . The competence units can also be achieved through validation of NFIL.
	Coverage: the future NQF will cover all VET subsystems, HE and general education.	Coverage: credit points convention for HE only; credit arrangements in VET (no credit points convention)

⁽⁵²⁾ See for example Ministerio de Educacion, Politica Social y Deporte (MEPSD) et al., 2008, p. 50.

Country	Qualifications framework	Credit arrangements, credit systems and credit points convention
South Africa	A first integrated NQF was designed in 1995. This was radically revised in 2008 (revision started in 2001) and three subframeworks with different governance structures and quality assurance procedures were established. The three subframeworks concern: - general and further education (colleges) - higher education - trades and occupations qualifications (in this system a common quality assurance body is yet to be set up)	The South African NQF is also using a common credit points convention based on a common measure of volume (1 credit point = 10 hours notional learning time). Credit arrangements are the competence of different awarding institutions. It is currently not clear how credit will be transferred across subframeworks. Validation of NFIL is promoted at the policy level. It is no longer a requirement of the NQF for qualifications to be based on units.
	Coverage: general, VET (including employer-led trade qualifications) and HE	Coverage: general, VET (including employer-led trade qualifications) and HE
UK-EWNI (**)	A first qualifications framework for EWNI (**) was introduced in 1997 for both general and VET qualification; this was revised in 2004 (from five to nine levels) and is now phasing out following the adoption of the qualifications and credit framework in 2008. HE has a separate qualifications framework (as of 2001).	QCF is a credit system based on units that are combined, using rules of combinations to build qualifications. Validation of NFIL is encouraged. Credit arrangements between VET and HE are encouraged. Universities have their own credit systems (some use ECTS for their credit points convention). Most UK HE institutions use ECTS only for international purposes (i.e. they translate the convention they use to ECTS). In general a common credit points convention is used across the UK (1 credit point = 10 hours of notional learning time).
	Coverage: post-16 qualifications in general education and VET; separate framework for HE	For QCF coverage see left: higher education credit systems are institutional but use a common credit points convention.
UK-Scotland	A credit and qualifications framework has been in place since 2001 covering all forms of learning: general, VET, higher education but also work-based learning (through quality assurance). It is based on three subframeworks: SQA qualifications, HE qualifications and Scottish vocational qualifications. The subframeworks of the SCQF have further rules and requirements on qualifications design and award.	A common credit points convention is used (1 credit point = 10 hours of notional learning time) as well as in the rest of the UK. Some of the subsystems in Scotland are credit systems – e.g. the framework of higher national qualifications. Credit arrangements among providers are encouraged as well as validation of NFIL.
	The SCQF covers general education, VET (including workplace-based learning) and HE; learning from outside the publicly funded provision can also be referenced to it	The credit points convention has the same coverage as the SCQF (see left). Credit systems concern specific qualifications subsystems.

(*) National vocational qualifications in Slovenia are achieved through continuing VET or following recognition of non-formal and informal learning.

(**) England, Wales and Northern Ireland. NB: Wales and Northern Ireland also have separate qualifications frameworks (that are aligned to the QCF and previously the NQF) which were not studied here.

4.1.4. Observed qualifications frameworks rationale

A generalised overview of objectives towards which qualifications frameworks are expected to contribute is presented in Section 3.3.2. These goals are generally confirmed by the frameworks in the countries studied here. However, in each of the countries, framework development is also embedded in the specific national

context, which explains certain particularities. Because the rationale for qualifications framework in general terms has already been analysed in previous research (Cedefop, Coles and Oates, 2005) (OECD, 2007) (European Commission, forthcoming) this section will concentrate on highlighting certain particularities in the countries studied. The examples cited below should be understood as ‘snapshots’ from the different countries rather than the full picture. They do not represent an overview of all motivations for putting a NQF in place in the country cited but illustrate certain specificities.

Caveat: the examples below illustrate the policy objectives underpinning framework development in countries cited. The extent to which the frameworks are having the expected impacts remains in most cases unclear.

4.1.4.1. *Qualifications frameworks and portability*

It is not unusual that competence for education and training in federal countries is devolved to the state level with possibly some form of coordination in, or responsibility over, certain education and training sectors at the federal level. In addition to the federal countries studied here, this situation can also be observed in Belgium, Canada and Switzerland among others. This division of competences results in a variety of qualifications which may have the same title but hide different programmes of different lengths: this is the case with school-based VET qualifications in Germany. To ensure mobility of both learners and the workforce across the states within the country, an instrument to compare and to recognise the different qualifications is required.

In Germany (OECD, 2003b), where the VET sector⁽⁵³⁾ is fragmented, with several coexisting subsystems and governance shared between the federal level, the *Länder* level and employers’ representatives (chambers), greater clarity concerning outcomes of qualifications is required to enable transition from one VET subsystem to another. This is of particular interest as many young people want to participate in the dual training, one of the VET subsystems. The dual VET system is selective as the number of available placements is lower than the number of candidates. Therefore, learners start in another pathway and want to continue in the dual system where they are often required to start from the beginning, even though legislation enables recognition of one year of training from another system.

Greater clarity in qualifications outcomes is necessary to improve transition from VET to HE, including from advanced VET, which leads to qualified or leading positions in companies. This relates both to demand (as HE graduates

⁽⁵³⁾ However, complexity is also great in the higher education sector – see Welsh, 2004.

are in general better remunerated) and to the policy objectives of increasing the qualifications level of the population.

Though it is recognised that a framework alone will not ensure that transfer takes place, it is expected to support it by clarifying the relationship among qualifications. Some achievement with regard to this objective has been observed in Australia:

'The AQF does provide a forum for cross-sectoral dialogue. This mainly involves the big players - the Australian Vice Chancellors Committee and Australian National Training Authority. ... there undoubtedly has been progress in the achievement of broader recognition of and better articulation of qualifications at the national level' (Keating, 2003, p. 285).

4.1.4.2. Recognition for qualifications outside public education and training

The French qualifications framework, based on a register of professional qualifications, was designed to provide up-to-date information on professional qualifications (i.e. those recognised by, and that give access to, the labour market ⁽⁵⁴⁾ across the country (*Journal Officiel de la République Française*, 2002)). It also incorporates qualifications awarded by social partners and other qualifications awarded by private providers, chambers of commerce and industry, chambers of craft, and others ⁽⁵⁵⁾. The chambers are a relatively important provider of education and training in France, offering training preparing for qualifications of the Ministry of Education (through a contract) but also awarding their own qualifications. To be in the register, these qualifications are examined by a jury using documentation provided by the awarding institution (including figures on labour market entry of graduates).

For the providers, gaining national recognition for their qualifications has two main advantages. First, they can be eligible for public funding, through the funds for continuing training of employees, for example, though the link between public funding and the register is not yet systematic. Also, they can guarantee their students that their qualifications are recognised by the public authorities. The latter is used as a 'selling' point in an environment where private schools compete for students, including from abroad. As noted by one of the interviewees, national recognition is very important for private schools trying to attract foreign students as this is something the students consider important. In 2008, the register contained 1 881 qualifications registered 'on demand' (meaning qualifications not awarded by any of the competent ministries), which

⁽⁵⁴⁾ Hence the register does not have for a goal providing exhaustive information about all certified forms of learning.

⁽⁵⁵⁾ There was already a procedure, since the 1970s, to give qualifications national recognition, but it used to be based on different criteria.

represents over a third of the total volume of 5 506 entries (Commission Nationale de la Certification Professionnelle, 2008a).

4.1.4.3. Qualifications framework and education and training equality

Coming from a highly segregated education and training system, with considerable inequalities in access, quality and success rates (Walters and Isaacs, 2009), the South African NQF provided an agenda for improving the education and training (and consequently employment and social) situation of the population (Ministers of Education and Labour, 2007). This was an ambitious objective that is far from being achieved since the establishment of the NQF in 1995 (see also Section 4.1.5. on the reasons for review of the NQF). In its revised form, the South African NQF hopes to contribute to this overall goal by enabling (Walters and Isaacs, 2009):

- (a) the development of appropriate and relevant qualifications: by developing qualifications that bridge the education and training provision and the existing curricula with the reality of the working world for which they prepare the learners;
- (b) improvement of quality assurance of the different subsystems: by establishment of quality councils (in HE and general and further education based on existing institutions) and quality assurance processes adapted to the different subsystems;
- (c) monitoring and evaluating progress, using an electronic information management system on students' achievement.

The first version of the South African NQF has only had a moderate impact on aspects such as equal access to education and training. It has been largely criticised for being too prescriptive and overly complicated, ignoring the realities of different education and training sectors, being ill-managed and insufficiently researched (SAQA, 2009) (see also Section 4.1.5.). However, the revised framework maintains its objective: improving the quality of education and training provided to all the population. Therefore, the new framework, and more specifically its subframeworks, are mainly designed as quality assurance instruments.

4.1.4.4. Qualifications framework in a market environment

The qualifications system (particularly in post-16 education and training) in UK-EWNI operates in the context of a regulated market environment with a mixture of:

- (a) private and public providers who do not award qualifications. They purchase the assessment schemes from awarding bodies responsible for ensuring the quality of assessment, validation and awarding of the qualification;
- (b) awarding bodies which are independent (private or charity) organisations that develop qualifications and their assessment schemes; there are over 115 recognised awarding bodies, i.e. bodies which have qualifications in the framework, and roughly 900 non-recognised ones (PriceWaterhouseCoopers, 2005);
- (c) funding bodies (local authorities, post-16 education funding council, HE funding council) which distribute funds, among other indicators, according to government education and training priorities (for example level 2 qualifications in the last decade).

In this context the NQF is expected to operate as a 'screening mechanism' for all: learners, employers and funding authorities. It ensures that national guidelines on qualifications and assessment (the role of QCDA) are followed. This control is the role of the qualifications and examination regulators who register qualifications onto the framework and are in charge of recognising awarding bodies. They ensure that qualifications are fair and comparable with other qualifications, monitor standards and assessment and ensure that the qualifications market is responsive to the needs of learners and employers: the latter is mainly the mission of the sector skills councils but the regulator controls that qualifications in the framework have been designed in cooperation with these bodies).

However these were also the objectives of the previous NQF in the UK which has partly failed in meeting these because it did not:

- (a) embrace all formally assessed training, public and private, in the country (not even the bulk of it);
- (b) function as a strategic national template for the creation of knowledge and skills;
- (c) provide a comprehensive assemblage of qualifications, because despite the NQF size, it did not encompass many of them, nor was it able universally to assure their quality (Boston, 2004).

See also Section. 4.1.5.

4.1.4.5. International understanding of qualifications

Certain qualifications systems are fairly simple to understand from within the country; the main rationale for developing a qualifications framework is to have qualifications better understood outside the country. Finland, for example, has a system where the coherence and consistency of qualifications (VET and general

education) is ensured through nationally set framework curricula based on learning outcomes ⁽⁵⁶⁾. These are the competence of a single organisation (National Education Board responsible to the Ministry of Education) which designs and revises them in coordination with employers and the education and training sector. There is also an effective quality assurance and evaluation system in place to ensure that provision meets requirements. The number of qualifications provided in this way is relatively limited compared with countries such as the UK or France and qualifications are not overly specialised, so permitting employment mobility and transferability. Qualifications developed and awarded by higher education institutions are coordinated by the Ministry of Education that approves them: there is no accreditation process as such. The ministry also organises regular dialogue with higher education institutions to coordinate their offer ⁽⁵⁷⁾. Learning provision takes place outside this context of formal learning (adult learning, in-company training, etc.) but it operates market-led conditions without government regulation.

At the same time, Finland has a strategy of internationalisation of education and training both in VET and HE (for example Finnish National Board of Education, 2008). In HE, Finland wants to increase the proportion of foreign students to 7% (from current 3.5%) and to 20% when it comes to PhD students (from current 15%). In this context, the development of a NQF and its referencing to the EQF is an important measure to ensure Finnish qualifications are recognised and understood outside the country. This internationalisation aspect of education and training is also among the drivers for a review of the Australian qualifications framework (AQF Council, 2009). This aspect is being highlighted by higher education stakeholders in Australia ⁽⁵⁸⁾.

4.1.4.6. *Qualifications frameworks and legibility*

To make the qualifications offer more transparent is the objective of all qualifications frameworks. The Scottish example illustrates these objectives, and evaluation of the framework reveals interesting findings (Gallacher, 2005):

- (a) further education and higher education staff working with the framework are generally aware of it but this is much lower or more varied when it comes to other stakeholders (including employers);

⁽⁵⁶⁾ NB: this does not mean that all qualifications have to be achieved through a formal programme. The learning outcomes can also be assessed, validated and recognised based on previous working experience.

⁽⁵⁷⁾ Because of the size of the country (5.3 million inhabitants) the number of these institutions is limited and such dialogue is hence manageable; e.g. there are 16 universities as from 2009.

⁽⁵⁸⁾ See the response to the consultation on AQF review by Innovative Research Universities (2009) which highlights that an explicit level-based structure may provide better international recognition, noting that international education is Australia's third largest export industry.

- (b) the SCQF ⁽⁵⁹⁾ has had an impact on education and training providers (mainly further education colleges) in mapping and planning provision and progression;
- (c) it has created a common language among education and training stakeholders.

Evaluation also showed that the SCQF had positive impact on curriculum development in higher education, though less so in other sectors where this is the responsibility of the Scottish Qualifications Authority, which has already integrated the framework principles. Its impact on credit transfer was limited and mainly observed in increasing awareness of this issue.

4.1.5. Qualifications frameworks under review

In three of the countries studied revisions were being made to the qualifications frameworks in place. Though there were country specific reasons for reforming or strengthening the NQF (see below), the reforms were also related to the fact that the frameworks in place were not fully supporting some of its original objectives. These included credit transfer (Australia, especially from VET to HE) and accumulation (UK-EWNI with particular focus on drop-outs and disadvantaged learners). Credit transfer and accumulation were also limited under the first South African framework, though these were not the main reasons for its reform (SAQA, 2006). The impact of the Scottish framework on credit transfer was also limited but the evaluation also highlighted the differences in institutional practices and credit arrangements among institutions (further education colleges and higher education) (Gallacher, 2005).

Responsiveness to the qualifications needs of learners, employers or the education and training systems were also lacking. The inclusion of new qualifications in the Australian framework was problematic due to lack of explicit levels and level descriptors. The focus on full qualifications and lack of credit arrangements was seen as an obstacle to upgrading adult learners' skills in the UK-EWNI. Also the framework and qualifications in it were seen as too supply-led. The gap between the provision of education and training across the country and the strict unit-based standards-setting approach of the framework, in isolation from practice, led to the fact that many unit-based standards in the framework were little used in South Africa.

Finally, in two of the countries (South Africa and UK-EWNI), though reduction in complexity of the qualifications system was one of the goals, this was not being achieved. The UK-EWNI first NQF was expected to rationalise the

⁽⁵⁹⁾ The SCQF Partnership was established as a company limited by guarantee in November 2006 and since then activities of the Partnership have taken forward some areas of implementation.

qualifications system and to reduce duplication and overlap in qualifications (Cedefop, Coles and Oates, 2005, p. 239) but the Foster review highlighted that it contained an excess of 5 000 qualifications (Foster, 2005, p. 51). The South African framework was criticised for introducing additional complexity by leading to the creation of new qualifications standards which were not taken up by the education and training providers who did not develop programmes on this basis, hence the qualifications were not being awarded. Instead providers continued awarding qualifications based on existing curricula (Allais, 2007b, p. 73).

However, despite these difficulties, all the three countries continue developing their frameworks rather than using other instruments, showing that certain benefits and added value have been produced. For Australia, and as shown by the South African NQF impact study (see Table 10), positive impacts/added value are strongest when it comes to creating a platform for exchange across the different education and training sectors. Such exchanges are a precondition for objectives such as credit transfer, accumulation and progression to become a common practice for learners and education and training institutions. However, as discussed in Section 6, other determining factors also have a role to play.

4.1.5.1. *From qualifications to a credit-based framework in the UK*

The first national qualifications framework (NQF) in England was designed in 1998, following Sir Ron Dearing's *Review of vocational qualifications for 16-19 year olds* (cited in Cedefop, Coles and Oates, 2005, p. 226). The development of the NQF follows a series of reforms dating back to the early 1980s (see also Hodgson and Spours, 1997). In 1981 the Manpower Service Commission published a consultative paper, *A new training initiative*, that set out objectives to address skills shortages and alleviate problems of rising youth unemployment (Unwin, 1997). Shortly after, the 1985 review of vocational qualifications set out to introduce greater coherence into vocational qualifications and recommended that these qualifications should be expressed in the form of units, be competence based and outcome-oriented. These soon took shape as 'occupational standards' that were to be defined by the industrial sector concerned. In turn, standards' became the focal point of what became national vocational qualifications (NVQs) ⁽⁶⁰⁾.

⁽⁶⁰⁾ Much of the literature on NVQs is dominated by academic critiques which are generally hostile to the competence-based approach (see Field, 1995; Wolf, 1995 and 2002; Bates, 1995; Jones and Moore, 1995; Senker, 1996; Winterton and Winterton, 1995a, 1995b; Grugulis, 2002).

The NQF became the instrument seeking to rationalise the relationships between qualifications (academic and vocational) and to provide a quality assurance mechanism. As illustrated in Table 9, the NQF provided a three-category, five-level framework for all classes of qualifications.

Table 9. **UK NQF in 1998**

Level of qualification	General	Vocationally-related	Occupational
5	Higher level qualifications		Level 5 NVQ
4			Level 4 NVQ
3 (Advanced level)	A level	Vocational A level (advanced GNVQ)	Level 3 NVQ
2 (Intermediate level)	GCSE grade A*-C	Intermediate GNVQ	Level 2 NVQ
1 (Foundation level)	GCSE grade D-G	Foundation GNVQ	Level 1 NVQ
Entry level	Certificate of educational achievement		

Source: Cedefop, Coles and Oates, 2005.

As the NQF evolved, by August 1997 there were 794 NVQs on the framework and, in January 1998, non-NVQ vocational qualifications numbered 3 424 (Cedefop, Coles and Oates, 2005, p. 239). Hodgson and Spours (1997) analysed the development of the NQF as part of the Dearing reform agenda and argued that the triple-track qualification system that evolved contributed to the fragmented nature of English education (see also Spours and Young, 1996; Hayward, 2004). Further concerns were raised about the growing number of awarding bodies (in excess of 100) together with the proliferation and quality of the qualifications that were in receipt of government funding and no longer meeting the needs of employers or learners.

The need to reform the existing NQF was reinforced in the 2003 skills strategy, *21st century skills: realising our potential* (DfES, 2003). The document entitled *New thinking for reform* (QCA, 2004) presented the rationale for the reform agenda to move from the NQF to what was initially termed the 'framework for achievement' and has become the QCF. The reasons included:

- (a) by 2004 there were more than 4 000 qualifications on the NQF but many more were being awarded which were not recorded. The need to reduce and simplify the confusing amount of competing qualifications was evident. The

- Foster review (Foster, 2005) noted that this system was not easy for learners and employers to navigate;
- (b) there was no mechanism for including employer and/or private training in the framework. The Leitch review (HM Treasury, 2006) highlighted that the previous approaches to delivering learning and designing qualifications were very much defined by education and training supply and not sufficiently demand-led;
 - (c) many qualifications were inflexible and out of date, with long lead times for change;
 - (d) there were few possibilities to recognise their previous achievements on their return to education and training;
 - (e) there was a need to embrace a wider range of learning achievements as too much training went unrecognised, leaving learners unable to progress or gain professional qualifications as they learned. As a result, many employers developed and invested in training programmes that were not subject to national quality-assurance standards;
 - (f) the Foster review of further education (Foster, 2005; p. 61) underlined the need for colleges to be able to develop unit-based qualifications which would enable them to provide a more flexible and targeted qualifications offer. This was impeded in the previous framework as government funding was related to full qualifications.

This summary provides an overview of the shortcomings of the previous NQF, as well as a rationale for change towards a new qualification framework. In response to the issues identified above, the creation of a new framework to encompass a much wider range of achievements, underpinned by a unit- and credit-based system, began in 2005 and was complemented by the vocational qualifications reform programme. To ensure that the new framework is responsive to employer and learner demand, the new framework is expected to ensure (QCA, 2004):

- (a) the presence of qualifications that genuinely qualify people in particular occupations. This is ensured through the role of sector skills councils which set the specifications on which qualifications and units are developed;
- (b) built-in flexibility to allow the inclusion of customised awards meeting specific market needs, so that appropriate employer and private training programmes can be formally recognised;
- (c) recognition of a wide range of achievements to help get people back to learning and motivate towards personal or professional progress. Under the QCF, credit can be achieved through a number of different learning paths and forms of learning;

- (d) all provision in the framework will be unit based, with the volume of each unit measured by a system of credit points. Each qualification is built on units that are in the framework and each qualification has to specify how can units be accumulated and transferred, so that there are no dead ends to progress and achievement can be measured in smaller steps which can be accumulated;
- (e) the alignment of the credit system with the emerging reform of qualifications for age group 14-19 so that there are clear progression routes into and across the adult learning qualifications offer with opportunities to have units previously achieved in schools and colleges recognised;
- (f) all units recognised in the framework will be subject to a quality assurance regime;
- (g) the presence of a common language and terminology across all qualifications in the framework to provide a basis for building wide public understanding and confidence in the system.

The QCF went live in September 2008. There continues to be a significant programme of work towards wider QCF implementation across publicly funded learning and skills provision in England. The QCF is due to be fully implemented by 2010-11 (Learning and Skills Council, 2009).

4.1.5.2. Strengthening the Australian qualifications framework

In 2009 the Australian qualifications framework (AQF) was undergoing a consultation for review or strengthening, as referred to in the consultation document (AQF Council, 2009).

Though the AQF, in its 2009 format, was considered to have been widely regarded within industry and across education and training, limitations in its structure have become increasingly evident. The fact that it was based on a structure without qualification levels has raised concerns that it was too domestically focused and lacking the capacity to optimise credit transfer opportunities. The fact that the AQF is believed to be difficult to understand abroad is considered to hinder the recognition of Australian qualifications abroad as well as an obstacle to attracting foreign students to Australian education and training.

As set out in the AQF Council consultation document (2009a, p. 6), strengthening the AQF is considered necessary to reflect the changing nature of industry, the workforce and the education and training environments since first implementation in 1995. These changes can be summarised here as:

- (a) demands on education and training from students, industry, communities together with the need for qualifications to keep pace with workforce developments;
- (b) stronger links across and between qualifications to meet student needs, aid mobility and lifelong learning;
- (c) demand for the recognition of non-formal and informal learning driving the need to provide credit for these forms of learning;
- (d) impact of globalisation both in terms of choice in the student market and the mobility of workforces.

The consultation recognises that the current AQF does not assist credit and articulation across the education sectors because of the absence of explicit levels and level descriptors. The way the AQF is currently being visually represented⁽⁶¹⁾ has encouraged the perception of pseudo-levels. This is partly believed to have created problems of ambiguity for existing qualifications, creation of pathways across them and especially between VET and HE, as well as difficulties for the addition of new qualifications in terms of where they should be located and what they are equivalent to or different from. A strengthened AQF is also expected to provide more robust structural mechanisms for the design and accreditation of qualifications and for comparing qualifications.

The main changes proposed are:

- (a) a taxonomy of learning outcomes;
- (b) explicit reference levels and level descriptors;
- (c) a measurement for the volume of learning in the form of credit.

The analysis of consultation responses (AQF Council, 2009b) shows that there is overall support for the AQF to provide a more explicit taxonomy of learning outcomes as well as a level-based structure, provided that the variety of entry points and no obligation of articulation across qualifications at the same level are maintained. Views on the introduction of a common credit convention are more nuanced, with arguments for and against, and overall requesting a more detailed proposal and larger consultation.

4.1.5.3. *Radical reform of the South African qualifications framework*

The first version of the South African framework, established in 1995, was designed around the idea of integrating all forms of learning so that: *'different forms of learning would be granted qualifications of the same level, name and status depending on broad equivalencies of cognitive demand and effort (the notional time required to achieve the level)'* (SAQA, 2009, p. 6).

⁽⁶¹⁾ See: <http://www.aqf.edu.au/AbouttheAQF/AQFQualifications/tabid/98/Default.aspx> [cited 30.3.2010].

The rationale for an integrated approach was that this would result in parity of esteem between different forms of learning and hence contribute to addressing inequalities in access to and success in education and training across the country. The mechanisms through which this was to be achieved were:

- (a) levels and generic level descriptors;
- (b) standard setting: design of qualifications using outcomes, assessment criteria and a strict unit-based format;
- (c) quality assurance: providers' accreditation, registration of assessors, improvement in assessment practice;
- (d) recognition of prior learning (formal, non-formal and informal);
- (e) records of individual learning achievement (SAQA, 2009, 2005a, 2003) ⁽⁶²⁾.

However, implementation of these mechanisms was far from achieved and prompted numerous critiques (Allais, 2003 and 2007a and b; Chisholm, 2007). Some of the concerns reported were:

- 'The proliferation of NQF bodies and structures especially for standards generation of quality assurance, leading to confusion and duplication of effort and responsibility.
- The architecture of the NQF, embracing policies, regulations, procedures, structures and language, is experienced as unduly complex, confusing, time consuming and unsustainable.
- Denudation of Government's authority over NQF policy and regulations leading to conflict between some stakeholder interests and confusion over Government policy.
- Lack of recognition of the diversity of approaches and practices within the education, training and skills development system resulting in the design of an NQF architecture with a 'one size fits all' approach (Ministers of Education and Labour, 2007, p. 5).

The first NQF in South Africa was a construct designed to revolutionise the existing education and training system but the distance between what it was proposing and practice was too great. In addition, there were a number of concerns over processes through which the NQF mechanisms were to be implemented. The gap between the NQF objectives and its achievements can be summarised as follows:

'Wide-ranging projects have been undertaken for the generation and registration of large numbers of unit standards, but these have only been adopted in some areas of the productive sector. They are used scarcely, if at all, in institutional education and training. The improvement of assessment practices and the credibility and comparability of many

⁽⁶²⁾ See also Blom et al. (2007, p. 29-30) on the responsibilities of different organisations under the previous framework.

credits have been disappointing. Level descriptors, recognition of prior learning (RPL) and the national records of achievement have as yet proved difficult to implement fully and have yet to prove themselves' (SAQA, 2009, p. 7).

The South African NQF impact study (SAQA, 2005b) showed the framework had only moderate or mixed impact in a number of areas, while positive impact was observed only in a few areas (Table 10). The main positive impact was in programme redesign, which brought greater clarity of objectives, enhanced learner autonomy and strengthened quality assurance (SAQA, 2005b, p. 83).

Table 10. **Impact of the first South African framework**

	High positive	Moderate	Minimal/mixed	Negative
The extent to which qualifications address the education and training needs of learners and South African society				
Number of qualifications				
Effectiveness of qualification design				
Portability of qualifications				
Relevance of qualifications				
Qualifications uptake and achievement				
Integrative approach				
The extent to which the delivery of learning programmes addresses the education and training needs of learners and South African society				
Equity of access				
Redress practices				
Nature of learning programmes				
Quality of learning and teaching				
Assessment practices				
Career and learning pathing				
The extent to which quality assurance arrangements enhance the effectiveness of education and training				
Number of registered assessors and moderators				
Number of accredited providers				
Quality assurance practices				
The extent to which the NQF has had a wider social, economic and political impact in building a lifelong learning culture				
Organisational, economic and societal benefits				
Contribution to other national strategies				

Source: SAQA, 2005b, p. 82.

Despite the concerns and the moderate impact of the NQF, its objectives are still considered relevant and the NQF, in its revised form, is seen as an appropriate instrument to address them. The review of the NQF aims at increasing its efficiency and effectiveness. It is based on:

- (a) recognising and appreciating the distinctiveness of different forms of learning;
- (b) a review of the quality assurance process using three quality assurance councils, one for each subsystem, to design quality assurance processes adapted to the nature of learning concerned;
- (c) a review of the process through which qualifications are designed to a more practice-based and descriptive approach;
- (d) strengthening the governance and accountability of the agencies involved (Ministers of Education and Labour, 2007; Walters and Isaacs, 2009).

The management of the framework is now devolved to three quality councils: general and further education; higher education; and trade and occupational qualifications). These are expected to define and implement qualification policies and guidelines in their respective sectors and they recommend the registration of qualifications in the NQF to the South African Qualifications Authority (Parliament of the Republic of South Africa, 2008). Therefore, the new framework represents a step back from a fully integrated system with a unique approach to qualifications design.

4.2. Observed characteristics of credit systems

This study distinguishes between credit arrangements, credit systems and the use of a common credit points convention. The term credit arrangement relates to a broader understanding of credit system and includes the issues of validation and equivalence (between learning outcomes gained in different learning and working contexts) to support recognition of learning achievements from one context or institution to another.

This section focuses on the use of credit systems and of points convention in the countries studied. Of these:

- (a) three (Germany, Spain and France) use a common credit points convention only in higher education (using ECTS);
- (b) two (Spain and France) design their VET qualifications in units, which can be transferred and accumulated under certain conditions, without describing them in terms of credit points. In these countries there are credit systems that do not use a credit points convention. These systems enable

- accumulation through rules on accumulation of units (though with little flexibility in choice of units). Both systems are less explicit about credit transfer opportunities (though there are common and equivalent units) though arrangements exist: a mechanism called 'positioning' (*positionnement*) in France allows providers to exempt a learner from part of the training pathway);
- (c) in Germany there is strong opposition to an accumulative structure of vocational qualifications among a number of stakeholders (BIBB, 2007a, p. 7 and BIBB, 2007b). Accumulation based on units of assessment is seen as incompatible with the vocational concept (*Berufskonzept*) on which German qualifications are developed ⁽⁶³⁾;
 - (d) two (Slovenia and Finland) use a credit points convention both in higher education and VET. Both countries have credit systems in VET which are combined with the credit points convention. VET qualifications are designed in terms of units/modules that can be accumulated and transferred. VET qualifications are designed by a single awarding body in both countries (the ministry supported by the work of a VET agency) ensuring the homogeneity of units. In both systems the responsibility for transfer and accumulation lies with the training providers;
 - (e) Scotland and South Africa use a common credit points convention to measure the volume of learning across the different education and training sectors. The use of units in Scotland is generalised and some of its subsystems (e.g. higher national qualifications) fall under the category of credit systems;
 - (f) until 2009, Australia did not have a common approach to measuring volume of learning but this is being envisaged in the current consultation on strengthening the Australian qualifications framework. Some of the Australian subsystems (e.g. the vocational training packages) fall under the category of credit systems;
 - (g) in UK-EWNI the qualifications framework (QCF) and a credit system are combined to form a credit-based framework. This means that qualifications are built up from units (whose volume is measured in terms of credit points) and rules of combinations through which credit can be accumulated towards qualifications. However, in addition to the credit transfer and accumulation, the QCF caters directly for other credit arrangements, such as validation of non-formal and informal learning which are also promoted through the QCF guidelines (QCA et al., 2008a).

⁽⁶³⁾ Modularisation that would enable providing learners with certain options is considered a positive evolution (BIBB, 2007a, p. 7).

It is worth looking more into the details of the use of a common credit points convention to measure volume, the existence of requirements to design qualifications in terms of units/programmes in terms of modules, and the governance of credit arrangements in the countries studied.

4.2.1. Use of a common credit points convention

The role of common credit points convention is analysed in greater depth in Section 5.2 on the passive role of credit systems studied. This subsection only presents the extent to which countries use a common measure of volume across the different education and training sectors and to what extent its use is related to the qualifications framework.

Several of the countries studied (South Africa, Scotland but also UK more generally) have a single convention to measure the volume of learning in terms of credit points that applies to all their qualifications. This is also the case in higher education across Europe, where a single convention (that of ECTS) is used. Some countries (mainly the UK) maintain their domestic credit points conventions in higher education and use ECTS only as a translation tool to or from foreign credit points conventions. In these countries, the use of this credit points convention is a requirement of the different qualifications frameworks. Due to the historical proximity between these education and training systems (⁶⁴), they have actually all adapted the same convention whereby one credit point equals 10 hours of notional learning time (the same convention is being considered in Australia).

In Slovenia the convention used for higher education and VET is also the same (one credit point equals 25 hours of notional learning time in VET/workload in higher education). However, in practice, understanding of the calculation mode (notional learning time/workload) varies slightly across the sectors. Finland used to have a common convention for VET and HE (one credit point = 40 hours) in the past but this was modified by the introduction of ECTS in higher education. The convention is still used in VET.

The use of such common convention contributes to improving communication across different qualifications systems. It is an element of a 'common language' that qualifications systems are developing under the influences of geographical mobility or mobility among systems. The use of this common language (of credit points to measure volume but also levels) was highlighted as one of the positive impacts in the evaluation of the Scottish qualifications framework (Gallacher, 2005). Other examples of such common language are certain qualification titles in higher education (bachelor, master, PhD) or the understanding of the structure

⁶⁴) Note that other Anglo-Saxon countries, e.g. Ireland, use the same convention.

of education and training programmes as expressed in ISCED (i.e. the vocabulary of pre-primary, primary, secondary, etc. education and training). This aspect of the use of credit points should not be neglected as it helps to develop a 'reading grid' through which actors involved can understand other education and training systems, which is a first step to enabling exchange and transfer.

The use of a credit points convention at qualifications system level is, therefore, of soft nature. The convention also does not require use of components of qualifications and it is left up to the qualifications subsystems to set rules on qualifications design in this respect. At the same time, if the convention is really to be used as a common language it needs to be applied consistently, thus requiring guidelines to allocate points (see below). The discrepancy between the ECTS convention and the reality of ECTS points' allocation is continuously highlighted in European debates (see also Section 2.2.1.). At the same time, the extent to which this discrepancy really hinders learners' possibilities for transfer is unclear, as issues around transfer are also related to many other aspects (see Section 5).

4.2.1.1. Guidelines to calculate credit points

The vocabulary around calculation of credit points differs: some systems refer to notional learning time (UK, South Africa, Slovenia-VET), others to workload (ECTS), students' work (Finland) or average designed learning time (Australia-Victoria). However, what is more significant is that all the systems using points are, in principle, based on a calculation which takes into account different forms of learning and goes beyond the teaching/contact hours. In this sense, all the systems have the same basis which is an estimation of learners' efforts necessary to meet the qualification/unit requirements. However, one notable difference exists between ECTS and the other credit systems. While most of these credit approaches recognise that the credit points' value of qualifications and units is, above all, a convention, ECTS expects it to be representative of the '*average time spent by students to achieve the expected learning outcomes*' (European Commission, 2009, p. 19). It suggests that credit points' allocation should be monitored through student surveys (European Commission, 2009, p. 20). However, the application of this guideline by higher education institutions in practice is probably weak (see also Section 2.2.1.).

Availability of detailed guidelines to calculate credit points, and the extent to which the different qualifications systems insist on this issue, varies. While some systems only state the basic principles (as in the Scottish credit and qualifications framework) others issue guidelines on this matter. The UK-EWNI qualifications framework (QCF) provides detailed guidelines on determining credit points value

for qualifications in the framework, at least compared to other systems, even though the guidelines conclude that:

'There is no one agreed set of principles or methodology for estimating learning time. It is not an exact science and there are no simple formulae' (QCA et al., 2008b, p. 30).

While the SCQF does not provide detailed guidelines or processes on allocation of points, these exist for certain subsystems. For example, the SQA subsystem of higher national qualifications (which is considered as a credit system in this study) requires that the credit allocation is validated by the SQA, thus ensuring consistency:

'A key part of validation is to confirm the proposed allocation of the Unit to an SCQF level and to confirm the proposed allocation of SCQF credit points to the Unit. This needs to be done consistently. Until the process of devolving this to centres is fully worked out, SQA will validate all new or revised higher national (HN) Unit specifications' (SQA, 2007, p. 5).

The analysis of the extent to which credit points' allocation is paid particular attention in different systems, offers a number of observations. First, in systems or subsystems where this allocation is managed by a single or a small number of organisations, the guidelines and verifications processes are less explicit and not specifically regulated.

Second, credit systems (i.e. systems where qualifications are built-up from units) where a points' convention is used⁽⁶⁵⁾, put more emphasis on the issue of allocating credit points to units. In these systems the unit has a set value in terms of credit points, independent of the qualification to which it contributes. One unit can contribute to a number of qualifications, possibly at different levels (see also Section 4). Therefore, if the unit is transferred it is recognised as exactly the same learning outcomes as in the other qualification. In the QCF, the credit value is expected to be absolute. As specified in the QCF regulations: *'the credit value of the unit remains constant regardless of the method of assessment used or the qualification(s) to which it contributes'* (Ofqual et al., 2008a, p. 12).

Therefore, when it is expected that the credit value of a unit remains constant across the system, it is required that the allocation process is robust. This can, however, be difficult to guarantee in a system where a multiplicity of actors has the capacity to allocate credit (see also Section 4.2.3.).

A third observation is that credit arrangements that refer to a points convention, but where the transfer of credit (as in assessed learning) is not

⁽⁶⁵⁾ The Australian training packages system does not use credit points, for example.

necessarily accompanied by the transfer of points, pay less attention to this aspect. In these arrangements, credit is transferred without necessarily representing the same unit. Here the learning outcomes are judged equivalent and certain differences are tolerated, or the learner has to acquire them. This is the case in Scotland (though not in all subsystems) or Slovenia (though some units are identical) but also envisaged in Australia. This means that, if a learner has a unit X with a given number of credit points in his/her qualification, and this unit is recognised towards another qualification (possibly with a different level or in a different field of study), the provider will recognise the number of points the unit has in their system (which may not be exactly the same) ⁽⁶⁶⁾.

In certain countries, the allocation of points to qualifications (not to units) is set per qualification title and this is decided at a central level, mostly by the competent ministry.

4.2.2. Qualifications design in units/modules

The use of units or modules is a common feature of most of the systems studied, with the exception of Germany. Certain countries use units or modules as components of their qualifications/programmes but these are not described in terms of credit points (e.g. VET in Spain or France). This does however not imply that units are not transferable or accumulated (see Section 6).

In some countries, different subsystems have different rules on existence of units/ modules and these are not a requirement of the qualifications framework. For example, in Slovenia and Finland, while the VET subsystem requires qualifications to be designed in terms of units, the HE uses modules. In both these countries the use of units or modules is embedded in legislation governing the subsystem. Another example is the SCQF, which does not explicitly require use of units but, in practice, most qualifications are unit-based because of the practice in each subsystem. For example all the three types of qualifications governed by the Scottish Qualifications Authority ⁽⁶⁷⁾ are unit-based even though they follow different design rules.

There are credit systems within qualifications frameworks or a subframeworks based on units which are used to build-up qualifications. Examples are the QCF in UK-EWNI, the vocational training packages in Australia and the higher national certificates and diplomas subframework of the SCQF.

⁽⁶⁶⁾ The rationale for this may be that because it is a higher level qualification the learner is expected already to have certain prerequisites that enable him/her to achieve the learning outcomes in the unit in less time.

⁽⁶⁷⁾ These are the national qualifications, the higher national and the SVQs. For more information, see the SQA website: <http://www.sqa.org.uk> [cited 30.3.2010].

These are unit-based frameworks, so units are allocated to the framework and qualifications (that are also in the framework) have to be built on these units.

The analysis shows different conceptions of how units and qualifications relate. In France, for example, units are only considered meaningful within a full qualification as part of which they have been developed. Units are not designed independently but as part of the qualification design. They are best described as 'units of assessment': they do not structure the learning pathway, the only assessment process. This is also the reason why units do not have a level in the qualifications framework; only the full qualification has a level. The national register of qualifications only gives information about full qualifications (only the titles of units are designed) but it is not possible to search it for units.

In Spain, the competence units are developed as part of the qualifications design, though they can also be awarded as partial qualifications, which in France they cannot. In Spain it is possible to search the national catalogue of qualifications per unit (Marhuenda Fluixa and Bernad i Garica, 2008).

In both these countries units are fairly important in terms of volume of learning outcomes and qualifications would typically contain only a limited number of units. Depending on the level and type of qualification this can be between two and four in Spain; in France, for qualifications of the national education ministry, the number of units would be around six.

In Slovenia and Finland, the components and their description in terms of credit points are related to the curriculum. For example, Slovenian qualifications in secondary VET are described through curricula. These contain a mixture of what is defined in this study as modules and units, though the vocabulary used in Slovenian context is different. General education components correspond to the subjects taught and hence suit the definition of modules used here. The vocational components combine theoretical and practical learning in one or more areas and would, therefore, be described here as units. Further, the curriculum contains learning activities which are credited but not described in terms of learning outcomes, such as school-based and company-based practical training and extra-curricular activities; all these contribute to the learning outcomes described in the above mentioned units or modules but are credited separately. These components are assessed but not all are assessed through summative assessment (some only through formative assessment).

The South African framework (in its reformed version) does not impose specific requirements on the design of qualifications. It does propose a common measure of volume in terms of credit points but it is left up to the subframeworks and competent institutions to use the credit arrangements that best fit their purposes. Full qualifications are described in terms of points but how they are

constructed (using modules or units or none) and to what extent they enable transfer and accumulation is not a system requirement. The pre-reform framework required all qualifications (from the schools sector, VET and higher education) to be designed as unit-standards (transferable and accumulative), which in turn were expected to be translated into curricula. However, this mechanism led to the creation of qualifications that were not actually used and credit transfer was very rare (see also Section 4.1.5.).

Finally, credit systems such as the QCA, the SQA subframework of higher national diplomas and certificates and possibly the vocational training packages (which do not use credit points) in Australia, use units as their principal component and these are combined to create qualifications. However, this does not mean that units are, in practice, being developed independently of the context of a full qualification. For example, for the SQA higher national qualifications, units and qualifications are designed by awarding bodies (further education colleges). They design a qualification based on either completely new units or using some already existing units that are in the units' catalogue (see also below for the governance of credit systems). The underpinning idea is that when designing a new qualification, the awarding body should assess the existing offer of units and develop only units that are new and not yet in the system.

This approach is also used by certain universities which encourage inter-department cooperation and use of modules offered by other departments. Such cooperation was expected to be streamlined through the use of ECTS but its adoption is dependent mainly on the policy and approach of each individual institution.

4.2.3. Governance of credit systems and conventions

Certain credit systems and credit arrangements are much more centrally governed than others. Further aspects of their governance are:

- the competence to allocate credit points to qualifications and units/modules;
- the verification or validation of units/modules to ensure these comply with the criteria.

4.2.3.1. Competence to allocate credit points

The measure of volume of learning, as expressed in credit points, is expected to contribute to a common understanding of qualifications across the system, like levels in a qualifications framework. Hence there is a certain need to ensure that this allocation is carried out in an appropriate manner, as with allocation of level to a qualification in a framework. While certain systems rely much more on trust, others exercise tighter control; there is also some difference in the focus of the

control. While the systems that put main emphasis on full qualifications often regulate the volume of points for the full qualification and are less concerned with checking the allocation to units/modules (e.g. most higher education qualifications across Europe), those that emphasise units also regulate the credit allocation at this level.

In all the systems studied there are constraints on who can allocate credit points. In countries where qualifications and their components are designed centrally by one or a few institutions (e.g. ministries or their agencies), credit points to full qualifications and their components are also allocated by these authorities: this happens in Slovenia and Finland, and also France for tertiary qualifications governed by the competent ministries⁽⁶⁸⁾. This means that qualifications that do not fall under the competence of these authorities (e.g. adult learning or private provision) cannot use the 'metric' of credit points. In higher education, in Germany or France, only nationally recognised institutions can use ECTS credit points. In Finland there is currently no private higher education provision, hence the issue of allocating points is not specifically regulated. An interesting example was highlighted in France, where many private tertiary education providers are not under the higher education ministry. These providers cannot use ECTS though they would like to do so as they have international exchanges. However, because of other regulations on private providers and their autonomy, it is difficult⁽⁶⁹⁾ to monitor whether the private providers comply.

There is also a difference in the allocation of points to full qualifications. Certain systems set, per qualification title, the volume of credit points, as in Slovenia and Finland but also higher education in many EU countries. Therefore, this allocation is not really a result of careful weighting of the volume of learning, but the other way around: the volume of learning is expected to meet the stated standard as expressed in national/system regulations: in Finland all upper-secondary VET qualifications have 120 credit points. The reverse strategy exists in other countries (e.g. UK-EWNI and Scotland, also envisaged in Australia), where the volume of learning is not regulated⁽⁷⁰⁾ and hence all qualifications are 'weighted' to decide on the number of credit points.

In higher education it is also quite common that the size (in terms of credit points) of a module is set a priori at the level of the higher education institution, mainly to aid inter-department cooperation. It is then the responsibility of those in charge of designing the module to make sure the volume of learning outcomes actually meets this credit allocation.

⁽⁶⁸⁾ This is the case of VET tertiary qualifications under the title *Brevet de Technicien Supérieur* (BTS).

⁽⁶⁹⁾ In most cases it is on ad hoc basis that they learn about any abuse in this area.

⁽⁷⁰⁾ It may be regulated for some core qualifications, but not as a general rule.

In the UK-EWNI (under the QCF) recognised awarding bodies can allocate credit points to units: the volume of a qualification in terms of credit points is built up based on the sum of units. The appropriateness of this allocation is expected to be approved as part of the qualification approval process by the sector skills councils. However, as underlined by the recent evaluation of the qualifications' approval process (Stratagia, 2008), a common framework for this approval process has not yet been established and, while for some sectors the divisions of responsibilities are clear, for others it is still a 'work in progress'. Given that the value of a unit in terms of credit points is required to remain unchanged across the system, and the fact that it is hoped that awarding bodies will be using and recognising units of other awarding bodies, lack of rigour in allocation could undermine trust in the system.

In Scotland, until recently only SQA, universities and colleges had the competence to level and credit rate qualifications and units. This competence is now being expanded to other organisations (certain awarding bodies). Four awarding bodies have now met the criteria for being recognised as credit rating bodies ⁽⁷¹⁾, though they can only credit rate their provision. This expansion of the credit-rating competence is likely to continue.

So there are systems where:

- (a) only institutions that satisfy certain specific criteria for estimating the volume of learning in a unit/qualifications can allocate credit points (e.g. Scotland);
- (b) accredited or otherwise recognised organisations already operating in the system can allocate credit points (e.g. UK-EWNI, higher education institutions in Germany, France);
- (c) only one or a few institutions designing qualifications have this competence.

Some systems mix different approaches. While the majority of Slovenian VET qualifications are designed centrally and the credit points are allocated as part of framework curricula, 30% is designed by accredited providers. They also allocate credit points to these curriculum components.

Several systems, where the number of institutions competent to allocate credit points is large, provide specific guidance or training on this issue. This is the role of ECTS counsellors in higher education across Europe, who are expected to provide training as well as support institutions in the credit points allocation process.

⁽⁷¹⁾ For more information, see <http://www.scqf.org.uk/News/LatestNews/ExtensionofCreditRatingBodiesPilotSuccess.aspx> [cited 30.3.2010].

4.2.3.2. *Verification/validation of units*

In addition to credit allocation, some arrangements specifically govern unit design. In higher education, typically, there is little or no governance of this aspect. The process of programme accreditation (where existing) will verify how the programme is built and check the consistency of modules with the qualifications objectives. In other systems, the units are designed centrally by one or a few organisations that have the competence to design qualifications. The extent to which these qualifications subsystems have explicit methodologies, criteria or formats for design and description of qualifications varies.

In France, for qualifications under the national education ministry, all units are described by their content in terms of competences, the professional context in which these are applied, and the nature of the activity covered by the unit (referring to professional activities and tasks). The activities and tasks are, in turn, detailed through a short description, the working situation, the means, reference materials and recourses and contact professions, as well as expected results and autonomy. However, these qualifications are designed in a block and not unit-by-unit. Therefore, the description of units refers to other descriptions in the qualification standard and it is not possible to understand the unit fully by only referring to this section of the qualification standard ⁽⁷²⁾. Other French ministries designing qualifications in units have their own approaches and templates.

In other systems, the unit has a standard of its own, described as a separate entity. That is case with VET qualifications in the Spanish register of vocational qualifications (INCUAL, 2009) and for qualifications of the Scottish Qualifications Authority (SQA, 2006), Australia (training packages) ⁽⁷³⁾ or UK-EWNI. In Spain, unlike the other systems mentioned here, all units are designed centrally by the qualifications authority and there is no separate validation process.

In credit systems where the competence to design units and qualifications is shared across a number of institutions, the compliance of the unit with the requirements of the credit system (in terms of content, format and the quality of description) is verified or validated. For example in Scotland, for the higher national certificates and diplomas, a clearly defined validation process exists including the need to engage others (e.g. education expert, industry expert, representative of the qualifications authority). Each unit is verified and validated through this process (SQA, 2007). Similarly the units in the QCF have to be approved by the sector skills council concerned (Ofqual et al., 2008a and 2008b).

⁽⁷²⁾ For examples of qualifications standards, see: <http://crdp.ac-bordeaux.fr/documentalistes/docadmin/repertoire1.asp> [cited 30.3.2010].

⁽⁷³⁾ To search the training packages, go to the National Training Information Service website: <http://www.ntis.gov.au/> [cited 30.3.2010]. For description of the VET system in Australia, see NCVET (2009).

However, the sector skills approaches to this validation process are not yet fully systematised (Stratagia, 2008).

Coherence of the unit design and description is of particular importance in credit systems but also in other credit arrangements where units are shared across different qualifications (see also Section 6). This implies use of common procedures, common terminology and templates to ensure that actors can judge, without too much difficulty whether an existing unit can be incorporated into the qualification they are designing, or whether it can be considered to be equivalent.

5. Functions of credit systems and qualifications frameworks

This section analyses first how a credit points convention and qualifications frameworks are used as passive tools to describe qualifications systems and what alternative mechanisms are also used. It then examines how the studied instruments actively influence features of qualifications systems (active role).

Some frameworks or credit arrangements are designed from the start as having both roles (or at least with regard to parts of the qualifications system: see also Section 4). Others are mainly designed as descriptive instruments that are passive with regard to the existing system but may later become incorporated in the qualifications design. The distinction between the passive and active roles of these instruments with the qualifications systems can be summarised as follows:

- passive role: the instruments describe the system according to level and size of qualifications;
- active role: the instruments are used in designing qualifications: level descriptors, use of units (common and equivalent).

5.1. Passive qualifications frameworks and credit points conventions

Table 12 shows that all countries covered here use their qualifications frameworks for describing qualifications. However, the use of frameworks for this purpose varies. In certain countries the reference to qualification titles (which are regulated) is sufficient to understand the qualification the holder has achieved. In other countries, the number of titles may be too big or their use is not strictly regulated and hence these do not provide sufficient reference for understanding the qualifications system.

The Australian framework, in its current form, is based on a structure of qualifications titles without referring explicitly to levels. There were 15 titles from three sectors (schools, VET and HE), governed through guidelines on the characteristics of learning outcomes, responsibility over assessment, pathways to the qualification, etc. However, the lack of levels in the framework was being questioned in the 2009 consultation which proposed learning outcomes-based descriptors for explicit levels (see also Section 4.1.5.). The Finnish qualifications

system also only has a low number of qualification titles (only three for VET: initial, further and specialist) and also a low number of qualifications (only 53 initial VET qualifications). The homogeneity of these titles is ensured through the fact that they are designed and revised by a single organisation. This makes the Finnish qualifications system easily understood by learners, parents and employers. Therefore, the descriptive role of the future Finnish qualifications framework is mainly oriented towards other countries and making sure Finnish qualifications are accurately interpreted abroad.

In contrast, UK-EWNI and Scotland have an important variety of qualification titles and, in some cases, simple reference to the title is not sufficient to inform the learner or the employer about the qualification ⁽⁷⁴⁾. In the past, the UK qualifications register underpinning the previous framework used to recognise 22 types of qualifications; in 2009 the extent to which types will be used in the QCF has not been fully agreed. However qualifications in the QCF can use one of three titles (award, certificate and diploma) according to their volume. The combination of titles and types gives a potentially large combination of means through which qualifications are labelled and these are not homogeneous when it comes to the level of learning. It is quite common in the UK that qualifications in a specific area are offered at different levels and also of different sizes, so it becomes difficult to understand a qualification only by reading its title.

The French register of qualification also differentiates between 70 qualification titles, some no longer in use, though most of these are only at one level. The exception is the qualifications designed for continuing training, awarded by the Ministry of Employment: all are entitled professional title (*titre professionnel*) but can be at all levels, though they are rarely higher than the French level 3. The fact that all the French qualifications with the same title are at the same level is not established through comparison of the qualification with independent level descriptors but it is decided a priori.

In other countries where the variety of qualification titles is lower, the use of levels for describing qualifications may have a different role. Rather than organising the qualification titles, it may be used to relate different qualification types. The relationships between the different qualification titles may already be relatively well understood within the country due to their long tradition, consistency and low number. However, the creation of qualifications of a new type, the willingness to bring them into the formal system (e.g. qualifications solely designed for adults) or the willingness to state equivalence among qualifications titles from different subsystems, may require that these are

⁽⁷⁴⁾ While certain titles are well understood, others (especially the newer ones) are less well-known.

somehow referred to the qualification titles of the formal system of initial education and training. The need in some countries to introduce a structure of levels comes from the fact that the formal qualifications system is becoming more open to other forms of learning than those traditionally certified by formal education and training. In this case, the structure of levels makes explicit the relationships between qualification titles that used to be implicit.

In Slovenia, each of the suggested levels of the qualifications framework will correspond to the level of learning outcomes of one of the main qualification titles awarded by the formal system (as is the case in the current classification system *Klasius*). It means that the level of learning outcomes at level 3 of the Slovenian framework is described to fit the level of learning outcomes of lower vocational qualifications (corresponding to a semi-skilled worker). Because the Ministry of Education is the only awarding body for these qualifications, it ensures the level of learning outcomes across the different qualifications with the same title is homogeneous. In this case, the structure of levels is already implicit within the qualifications system with regard to qualifications awarded by the formal system. However, in the past decade Slovenia has introduced a new type of qualification, mainly employer led (e.g. designed by chambers), and accessible through formal training but also through validation of non-formal and informal learning. To promote understanding of these qualifications by employers or learners, it became necessary to identify how they relate to the formal system. This will be made possible through the use of learning outcomes descriptors as a reference.

Certain qualifications frameworks (e.g. UK-QCF or South African qualifications framework) provide guidelines on qualification titles to ensure that all qualifications in the framework use the same format in 'naming' qualifications (see the higher education subframework in South Africa, in South African Department of Education, 2007). The extent to which awarding bodies, especially private ones, will be willing to use titles which do not allow them to advertise the institutional origin is unclear.

This analysis suggests that, in their descriptive role, qualifications frameworks are used:

- (a) to create a reference structure when the large number of existing qualification titles is no longer sufficiently transparent or understood. This variety of titles may be due to the number of awarding bodies or to the fact qualifications other than those traditionally delivered by the formal system are being recognised through the framework;
- (b) to differentiate, in the level's descriptive role, between qualifications when the qualifications titles are not homogeneous in terms of the level of learning outcomes;
- (c) to promote understanding of qualifications abroad.

5.1.1. Qualifications frameworks and traditional means of describing qualifications

The title was traditionally the main signal for learners, employers and parents to understand the qualification; many qualifications systems are still organised around the logic of qualification titles. In many countries the use of certain qualification titles is regulated, implying requirements around how qualifications under that title are designed, revised, assessed, awarded and by whom. In France, though private providers or chambers can develop qualifications and have these referenced to the qualifications framework, they cannot use any of the titles issued by the certifying ministries. This is sometimes a sensitive issue, especially in tertiary education, as some private providers who have not been authorised by the competent ministry advertise their qualifications under the titles of bachelor or master though they cannot award these qualifications titles⁽⁷⁵⁾.

However, as the variety of qualification titles becomes larger, as new titles are introduced, for example, for specific subsystems (e.g. adult learning), the perception the population and stakeholders have of the existing titles (often based on tradition and prestige) blurs the relationships between qualifications. The understanding of these new qualifications by learners and employers may be difficult as they do not know how to compare them with the qualifications they are aware of and which help them decipher the qualifications system. As noted in Section 2.2.2. on the EHEA framework, this is for example the case of bachelor qualifications in some countries where these did not exist prior to the Bologna reform. The ESU (2009) report notes that *'first cycle qualifications (bachelor) are often treated with scepticism by employers'* (ESU, 2009, p. 140).

Therefore, though the use of qualifications titles as a reference to understanding the qualifications system has a clear advantage, in that it is well understood by the population and stakeholders, there are a number of drawbacks to which qualifications frameworks are aiming to respond. The use of qualifications titles as a reference has been criticised as:

- (a) it makes introduction of new titles difficult;
- (b) it is hard to understand outside the country;
- (c) it does not provide an explicit basis for introducing credit transfer;
- (d) it makes quality assurance, monitoring and evaluation difficult as it is based on an implicit understanding of, or quite general guidelines on, the standard of qualifications with a certain title rather than on external/objective criteria against which qualifications are positioned. For example, Australian

⁽⁷⁵⁾ See Article 3 of the Decree 2002-481 of 8 April 2002 on higher education degrees and titles and national diplomas (Décret no 2002-481 du 8 avril 2002 relatif aux grades et titres universitaires et aux diplômes nationaux).

qualifications titles are based on guidelines concerning their learning outcomes but these are very general and do not necessarily show the difference between one title and another.

Note that all these reasons were highlighted in the rationale for reforming the Australian qualifications framework, which was based on a structure of qualification titles.

5.1.2. The passive role of the credit points convention

Table 12 also shows that systems where credit points are used as a measure of the volume of learning use the descriptive role of credit points to differentiate qualification titles at the same level according to their size. The use of credit points, typically based on a measure that goes beyond the volume of contact hours, is seen as making it possible to distinguish qualifications further. Traditionally, qualifications systems used to describe this dimension of qualifications by referring to the duration of programmes in terms of number of years or contact hours. However, this reference becomes difficult to apply when:

- programmes of different duration exist to prepare for the same qualification (targeted at different audiences: young people, adults, early school leavers, etc.);
- qualifications that are not linked to a specific programme but can also be achieved through validation of NFIL are being introduced.

It is interesting to note that the size of qualifications becomes an issue when relatively small, often specialised and designed for continuing training qualifications are being referenced to the framework; in other words, when the framework has the ambition to be inclusive of all learning. For example, this is not considered to be an issue in the French framework because only qualifications that 'qualify' the holder for an occupation in the labour market can be included. The framework is not designed to include very narrow or specialised qualifications. To illustrate this with a concrete example, while the French framework includes certain employer lead qualifications (CQP) many of these remain outside the framework and one of the reasons for that is their small size.

Several countries studied here do not attach specific importance to the description of qualifications through credit points because the level of qualification is perceived as sufficient information (Germany or Spain). Nevertheless, in these countries it is usual to refer to the length of typical programmes and/or teaching hours; the measure of volume is expressed in different terms.

In higher education in Europe, the use of credit points to describe qualifications was aligned with the objective to align the size of higher education

qualifications corresponding to the first (including the short cycle) and second cycle.

Table 12 also shows that not all countries that have mechanisms to enable credit transfer and accumulation necessarily refer to the measure of volume in terms of points. The Australian approach to credit transfer was, in the past, not based on a measure of volume but only on principles and guidelines for transferring credit. These encouraged those in charge of developing qualifications to establish links (i.e. formal agreements on recognition of credit, in terms of learning outcomes) with qualifications that belong to other qualification titles. These were expressed through clear information on admission criteria and possibilities of exemption. However, as already underlined in Section 4.1.5., one of the proposed revisions of the AQF consists in adding a measure of volume that would, together with a structure of learning outcomes-based level descriptors, clarify the relationships among qualifications and hence make creation of links easier.

When it comes to the use of credit points to describe components of qualifications this function is mainly related to:

- managing individual education and training pathways;
- informing other institutions concerned (those responsible for transfer and accumulation) about the volume of learning outcomes the component represents.

It provides individuals with the possibility to choose options additional to the core qualification components and to individualise their qualification. This means that individuals may have the possibility (or are encouraged) to achieve credits outside the core study field. This is typically expressed in terms of credit points: for example a student in a bachelor programme of 180 credit points could have the option to choose 30 credit points from a specified range of components and another 20 credit points from any other components. This approach is frequently used in HE to give options within the same higher education institution or a small number of associated institutions. It is greatly assisted by structuring programmes into components that are delivered over one semester.

In VET, credit points to describe qualifications are used, for example, to describe the proportion of general education and vocational education components. In Finland it is common to present the structure of initial VET qualifications as in Table 11.

Table 11. **Presentation of the structure of Finnish initial VET qualifications**

Balance between general and vocational subjects	Balance between school-based and work-based training	Average duration of studies
90 credit points vocational units; 20 credit points core units; 10 credit points free-choice subjects (can be either/or)	Minimum 20 credit points on-the-job learning	120 credit points (= three years)

Source: Cedefop, 2009f.

The use of credit points to describe qualifications and their components is also part of a common language that enables institutions from other systems to better understand qualifications and their structure.

Table 12. **The use of qualifications frameworks and credit points conventions for describing qualifications**

Country	Passive role of qualifications frameworks	Passive role of the credit points conventions
Australia	<p>The AQF (in its 2009 form) presents a 'loose' hierarchy of qualification titles. This hierarchy is 'loose' because it is not based on explicit levels and level descriptors but reflects a consensus among the different actors involved as to how the different types of qualifications compare to one another.</p> <p>The 2009 consultation proposes the introduction of a structure of levels based on level descriptors. This would describe and arrange qualifications according to an independent set of criteria (currently not in place).</p>	<p>Until 2009, mainly universities used their own credit points conventions. This was also used in the Victorian credit Matrix.</p> <p>However, the consultation undertaken in 2009 suggested as one of the features of the AQF review to introduce a common measure of volume for qualifications description.</p>
Finland	<p>The description of Finnish qualifications through a structure of learning outcomes based levels is the core role of the Finnish framework (as proposed). Finnish qualifications are already based on learning outcomes and designed in a coherent manner. The main concern in designing the Finnish NQF is to improve international understanding of Finnish qualifications.</p>	<p>Finland has been using credit points both in HE and VET since the 1970s. In HE a national system preceded the introduction of ECTS. Before the introduction of ECTS, the measure for credit points used to be the same for VET and HE (one credit = 40 hours of student work).</p> <p>The size of qualification in terms of credit points is set at national level per title (e.g. all upper-secondary VET qualifications, <i>Ammatilliset perustutkinnot</i>, have the same duration and hence have 120 credit points).</p>
France	<p>The structure of five levels as existing in France is closely related to occupational levels. In this way, the descriptive role of the French framework serves as information for employers to match their job offers with qualification requirements.</p>	<p>In tertiary education the use of credit points is intended to have the role of describing the volume of learning in a programme component. However, the allocation of points to components is done in a heterogeneous manner (not necessarily based on exact workload calculation as assumed in ECTS).</p>

Country	Passive role of qualifications frameworks	Passive role of the credit points conventions
	This structure of levels also serves as a basis for collecting data on qualifications attainment of the population.	All qualifications with the same title have the same size in terms of credit points (they typically have the same duration in terms of years). In other sectors of education and training, a credit points convention is not used.
Germany	The QF as proposed aims to describe how qualifications from different education and training sectors relate to each other using a structure of levels. Therefore, the descriptive feature of the framework is intended to serve as basis for establishing links among qualifications from different sectors.	The length of HE qualifications with the same title can differ and the credit points are used to distinguish between, for example, bachelor degrees lasting three or four years. Similarly, the duration of VET programmes differs. They are currently not described in credit points but in reference to years.
Slovenia	The structure of levels in the existing Klasius system reflects the structure of the qualifications system and the hierarchy, in terms of learning outcomes, of the main qualification titles delivered by the formal system. It enables other types of qualifications (e.g. those awarded through validation of NFIL) to be related to the formal qualifications.	Qualifications from formal education and training have a prescribed duration per title and consequently the same number of credit points. The number of credit points for NVQs (qualifications that can be achieved both through formal training and validation of NFIL) differs. Credit points are used as a proxy to describe the volume of learning in qualifications, both those awarded by the formal system and those achieved through validation of NFIL. This descriptive role of points can identify the relationship between different types of qualifications at the same level.
South Africa	The South African qualifications system contains a large number of qualification titles several of which can be at different levels (e.g. national certificates span from level 2 to level 6, though most are at levels 4 and 5). The structure of levels permits distinction between the different titles as well as differentiation of qualifications with different levels within the specific title.	The qualifications in the South African NQF are described using credit points. The volume of learning for qualifications in the past NQF register differed significantly: from 120 credit points to 1680 credit points (these were doctoral qualifications prepared in a block, with no intermediary qualifications). Qualifications may have very different sizes at all the levels. For example, qualifications with the size of 120 credit points were located at all levels from 1 to 8. Even though qualifications at the lowest level tend to be relatively small (e.g. at level 1 all qualifications have less than 150 credit points).
Spain	The national register of VET qualifications integrates qualifications from different VET subsystems. Qualifications are organised according to the level (1-5) and the sector. No indication of qualifications titles or types is used.	The use of credit points in tertiary education has a descriptive role. Both university degrees and non-university higher education qualifications (these are VET) use ECTS to describe components of programmes. The duration of university studies is regulated per cycle and all new bachelor and master degrees have the same duration (prescribed in terms of ECTS points). The duration of non-university higher education programmes can vary and ECTS is used to describe the size of these qualifications. A credit points convention is not used in VET.
UK – EWNI	Due to the large number of awarding bodies in the UK, and the resulting fragmented landscape of qualifications, there are a large number of qualification titles; the national database of accredited qualifications uses 22 qualification types. The types of qualifications are not homogeneous and, within each type, qualifications can have	The volume of UK qualifications at the same level or with the same title or type varies greatly. To give greater visibility, beyond the use of levels, the QCF uses credit to describe the volume of learning outcomes. Within the same qualification type, qualifications can have different titles: awards (1-12 credit points), certificates (13-36 credit points), diplomas (37 and more). The use of points for units also has an important role in the

Country	Passive role of qualifications frameworks	Passive role of the credit points conventions
	different levels, hence the use of levels enhances the transparency and relationship among different titles.	QCF. The number of points allocated to a unit is expected to be absolute (as opposed to relative to that qualification); when the learning outcomes are recognised, the value in terms of points is also recognised.
UK – Scotland	The Scottish qualifications system is characterised by an important variety of qualifications titles. Some qualifications with the same title can have different levels. Therefore the structure of levels has an important descriptive role to play in clarifying how the different titles refer to relate to each other.	The Scottish credits and qualifications framework uses credit points to express the volume of learning outcomes in each qualification. Qualifications with the same title can vary in size. In addition to the levels, the use of credit points enables better legibility of the qualifications system with a variety of titles.

5.2. The active role of qualifications frameworks and credit systems

As shown in Table 18, the use of qualifications frameworks and credit systems to influence the design of qualifications, and the possibilities for learners to transfer credit and to progress to higher levels, varies significantly from country to country. Certain countries have highly regulatory qualifications frameworks and credit systems. Other frameworks and credit systems influence qualifications design through guidelines and quality assurance mechanisms. Also, certain frameworks and credit systems rely on regulations that are not direct features of the framework but that regulate the different qualifications subsystems. The extent to which the frameworks and credit systems actively shape the way qualifications are designed depends closely on the objectives of these instruments.

5.2.1. Regulations

Regulatory frameworks are characterised by explicit requirements on how the framework mechanisms (levels, level descriptors and possibly other ones) are to be used for qualifications design so that these can be included in the framework. They also imply that compliance with these requirements is verified by an authoritative organisation.

An example of a highly regulatory QF covered by this study is the UK (EWNI) qualifications and credit framework (QCF). To understand the regulatory aspects of the QCF it is important to bear in mind the UK (EWNI) qualifications context which is highly fragmented, with a great variety of awarding bodies with responsibilities over design (in cooperation with sectoral organisations), assessment and award of qualifications. These are organisations recognised by

the regulator (one for every country) to award accredited qualifications. As noted before, there are over a hundred registered awarding bodies that design, assess and award qualifications in the UK (EwNI). As a result, there were in 2009 nearly 10 000 accredited qualifications in the national database of accredited qualifications, excluding higher education qualifications.

In this context, one of the objectives of the QCF is to rationalise the qualifications offer, avoid overlap in qualifications and establish links among them to enable learners to build on what they have achieved in the past. To achieve these objectives it was necessary to regulate further the way qualifications are designed. Therefore, the QCF represents a complex set of requirements concerning aspects of qualifications system:

- (a) design of units described by title, learning outcomes, assessment criteria, level, credit value;
- (b) design of qualifications based on units using rules of combination;
- (c) requirements for organisations operating in the framework (submitting units, creating rules of combinations or awarding qualifications) in terms of criteria such as expertise or continuous review (different criteria are set for bodies with different functions).

In other systems studied, these features of the qualifications systems (or subsystems), if existing, may also be regulated or, if not regulated, based on policies and guidelines. However this is often not an aspect of the qualifications framework but, for example, the legislation governing a specific sector.

Other frameworks covered by this study may also have regulatory aspects but these often concern the qualifications subsystems that are not regulated. The French qualifications framework, which covers also qualifications awarded by sectoral organisations or private providers, in addition to those awarded by competent ministries, imposes requirements on these qualifications. Due to its underpinning logic, and the understanding of the concept of qualification (see Section 3) the French approach requires those entering these qualifications into the framework to demonstrate that the recruitment of graduates/qualification holders corresponds to the level of the qualifications framework.

Certain subframeworks (for example the Scottish SVQ or higher national certificates and diplomas subframework) are also regulatory. They regulate specific types of qualification which have certain common characteristics (e.g. they are occupational qualifications developed in cooperation with sectors, in the case of SVQs). Like the QCF, these are subframeworks that aim to bring greater coherence to qualifications provision designed by a large number of bodies.

5.2.2. Quality assurance

All qualifications frameworks have some degree of quality assurance role through the referencing process. However, this role is more central in some frameworks than others. There is a difference between frameworks proceeding through regulation and those operating through quality assurance. While a framework using regulation integrates requirements on qualification design and award (like the QCF), and the body in charge of the framework has the authority to verify compliance with regulations, a quality assurance based framework relies on the authority of other institutions with legitimacy over specific subsystems. It is not the framework as such that directly influences the way qualifications are designed; the different subsectors integrate it in their quality assurance requirements as best suits them.

South Africa offers an example of a framework that operates mainly through quality assurance. The revised framework provides a structure of levels, the level descriptors (though these are in process of development), and a database of qualifications; it delegates the authority to govern qualifications in the framework to other organisations. The three subframeworks within the South African NQF are all based on sector-specific quality assurance processes in the way qualifications are designed, the related curricula and how they are assessed and validated. The Quality Council for Higher Education⁽⁷⁶⁾ accredits HE programmes and qualifications onto the higher education qualifications framework through accreditation criteria (Council on Higher Education, 2004) and governs their quality assurance. Similarly, the Quality Council for General and Further Education and Training (Umalusi) monitors the adequacy and suitability of curriculum and qualifications on the general and further education and training qualifications framework (through its qualifications, certification and curriculum unit) and quality assures their certification according to a suite of policy directives (for example, Umalusi, 2006). The Umalusi quality assurance is based on aspects among which are statement of the purpose of the qualification, existence of curricula clearly stating the content and skills to be mastered⁽⁷⁷⁾, and assessment, including external assessment (Umalusi, 2008). The third subframework will be that of trade and occupational qualifications but in this sector a quality assurance body and quality assurance protocols are yet to be established.

⁽⁷⁶⁾ Currently known as the Council on Higher Education (CHE), including its permanent committee, the Higher Education Quality Committee (HEQC).

⁽⁷⁷⁾ The previous framework only required use of learning outcomes without reference to curricula and this was highly criticised (see also Section 3).

5.2.3. Guidelines

Several qualifications frameworks and credit systems covered here use of guidelines to influence the way qualifications are designed and credit is transferred and accumulated. These guidelines are typically the result of consensus among the major actors in the qualifications system; use relies on trust and self-regulation of the actors concerned.

Table 13. **Issues and principle covered by the AQF guidelines on credit transfer**

<p>Common terminology (credit, credit input, types of credit)</p> <p>Common principles such as availability to all, equal opportunities, quality assurance</p> <p>Operational guidelines on issues such as:</p> <ul style="list-style-type: none">• explaining the different types of credit (by types of credit is understood in the Australian context, for example, credit achieved through validation of NFIL, equivalence, etc.) and how institutions can apply them;• information the providers should make available to learners;• support for learners;• appeal procedures;• evidence of credit.
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Source: Australian qualifications framework, 2009c.

The Australian framework is a good example of such an approach. The Australian framework is designed for a system where the competence for designing and awarding qualifications lies with different state/territorial authorities. Its main objective is to enable recognition of qualifications across the whole federation and also internationally. For this purpose, it is based on a common approach to qualification titles. For each title, the framework sets a set of broad guidelines (AQF, 2007) on the breadth of learning outcomes, pathways to that title, etc. The Australian QF also provides guidelines (AQF Council, 2009c) on how and why the bodies authorised to design or award qualifications in the framework should connect with other qualifications to pursue credit transfer. It also provides a common vocabulary and agreed principles, whose use are the responsibility of the competent institutions (Table 13). The guidelines also give indications of the volume of credit that should be transferred from one qualification title to another ⁽⁷⁸⁾. However, the competent institutions may decide to transfer more or less credit.

⁽⁷⁸⁾ This is expressed as a percentage as there is no common credit points convention in Australia.

The Scottish qualifications framework is based on both guidelines and quality assurance. The guidelines concern the understanding and attribution of level, credit points and credit (SCQF, 2007). The quality assurance includes the fact that only certain recognised bodies are able to assign a level to qualifications and undertake credit rating. Though the SCQF is open to learning from all contexts, including employer led qualifications, these can be referenced to the framework (through allocation of level and credit points) only by a limited number of bodies eligible to credit rate. By giving the level and credit rating competence to an appropriate institution, the actors involved in the SCQF partnership recognise the body's expertise, competence and quality assurance.

5.2.4. Common terminology

Another means by which qualifications frameworks and credit systems actively influence the way the different institutions operating in the system conceive and design their qualifications is through the introduction of common terminology and concepts.

All frameworks studied here are underpinned by definitions or explanations of terms such as qualification, level, competence (or related terms used in the country to describe learning outcomes), type of qualification, qualification standard, etc. Formalised credit systems contain definitions such as credit, unit or module, credit transfer, accumulation, etc. For examples see Table 14.

While this may seem an obvious aspect of any national instrument, it proves that frameworks and credit instruments have a role in making explicit terminology that was used but not always formalised in the system. Different subsystems might have different understandings of some concepts and reaching an agreement on a common definition (of for example qualification or learning outcomes) may have important impacts on how they conceive and design their qualifications. For example the French register of qualifications defines qualifications (the term certification is used in French) as:

qualifications (*certification*) that concern a process of verification of professional/vocational command/mastering and its result (Commission Nationale de la Certification Professionnelle: Glossaire ⁽⁷⁹⁾).

This definition implies that all qualifications in the register, including the HE ones, need to link to professional activities. It also implies that there has to be an assessment process.

⁽⁷⁹⁾ See: <http://www.cncp.gouv.fr/grand-public/glossaire> [cited 30.3.2010].

Frameworks and credit instruments also have a role in introducing new terminology that will be taken up by the institutions designing qualification or those in charge of enabling transfer and accumulation of credit.

If this terminology is not directly translated into regulations or guidelines it may influence the qualifications system in a 'softer' manner, for example by raising the awareness and improving the understanding of issues around credit.

Table 14. **Examples of terminology in use in frameworks and credit arrangements guidelines**

<p>Terms defined in the Slovenian Klasius classification (which underpins the NQF): Learning, learning activities, learning outcomes, qualification, competence, qualifications framework, level, sub-level, education, level of education, education and training, education and training activities, education programme, the level of educational activities and outcomes, the scope of educational activities and outcomes, type of educational activities and outcomes</p>
<p>Terms defined or described in the Scottish credit and qualifications framework: Level, level descriptors, credit points, credit, exemption and recognition of prior learning, further education, higher education, credit rating, credit rating bodies, general and specific credit</p>
<p>Terms defined in the Australian qualifications framework: Qualification, statement of attainment</p>
<p>Terms defined in the Australian policy on credit arrangements: Credit, formal learning, non-formal learning, informal learning, credit transfer, articulation, recognition of prior learning, block credit, specified credit, unspecified credit</p>

Source: Republika Slovenija Vlada (2006); SCQF – Scottish credit and qualifications framework (2007); AQF – Australian qualification framework (2007) and Australian Qualifications Framework Council (2009c).

5.2.5. Level descriptors as references in designing qualifications or programmes

The use of level descriptors is a two-way process. They are used as reference to locate qualifications on a level but they may be used as indicators in designing new qualifications.

The use of descriptors to serve as benchmarks in the design of qualifications varies. In some cases (UK-EWNI) where level descriptors are quite specific these are intended to serve directly as the basis for designing qualifications. In other cases (UK-Scotland) the level descriptors are broad statements which relate to each other the levels of existing subsystems. The subsystems may have more specific requirements about the content of qualifications at the different levels and, more often, per qualification title. Finally, in certain countries the level references or title descriptors only provide a broad description of the level of learning outcomes (France or Australia).

In South Africa, though the level descriptors are not yet decided, decisions have already been made regarding the qualifications titles and at what levels they will be (see also Section 4.1.5).

Until 2009 the Australian framework used only very broad descriptors of learning outcomes for the different qualification titles. However, this feature of the current Australian framework is under review which might result in more specific definition of level descriptors.

The descriptors used in qualifications frameworks vary greatly in dimension and level of detail. The French descriptors are related to the level of occupation as well as referring to the main (in terms of numbers of people holding them) qualifications (diplomas) in the system, with very broad indication of learning outcomes. The Australian descriptors are also very broad. In addition to these descriptors the AQF (2007) handbook also contains information on how qualifications titles compare e.g. the difference between certificate I, certificate II and certificate III. The Scottish and UK level descriptors are much more detailed. They are also less clearly related to aspects such as occupational activities or performance in the workplace.

In Slovenia the learning outcomes descriptors are also complemented by indication of typical access level and the typical notional duration of learning, based on the duration of the reference qualification from the formal system at that level. In France, the duration of learning is not directly an element of the level descriptors but each of the reference qualifications in the framework is also defined by a typical duration.

In France, the consistency of the content of qualifications across the same title (which is located at a single level) is not achieved through comparison with level descriptors. When the social partners propose a new qualification or a revision of the old one they also say which level (more specifically which qualification title) they want it to be. This is then discussed and the ministry has a clear role in safeguarding the homogeneity of titles. It judges whether what is proposed is appropriate, too high or too low (in terms of occupational activities and their complexity) for the suggested title ⁽⁸⁰⁾. The learning outcomes of the qualification are then established through dialogue within the commissions in charge of designing qualifications ⁽⁸¹⁾. This consensus building exercise implies that the resulting qualification responds to the needs of:

- (a) the professional sector concerned by the qualification;

⁽⁸⁰⁾ Employers' representatives may have a tendency to downgrade their expectations in terms of the qualification title as compared to the competences they expect as the level of the title is related to collective agreements.

⁽⁸¹⁾ For more information on the roles of different actors in designing qualifications in France, see for example Maillard (2007).

- (b) the ministry in charge in terms of coherence with other qualifications of the ministry;
- (c) the ministry with equivalent qualifications or the ministry in charge of qualifications to which the qualification discussed gives access.

The expertise of the ministries in this process is crucial. The consistency of qualifications at a certain level is ensured not so much through a technocratic process of relating detailed level descriptors to the learning outcomes of a qualification but a consultative process involving all stakeholders concerned.

In Scotland the way the level descriptors are used depends on the awarding bodies. In all cases the descriptors are:

‘intended to provide a general, shared understanding of each level and to allow broad comparisons to be made between qualifications and learning at different levels. They are not intended to give precise or comprehensive statements, and there is no expectation that every qualification or programme should have all of the characteristics’ (SCQF, 2007, p. 36).

In UK (QCF) the level descriptors are used to determine the level of units and, as in Scotland, it is not expected that each unit will have all the characteristics of the appropriate descriptor.

Table 15. **Examples of level descriptors**

France – Level IV*	Definition		Indication		
	Personnel occupying supervising professions or those of a highly qualified worker with the level of qualification equivalent to <i>brevet professionnel</i> (vocational diploma), <i>brevet de technicien</i> (technical diploma), <i>baccalauréat professionnel</i> (vocational school-leaving certificate) or <i>baccalauréat technologique</i> (technological school-leaving certificate).		A qualification at level four implies more theoretical knowledge than the previous level. This activity concerns mainly technical work that can be executed autonomously and/or with supervision responsibilities as well as coordination.		
Australia – Certificate 2	Characteristics of competences include:				
	performance of a prescribed range of functions involving known routines and procedures and some accountability for the quality of outcomes.	breadth, depth and complexity of knowledge and skills prepare a person to perform in a range of varied activities or knowledge applications where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.		applications may include some complex or non-routine activities involving individual responsibility or autonomy and/or collaboration with others as part of a group or team.	
Slovenia – Level 3**	Knowledge	Skills	Learning to learn	Professional competence	Typical access requirements: possible with incomplete compulsory education Typical notional duration: 2.5 years
	Using knowledge in a given field with regard to processes, techniques, materials, instruments, equipment, terminology and some theoretical concepts.	Using specific skills to perform the tasks expressing a personal interpretation of the selection and adaptation of methods, tools and materials. Assessing the different approaches to the tasks.	Taking the responsibility for one's own learning.	Problem-solving using the available information sources and taking into account certain social aspects.	

Scotland*** – Level 5	Knowledge and understanding	Practice: applied knowledge and understanding	Autonomy, accountability and work with others
	<p>Demonstrate and or work with: basic knowledge in a subject/discipline which is mainly factual but has some theoretical component a range of simple facts and ideas about and associated with a subject or discipline knowledge and understanding of basic materials and technology</p>	<p>Relate ideas and knowledge to personal and practical contexts Complete some routine and non-routine tasks using knowledge associated with a subject discipline Plan and organise familiar and new tasks Select appropriate tools and materials and use safely and effectively (e.g. without waste) Adjust tools where necessary following safe practice</p>	<p>Work alone or with others on tasks with minimum supervision Agree goals and responsibility for self and/or work with team manager/supervisor Take leadership responsibility for some tasks Show an awareness of others' roles, responsibilities and requirements in carrying out work and make a contribution to the evaluation and improvement of practice and processes</p>

UK – QCF – Level 4	Summary	Knowledge and understanding	Application and action	Autonomy and accountability
	<p>Achievement at level 4 reflects the ability to identify and use relevant understanding, methods and skills to address problems that are well defined but complex and non-routine. It includes taking responsibility for overall courses of action as well as exercising autonomy and judgement within fairly broad parameters. It also reflects understanding of different perspectives or approaches within an area of study or work.</p>	<p>Use practical, theoretical or technical understanding to address problems that are well-defined but complex and non-routine</p> <p>Analyse, interpret and evaluate relevant information and ideas</p> <p>Be aware of the nature and approximate scope of the area of study or work</p> <p>Have an informed awareness of different perspectives or approaches within the area of study or work</p>	<p>Address problems that are complex and non-routine while normally fairly well defined</p> <p>Identify, adapt and use appropriate methods and skills.</p> <p>Initiate and use appropriate investigation to inform actions</p> <p>Review the effectiveness and appropriateness of methods, actions and results</p>	<p>Take responsibility for courses of action, including, where relevant, responsibility for the work of others</p> <p>Exercise autonomy and judgement within broad but generally well-defined parameters</p>

* NB in France the highest level (in terms of number) is the lowest level of qualification.

** Another two columns (autonomy and accountability, and communication and social competence) exist in the Slovenian level descriptors.

*** Another two columns (generic skills and competence, and communication, ICT and numeracy skills) exist in the SCQF level descriptors.

Source: CNCP (FR); AQF (2007); Republika Slovenja Vlada (2006); SCQF (2007); Ofqual et al. (2008a).

5.2.6. Questions on newly proposed frameworks

In the qualifications frameworks that are in process of being elaborated (Germany and Finland) it is not clear at this stage how level descriptors will be used for qualifications design. Both frameworks are mainly foreseen as passive instruments used to describe the system and enhance its transparency.

In Finland the main responsibility for design of qualifications (excluding HE qualifications) lies with the Ministry of Education and its agency, the National Board of Education. The latter has recently completed a revision of all VET framework curricula leading to VET qualifications: note that the Finnish qualifications are not described in terms of independent standards but in learning outcomes based curricula. Such reviews are periodical and ensure systematic updating of qualifications. They are led by the National Board of Education but involve cooperation with experts in the area concerned. Interviewees noted that so far, from the debate and trials around the development of the NQF, it seems that only a few initial VET qualifications (e.g. pilots) would be referenced at a higher level than the rest. This shows that the existing qualifications design process leads to consistency in the level of qualifications even in the absence of explicit level descriptors. Therefore, the extent to which these will become used as basis for qualifications design is unclear.

In Germany, higher education qualifications already refer to the level descriptors in the HE framework and this is likely to remain the practice. This is the requirement for new and revised programmes to be accredited. For German VET qualifications from the different subsystems there is currently no common agreement on qualifications design. This is also related to the complex institutional set up of the German education and training system where qualifications from the dual system are designed at level by the chambers in cooperation with the federal Ministry. Each chamber has its own rules (more or less explicit) on how qualifications are described in terms of learning outcomes. Since 2005, all new and revised qualifications from the dual system have to be described in terms of learning outcomes. However, as noted by one interviewee, given the lack of common method and format, this leads to variations in quality of these descriptions. Also in this system, school-based VET qualifications are the responsibility of the *Länder* and each *Land* has its own procedures for their design and description.

Therefore, in VET, learning outcomes descriptors could be used as a common basis to design and describe qualifications (if underpinned by common formats and methods). However, this is currently only speculation and no decisions have been taken. The main difficulty is that any official agreement on the use of descriptors for qualifications design would require agreement from the

different chambers and, most important, transposition to *Länder* legislation (for school-based qualifications). However, depending on what the referencing procedures for qualifications to the framework will be (no proposal exists at this stage), these actors could end up using the level descriptors without official agreement because they would want their qualifications to be referenced at a particular level. In any case, at this very early stage of the German qualifications framework development, only a descriptive use of the framework is foreseen and it is not clear what the active role of the framework levels will be. This will partly depend on the referencing criteria.

5.2.7. Observations on the active role of credit arrangements

The different types of credit arrangement have different impacts on qualifications design:

- (a) validation of non-formal and informal learning requires that qualifications standards are formulated in a way which will make it possible to assess learners who have achieved the knowledge, skills and competence through means other than formal learning based on a curriculum;
- (b) equivalence necessitates that parts of different qualifications have the same level, learning outcomes and volume;
- (c) exemptions do not particularly influence the way qualifications are designed but require that the programmes offered can be followed by people who have not followed exactly the module(s) for which they received exemption.

This study did not analyse all types of credit arrangements in equal depth and paid greater attention to the use of credit points convention and credit systems.

The fact that a credit points convention is used requires those who design the qualification and its components to reflect on the volume of learning necessary, beyond the reflection on contact hours provided in the programme(s). This is an important argument for how ECTS is supposed to promote a learner centred approach to higher education curriculum design. ECTS is expected to lead to design of curricula that are achievable in the time given to students and thus avoid that programmes are filled with, for example, lists of expected reading that are simply too long. So far, the introduction of ECTS does not seem to have triggered major change in this respect (ESU, 2009, p. 89 et seq.) and this preoccupation is particularly present in HE and much less an issue in VET.

Credit systems influence the design of qualifications through these aspects:

- (a) requirements on the existence of units or modules;
- (b) requirements on the assessment of units or modules;
- (c) rules on how units can be accumulated (possibly transferred).

Table 16. **Criteria for unit descriptions**

Australia	
Title and code	
Description	
Unit sector	
Elements (tasks) and their performance criteria	
Key competences and their performance level	
The range of contexts and conditions to which the performance criteria apply	
A guide to the interpretation and assessment of the unit of competence, including the aspects which need to be emphasised in assessment, relationships to other units, and the required evidence of competence	
France	
Title	
Competence in the unit as based on the qualifications standard	
Professional context (i.e. the function(s) within the enterprise in which these competences are applied)	
Activities in the workplace as identified in the occupational standard	
The assessment standard for French qualifications under the ministry of national education also contains this information about units:	Correspondence between assessments and units (one assessment may concern more than one unit and vice versa)
	Assessment: <ul style="list-style-type: none"> • mode (continuing or final assessment; written, oral, practical) • situation (context) and material to be used • performance standard
Spain	
Title and code	
Level	
Professional activities and performance criteria	
Professional context:	Production facilities
	Products and results
	Information used and generated

Source: Australian National Training Information Service, Ministry of National Education examples of Certification Standards, Spanish National Qualifications Institute (INCUAL).

Units in credit systems are typically described and, consequently, designed in the same manner. This is expected to aid transfer and accumulation. For example, in Spain, all qualifications in the national catalogue are described in the same format. Similarly, in Australia all VET units (training packages) are

described in the same format and the same situation exists with regard to the units of the Scottish higher national subframework. This implies a choice concerning certain characteristics of units/modules that are decided nationally while others may be left for the providers to decide. As shown in Table 16, these criteria mainly concern the description of the content of the unit (in terms of competences or professional activities depending on how the qualifications system is oriented) as well as information about assessment criteria or performance criteria. In Australia and Spain, units also have a code which demonstrates the qualifications towards which they can contribute.

In addition to requiring that unit assessment standards are described, certain credit systems also specify the process through which units should be designed or validated (see also Section 4.2.3.). The QCF specifies requirements concerning development of units regarding the organisation developing units, the design process and review (see Table 17). The Scottish subframework for higher national certificates and diplomas has strict requirements on the process through which units are designed and validated, including the type of experts to involve, description of their roles (SQA, 2007).

Table 17. **Abstract from the QCF process for developing and approving units**

The **organisation** developing units must have specific procedures in place that ensure:

- expertise in the relevant subject or sector as well as in designing units;
- expertise in aspects of assessment and awarding that influence design;
- staff have access to training on the design of units;
- this expertise is used appropriately.

When **developing** units, organisations must have procedures in place to:

- interrogate the unit databank and make sure that other shared existing units do not already meet the same purposes;
- use provision planning tools, market research, etc;
- ensure accuracy and consistency of level and credit value;
- ensure that units meet the requirements set out in the QCF regulations.

Continuous **review**:

- the continuous need for a unit;
- use evidence from the delivery, assessment and awarding of the unit.

The qualifications regulators will monitor the quality of units placed in the databank and may, after notifying relevant recognised organisations, require units to be reviewed or withdrawn from accredited qualifications and the databank if they fail to meet the regulatory requirements of the QCF.

Source: Adapted from QCA, 2008b, p. 8-9.

In higher education, institutions have full autonomy over the way their modules are described and combined in a qualification as well as when it comes

to the modes of assessment. However, individual institutions, which do not only use a common measure of volume in terms of credit points but also have a home credit system, may have specific practices on describing modules to facilitate cross-department cooperation and flexible pathways (see for example City University credit framework).

5.2.8. Governance of qualifications frameworks and credit systems

The extent to which the qualifications frameworks and credit systems actively influence qualification design depends on a number of issues that are not necessarily dependent on the foreseen functions of the framework, but also on how they are managed and maintained.

Certain frameworks (e.g. Spain VET, France, UK-EWNI QCF, Slovenia) are based on an 'inventory' which is managed by an institution that:

- is neutral with regard to the different institutions with the competence to design and award qualifications (e.g. France);
- designs qualifications (Spain VET or Slovenia) or regulates the system (UK-EWNI).

In France the main mission of the National Commission for Professional Qualifications (CNCP) is to maintain the register of qualifications, to oversee that qualifications are adapted to the needs of the labour market and to issue recommendations to competent authorities and highlight any duplication. However, its scope to act on qualifications from the different ministries was limited until 2009 and the recommendations which it issued were intended for those institutions that wanted to have their qualifications registered 'on demand' i.e. social partners or private providers ⁽⁸²⁾. Therefore, the capacity of the CNCP to enforce requirements was, until now, limited to the qualifications not designed and awarded by the different ministries concerned even though the ministries' qualifications are those followed by the majority of learners. The main rationale for this division of competence is that the CNCP is mainly a quality assurance body with a mission to ensure the quality of qualifications registered in the NQF not designed by the ministries. Qualifications of the competent ministries have, as statutory requirement, to be designed in cooperation with social partners to ensure their quality.

The first focus of the CNCP (maintenance of the inventory) partly contradicts the idea that the inventory would avoid duplication of qualifications. When the different ministries design and update their qualifications it is their role to look into

⁽⁸²⁾ This could possibly change in the future, given the proposed amendment to the legislation which would make it compulsory for the CNCP to issue an opinion on all qualifications being registered in the RNCP.

existing qualifications of other ministries and social partners; it is considered a good practice that they do so. Therefore, duplication of qualifications among the different ministries is expected to be avoided through this mechanism and the CNCP has little means to act. For qualifications coming mainly from private providers, this mission is close to impossible. Most private business schools, engineering schools or arts schools provide fairly similar qualifications in description of their content and the professions they prepare for. In practice, the CNCP has no means to avoid this duplication and any action in this direction would be contrary to the idea of private school provision based on competition in the education and training market.

Further, the CNCP does not have the competence, nor the capacity, to ensure that qualifications from private providers in the framework are also awarded based on the description provided. CNCP verifies whether the qualifications description, as provided by the institution in charge, corresponds to the criteria of the register and whether the labour market insertion of graduates is in line with the intended professional profile. However, it cannot verify whether teaching and assessment are in line with the qualification description.

In Spain and Slovenia, the authority in charge of the register is also responsible for designing qualifications, through a collaborative process with other stakeholders. Therefore, there may be no explicit rules for the insertion in the register as it concerns qualifications designed by this institution only.

In a framework where all qualifications come from a large variety of institutions with very different practices, like the UK-QCF, the framework is designed to create consistency and coherence and to make sure that appropriate quality assurance is in place. This requires that all awarding bodies and qualifications (and units, as QCF is a unit based framework) are checked for compliance with the framework requirements and that this information is regularly updated. The framework regulator is expected not only to ensure that the framework criteria (in terms of design and quality assurance) are being described according to the requirements but also to avoid duplication in qualifications. As noted in Section 4.1.5., this was one of the reasons for reforming the previous UK NQF. This duplication is also to be avoided through the role of sectors' skills councils which have to approve vocational qualifications designed by different awarding bodies. However, in practice given the large number of awarding bodies (over 115), of qualifications and a far larger number of units, this task requires significant resources⁽⁸³⁾. An additional requirement of the QCF is that it expects the awarding bodies to identify

⁽⁸³⁾ For comparison, the CNCP has in the past three years examined around 300 qualifications that are registered 'on demand', i.e. not by the competent ministries, per year. See: Commission Nationale de la Certification Professionnelle, 2008.

units whether a unit is shared or restricted to the awarding body requesting registration on the QCF. Shared units can be used to contribute to other qualifications, even those of other awarding bodies. The awarding body should identify whether a shared unit similar to that they propose is not already available on the framework. This requires that the awarding bodies are willing to build qualifications using shared units ⁽⁸⁴⁾ and verify the existing offer to identify equivalence with other shared units. It also requires that the regulator (Ofqual) has a mechanism to check that if a unit is being proposed as restricted it applies the guidelines on restricted units ⁽⁸⁵⁾ and that the shared units are actually being shared and used to establish equivalence.

These observations indicate that if a framework or a credit system is expected to influence qualifications design and the qualifications offer, the institution in charge of the framework has to have:

- (a) the capacity (human and financial) to enforce the framework requirements; this was one of the difficulties of the previous South African framework, and why it never was properly implemented;
- (b) the credibility and legitimacy to impose rules on the other stakeholders/institutions;
- (c) the means to act in case the requirements are not being complied with in practice.

In addition to these regulatory aspects of qualifications frameworks and credit systems, there may be other softer means to influence the qualifications system. It may be done through guidelines and quality assurance but it may also be a 'positive externality' of the framework. The level descriptors in the framework would be used by the institutions designing qualifications because they would want to have their qualifications referenced at a certain level (reported as being the practice in Scotland). Where a framework relies on these softer ways of influencing qualifications design, it will require a certain level of trust and stakeholder 'buy-in' (see also Section 6.2.).

⁽⁸⁴⁾ Stratagia (2008) shows that there is resistance to this notion of shared units as awarding bodies are in competition among each other.

⁽⁸⁵⁾ The guidelines for designating units as shared or restricted (Ofqual, 2009) indicate that arguments put forward to justify restricted units should be based on one or more of these: experimental status of the unit, commercial confidentiality, sensitive content, professional practice.

Table 18. **The use of qualifications frameworks and credit systems to regulate how qualifications are designed**

Country	Active role of qualifications frameworks	Active role of credit systems	Other aspects of the qualifications system that regulate qualifications
Australia	<p>The Australian QF is not regulatory but is based on a set of guidelines on how qualifications are designed and awarded. It is the responsibility of state/territory institutions or accredited organisations to put these guidelines in practice. The AQF is underpinned by guidelines for each of the qualification titles in the framework. The guidelines identify broad descriptors in terms of learning outcomes for each qualification title. They also define the type of organisations competent to award the qualification title (e.g. the different states/territories, all universities), those competent for assessment as well as the pathways to access the qualification.</p> <p>The guidelines for VET qualifications define that these are based on competence units as described in the related training package.</p>	<p>The mechanism for credit transfer also relies on a set of guidelines. These concern the so-called 'qualification linkages' which define the amount of credit (not expressed in points) that it is recommended to transfer when a learner passes from one qualification title to another. These guidelines are indicative and more or less credit can be transferred.</p> <p>In VET, the training packages are an important instrument for both designing qualifications and recognising units across qualifications. The training packages describe the competence units and the qualifications within an occupational sector. The competence units are combined to form a qualification based on course rules which identify the core and optional units. The training packages also define the assessment requirements (assessment standards, assessors' qualifications, assessment strategies – methods). The training packages also define units from other sectors or for key competences to be used for each qualification.</p>	<p>The different state authorities, as well as the different subsystems, have their own regulations on design of qualifications; providers can have important autonomy. Only accredited institutions can design qualifications that use the AQF titles.</p>

Country	Active role of qualifications frameworks	Active role of credit systems	Other aspects of the qualifications system that regulate qualifications
Finland	Not known at this stage of the framework development.	<p>All VET qualifications are designed in terms of units that are subject to summative assessment and all HE qualifications are based on modules.</p> <p>The combination of vocational units within an initial VET qualification (75% of credit) is set in the national framework curriculum with some space for adaptation at local level (in the school curriculum). So are the core subjects (16% of credit – of which 3% are optional). The remaining credit is for learners to choose from within the scope of their institution offer (9% of credit).</p>	<p>VET qualifications are designed and updated by a single organisation in cooperation with social partners and experts. This ensures the coherence and consistency in how qualifications in the system are designed.</p>
France	<p>The QF regulates how qualifications that are awarded by bodies other than the competent ministries. The NQF has requirements regarding how these qualifications have to be designed in order to be referenced in the framework. This includes requirements on identification of occupations to which the qualification leads, justification of the relevance of the qualification for the labour market, insertion rate of prior graduates, added value of the qualification compared to the existing qualification offer, description of appropriate assessment, etc.</p>	<p>In VET the different ministries regulate how qualifications are broken down into units. The qualifications of the ministry of national education are in units, each unit subject to assessment. The ministry also identifies equivalences with units from other qualifications as well as with components of qualifications (or full qualifications) awarded by other ministries. Qualifications of the ministry in charge of employment (designed for adult learners) are composed of certificates of professional competence (each corresponds to one typical activity).</p> <p>In university higher education, qualifications are typically broken down to training modules (<i>unité de formation</i>).</p> <p>The 2002 legislation on modernising education and training introduces the requirement for all qualifications to be achievable by validation of NFIL. This has impact on how qualifications are designed and awarded.</p>	<p>The ministries that are competent to design qualifications have their own regulations on the design and award.</p> <p>Some level of consistency across the ministries is ensured through the structures of professional consultative commissions (<i>Commissions Professionnelles Consultatives</i>). These are established by the ministry in charge and in addition to employer and employee representatives of the sector/professional area concerned they include representatives of other ministries. This enables identification of linkages and certain coherence in description of qualifications, while avoiding overlaps.</p>

Country	Active role of qualifications frameworks	Active role of credit systems	Other aspects of the qualifications system that regulate qualifications
Germany	<p>It is not clear at this stage of the NQF development to what extent the framework will be regulatory.</p> <p>In HE the level descriptors are used as basis for review and design of new qualifications. Compliance with these descriptors is part of the accreditation process.</p>	<p>In VET: not clear at this stage of testing.</p> <p>In HE: all qualifications are based on modules which are subject to assessment and taught over a semester. The methods for description and division of qualifications into modules are up to the institution to decide.</p>	<p>For VET qualifications there are a number of rules and requirements depending on the subsystem. There is currently no common methodology and approach for designing, describing and awarding qualifications in VET. This is the competence of the Federal level, chambers and <i>Länder</i>, depending on the subsystem.</p>
Slovenia	<p>The framework is not expected to regulate how qualifications are designed and awarded. This function is fulfilled by the laws underpinning each qualifications subsystem.</p>	<p>Legislation on VET qualifications introduces the credit system in VET. It defines that all qualifications are broken down to units (though these are called modules in Slovenia). It also defines that training institutions should take into account credit achieved previously by the learner.</p> <p>For initial VET, the ministry of education defines the correspondence between units that are parts of different qualifications. It also defines the correspondence between units (or sets of units) and qualifications awarded after validation of NFIL.</p>	<p>Legislation underpinning each qualifications subsystem defines the criteria for how qualifications are designed and awarded⁽⁸⁶⁾. It defines the competences of different stakeholders with regard to these functions. The legislative framework is underpinned by several registers: the register of qualification standards, the register of qualification catalogues and the register of programmes.</p>
South Africa	<p>The revised (after 2009) South Africa NQF does not regulate the qualifications in terms of their design and award.</p> <p>The three subframeworks will ensure, through their quality assurance processes, that qualifications are at the appropriate level, that they are awarded following a valid and reliable assessment, etc.</p> <p>Note that the level descriptors for the revised framework have not yet been proposed.</p>	<p>Depending on the qualifications subsystem, qualifications may or may not be based on units.</p> <p>One of the objectives of the framework is to support credit transfer. However, there are no abiding requirements to transfer credit and it is fully the responsibility of providers.</p> <p>However, there is a 50% residency clause which states that a minimum of 50% of credit has to be achieved in the institution that awards the qualification.</p>	<p>The main qualification titles are underpinned by legislative requirements on their design (see for example Umalusi, 2006 and 2008; Department of Education, 2007).</p>

⁽⁸⁶⁾ See for example Zakon o poklicnem in strokovnem izobraževanju (2006) or Zakon o višjem strokovnem izobraževanju (2004).

Country	Active role of qualifications frameworks	Active role of credit systems	Other aspects of the qualifications system that regulate qualifications
<p>Spain</p>	<p>The extent to which the NQF will be regulatory is unclear at this stage. However the different qualifications subsystems are regulated by respective legislations and ministries.</p> <p>In VET, the five levels of the national register of VET qualifications are not currently used to design qualifications, only to describe their location within this structure.</p>	<p>Qualifications in the different VET subsystems (initial VET, continuing VET, training for the unemployed) are based on competence units that are part of the register of qualifications. Some transferability of units is possible. In other words, the competence units used to develop initial VET or continuing VET qualifications are the same. Transfer is also possible among qualifications within the same professional areas (e.g. between qualification for accountancy and audit management and public administration management). Units are given a specific code, allowing quick identification of common units.</p> <p>In HE, all qualifications are based on modules (corresponding to semester) but the institution decides what methods to employ in dividing qualifications into modules and describing them.</p> <p>The forthcoming legislation on validation will enable acquisition of qualifications through other routes than formal training. This is done through competence units in the register ⁽⁸⁷⁾.</p>	<p>The national register of professional qualifications creates an integrated qualifications system covering all types of vocational qualifications awarded by different ministries. It defines the main features of VET qualifications as well as the process through which these are designed.</p>

⁽⁸⁷⁾ See IFES and MTAS (2008)

Country	Active role of qualifications frameworks	Active role of credit systems	Other aspects of the qualifications system that regulate qualifications
UK – EWNI	<p>The UK QCF is a regulatory instrument. The framework is managed by a regulatory institution (Ofqual) which makes decisions concerning:</p> <ul style="list-style-type: none"> accreditation of awarding bodies; processes through which qualifications are referenced to the QCF; qualification criteria (structure, assessment and grading); subject criteria in terms of knowledge, skills and understanding that are common to several qualifications. 	<p>QCF is a unit-based framework. All qualifications have to be built on units that are accredited in the QCF databank. The rules of combination exist for each qualification and follow a standard format which specifies:</p> <ul style="list-style-type: none"> the mandatory units; the optional units; credit from other units in the databank (above the mandatory and optional units); credit from equivalent units; exemptions, etc. 	<p>The vocational qualifications reform (of which the QCF is an element) defines how qualifications should be designed in cooperation with the sector skills councils ⁽⁸⁸⁾.</p>
UK – Scotland	<p>The SCQF is not a regulatory framework, though it influences how qualifications are designed and awarded by providing guidance to those designing qualifications on use of level descriptors and credit. SCQF level descriptors are not designed to provide restrictive rules on the content of qualifications but rather as broad reference points to enable situating qualifications in the broader context of the Scottish qualifications system. Under the SCQF only specified bodies have the competence to reference qualifications to levels and to 'credit-rate' qualifications (decide on or approve the number of credit points allocated).</p>	<p>The credit system integrated in the SCQF does not regulate credit transfer. It is the competence of the different awarding bodies to decide on the transfer of credit towards qualifications.</p> <p>However, some qualifications are designed to 'articulate' with other qualifications in the same sector of education and training. This means that common units or mutual recognition of credit from one qualification to another is defined in the qualification standard.</p>	<p>The qualifications subsystems that the SCQF brings together are governed by the competent institutions in the sector. The Scottish Qualifications Authority is responsible for development, accreditation, assessment and certification of qualifications that fall under its remit. Though higher education institutions are autonomous in designing and awarding their qualifications, they comply with the quality criteria.</p>

⁽⁸⁸⁾ For more information, see the UK vocational qualifications reform on the website of the Learning and Skills Council: <http://qfr.lsc.gov.uk/ukvqrp/> [cited 30.3.2010].

6. Transfer, accumulation and progression

This study confirms previous research findings (see Section 4) that improved progression and portability of learner achievements are, together with greater coherence and better understanding of qualifications systems, among the core objectives of credit systems and qualifications frameworks. The second objective of improved legibility and coherence is considered as a condition for the first. Only if the different education and training systems develop instruments to make learning achievements transparent in a comparable manner, will learners be able to build on what they have already acquired. The 2006 study on credit transfer in Australia (PhillipsKPA and Department of Education, Science and Training, 2006a, p. 13) shows that differences in curriculum and qualification design are among the obstacles to credit transfer. If the differences are too important, identifying equivalence becomes time-consuming and hence costly. At the same time, this study also shows that the obstacles to credit transfer go beyond the issues of qualifications/ programme design.

This section examines strategies to ensure that credit systems and qualifications frameworks support transfer, accumulation and progression. Referring to the distinction made in the analytical framework, these strategies are the mechanisms underpinning credit systems and qualifications frameworks. It then considers the processes around qualifications frameworks and credit systems, arguing that these processes ensure that CS/QF are eventually used to enable learners to progress. Some general considerations on credit transfer and accumulation are outlined.

First, it should be established that these three types of arrangements do not necessarily go hand-in-hand:

- (a) transfer can be possible without progressive accumulation: training centres may have the autonomy to exempt learners coming from other institutions from parts of the programme without catering for, for example, drop-outs. This is typically possible if students change institution because of geographical mobility but remain within the same field of study/ vocational education and training;
- (b) accumulation may be possible with only limited opportunities for transfer. While learners may be given the opportunity to achieve units progressively, the use of these units for another qualification may be limited due to lack of credit arrangements;

- (c) progression is related to how qualifications at different levels permit passing from one level to another. It depends on issues such as decisions on access criteria but also articulation of the content of qualifications and programmes. It is possible to have progression opportunities (within a pathway) without having strong transfer or accumulation opportunities.

Second, quantitative evidence on the state of play of credit transfer and accumulation, or regarding the demand for these arrangements, is missing. While it is reasonable to suppose that certain target groups (namely adults, including drop-outs but also young people at risk of dropping out) would benefit from more flexible accumulative arrangements for achieving qualifications, it is unlikely that flexibility alone would be sufficient to make them reach a qualification. There are issues around learner support and motivation that credit arrangements do not address.

Finally, available evaluations of established frameworks or credit arrangements show that credit transfer remains rare and difficult even where credit systems, or the use of a common credit points convention, are in place.

Figures were found for Australia showing that, in the period 1995-2001, between 2.1% and 2.5% of VET students benefited from credit transfer (Bateman and Knight, 2003) which is less than the number of students benefiting from validation of non-formal and informal learning (around 4% in the same period) ⁽⁸⁹⁾.

The 2005 evaluation of the SCQF concluded that:

'In particular, with respect to the development of articulation and credit transfer arrangements between further education colleges and HE institutions, there was little evidence that SCQF had contributed much beyond providing a language and tools to underpin arrangements that would have usually been introduced in the absence of the SCQF' (Gallacher, 2005, p. 8).

The Australian study which analysed credit arrangements between VET and HE concludes that there is a rationale to leaving credit arrangements and related decisions to be dealt with at local or institutional level, while providing an enabling context:

'There is a potential policy inconsistency in the expectation for all institutions to embrace credit transfer equally when there is also a growing expectation for institutional diversity. Although it is reasonable to expect all institutions to have in place basic arrangements for credit transfer, a conclusion drawn by this study is that one element of diversity among

⁽⁸⁹⁾ In this study credit transfer is defined as: completion of the same subjects with another VET provider (known as 'mutual recognition' under the AQTF), or of equivalent subjects at another education or training institution such as some other VET provider, a higher education institution or a secondary school. Credit transfer arrangements can also encompass overseas courses or subjects (Bateman and Knight, 2003, p. 23).

higher education and VET institutions will increasingly lie in the degree to which some institutions embrace strategies for credit transfer, making these strategies an important platform for their branding and promotion' (PhillipsKPA and Department of Education, Science and Training, 2006a, p. 4).

6.1. Credit arrangements and qualifications frameworks as support mechanisms

This section analyses how credit arrangements and qualifications frameworks are expected to support transfer, accumulation and progression through:

- (a) design of pathways within a sector;
- (b) creation of pathways across sectors;
- (c) use of levels and common units.

6.1.1. Entrance and exit points, construction of pathways in education and training

Certain qualifications frameworks have a role in clarifying entrance and exit points in the qualifications system; they provide information on how a qualification can be achieved/ programme accessed, and the other qualifications or programmes to which the qualification gives access. In this respect, though the frameworks studied here are directly concerned with qualifications (as a final certified outcome of learning) and not with education and training pathways, they can be an instrument through which programmes leading to qualifications are articulated to create education and training pathways (related programmes that aid progression, see Section 3.2.6.). The Slovenian qualifications framework, for example, specifies typical ⁽⁹⁰⁾ access requirements for qualifications at each level.

The EHEA framework sets, as one of its requirements, that qualifications at the level of the first cycle give access to qualifications at the level of the second (which in turn give access to the third cycle). In addition to describing qualifications, it also creates a structure for progression. The EHEA framework implies a 'ladder' approach to progression which typically necessitates completion of a qualification at a lower level in order to progress to a higher level: this does not exclude the potential to gain access by validation of non-formal and informal learning). The right to access is guaranteed but not the admission, selection may be applied.

⁽⁹⁰⁾ These are formulated with regard to the formal education and training system but they do not exclude possibilities of access through routes such as validation of non-formal and informal learning.

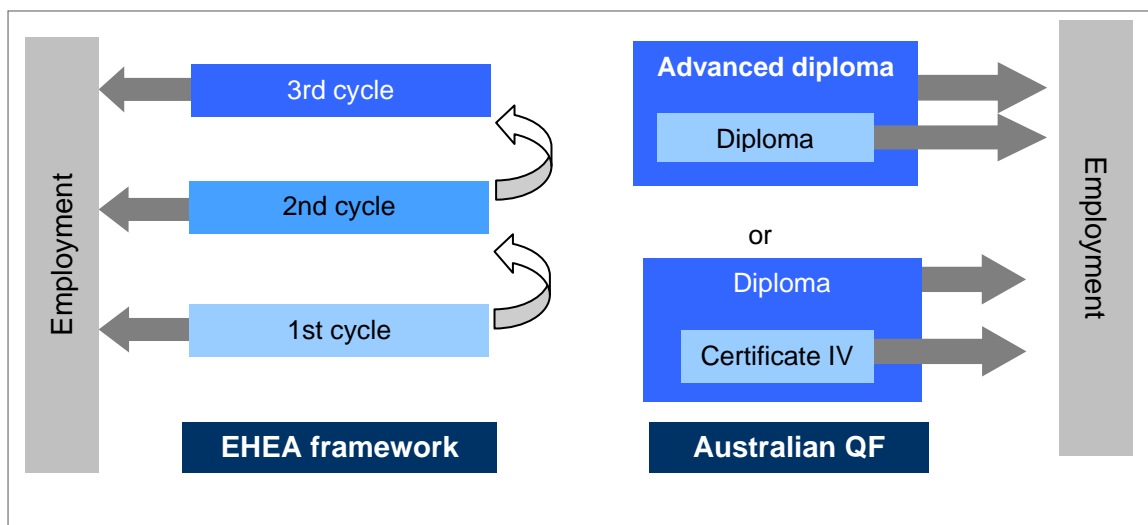
In other qualifications systems the right to access is not expressed by referring to the qualifications framework. Many systems had legislation in place regulating this aspect of progression prior to the development of the framework. In Germany (Cedefop, Hippach-Schneider, 2007), France or Finland the right to access programmes leading to qualifications in the (future) framework is set in legislation concerning the different qualification titles or education and training pathways. For example, in France the entrance to the *Brevet de Technicien Supérieur* (a tertiary vocational qualification) is possible after achieving any of the baccalaureate (upper-secondary leaving certificate). Achieving the *Brevet de Technicien Supérieur* gives learners the right to access a one year programme resulting in a vocational bachelor degree (*Licence Professionnelle*)⁽⁹¹⁾.

Some frameworks that cover sectors other than higher education do not imply this 'ladder-like' approach but promote construction of pathways with multiple entrance and exit points. Several countries (e.g. Australia, the UK-EWNI and UK-Scotland) have an approach where learners can enrol in a programme that prepares for more than one level of qualification. The programme can have multiple exit points, which correspond to summative assessments, and where learners can either decide to continue their studies further and achieve a higher level qualification or to exit and enter the labour market. In this approach, part of education and training is common to qualifications with different exit levels (see also below). Figure 1 illustrates the two approaches.

In Slovenia, the qualifications framework and the credit system are also used to enable the design of pathways within a specific field/professional area. The objective of these pathways is to enable young people or adults with lower level qualifications to have their credit transferred if they want to achieve higher level qualifications (mainly in VET). There are three levels of VET upper-secondary qualifications with different typical duration. The credit is transferred across pathways according to providers' decisions. Some modules for general education are identical and can be transferred easily. The transfer of credit for vocational components is decided not only on completion but also on the level of performance as expressed in grades. It is also possible to award partial qualifications (NVQs) if they did not succeed in achieving the full qualification. Equivalence between partial qualifications and units of qualifications is established when qualifications are designed. This offers a two-fold purpose: to enable learners who fail the full qualification to hold at least a partial qualification; and to aid accumulation for adult learners who achieve a partial qualification through validation and wish to achieve a full VET qualification.

⁽⁹¹⁾ Access to the programme is selective and hence the holders of the *Brevet de Technicien Supérieur* are not guaranteed admission.

Figure 1. **Illustration of the progression structures of the EHEA and the Australian qualifications framework**



In France, the provision of pathways in VET has a long tradition and qualifications are designed to enable learners to progress towards higher levels of related qualifications, including at tertiary level. It is possible, not only legally but also practically, to progress from the lowest level of qualification to a bachelor and even a master degree (in the same field or area of study). These pathways are also used and 37% of students who achieve a level V VET qualification progress towards a level IV VET qualification (of whom 86% succeed) and 13% progress towards a general education level IV qualification (Ministère de l'Éducation nationale, 2002, p. 22).

In all cases, construction of pathways across levels is supported by the coordination of qualification (and underlining programme) design. In some countries this is helped by the use of units-based qualifications. In Australian VET, qualifications (based on national standards) are often designed in pathways, with several qualifications at different levels preparing for professions in the same sector or area. The qualifications are designed so that they can be followed as a pathway (from lower to higher levels) but also so that they can be accessed from other pathways. This means that, for example, to access a certificate III in hairdressing it is not a formal requirement to have completed the Certificate II in hairdressing. If that has been the case, the units from the level II certificate are recognised as part of the Certificate III. However, entry to certificate IV is 'open to persons who can demonstrate competence in relevant units contained within the Certificate III in Hairdressing' ⁽⁹²⁾. This example shows

⁽⁹²⁾ See Certificate IV in hairdressing, National Training Information Service, <http://www.ntis.gov.au/Default.aspx?/trainingpackage/WRH06/qualification/WRH40106/rules>

that units can be transferred across levels and that they build on achievements in previous levels.

Creation of pathways also is quite common in higher education, for example across bachelor and master qualifications in the same field of study and within the same institution. These qualifications often build on prerequisites achieved at lower levels. To accommodate learners from other fields of study who do not have these prerequisites, higher education institutions may put in place specific programmes or modules.

Because designing pathways requires a coordinated approach to the design of qualifications (and programmes leading to them), this practice is much more common within systems or subsystems that have a centralised or sectoral approach to qualifications design.

6.1.2. Creation of pathways across education and training sectors

The above section discussed how qualifications frameworks and credit systems can be used to articulate qualifications and create pathways within an education and training system. Creation of pathways across education and training systems is often more complex. It involves coordination of actors with different approaches to qualifications design and possibly different orientation of qualifications in the importance given to, for example, skills and competence as compared to knowledge (for example Unwin et al., 2004, p. 32-33, for discussion on attempts to bridge vocation and academic qualifications).

The approaches to the design of pathways across education and training sectors can be clustered into these categories:

- (a) regulatory statements concerning the right to access;
- (b) development of 'bridging' qualifications;
- (c) unifying pathways;
- (d) voluntary arrangements based on demand.

6.1.2.1. Regulatory arrangements concerning the right to access

Independent of the existence of qualifications frameworks, several countries create pathways from VET to higher education by embedding the right to access HE in related legislation. Many European countries have legislation which stipulates that holders of the qualifications titles corresponding to upper-secondary leaving examination (all baccalaureates in France and initial VET in Finland) have the right to access HE programmes.

[cited 30.3.2010]. For more information see:
<http://www.ntis.gov.au/Default.aspx?/trainingpackage/WRH06> [cited 30.3.2010].

In Germany, the pathways across the VET subsystems and from VET to HE are diverse. Depending on the VET subsystem (the dual system, technical or VET secondary schools), qualifications from initial VET give access to either only universities of applied sciences (*Fachhochschulen*) or to certain fields of study in universities (BMBF, 2008, p. 14). There is also a recent (2009) decision of the Federal States Ministers' Conference (KMK) that, in principle, any advanced VET qualification (higher level of VET governed by chambers) gives access to HE ⁽⁹³⁾. Regarding transition from one VET subsystem to another, the 2005 Federal legislation on VET states that *Länder* can define:

- (a) whether one form of initial VET can be fully or partially recognised towards another form of initial VET programme;
- (b) whether the completion of a specific initial VET programme can lead to admission to the final examination for a dual qualification.

According to the survey of *Länder* undertaken in 2007 (KMK, 2007 and 2009), five *Länder* have put in place legislation concerning point (a), three were planning such legislation and three were developing it (out of 16). Only two have introduced legislation concerning point (b) and one was developing it. This demonstrates the relatively low take up of the KMK decision by the *Länder*.

Irrespective of the means through which access requirements are governed (equivalence, legislation, etc.) it is their transparency and clarity which are important to the learners.

Statistics on all the countries discussed show that passing from VET to HE is not common. In Germany only 7.8% of university entrants are from outside general education and, of these, only 2.5% are from VET schools (KMK and BMBF, 2008, p. 18). In France, 15.8% of holders of the technological baccalaureate and 5% of holders of the vocational baccalaureate enrol in universities (excluding the VET pathways in universities DUT: *Diplôme Universitaire de Technologie*) (Ministère de l'Éducation nationale and Ministère de l'Enseignement supérieur et de la Recherche, 2008, p. 201). Further, only 22% of the technological baccalaureate holders who enrol in universities achieve a bachelor degree after four years of study and only 7% of vocational baccalaureate holders do so (ibid., p. 205). In Finland, 7.3% of upper-secondary VET graduates continue directly towards HE studies; the majority these are in polytechnics. However, at 12.6%, the numbers of those enrolled in higher education three years after the upper-secondary leaving examination is higher (Statistics Finland).

⁽⁹³⁾ A previous KMK decision, in 2002, stated that up to 50% of credit from outside higher education could be recognised. However, all KMK decisions require adoption at *Länder* level and this varies greatly.

These data show that establishing the right to access through a regulation, related to a QF or not, is only one step in promoting progression across sectors. This approach alone does not address issues such as:

- (a) the match between learners' knowledge, skills and competence as acquired and certified by the VET qualifications and the expectations of HE institutions on their knowledge, skills and competence as expressed in the programme;
- (b) the openness of HE institutions to accept candidates from VET pathways where a selection process to higher education takes place;
- (c) learner motivation to pursue a HE track and their orientation towards such a pathway.

6.1.2.2. *Development of 'bridging' qualifications*

To provide employers with high level vocational competence, engage learners in higher levels of education and training and strengthen the professionalising aspects of higher education, some countries have introduced qualifications as a bridge between VET and HE. Examples that can be cited are foundation degrees in the UK or the *Licence professionnelle* (vocational bachelor degree) in France. In both examples these are qualifications that:

- (a) are at the level of higher education qualifications (level 2 of the French NQF, same as bachelor degrees, and level 5 of the UK-EWNI higher education framework, same as diplomas of higher education);
- (b) are open, in terms of access, to a variety of learners;
- (c) are developed and delivered by higher education institutions;
- (d) engage employers in the qualification design, as well as during phases of on-the-job learning.

In both countries these qualifications are relatively successful in attracting learners and recognition by employers. In France in 2006, *Licence professionnelle* constituted 18% of all bachelor qualifications awarded in that year (Ministère de l'Éducation nationale and Ministère de l'Enseignement supérieur et de la Recherche, 2008, p. 247). Foundation degrees in the UK experienced continuous growth in demand since their creation in 2000. This growth was 62% in the period 2002-03 and 2003-04, even though it seems that part of this demand results from transformation of existing programmes at the same level and cannot hence be accounted for as net increase in qualification level participation (Harvey, 2009, p. 5-6). In France, the labour market insertion of these graduates and their remuneration is better than for traditional bachelor graduates and also for graduates from shorter higher education VET qualifications at the same level of the French NQF (Giret, 2008, p. 60).

Interestingly in France, when designing a *Licence professionnelle*, the university has to demonstrate that it will be able to attract sufficient numbers of students to participate. Therefore, the university has to reflect on where the students will come from and this is mostly from a lower level VET tertiary qualification (*Brevet de Technicien Supérieur*). This means that the university is obliged to design the programme to fit these learners. Also, the interviewees noted that, where these qualifications are put in place, there is often close regional or local cooperation between universities and schools delivering the *Brevet de Technicien Supérieur* (Malan, 2004). The reason for this is that, as the classes leading to a *Licence professionnelle* are quite small (around 20-30 students) the university cannot afford to have permanent staff in a number of specialised areas. Therefore, it is common that these teachers come from VET schools while university staff deliver teaching for more generalist and theoretical subjects.

These approaches to improving progression across education and training systems are interesting in the context of this study, even though none is directly shaped by the existence of a qualifications framework or credit system in the country. These approaches show the importance of processes that underpin transfer, accumulation and progression in relation to aspects such as cooperation, buy-in of stakeholders or funding. As argued below, these are crucial if any established pathways are to be effectively used by learners and education and training institutions.

6.1.2.3. *Unifying pathways*

The Scottish example of the national qualifications subsystem is an approach to bridging VET and general education by creating a common, unit-based credit system for qualifications and curriculum design. It is based on multiple exit and entry points. The qualifications concern post-16 general and vocational education and training that is below the level of HE. As discussed by Raffe et al. (2007) the assumption behind this approach was that learners would be offered learning opportunities more adapted to their entry level and would be able to progress towards higher qualifications. The main principle is that schools would construct curricula using units at different levels, better adapting their offer to different target groups. This could combine both vocational and general education components with no formal distinction. The basis for this system is presented in more detail in Table 19.

A review of the achievement of the national qualifications in relation to progression and accumulation shows that the system did provide learners with education and training opportunities at the appropriate entry level; but did not

result in notable improvement in progression, as success rates at external assessment for courses remained constant (Raffe et al., 2007, p. 504).

Raffe et al. (2007) note that the take up of this system by colleges (delivering vocationally oriented education and training) was weaker than in schools. The difficulties identified relate to the strict design rules the national qualifications system implied, in terms of external assessment (considered not adapted for certain learners groups). These rules were also considered by colleges as lacking flexibility in adapting to demand from the market in which they operate.

The conclusions of this review highlight that flexible design of qualifications and pathways are one possible element to improve progression and to bring closer different education and training systems. Beyond such technical features of the system, important issues are:

- the suitability of design rules that should fit the needs of education and training institutions and the context in which they operate;
- the need for such instruments to be accompanied by appropriate pedagogy.

Table 19. **Example of the Scottish qualifications system that combines vocational and general post-16 education and training**

The national qualifications system is based on national units (40 hours of teaching time) which can be grouped into national courses. Units and courses can, in turn, be grouped into Scottish group awards, designed to be achieved within a year of full-time study.

Units are internally assessed but not graded. A course comprises three units (or the equivalent volume of half or double units) and a fourth credit which includes a graded external assessment.

The whole system is available at seven levels: access 1–3, intermediate 1–2, higher and advanced higher. Higher and advanced higher corresponded to existing qualifications; the levels beneath them were new but were designed to articulate with other existing qualifications.

The assumption was that the different levels of the frame would provide flexible entry points, accessible to everyone whatever their level of prior attainment: hence the subtitle *Opportunity for all*. Instead of having to choose between low-status modules and high-status but difficult ‘highers’ (qualifications taken prior to the reform), less-qualified 16 year-olds could study mainstream qualifications at an appropriate level. They could progress vertically and/or laterally, unimpeded by academic or vocational labels or other arbitrary distinctions. The climbing frame would also provide flexible exit points. ‘Higher still’ was designed as an open or flexible model of a unified system, in contrast to baccalaureate models proposed elsewhere.

Source: Raffe et al., 2007, p. 483-484.

6.1.2.4. *Voluntary arrangements based on demand*

The Australian and German examples suggest that voluntary and cooperative approaches to progression across systems (in particular VET-HE) are particularly successful if the broader context is favourable (for Germany see Loroff and Stamm-Riemer, 2006).

A strong impetus to put credit transfer and progression opportunities in place might also come from:

- (a) the needs of the community or of the industry (addressing skills shortages, responding to demand for skills and learning);
- (b) marketing strategies and approaches to attracting learners by HE institutions. In that context, credit transfer is understood in a very broad meaning concerning arrangements such as:
 - (i) exemption from programmes;
 - (ii) design of bridging programmes that are short and enable enrolment in a later phase of the programme;
 - (iii) articulation of qualifications and curricula between VET and HE which also qualifies to enter the HE programme at a later stage (PhillipsKPA and Department of Education, Science and Training, 2007c).

In Australia *'Internal and external drivers [to credit transfer] work together to provide a powerful influence in those institutions with a strong regional mission and which are located in an area where there is community, industry and government recognition of the importance of educational pathways for the social and economic development of the region'* (PhillipsKPA and Department of Education, Science and Training, 2007c, p. 104). In several countries studied (e.g. Australia, Germany, Scotland) the progression and transfer opportunities across systems are left at the discretion of education and training providers. These decide whether the credit or qualifications the learners have already achieved are suitable to access or receive exemption from programmes.

This illustrates the importance of a broader supportive environment to initiate, develop and use transition pathways. These build an innovation in many contexts and have to face obstacles such as resources necessary for development or institutional path-dependency (i.e. education and training institutions and staff wanting minimum changes to their existing practice). The availability of mechanisms that credit system and qualifications frameworks represent will not, on its own, necessarily result in improved progression, transfer and accumulation. The South African interviewees mentioned that, while both instruments qualification framework and credit arrangements were in place (i.e. the mechanisms were there for the actors to use) there was little credit transfer taking place across the country, not least because of the lack of education and training institution commitment to these instruments.

6.1.2.5. *Flexibility for providers to open up access*

Several countries use an approach (often in combination with some of the above) based on delegating competence on admission and exemption to the provider level. This is obvious in HE and is becoming more widespread in VET. Slovenia has recently (2006) embedded in its legislation the requirement for VET providers

to ensure that learner credit is fairly recognised. While there is no regulation of how much credit, etc., should be recognised, it is an obligation for providers to examine learners' previous achievement and grant them exemption from either the programme or the relevant assessment based on suitability of their credit. This is underpinned by the option for learners to appeal.

France, which has a centralised approach to assessment and admission requirements in VET, enables providers to make decisions on exemption from parts of programmes, based on evidence, through a procedure called *positionnement* (positioning). This enables providers to judge that the learner is capable of accessing the programme at a certain stage or directly accessing the assessment process. Further, validation of non-formal and informal learning can be used for access to programmes, exemption and recognition of qualifications or units. The use of such validation to open up pathways is becoming commonly available (i.e. enabled by legislation) but practice is still not widespread.

6.1.3. Levels for credit transfer, accumulation and progression arrangements

The section above discussed different strategies to aid individuals in upgrading qualifications or requalifying. Some of these approaches were directly related to the use of credit systems and qualifications frameworks, while others were not. Further, while some only concern efforts to improve progression, others also enable transfer and accumulation.

Qualifications frameworks are used to identify equivalence or articulation of learning outcomes in terms of level. This is enabled by, on the one hand, simple assignment of a level to qualifications (and their components) and, on the other, use of common terminology and templates to describe qualifications and their parts.

The use of levels for purposes of guiding transfer, accumulation and progression across the countries studied, varies. Finland, which has a relatively simple qualifications system, with established pathways and no dead-ends, currently does not envisage use of levels for this purpose. In Germany, the qualifications framework proposal clearly states its descriptive nature (*Arbeitskreis Deutscher Qualifikationsrahmen*, 2009) yet the Federal government is supporting initiatives to improve progression and permeability: the ANKOM initiative (BMBF, 2008) aims to recognise prior learning to shorten HE studies or the testing of a credit system in VET (DECVET) ⁽⁹⁴⁾. However, given the complex division of competences in education and training (see also Section 4.1.4.) and the importance of *Länder* and institutional decisions, the framework (which is a

⁽⁹⁴⁾ For more information see <http://www.decvet.net/> [cited 30.3.2010].

federal instrument) was designed to improve understanding, rather than to reform the system. Like other initiatives mentioned, the design of the German qualifications framework can be described as an incentive from Federal level to the main stakeholders, who will then make the use of it that best suits their needs.

In France, where the qualifications framework and a unit-based structure of qualifications have been in place for a longer period, levels are not particularly used for creating transfer and accumulation approaches. Only full qualifications have a level as French system qualifications, though based on units, are still conceived as an entity rather than as a sum of parts. The level of the qualification is related to the level of the occupation. Because partial qualifications are not possible, and are not recognised on the labour market, it is considered meaningless to speak about level of units. Though there are no 'partial qualifications' there are qualifications that could be described as 'top-up'. These are the *mention complémentaire* (complementary certificates) which are qualifications one can achieve to further specialise in an area (e.g. a waiter can get a bartender *mention complémentaire*). These can only be pursued if the main qualification to which they are attached has been achieved. They are always at the same level as the qualification to which they are attached. The reason for this is mainly the relationship between qualifications levels and collective agreements in France.

In the French system units can be transferred where equivalences have been established by the competent ministry and this, typically, exists only between qualifications at the same level. However, units can only be transferred if the learner has been awarded a full qualification and wants to prepare another qualification which has one or several units common to the qualification s/he already holds. It is currently not possible for someone who has not achieved the full qualification to transfer units to another qualification. If a learner in initial VET fails some units but achieves others ⁽⁹⁵⁾, s/he cannot automatically transfer these units to another qualification. However, if the person wished to continue in another area, other mechanisms, such as the *positionnement* mentioned above, are used to exempt them from a part of the pathway. It is possible to obtain only certain units through validation of NFIL (partial validation) but these are not recognised unless the rest of the qualification has also been achieved, for example through formal training.

⁽⁹⁵⁾ Assuming that s/he does not have a weighted average of grades that is higher than 10. A learner in initial VET who passes only some units but has a weighted average of grades higher than 10 still obtains the qualification thanks to the rule of compensation.

In other countries, like the UK-EWNI or Scotland, all units have a level for the qualification to be assigned a level, not all the units have to be at that level. In Scotland, certain qualification titles have specific rules regarding the combination of units with levels different from the level of the qualifications (e.g. higher national certificates are designed at level 7 of the framework and integrate at least 50% of credit at the same level). In the UK-EWNI at least 60% of credit in a qualification has to be at the level of the full qualification. In these systems it is possible for units to be transferred to qualifications at different levels, allowing design of pathways with multiple entry and exit points as discussed above. It enables integration of programmes leading to smaller lower-level qualifications into programmes leading to larger and higher-level qualifications.

Another example of a system where units can be transferred to levels other than that of the full qualification is Slovenia. Here, for example, units from the level 3 of VET qualification can be transferred towards a level 4 VET qualification within the same specialisation. However, this is achieved without level-rating all units in a qualification, as in Scotland or UK-EWNI. Units that lead to a qualification at level 3 are all considered to be at the same level. However because of the way the initial VET qualifications are built in a common approach to curriculum design, it is possible to exempt learners who have achieved a level 3 VET qualification from parts of the programme leading to a level 4 qualification. It is not the unit that is transferred per se but, based on a learner's achievement of the lower-level qualification, s/he can be guaranteed exemption. This transfer is, however, dependent on the decision of the training centre and may also take into account additional aspects such as the level of learner performance as expressed in grades.

6.1.4. Common units or modules in transfer, accumulation and progression

Most of the qualifications systems studied here enable recognition of certain units from one qualification to another. This may be done in different ways; the synthesis is presented in Table 20. For example, in the Spanish system certain competence units may be common to several qualifications within the same specialisation. However given that the units in the Spanish system represent large groups of learning outcomes (there are around four units in Spanish VET qualifications), this approach is not common.

The Australian VET system uses common units that are shared within a specialisation (see footnote (92) as an example in hairdressing), but it also uses 'imported units' that are from other specialisations (e.g. qualifications in hairdressing may also contain units from retail, business or health training

packages). In the Australian system the units are much smaller groups of learning outcomes (typically related to a single occupational task) and the qualification design is much more flexible (providing for a number of options) than in countries like Spain or France. In these, the qualification standard is often stringent, leaving little or no option for learners. The use of imported units is interesting as it recognises that there are transversal competences that are common also to qualifications which are not necessarily in the same economic sector. Many of these relate to entrepreneurship, including accounting, human resources, or health and safety.

The use of common units concerning key or general competences is quite wide-spread in qualifications at secondary-level VET. France, Slovenia and Finland all have units/modules of general education that are the same across all initial VET qualifications with the same title. These units ensure that the level of key competences in VET qualifications is constant and they also enable articulation with higher education.

The QCF is based on units and qualifications are built-up from units. The QCF is expected to promote use of existing units (in the QCF database) across different qualifications and by different awarding bodies. Therefore, all units entered in the QCF have to be designated as either shared or restricted. Shared units mean that the awarding body designing them puts them in the QCF database and these are available for other awarding bodies to develop their qualifications. Restricted units mean that the awarding body does not put them at the disposal of other awarding bodies. The use of restricted units is limited by certain criteria such as sensitive content (Ofqual, 2009). When designing a qualification, the awarding bodies are expected to identify existing units that are shared and could be used for the qualification they are developing, to avoid overlap. Awarding bodies are also encouraged to identify equivalent units, so the QCF register has to be searchable by units not only by qualifications. It also implies that the QCF regulator verifies that this rule of using shared units rather than creating new ones is being observed.

Another way of establishing links between qualifications using units is through equivalence. This does not mean that the unit is the same but that it is considered comparable and hence it can be transferred towards a qualification. In French VET, equivalent units can be identified across qualifications of the same qualifications awarding ministry and also when it comes to units from qualifications of other ministries. For example, it is not uncommon that the ministry of national education and the ministry of employment design and award qualifications preparing for a similar profession or at least in the same economic area. However, the qualifications from the two ministries differ with regard to their

target audience. While qualifications from the ministry of education are aimed mainly at young people (though not exclusively), qualifications from the ministry of employment are prepared by adults. The identification of equivalent units serves those who wish to requalify after having obtained a related qualification.

In France, equivalence between units of VET qualification is established during the qualifications design or review as part of the work of the tripartite committee (including employers and employee representatives) where other ministries that have competence in the economic sector concerned can participate. During this, work-related qualifications are analysed to identify commonalities. As noted by one of the interviewees, given that the different ministries do not share a common format for writing units and qualifications, this identification of equivalence is based on discussion concerning the knowledge, skills and competence concerned. The process is manageable when the number of awarding bodies is low but would become difficult in more fragmented systems.

Both approaches, designing common units and establishing equivalences, require processes, which ensure that, when a qualification or a unit is revised or renewed, the equivalence is still applicable or that the other qualifications sharing the unit can still use it.

Table 20. **Synthesis of the types of units for links across qualifications**

<p>Equivalent units – are units that are not identical but broadly comparable and acceptable for exemption</p> <p>Common units – are units that are designed to be components of several qualifications (e.g. general education units or units used where several options for specialisation are given)</p> <p>Imported units – in Australia this means units from another field or area that are used in a qualification (for example transversal units, such as accounting)</p> <p>Shared units – in UK (EWNI) this term means that those who design the unit put it at the disposal of other awarding bodies to use when designing their qualifications</p> <p>Restricted units – in UK (EWNI) this means that the unit can only be used by the awarding body who designed it</p>

6.1.5. Learners' record of achievement

Two of the countries studied (South Africa and UK-EWNI) are putting in place a highly sophisticated IT system that will record learners' achievements over time and across the different education and training institutions. This is expected to be used to facilitate learner credit transfer and accumulation. In UK-EWNI, the record will be able to inform the learner, as well as guidance or education and training staff, about his/her previous assessed learning as well as the

equivalences s/he is entitled to. This record will replace the various formats and individual documents previously issued by the awarding institutions.

These initiatives assume that:

- documentation of learner achievement is crucial for transferring credit;
- common formats and common templates will ensure that the same level of information is provided and that this is interpreted appropriately.

However, these records imply:

- (a) for systems, collection of information about qualifications at the level of units (this is the case in Spain or UK-EWNI but other qualifications frameworks based on repertories gather information at the level of qualifications, not units);
- (b) for the individual, collection of information about all credit achieved (learning that was positively assessed and can potentially be transferred and accumulated);
- (c) using a common template to describe units;
- (d) significant investment in an information management system, taking into account issues of data protection.

Further in many countries certain forms of records (though these may be diverse in their format across the country and related to each institution) are already well established. These are mainly used for formative purposes and guidance. The extent to which a single individualised record, which would require substantial investment, provides added value to the existing arrangements for student records remains unclear.

Note that not all qualifications frameworks are based on a single register; in Australia and Slovenia several registers are in place not using a common format. Some, like the two emerging frameworks in Finland and Germany, are not underpinned by such databases. Therefore, depending on the situation of the country with regard to the system already in place, investment in such records can bring about significant costs with regard to both the IT infrastructure itself and also the process of writing qualifications and units in the required format.

6.2. Strategic context of qualifications frameworks and credit arrangements

The analytical framework for this study identified that transfer and accumulation of credit, as supported by qualifications frameworks and credit systems, also rely on a series of processes. These processes are not specifically related to the technical mechanisms these instruments represent but are the result of the

complex structures of education and training and qualifications systems as well as of the relationship between qualifications and labour market stakeholders. Depending on characteristics such as those listed below, the different stakeholders will have more or less incentive to aid transfer, accumulation and progression.

The following quotation from one of the interviewees is appropriate to illustrate this analysis:

‘A qualifications framework is not about a set of levels and level descriptors. It is what these levels represent, how the stakeholders use them but also how the stakeholders engage with the process leading to putting qualifications in the framework that makes it a policy instrument.’

6.2.1. Processes underpinning qualifications frameworks

This feature of qualifications frameworks as platforms for dialogue has been highlighted by Keating (2003) with regard to the Australian qualifications framework, which is descriptive (its main function is to serve as an inventory) and based on guidelines, rather than requirements or regulations. Even though Keating regrets that this platform is not more open, he recognises that the framework enabled dialogue among the major players in education and training across the different sectors in the country. As also underlined by Coles (Cedefop, Coles and Oates, 2005), and noted in Section 3.3.1. of this report, the governance arrangements and dialogue they promote are as crucial to qualifications frameworks success as their technical features.

In this respect, qualifications frameworks can be a strategic platform for decisions among all parties concerned about the vision for qualifications within a country. This is the case with the French framework which is governed through a cooperative process among stakeholders including ministries, social partners and regions. In consequence, the framework only has a relatively ‘light’ administrative structure of its own but is supported by the infrastructure of the stakeholders involved.

The introduction of qualifications frameworks and credit systems often has as an objective to establish equivalence (or equity of esteem) between different forms of learning or qualifications subsystems. This is often the result of strong political direction which may, for example, aim to increase qualification levels by aiding progression. However, this has implications for the roles and influence of different stakeholders concerned. While certain stakeholders may benefit through this development, others will see their influence and role reduced. Such redistribution of powers may create resistance that could be counter-productive to the objectives of the instruments.

For example, referencing of qualifications that are in the hands of social partners in the framework may create tensions; they may want to see their qualifications placed on higher levels than those objectively identified through the level descriptors (as was the case with apprenticeships in Ireland). While such 'upgrading' of qualifications could undermine the trust in the framework, the non-inclusion of these qualifications which form an important part of the qualifications system in certain countries, could also result in lack of trust because the framework would be incomplete. In other countries, where levels of qualifications are closely related to wages, employers proposing qualifications may want to have their qualification downgraded.

The mechanisms on which qualifications frameworks are based are not necessarily in line with the interests of all stakeholders. For example, HE institutions may see the potential to have VET qualifications at higher levels alongside their own qualifications as competition. These differences of interests are illustrated by the UK example. The QCF approach to rationalisation of qualifications offer is, among other aspects, based on the use of shared units. However, awarding bodies, which compete among each other have little interest in putting their units at the disposal of other awarding bodies. According to one of the sector skills councils interviewed by Stratagia (2008, p. 76): 'The QCF is encouraging the proliferation of similar but different units'.

Closely related to the issue of costs outlined below, if the bureaucracy associated with referencing qualifications to the framework or transferring credit is high, bodies concerned may be discouraged from using this process or undertaking it properly. If the referencing to a framework is too rigid, and has too many constraints that are not in line with their education and training or awarding strategies, awarding bodies are unlikely to integrate their qualifications into the framework. This was the difficulty encountered with the previous UK-EWNI NQF as well as with the South African NQF. Yet the framework or the institutions which are competent to reference qualifications to the framework have to set certain minimum requirements. This means differentiating between what is and what is not acceptable for national recognition through the framework.

In a context where there is an significant number of awarding bodies which operate in market conditions it may be difficult for the institution in charge of the framework/credit system to enforce its requirements unless resources are deployed for control or inspection. For example, in UK-EWNI one objective of the QCF is to rationalise the number of qualifications offered to learners. The process that is designed to achieve this is as follows:

- (a) when designing units awarding bodies have to use standards of sector skills councils and the latter have to approve the units;

- (b) once approved by the sector skills council the awarding body may apply to register the units and the qualification in the QCF;
- (c) to be registered in the QCF, the awarding body itself has to satisfy certain quality assurance criteria and the units as well as the qualification have to be in line with the QCF regulations;
- (d) if the awarding body is quality assured and the qualification is designed according to the requirements, the regulator will reference the units and the qualification and accredit the awarding body.

However, the extent to which the regulator will be able to monitor overlap between this specific unit/qualification and those already in the framework remains unclear, as the large number of qualifications existing in the UK may render this task resource intensive. There is also little incentive in the qualifications market for awarding bodies to develop or utilise common units (Stratagia, 2006, p. 75-77).

6.2.2. Processes underpinning credit transfer

The processes identified by this study confirm the findings of the Australian review of credit transfer between VET and HE summarised in Table 21. These show that the aspects of transfer tackled directly by qualifications frameworks and credit systems, which are qualifications and curriculum design, are only one of the elements to be taken into account when designing policies and approaches to promote flexible learning pathways. That study showed that, while qualification and curriculum design are important in identification of equivalence, if the basis for comparison is too diverse in the two systems/institutions this process will be cumbersome. However, a common approach to qualification design does not yet promote transfer and progression. It does not create demand for progression, nor does it make institutions particularly more open to non-traditional learners. It simply facilitates the task of those who have decided to take this path in establishing rules for transfer, accumulation and progression.

Research into apprenticeship programmes in the UK and how these support progression to HE (FDF, 2008) also identified that qualification and programme design were only part of permeability support. It also noted obstacles related to issues such as:

- different expectations and requirements of funding authorities that so called 'progression' programmes have to meet;
- the fact that, even though articulation of progression arrangements for these qualifications/programmes is a requirement, this is often not translated into the content of the programme. Further awareness of these progression opportunities is low.

Table 21. **Drivers, enablers and impediments to credit transfer:
Australian review**

Drivers	Government policy and directions
	Efficiency and cost savings
	Competition for students
	Institutional mission: education and training institutions have different missions, values and goals which result in different attitudes to credit transfer
	Employer and student needs
	Convergence of VET and HE: inqualifications and curricula offered as well as the relationship with employers
Enablers	Leadership: credit transfer arrangements are successful if central to institutional vision
	Systems and processes that institutions have put in place to make credit transfer an integral part of admission and enrolment
	Mutual respect and commitment between VET and HE partners
	Information provision to prospective learners
	Transition support strategies to ensure that students are supported
Impediments	Funding and accountability of the sectors
	Attitudes and culture
	Administrative issues such as timetabling, reporting requirements, length and structures of study periods and study modules, course approval processes, student categories and methods of calculating student load, to the timing of assessment and reporting
	Curriculum and qualification design: structure and description as well as assessment approaches
	Assessment: the use of non-graded assessment in the VET sector
	Lack of resources: credit transfer arrangements are a burden on resources because of the need for a commitment of people, time and systems development.

Source: PhillipsKPA and Department of Education, Science and Training, 2006a, p. 3-5.

Examples of processes identified as barriers or enables to transfer, accumulation and progression in this study are:

- (a) the modes of financing and the hidden costs of transferring learning outcomes for providers;
- (b) the level of bureaucracy involved;
- (c) the lack of motivation for cooperation among providers or awarding bodies;
- (d) the capacity of competent institutions to enforce the requirements of the QF/CS;
- (e) implications in terms of power and labour market recognition.

Recognising learning from other contexts (through credit transfer or validation of NFIL) implies shortening of or even exemption from training

programmes; this is one of the main goals of instruments that promote recognition. The underpinning rationale is that such shortening of programmes (or exemption) is cost-efficient for both the individual who spends less time in training and for the system since fewer (often public) resources are used to train the person. However, the environment in which education and training providers operate may actually sometimes be quite the opposite. In systems where providers are funded per capita or where they are directly paid by student fees, the providers may have little incentive to shorten programmes as this will (a) result in fewer resources for them; (b) possibly create additional costs because they may have to examine how much credit is suitable to be transferred, design an individualised training plan, and provide more flexible forms of teaching. It is important that countries which wish to promote credit transfer also take into account this aspect of provider motivation and incentives.

If credit transfer is to become a mainstream aspect of education and training pathways (rather than an ad-hoc arrangement) agreements should be reached among the institutions. Where common units or equivalences are not embedded in qualification standards, the transfer of credit often depends on the decision of education and training providers. For example, in countries where it is possible to transfer credit from post-secondary VET to HE, universities often make the choice concerning the part of credit that can be transferred. In cases where universities see this as an opportunity to recruit additional students they may be in favour of entering into agreement with post-secondary VET providers and both can use this argument as a selling point to attract more students. Where institutions are in competition and target the same audience, the contrary may be the case.

6.2.3. Stakeholders and their interests

What may initially look like a simple exercise of labelling existing qualifications with a level indication, actually involves a large number of players and touches on fundamental definitions/understandings that underpin the qualifications systems (e.g. what is a qualification?). The interests of those involved in qualifications frameworks include:

- (a) making sure that systematic use of certain principles is made when designing and awarding qualifications;
- (b) maintaining or revisiting how qualifications levels are linked to occupational and wage structures;
- (c) entering or preserving a market for designing certain qualifications;
- (d) understanding the qualifications system for making better informed choices.

The main actors are awarding bodies and education and training institutions who are interested in attracting students ⁽⁹⁶⁾. Those who have most interest in promoting credit transfer and accumulation are learners and the state: as a funding authority but also as an entity with a clear role in enhancing the human capital of the population.

The issues at stake and the interests of stakeholders in the two instruments are not the same. A qualifications framework is closely related to the use that is made of qualifications within the education and training system, in the labour market and the understanding of what is a qualification in a given country. It is, therefore, a strategic instrument, allowing a number of issues to crystallise around the role of qualifications and the related division of powers and competence. Compared to a qualifications framework, credit systems are 'grass-root' instruments mainly related to the interest (or absence) of awarding bodies and education and training institutions in enhancing their attractiveness and that of learners claiming recognition for their work:

- (a) employers have a clear interest in qualifications frameworks as they use qualifications in recruitment and relate the level of qualifications to wage structures. Their interest in credit systems is less clear and primarily concerns their role as education and training providers (in certain subsystems) or as funders of education and training;
- (b) education and training institutions are the core players in credit systems. They decide on transfer and accumulation (based on rules set by awarding bodies or the qualifications system) while their role in qualifications frameworks is more marginal;
- (c) learners are the immediate beneficiaries of credit systems while the benefits of qualifications frameworks for this target group are less immediate. The transparency which frameworks provide is mainly used by guidance staff who can, with this information, better advise the learners;
- (d) while qualifications frameworks governance raises questions of legitimacy and capacity to bridge the interests of all parties involved, the management of credit systems is local and bottom-up.

This analysis shows that, while the mechanisms of qualifications frameworks and credit systems are related, both concern issues of qualification design and award. Their design and implementation are based on processes that are quite different. They engage stakeholders with different interests and, even if the same stakeholders are concerned, their position with regard to qualifications framework or credit systems is likely to differ.

⁽⁹⁶⁾ Not all education and training providers are interested in attracting greater numbers of learners. Some have sufficient demand for their programmes without any use of credit arrangements.

7. Integration of qualifications frameworks and credit systems

The analysis revealed that there are different ways in which credit systems and qualifications frameworks can relate to each other. Though it is possible to cluster these approaches into certain categories (see below) the different models are not so much a result of a decision to develop a certain approach but rather an evolution of the systems in place. They are deeply embedded in the national/system contexts in which they operate. One aspect that seems important in shaping credit systems and qualifications frameworks is the governance arrangements for the qualifications systems in place as well as the relationships and the tensions among actors involved (and potentially the number of actors concerned). Further, the extent to which the two instruments result in more or fewer opportunities for transfer and accumulation of learning and for progression is largely dependent upon a number of other external and contextual factors, including the level of trust and existence of strong drivers. Also of relevance is the difference between the purposes of putting credits and qualifications frameworks in place and the uses the players in the system will make of these instruments (see Section 5). Learners, education and training institutions, awarding bodies or employers have different concerns and motivations from ministries or qualifications authorities. These should not be underestimated when designing and implementing instruments, to avoid setting expectations too high.

With these considerations in mind, this section presents the different cases of relating qualifications frameworks and credit systems. The analysis below also reflects on the advantages and disadvantages of these approaches from the point of view of the organisation of the qualifications systems. However these advantages and disadvantages (but particularly the disadvantages), should be considered with caution as they are not necessarily perceived as such by the specific countries studied. These countries may have other mechanisms or instruments correcting these possible shortcomings.

One of the objectives of this study is to analyse the different possible levels of integration between credit systems and qualifications frameworks. In cases where integration is weak, the term 'coordination' is more appropriate. However, where integration is strong it is perhaps better to see it as 'incorporation'. The different cases studied can be clustered into:

(a) no formal integration;

- (b) integration based on the passive role of frameworks and credit conventions;
- (c) integration based on the active role of frameworks and credit systems.

7.1. No formal integration

Certain countries have, or are developing, qualifications frameworks and credit systems as separate instruments (e.g. France, Slovenia and Finland, but also Australia in the pre-2009 version of the framework). This is typically the case where the two instruments serve different purposes or do not concern the whole qualifications system.

France uses the qualifications framework, on the one hand, to categorise qualifications according to their function in the labour market (i.e. the level of occupation they lead to) and, on the other hand, to recognise qualifications issued outside public education and training. It uses a unit-based organisation of qualifications to structure the assessment process (enable progressive assessment) and aid validation of non-formal and informal learning.

Finland envisages using the qualifications framework mainly as an instrument to improve understanding of Finnish qualifications abroad. The credit system in VET is a tool to design curricula and manage learners' pathways by enabling learners to select options ⁽⁹⁷⁾.

In Australia, the qualifications framework, as it exists in 2009, is mainly a quality assurance instrument, consisting of guidelines for issuing qualifications and a register of authorities and institutions. Different credit arrangements exist across the qualifications subsystems in Australia, oriented towards different goals and based on different principles. Units are extensively used in VET and are the basis for constructing qualifications. Credit transfers between VET and HE are articulated around different means such as ad-hoc decisions on exemptions, structured arrangements between institutions, or validation of non-formal and informal learning. Higher education uses credit principally as a programme management instrument.

The lack of formal integration means that the two instruments are governed independently and that one is not dependent on the other; qualifications have to use neither a credit points convention to measure volume of learning nor a unit/module based structure to be included in the framework. The qualifications

⁽⁹⁷⁾ The interviewees noted that there is a willingness to make sure that the qualifications framework supports accumulation and recognition of credit in the future. However, this is not yet the reality as the framework is in the process of being designed and it still remains to be seen how it will be used.

framework creates common understanding (and possibly rules) and greater transparency at the level of qualifications but not with regard to their components. Transfer, accumulation and progression are not necessarily organised around the explicit expression of the level of learning outcomes but are governed through equivalences (based on the consensus of actors involved), rules on access and exemption, validation of non-formal and informal learning and, possibly, institutional cooperation and autonomy.

The main advantage of this approach is its flexibility with regard to the different subsystems. It creates a common framework but leaves aspects of qualification design (whether or not to use units or modules, openness or tightness of standards with regard to what learning can be transferred and accumulated, etc.) to the subsystems, their needs and traditions. It also makes governance of the qualifications framework simpler by reducing the number of requirements to control. Further, it imposes less change on existing systems and arrangements for qualifications design.

There are disadvantages to this approach. First, it does not enable a common understanding of the volume of learning involved. However such a common approach to measuring volume can exist by convention (i.e. without a common regulation). In Finland, before ECTS was introduced, both HE and VET used a common approach to calculating credit points, though both systems are the competence of a single ministry in Finland. Similarly, in Slovenia, the measure for one credit point is the same across the different sectors.

The approach also does not demand creation of bridges/pathways across the subsystems or qualifications within a subsystem. This does not mean that such links are not being created but only that this is not made compulsory for the authorities involved. Subsystems or education and training institutions may still have arrangements, such as common units or recognition of credit in place.

Finally, it does not require a common approach to qualifications design and does not guarantee recognition of credit by use and accumulation of common components.

7.2. **Integration based on the passive role of qualifications frameworks and a common credit points convention**

In the countries surveyed the qualifications frameworks use a measure of volume, as expressed in terms of credit points, as one of their criteria for describing qualifications. This means that there is a common set of levels and a

common approach to indicating the volume of learning, both used across the system. In these countries the main purpose of integration is to create a common approach to describing qualifications with regard to both dimensions: the dimension of level and of size. In addition to the objectives of the qualifications framework, which may be diverse (see Section 4.1.4), the coordination of the framework requirements with a measure of volume of learning ensures a common expression of the size of qualifications and their components (if they use components) across the whole system. It also implies that those designing qualifications should reflect on the volume of learning in a qualification in the same manner across the systems. At the same time, the issue of whether and how qualifications are broken down remains decided at the level of qualification subsystems, or even institutions, depending on the system.

The extent to which credit transfer, accumulation and progression are organised around the use of levels depends on the different subsystems. Further, countries falling into this category use mainly voluntary approaches to transferring credit, even though some subsystems may be more regulated than others.

Examples of frameworks that fall into this category are the Scottish credit and qualifications framework (though some of its subframeworks are further integrated), the South African framework in its reformed version or the evolution of the Australian framework (based on the 2009 proposal). The EHEA framework also falls under this category of integration.

These frameworks enable the existence of varying tight rules regarding qualifications design and transfer, accumulation and progression at the level of subsystems. This approach allows space for different approaches to qualifications design and structures in the subsystems. Its main advantages are:

- a common approach to providing key information about qualifications (level and volume);
- it does not require the collection and verification of units information at the level of the main system; this may be done at the level of subsystems. As in all frameworks, the appropriate rating of the level of qualifications has to be ensured but, in addition, an appropriate estimation of the volume of qualifications is necessary.

There are disadvantages to this approach. It does not improve qualifications design coherence further than a qualifications framework does alone (without being related to credit arrangements). Each subsystem has its own rules regarding the design of qualifications as well as its own templates for the description of their components. At the same time, many qualifications frameworks that fall into this category do not have greater coherence of

qualifications design among their objectives. Further, as discussed in Section 6, the lack of coherence of qualifications design is only one of a number of impediments in enabling credit transfer and consequent accumulation.

A second disadvantage is that it does not provide a guarantee for learners that their prior achievements will be recognised, as it is based on voluntary arrangements. However other policies or guidelines to enable recognition of learning can be in place, such as a system for validating non-formal and informal learning or guidelines and principles on credit transfer.

7.3. Integration based on the active role of qualifications frameworks and credit systems

In this case, the qualifications framework and credit system are integrated to create a common approach to design and award of qualifications. This means that the integrated framework requires qualifications to be based on units and sets rules to design and describe units. It also uses rules in which units can be combined in view of a qualification. Qualifications are built up from units which are allocated a level and have a value in terms of credit points: if units are common to several qualifications this value does not vary from qualification to qualification. The shared use of units, and the need to create equivalence, results in opportunities for automatic recognition.

This approach requires collection of information at the level of units and verification whether units comply with the criteria of the framework.

Because qualifications are built up from units (rather than units being built down from qualifications) this system requires the existence of rules on accumulation. In the systems described in Section 7.2. the qualification standard – which can be more or less loose – is the basis for accumulation.

Examples of integration based on the active role of credit and frameworks concepts are:

- (a) the South African framework before its reform; this was designed as a unit-based framework, though it did not specifically promote the use of units across qualifications;
- (b) the UK-EWNI QCF; this has units as its main building blocks and qualifications are built up from units. Each qualification is based on rules following which units are accumulated. The framework specifies that for a qualification at a certain level, a minimum 50% of credit has to be at the level of the qualification;

- (c) the Scottish subsystem of higher national qualifications. These are also built-up from units and clear procedures and templates for designing and describing units are in place (SQA, 2006).

Besides the previous South African framework, the other two frameworks identified as falling into this category do not relate to the whole qualifications system in a country but only its subsystem(s). The QCF does not concern the main higher education qualifications. Higher national qualifications in Scotland are mainly qualifications awarded by colleges and in further education.

The main advantages of this type of approach are:

- (a) all qualifications in the system(s) are designed and described following the same requirements and are more coherent across subsystems; though this can be an advantage if coherence of qualification design is considered as an objective, it can also constrain the subsystems and be considered as a disadvantage⁽⁹⁸⁾;
- (b) the common approach to describing and designing qualification allows units from different qualifications/subsystems to be used automatically to contribute to the design of other qualifications. The underlying idea is that this would avoid overlap in the qualifications offer (i.e. a unit concerning accounting for SMEs can be used for a number of qualifications that typically prepare for SMEs);
- (c) learner credit from other qualifications/subsystems can be more easily recognised. This is enabled by the use of common units but also because the design principles for qualifications are the same. However, aspects other than qualification design are crucial in driving as well as hindering transfer and accumulation.

The following difficulties with this approach could be observed:

- (a) depending on the situation the qualifications system is in when this type of integrated framework is introduced, this approach may potentially require significant review and rewriting of qualifications. It is likely to necessitate substantial reform of the system;
- (b) this approach relies heavily on systematic quality assurance not only of qualifications but also at the level of units. Depending on the number of authorities empowered to design qualifications and units in the subsystem(s) concerned, this approach may require significant resources to ensure that the process is appropriately carried out;

⁽⁹⁸⁾ Raffe (2007) for example identified that, while the qualification and programme design and award features of the Higher Still reform in Scotland suited general education, these were less suited to vocational education and training delivery.

- (c) if all the subsystems are to comply, this approach requires a great deal of regulation and, consequently, significant resources. It also requires an institution with the legal capacity and legitimacy to enforce the requirements.

7.4. Synthesis

The main differences between the three approaches relate to:

- (a) the extent to which qualifications in the system are described or constructed following the same rules and requirements;
- (b) the complexity of governance arrangements required to administer the framework and the extent to which the system is regulated;
- (c) the facility with which learners' prior formal learning that has been assessed can be recognised because it is presented in an identical manner across the system. This is related to the first aspect of qualification design and description.

Table 22 presents a synthesis of the different types of integration between qualifications frameworks and credit systems.

Table 22. **Synthesis of the implications of the different levels of integration**

	Qualifications description/ construction	Transfer and accumulation arrangements	Governance/ administration of the framework	Change required for a future closer integration
No integration	Left to subsystems, their needs and traditions	Depending on subsystems and institutional policies	QF/CA have separate governance/ administration arrangements – possibly not the same institutions	Possibly low (depending on the status quo) – incremental
Integration around passive role of qualifications frameworks/ credit conventions	Qualifications level and volume described in the same way	As above but aided by a common description of level and volume	Coordination of QF/CA governance. Requires joint governance of level allocation and volume calculation	Medium
Integration around active role of qualifications frameworks/ credit systems	Qualifications and their components are designed in the same way	Aided by common design of qualifications - can be regulated to a certain extent Other obstacles remain	Single QF/CA governance. Information is collected, standardised and searchable at the level of units	Possibly high (requires significant restructuring of qualifications)

Figures 2 and 3 illustrate graphically the differences between the three types of integration.

Figure 2. **The three levels of integration according to the complexity of governance and level of change required**

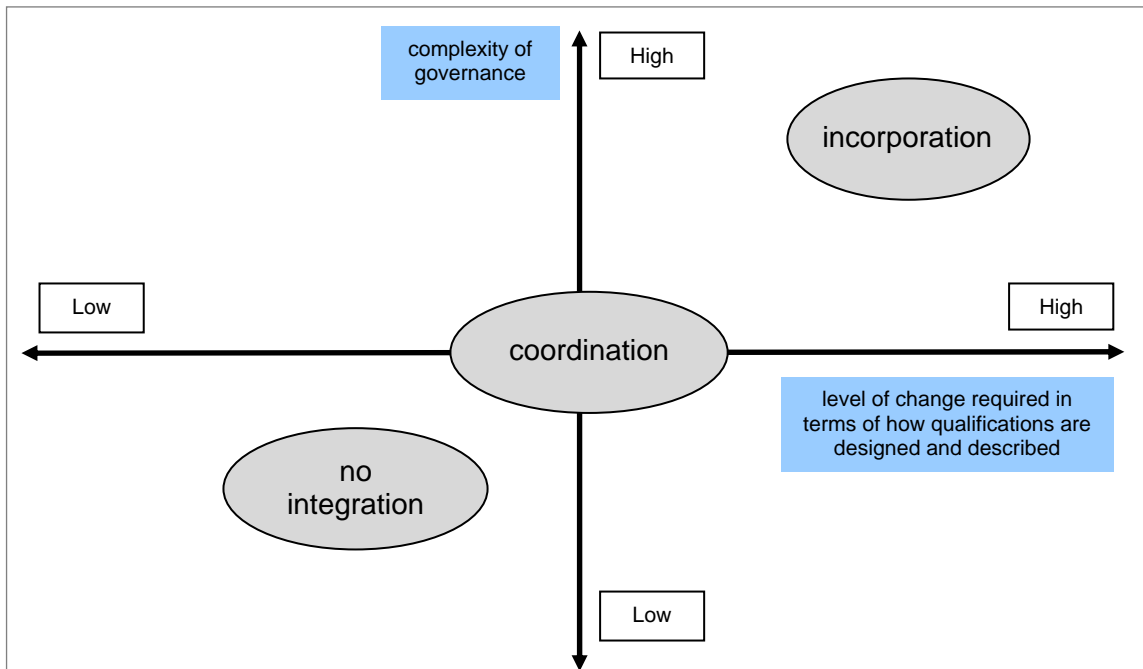
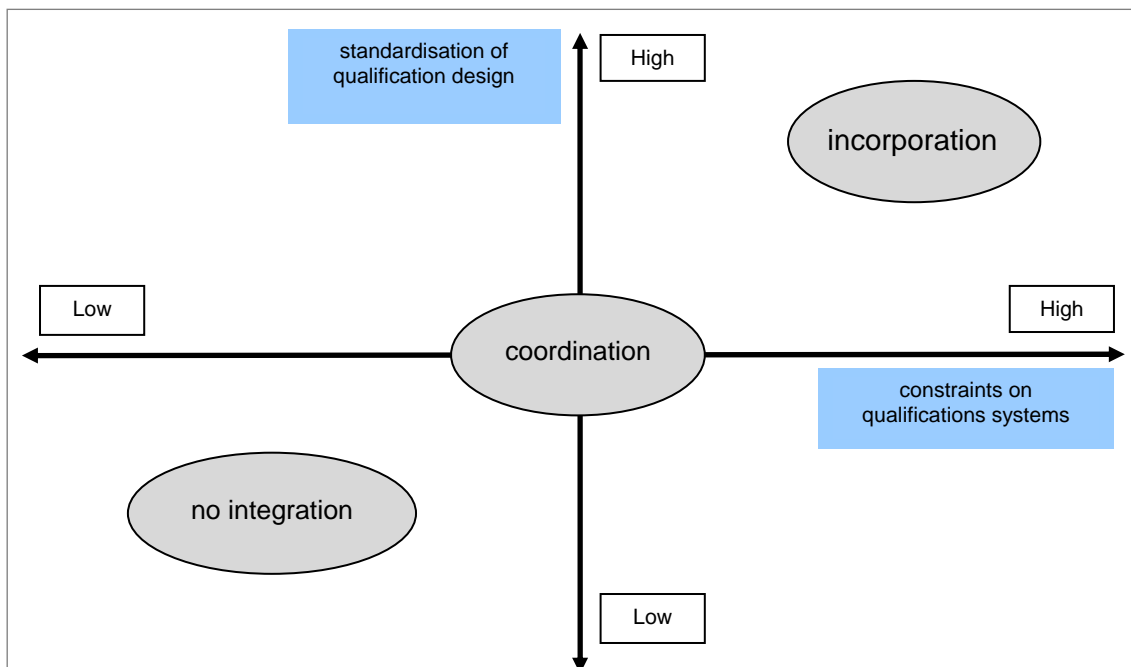


Figure 3. **The three levels of integration according to standardisation of qualification design and level of change required**



Based on the analysis in Sections 4 and 5 of this report it appears that the level of integration of credit arrangements and qualifications frameworks does not necessarily impact on the degree of 'openness' of the qualifications system (in terms of progression pathways for learners). Qualifications frameworks 'organise' the system according to a set of agreed criteria. Using units/modules as the basis for qualifications structure clearly helps permeability (Besson, 2008; PhillipsKPA and Department of Education, Science and Training, 2006c) between different subsystems as well as the flexibility of provision and progressive nature of qualification achievement. However, it is not clear whether the integration of a unit-based structure into a single framework provides clear added value. Any statement on this issue would have to be carefully weighed against the status quo context in the country with regard to aspects such as:

- (a) the level of complexity of the existing system (number of subsystems and their governance);
- (b) the level of trust and cooperation in the system;
- (c) the motivations and drivers of different stakeholders;
- (d) the feasibility and affordability of the options considered in terms of the level of change and governance requirements.

In terms of system 'openness', countries are using other means, such as validation of previous (formal, non-formal and informal) learning, opening up of admission criteria or providers' autonomy to help learners to pass from one system to another or to progress.

To date, there is no evidence that any of the levels of integration performs better in encouraging learners' progress towards higher levels of qualifications. The review of the Scottish national qualifications by Raffe (2007) identified that, while a framework which is integrated around the active role of credit arrangements and qualifications frameworks and based on common design and award rules can succeed in providing education and training that is more adapted to the level of learners, it did not lead to higher achievement rates. The Australian review of credit transfer approaches (PhillipsKPA and Department of Education, Science and Training, 2007a,b,c) showed that the design of qualification is only one aspect hindering recognition of learner credits from elsewhere. Further, it highlighted the importance of external drivers that encourage institutions to accept learners from non-traditional backgrounds and give them exemption or otherwise recognise their previous learning.

Integration of qualifications frameworks and credit arrangements will mainly impact education and training provision and the qualifications offer, for example by structuring assessment in a certain manner, assisting tailor-made programmes, and supporting double certification. To support learners

progression towards higher levels of knowledge, skills and competence, a number of other aspects need to be considered:

- approaches to motivate people to return to learning and raise their aspirations (so that they can benefit from the flexibility offered);
- accompanying measures to prevent failure and dropping out;
- appropriate pedagogy adapted to the variety of learning style.

7.5. Implementation issues in qualifications framework and credit arrangements

Section 3.3. of this report highlighted the objectives of credit arrangements and qualifications frameworks as identified in previous research. The analysis of national situations confirmed that these are present as the main policy goals in countries studied. However, as described in Section 4.1.5. on qualifications frameworks under review, certain countries encountered difficulties in meeting these objectives. This section considers the evidence from the study interviews and the available literature to highlight certain issues of implementation of these instruments.

7.5.1. Transparency, proliferation and coherence

While the structure of levels and the measure of volume (where used) renders the qualifications system more globally legible, it is not always clear whether this makes the individual qualifications more understandable for the learner or employer in practice.

The recent evaluation report for the Prime Minister on the validation of NFIL in France (VAE) (Besson, 2008) suggests the qualifications offer remains confusing to validation candidates, mainly due to the extensive number of qualifications available: 5 500 were included in the Register as of 2008 and this number excludes a large number of HE qualifications (Commission Nationale de la Certification Professionnelle, 2008a). This multitude of qualifications may result in learners making wrong decisions and having the potential negative effect of dropping out of the system. The creation of an instrument such as the register of qualifications is a step forward in making the qualifications offer more easily accessible through one single channel. However, it is not an instrument that will necessarily rationalise the offer; it may have the opposite impact of promoting to the 'public domain' 'niche' qualifications awarded by private providers to only small numbers of people. The difference may not be evident to the learner or the employer.

The same remains true in UK-EWNI. The previous framework (see also Section 4.1.5.) resulted in the compilation of over 3 000 qualifications (not all of which were updated) and led to recognition of over 100 awarding bodies. The UK vocational qualifications reform, which revises the way in which vocational qualifications are to be designed in cooperation with the sector skills councils was undertaken to ensure that publicly funded qualifications offered are relevant for the labour market. However as shown by the Stratagia (2008) report this process of qualifications approval by sector skills councils remains ad-hoc in many sectors and there is inconsistency from one sector to another. Further, the PriceWaterhouseCoopers (2005) review of the UK market for qualifications shows that awarding bodies develop their offer mainly in response to government policies and targets, employer demand being a significant factor only for awarding bodies or qualifications outside the qualifications framework. The same report also highlighted the confusing character of fragmented education and training offer for learners: *'too many qualifications within the same sectors led to widespread confusion, reinforced by a lack of understanding of what the different levels of qualifications actually meant'* (PriceWaterhouseCoopers, 2005, p. 2).

This raises questions about the openness of qualifications frameworks. If they are open and demand-led (subject to meeting technical specifications and quality standards) this is likely to encourage the proliferation of more qualifications being entered to the framework.

It is not clear if the learner and employer benefit, since there is a tension in having choice between openness, full transparency and exhaustive vision of all that is offered 'on the market' and the clarity of options provided.

Describing qualifications using learning outcomes in a way that would be common across education and training is a lengthy process. The interviews reveal that even in systems where use of learning outcomes is relatively well established, different qualifications systems or professional sectors may have different understanding of certain concepts as well as different traditions regarding the description of their qualifications. In countries where the use of learning outcomes is still relatively new, this continues to be work in progress even though the introduction of EQF and the Bologna process have brought new dynamics. Countries are now undertaking consultation about their qualifications systems and moving towards defining what was previously implicit. In this context, qualifications frameworks and credit systems may introduce templates or standard items that qualifications descriptions must cover, though these may not solve the difficulty of reaching a clear/common understanding. To identify overlaps and possible connections (common units or equivalences) a dialogue among experts (awarding bodies, employers and education and training

institutions) often takes place. Here, the involvement of experts who are knowledgeable about the different qualifications in the occupational field, is more conclusive than regulations to written descriptions. However, this requires engagement and resources for the dialogue to take place.

7.5.2. Governance of frameworks and credit systems

Difficulties with the governance of the South African framework (see also Section 4.1.5.) and the accompanying bureaucracy were among the reasons for failure of the pre-reform arrangements (SAQA, 2009, p. 34). In contrast, the non-bureaucratic and dialogue-based governance of the Australian (Keating, 2003) or Scottish (Raffe, 2007b) frameworks are considered as reasons for success in these two countries. Such a dialogue-based approach in these countries is possible because the subsystems concerned are already organised and regulated.

If the qualifications framework is open it requires procedures and decisions for qualifications to be entered in it. These can be based on trust in the competence of organisations in charge of this arrangement (e.g. Australia, Scotland and partly France for qualifications of competent ministries) or on regulation regarding requirements for organisations and individual qualifications (and possibly units). The level of control, the detail of aspects to be verified as well as the associated quality assurance will make the system become more or less bureaucratic.

Further, the legitimacy and the capacity to act of authorities in charge of managing qualifications frameworks and credit systems, if these require central management, needs to be in line with the framework/credit system objectives. Frameworks/systems based on guidelines and principles necessitate buy-in and trust of other partners as well as cooperation and dialogue. Systems based on regulation require an authority with the capacity to enforce regulation. Another development regarding governance of qualifications frameworks or systems across Europe is the need for countries to make a decision on a single body that will represent the system with regard to EQF.

Coles and Oates (in Cedefop, Coles and Oates, 2005) already highlighted the role the governance aspect of qualifications frameworks has in developing trust. The process can obviously also be an inverse spiral, as in the case of South Africa.

Related to governance are aspects of administration, monitoring and maintenance. Most existing frameworks are based on one, or at most a limited number of, registers. Keeping these registers up to date is among the key issues if the framework is to provide updated information to learners and employers. The

existence of large numbers of outdated qualifications in the previous UK NQF was also among the issues of concern prior to its review (see also Section 4.1.5.). This requires that appropriated processes are in place; for example, the French framework only records qualifications from outside the ministries for a limited number of years. These processes become more complex if the level of information collected relates to units, rather than qualifications. Not only are there more items which have to be updated but also, in a system where the same units are used across several qualifications, their updating has implications for a greater range of qualifications.

8. European tools for education and training: possible evolutions

The context for the development of European tools for lifelong learning is described in Section 2 on the European context. This section outlines some options for a common approach to qualifications frameworks and credit systems between VET and HE at European level. It is based on analysis of the existing European tools and the drivers behind them, plus consultation with a small group of experts.

Caveat: as with any scenario, these should be taken as a stimulating reflection on alternative options of the existing instruments rather than a forecast of their development; there is no claim for them to be predictions. This study describes the scenarios and outlines briefly their advantages and disadvantages. However, the scenarios are not compared in terms of their likelihood or their added value. For this, a more in-depth assessment of the impact of these developments would be needed in the future.

Table 23 summarises the intervention logic behind the four European tools (EQF, ECVET, ECTS and the EHEA framework). Intervention logic⁽⁹⁹⁾ is a logic model which relates the general, specific and operational objectives of the instrument, with the inputs (human, financial, material or regulatory resources) and the expected products (outputs, outcomes and impacts). Intervention logics are commonly used in policy or programme evaluations, which is not the goal of this study. Here the intervention logics of the four tools were presented to enable identification and visualisation of their differences and commonalities in three respects: objectives, inputs and products. Their analysis in terms of intervention logics also makes obvious that these European tools clearly have a twofold logic: European benefits and impacts are expected but the tools are also intended to have a stimulation effect for reforms and developments at national level. Further, the realisation of their European objectives at is dependent on how they are used/implemented at national level.

Table 24 presents the foreseen evolution of these four tools based on the plans in the Bologna process and the recommendations concerning ECVET and EQF (European Parliament and European Council, 2008 and 2009). The

⁽⁹⁹⁾ See for example the European Commission's online resource 'Evalsed' at: http://ec.europa.eu/regional_policy/sources/docgener/evaluation/evalsed/index_en.htm [cited 31.3.2010].

highlighting in bold text indicates that these aspects are already in place and evolution has not been anticipated so far.

Reflections on the future of these instruments should also consider the difference in their geographical coverage. While EQF and ECVET relate directly to 32 countries (EU-27, EEA and the candidate countries), even though the interest in EQF goes beyond this geographical zone, the Bologna process (EHEA framework and ECTS) is being applied in 46 countries.

Table 23. Intervention logics of the existing tools

Tools	General objectives	Specific and operational objectives	Inputs/means	Expected outputs	Expected outcomes	Expected impacts	
EOF	EU level	To facilitate mobility of workers To facilitate mobility of learners To enhance qualification attainment of the EU population	To improve transparency, comparability and portability of citizens' qualifications	Structure of eight levels open to different pathways Common vocabulary Learning outcomes based descriptors Procedure for referencing to the EQF EQF advisory group EQF coordination points ESF and lifelong learning programme financing to support national reforms	Referencing of NQF/NQS to the EQF Network of national coordination points Availability of transparent information on qualifications levels across Europe	Mutual trust among national institutions in charge of recognising qualifications	Improved conditions for mobility
	National level	To aid access to lifelong learning To promote participation in lifelong learning To modernise education and training systems	To improve relationship between education, training and employment To build bridges between formal, non-formal and informal learning	National reforms and structures (note that, in principle, country participation in EQF does not require change at national level): <ul style="list-style-type: none"> • use of learning outcomes • validation mechanisms • quality assurance 	Transparent structure of qualifications systems related to the EQF Qualifications based on and described in learning outcomes Qualification documents issued with the EQF level indicated	Increased cooperation among education and training sectors Stronger focus on achieving knowledge, skills and competence in certification procedures Improved basis for validating NFIL	Greater openness of qualifications systems and subsystems Increased qualification achievement of the population Improved quality of qualifications
ECVET	EU level	To aid mobility of learners in VET	To aid recognition of periods of VET spent abroad To improve portability of qualifications	Common specifications for credit transfer in VET (units, assessment, validation and recognition, partnership) Common principles for quantification of credit ECVET network Financing through the LLL programme	European partnerships for credit transfer in VET involving all types of stakeholders (training centres, employers, etc.)	Increase in take-up of mobility programmes in VET Development of longer periods of mobility in VET	Internationalisation of VET

Tools		General objectives	Specific and operational objectives	Inputs/means	Expected outputs	Expected outcomes	Expected impacts
ECVET	National level	To enable development of more flexible individual learning paths To aid portability in learning outcomes within a country To foster internationalisation of education and training	To aid recognition of parts of VET qualifications from other systems, other qualifications or other institutions To aid recognition of non-formal and informal learning	National reforms that support accumulation of learning outcomes such as: <ul style="list-style-type: none"> • modularisation or unitisation of qualifications • use of continuing assessment • validation mechanisms 	Use of units to structure qualifications or parts of qualifications in view of mobility	Possibilities for credit transfer across qualifications systems and between qualifications Further development of validation of non-formal and informal learning (using units)	Improved access to qualifications Improved conditions for re-qualification Increased qualification attainment of the population
	European level	To improve recognition of HE qualifications world-wide To improve comparability of HE qualifications worldwide To enhance internationalisation of European HE (attractiveness to learners worldwide)	To align HE qualifications systems with a structure of three cycles To align the expected outcomes of higher education qualifications	Common structure of three levels Common vocabulary Learning outcomes based descriptors NQF development roadmap Network of Bologna promoters	Verification of NQF or qualifications types compatibility with the Bologna framework	Uniform structure of HE qualifications (First – including short, Second and Third cycle)	Improved conditions for mobility
EHEA Framework	National level	To strengthen quality assurance of HE qualifications	To revise HE programmes making sure they respond to the learning outcomes descriptors in qualifications frameworks	National reforms and institutional changes (note that the EHEA framework requires changes in national structures)	HE-NQF and related accreditation criteria and procedures Creation of new qualifications where shorter cycle qualifications did not exist	Review of HE programmes using learning outcomes based descriptors Improved possibilities for HE students to change pathways between bachelor and master degrees	Improved access to higher education Improved quality of higher education
	European level	To aid mobility of HE students (especially international mobility)	To aid transfer and accumulation of credits To feed into a recognition process	Common principles for quantification of credit Requirement to use ECTS as part of HE qualifications frameworks Request to use ECTS to participate in Erasmus Network of ECTS counsellors and Bologna promoters	Use of ECTS to support recognition of learning outcomes Development of joint degrees (international curriculum development)	Recognition of periods spent abroad	Greater attractiveness of European higher education
ECTS	European level	To aid mobility of HE students (especially international mobility)	To aid transfer and accumulation of credits To feed into a recognition process	Common principles for quantification of credit Requirement to use ECTS as part of HE qualifications frameworks Request to use ECTS to participate in Erasmus Network of ECTS counsellors and Bologna promoters	Use of ECTS to support recognition of learning outcomes Development of joint degrees (international curriculum development)	Recognition of periods spent abroad	Greater attractiveness of European higher education
	National level	To improve opportunities to transfer credit across institutions/ programmes To enable accumulation of credit	To improve flexibility of HE programmes To strengthen cooperation between different institutions and departments	National reforms and institutional changes	Modularisation of programmes	Creation of pathways and links across disciplines and departments	Improved access and possibilities to develop individualised pathways

Table 24. **Implementation of the four instruments by 2020 based on currently anticipated plans**

	EQF	ECVET	EHEA framework	ECTS
European level	As in 2009: structure of eight levels and learning outcomes descriptors. Countries have referenced their NQFs/NQS to the EQF.	As in 2009: common principles for credit transfer. Link with ECTS established.	As in 2009: structure of three cycles based on learning outcomes descriptors. Countries have verified that their HE qualification types or NQFs are compatible with Bologna descriptors.	As in 2009: common principles for credit transfer. Link with ECVET established.
	Coverage: EU-27 + (*)	Coverage: EU-27 + (*)	Bologna – 46 countries	Bologna – 46 countries
European level institutional set-up	Uncertainty: EQF advisory body with its mandate revised in 2013.	Uncertainty: ECVET network. Partnerships among competent institutions established.	Uncertainty: Inter-ministerial cooperation supported by the Bologna Follow-up group.	Uncertainty: Bologna promoters and ECTS counsellor networks. Partnerships among HE institutions established.
	Main actors at EU level: ministries for education and training.	Main actors at EU level: ministries and representatives of VET providers, social partners, and competent institutions.	Main actors at EU level: ministries in cooperation with HE institutions.	Main actors at EU level: HE institutions.
National level	NQFs implemented in all EU countries. Qualifications defined and described using learning outcomes. Qualifications documents issued to learners mention the EQF level.	Greater use of units for design of qualifications – units are subject to assessment and can be accumulated and transferred. ECVET points used to describe qualifications and units.	HE qualifications are compatible with the Bologna framework descriptors.	Qualifications are modularised. Modules are assessed and can be accumulated and transferred. ECTS points describe qualifications and modules.
National level institutional set-up	National coordination points guarantee the referencing process and its transparency and provide guidance on how NQFs and qualifications relate to EQF.	Competent institutions are responsible for accumulation and transfer of credit.	National quality assurance and accreditation bodies/agencies ensure that HE qualifications are compatible with the Bologna descriptors.	In some cases ECTS is a requirement for accreditation. HE institutions are responsible for transfer and accumulation of credit using ECTS.

* EEA and candidate countries.

8.1. Drivers for change

As shown in Tables 23 and 24, the four tools are currently designed and managed as separate instruments. However, certain commonalities already exist:

- (a) ECVET and EQF share certain key definitions (qualification, learning outcomes) and principles (explicit openness to validation of non-formal and informal learning, importance of assessment);
- (b) ECTS has been revised (more exactly, the users' guide has been revised) to take greater account of the learning outcomes approach in HE as well as the design of qualifications frameworks;
- (c) EQF is compatible with the EHEA framework as its descriptors for levels six, seven and eight are compatible with, though much broader than, the EHEA descriptors. At the same time, EQF also enables qualifications from outside HE to be referenced at those levels;
- (d) ECVET and ECTS use the same credit points convention (one year of formal learning equals 60 credit points).

Below are aspects or possible evolutions which could bring in further change to the four tools and thus support greater convergence:

- (a) many European countries are designing a single qualifications framework (Cedefop, 2009e) that covers all HE, VET and general education qualifications (possibly others); having two frameworks at European level could become confusing;
- (b) development of VET at higher levels, greater orientation of HE qualifications towards employability, integration of work-placements and greater use of validation of non-formal and informal learning could further blur the (already ambiguous) distinction between VET and HE (Cedefop, Dunkel and Le Mouillour, 2009);
- (c) a decrease in 'traditional' demand for HE placements (students graduating from general upper-secondary education), the demographic evolution could encourage HE institutions to recruit VET learners and create better understanding and relationships between HE and VET at upper-secondary level;
- (d) strengthening of the international dimension (beyond Europe) of qualifications frameworks and credit arrangements. The political willingness to attract foreign students and to make European education and training the world standard could become stronger and emphasise the external dimension of these EU instruments;
- (e) development of an international market for students in VET (linked to the above). Already existing in HE and clearly supporting developments in

qualifications frameworks and credit arrangements (see for example the rationale of Finland in adopting a qualifications framework) an international market could also develop for VET students (most likely at higher level as there are additional difficulties regarding exchanges of younger learners).

The two European instruments governed by the Commission (EQF and ECVET) have planned dates for reporting to the European Council and the Parliament and their review (2013 and 2014).

8.2. Enablers of change

Enablers are understood to be aspects directly concerning the four tools that can be decided at European level and which can change their nature in the direction of more or less convergence. These are:

- the principles, definitions and terminology of qualifications frameworks and credit arrangements;
- the governance and institutional set-up to support implementation and monitor progress, at European level.

The European tools all have the character of meta-instruments, which serve as voluntary communication tools among the more detailed instruments at national or institutional level. They have a passive role in enabling a common description of European qualifications systems according to common criteria.

At the same time, European principles and definitions are already actively shaping the design of national instruments. For example, countries developing qualifications frameworks are looking to existing EQF descriptors for inspiration and the notion of credit was largely introduced through ECTS to higher education across Europe. The active 'power' of these instruments is greater when there is no existing national alternative. In such cases, concepts and terminology are more likely to be directly adapted or slightly modified, although there is a great amount of debate on the taxonomy of knowledge, skills and competence as proposed by the EQF and the concept of competence as developed in many countries and skills.

This active influence is not through regulation but only through guidelines. This is assumed to remain the same across the scenarios considered. In other words, the scenarios were designed with the current decision-making processes and European Commission competences in mind.

European policy-making in education and training is based on the principle of cooperation and mutual learning. This voluntary character of EU policies may prove powerful in shaping national decisions to a certain extent, as in the rapid

development of qualifications frameworks across Europe parallel to the EQF. However, European pressure sometimes results in half-hearted adoption of measures for compliance rather than for reform. The review of the Bologna process indicates that countries and HE institutions comply with the formal requirements, putting three cycles in place or adopting ECTS, but the level of change these imply is variable (EUA, 2005, 2007; ESU, 2009).

The evaluation of the OMC in employment shows that:

- (a) the OMC works as soft coordination instrument (see the example of the *Integrated guidelines for growth and jobs* (European Commission, 2005b)) and has an incremental impact on national reform agendas;
- (b) it does not work by triggering national reform through peer or public pressure; the related recommendations and indicators may be used to enhance legitimacy of actions taken if the political reform climate is favourable;
- (c) it works because it is based on framing policy issues in a consensual way by identifying and analysing challenges, setting targets and indicators, sharing a logic model on what works and what does not and developing an agreement on what constitutes good practice (Eureval and Ramboll Management, 2008).

The latter aspects are discussed below with regard to governance of the European instruments.

8.2.1. Common principles, definitions and terminology

One of the mechanisms through which qualifications frameworks and credit arrangements actively influence qualification design and the design of learning pathways is agreeing and formalising key terminology and concepts.

At European level, this aspect is crucial. Explanation of concepts and principles on credit transfer and accumulation form the major part of European developments on ECVET as well as ECTS as formulated in the ECVET recommendation (European Parliament and European Council, 2009) and the ECTS users' guide (European Commission, 2009). The EQF recommendation (European Parliament and European Council, 2008) also contains a number of definitions that mark an evolution in the way qualifications are considered across Europe. While the European directive on recognition of professional qualifications (Directive 2005/36/EC) is based on a more traditional vision of qualifications as outcomes of a formal education and training process, the EQF recommendation

considers qualifications as an outcome of an assessment process which takes place against an explicit standard ⁽¹⁰⁰⁾.

In terms of number of levels and the credit points convention, the four tools are already converging. The EQF embeds ⁽¹⁰¹⁾ the three cycle structure of higher education and it is highly unlikely that an extra level would be introduced between levels five to eight. The two credit tools are already based on the same convention regarding credit points.

In the scenarios described below, the evolution of terminology and of concepts used could bring the four tools closer. The terminology was used as one of the axes to formulate the scenarios. The scenarios represent options where either the diversity of meanings (see Table 4) is maintained or a common language is used.

8.2.2. Governance of the European instruments

The European tools are designed and implemented through the OMC and the principles of cooperation and mutual learning. Another factor that influences their implementation is the European funding available through the lifelong learning programme (mainly in the 'external' logic of these tools as related to mobility) but also through the European Social Fund (mainly in the 'internal' logic for strengthening of lifelong learning systems).

Currently the governance of these European tools is strictly sectoral. The EQF advisory group is mainly oriented towards VET (though it has some representatives from qualifications authorities that cover all sectors and has representatives from the Bologna process). Therefore, the existing governance structures provide very few incentives for cross-sectoral work.

These structures currently exist:

- (a) EQF advisory group with a mandate to ensure transparency and coherence in the use of the European framework, as well as to support the process of relating qualifications systems to the EQF;
- (b) EHEA framework is governed by the Bologna Secretariat, the Council of Europe and the coordination group on qualifications frameworks which provides information on the state of play of countries' self-certification;

⁽¹⁰⁰⁾ This definition reflects the thinking that the same qualification can be achieved through different learning processes.

⁽¹⁰¹⁾ EQF embeds the three cycles, but is broader.

- (c) ECTS is promoted through a network of ECTS counsellors who carry out visits to institutions implementing ECTS ⁽¹⁰²⁾, with special focus on those that want to apply for an ECTS label (see below).

The ECVET governance arrangements will comprise a two-level structure: a users' group with representatives from all Member States and a much broader network formed of VET providers, employers' representatives, awarding bodies, etc. They start operating in 2010.

The current governance structures bring together mainly ministries in qualifications frameworks but also have (are anticipated to have) a bottom up structure for credit systems. The ECTS counsellors are staff members of different HE institutions ⁽¹⁰³⁾. ECVET pilot projects currently bring together a broad range of stakeholders: these include education and training providers, employer representatives (as competent institutions for certain qualifications), sectoral organisations, VET research centres (with a role in developing qualifications) and ministries.

The following additional stimuli exist:

- (a) 'ECTS is a condition for participation in Erasmus mobility exchanges. The introduction of ECTS is rated as one of the most important measures of the Erasmus programme (coming second after the mobility action) by higher education institutions' (CHEPS, INCHER-Kassel and Ecotec, 2008, p. 101);
- (b) HE institutions can apply for an ECTS label which gives them international visibility. The ECTS label is granted to institutions that demonstrate excellence in applying ECTS ⁽¹⁰⁴⁾;
- (c) the European Social Fund can finance development of national qualifications frameworks ⁽¹⁰⁵⁾;
- (d) the lifelong learning programme finances pilot projects to test EQF and ECVET.

The governance approach to all four tools is, therefore, mainly concerned with production of common guidelines and their dissemination (in line with the 'consensual framing' of issues noted above) and with provision of financial stimuli.

⁽¹⁰²⁾ See: EACEA – Education, Audiovisual and Culture Executive Agency. *Erasmus programme*. Available from Internet: http://eacea.ec.europa.eu/llp/erasmus/erasmus_en.htm#ectsds [cited 25.10.2009].

⁽¹⁰³⁾ See: European Commission: ECTS counsellors. Available from Internet: <http://ec.europa.eu/education/lifelong-learning-policy/doc/ectscounts.pdf> [cited 25.10.2009].

⁽¹⁰⁴⁾ In 2009 23 higher education institutions obtained the label (see: http://eacea.ec.europa.eu/llp/projects/2009/documents/ects_successful_applicants_callforproposals2009.pdf) [cited 30.3.2010].

⁽¹⁰⁵⁾ See: European Commission. *Education and Training in the European Social Fund 2007-2013*. Available from Internet: http://ec.europa.eu/employment_social/esf/docs/tp_education_en.pdf [cited 25.10.2009].

There is currently no governance mechanism that would enable national monitoring of the implementation of the four tools and their evaluation, feedback and review their use at national and institutional levels ⁽¹⁰⁶⁾. The only element of governance that involves aspects of review is the ECTS label, awarded after the institutional use of ECTS has been evaluated by external experts. Further, the existing governance arrangements are not transparent. Information on the existence and the work of the EQF advisory group is not available to the wider public. Information on the governance of the EHEA framework is also not easily identifiable and very little information is available on the role of ECTS counsellors.

Therefore, the second axis alongside which the possible scenarios have been developed is governance. The scenarios reflect that governance could either remain the same as currently anticipated, meaning that it will be predominantly concerned with the 'consensual framing' of issues, or that it could be strengthened to include elements of national evaluation and feedback.

8.3. Options for development

Based on the analysis of the above 'enablers' three main scenarios were identified:

- (a) status quo;
- (b) two instruments: a single qualifications framework (concepts and governance shared) and a single set of credit guidelines (concepts and governance shared) (with a 'two minus' alternative);
- (c) a single integrated instrument.

The three scenarios, according to the 'enablers' identified, are presented in Figure 4. Each scenario is then discussed in terms of its nature and its possible impacts.

The time scale taken to analyse the scenarios is 2020. The main reasons for selecting this date are that:

- 2014 is the date for the European Commission report on ECVET to the European Parliament and Council; the date is 2013 for EQF implementation;
- the open-method of coordination in education and training and the current approach to governance are planned until 2020;
- the ministers in charge of HE established their priorities for the European HE area until 2020.

⁽¹⁰⁶⁾ Provisions for European monitoring and possible review of EQF and ECVET are foreseen in the respective recommendations. Cedefop started its monitoring activities at the end of 2009.

The context, in terms of certainties and uncertainties over the evolution of these instruments by the given time-line is described below.

Starting with uncertainties, there are many unknown factors that will shape the evolution of the four instruments. First is whether the instruments will become embedded in national legislations. The ECTS was legally adopted in many EU countries. Rather than using it as a meta-instrument, many countries have adopted it as their national system. Such use of European instruments would make them more difficult to evolve from EU level. For example, the heated discussions around the updating of the ECTS user's guide demonstrated the attachment countries place on the use of the system as a measure/indication of workload (as this is how it was integrated in many legislations, see Annex 5 of European Commission, 2009).

Next is the extent to which ECVET will be used in 10 years time. ECTS implementation was strongly supported by its integration in the Erasmus programme; integration of ECVET in the Leonardo programme is foreseen. Further, it is unclear what impact ECVET would have if the mobility modalities under Leonardo remain the same. The current levels of VET mobility are lower than when ECTS was introduced in Erasmus, adjusting for the fact that when ECTS was introduced only 18 countries were participating ⁽¹⁰⁷⁾. The Leonardo programme mainly supports only short periods of mobility (few weeks) which makes acquisition and recognition of full units of learning outcomes difficult.

There is also the extent to which countries will see the benefits of referencing separately to the EHEA framework and EQF. The two instruments are not identical but countries may find two processes redundant and bureaucratic. Another question is whether the governance structures in place will be suitable for meeting the objectives of these instruments and also for addressing challenges arising.

The use of these instruments will show which of their aspects are most used and for what purposes are they used. These may not be the same as those for which the instruments were originally designed. For example, EQF might gain a much stronger international dimension which could actually bring the higher

⁽¹⁰⁷⁾ In the 2007/08 school year, 162 695 students participated in Erasmus mobility. In 1995, when ECTS was introduced as one of the action lines of Erasmus, the number of mobile students was 84 642 (18 countries participated at the time). See: European Commission, Erasmus Statistics. Available from Internet: http://ec.europa.eu/education/erasmus/doc920_en.htm [cited 25.10.2009].

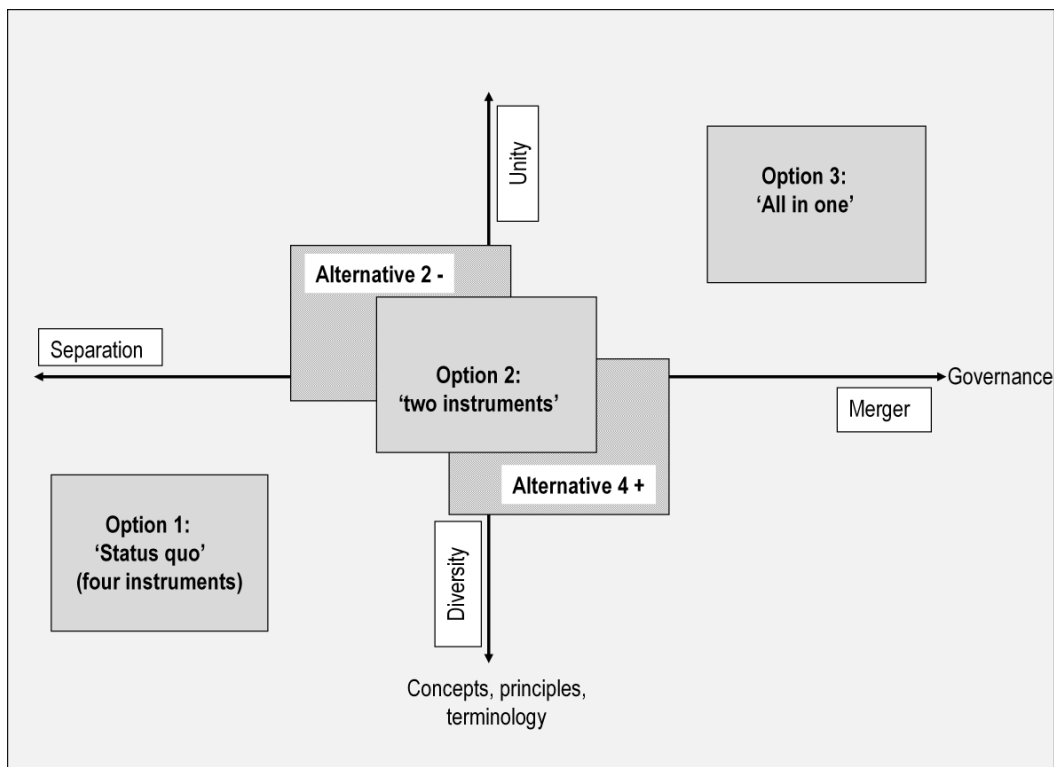
In 2007 nearly 85 838 students participated in Leonardo mobility (47% less than in higher education in the same year) but if this figure is adjusted and only the 18 countries that were participating in Erasmus in 1995 are taken into account, the figure is 55 677. This is 35% less than in higher education in 1995. (See: European Commission. *Leonardo da Vinci mobility figures*. Available from Internet: http://ec.europa.eu/education/lifelong-learning-programme/doc/stat_en.pdf [cited 25.10.2009].

education 'world' closer to the EQF and more willing to give up the EHEA framework.

The final uncertainty is in the use of the ECVET 'brand'. When countries develop modularised/unit-based approaches to VET they will probably not call their home systems ECVET. In HE, even where national credit systems were in place, these were replaced by ECTS; this often meant only changing the title and the convention concerning calculation of volume. The main added value for these countries in using ECTS was the 'branding' effect and the recognition of the abbreviation on the international market. However, the international dimension in VET is, for the moment, low and unlikely to produce this spin-off effect in favour of ECVET.

There are some certainties. Countries will develop qualifications frameworks and reference their frameworks to either one or both European frameworks. They will develop (as they are already doing) modularised or unit-based approaches to VET qualifications. However, the extent to which they will use points conventions will vary.

Figure 4. **Options for the development of European instruments concerning qualifications**



Note: For stylistic reasons the scenario descriptions below are all written in present tense.

At the political level, there will be an agreement on compatibility between ECVET and ECTS (this is required in the ECVET Recommendation). However, the nature of this agreement is unknown at this stage.

Qualifications documents will be issued with the EQF level on them; higher education transcripts of record are already issued with ECTS on them. These arrangements make the abbreviations known to the wide public.

The scenarios are illustrated in Figure 4 and then described in detail.

8.3.1. Option 1 – Status quo

Nature: this scenario sees the existing situation continuing. It means that the four instruments continue developing separately in governance and concepts and principles (for more information regarding the differences in their principles see Section 2 and, more specifically, Table 4).

The four instruments do not develop at the same pace:

- (a) ECTS is already used, implemented in national legislations, part of the higher education ‘common language’ and is being adopted by VET at higher levels (e.g. for short cycle qualifications);
- (b) countries are developing qualifications frameworks, they have referenced their frameworks to the EQF and the EHEA framework. Some countries have only developed HE frameworks (as Bologna does require this) and have referenced their systems rather than frameworks to the EQF;
- (c) the continuing and growing competition for HE students makes the EHEA framework and its three cycles a worldwide reference for HE qualifications;
- (d) ECVET is in the weakest position. While countries have unitised their qualifications, and some of them use credits, they have not called their unit-based systems ECVET. ECVET is used mainly by countries and institutions with a strong international mission;
- (e) ECVET has been integrated in Leonardo and the mobility figures in VET have grown but the proportion of mobile learners in VET remains low compared to higher education students.

Governance: the ECTS, ECVET and the EHEA framework continue evolving in their sectoral environments and their governance is not strengthened. Because a number of countries have developed overarching frameworks and have agreed their governance, EQF is the only instrument governed by a ‘mixed’ group of stakeholders (the term mixed refers to their education and training sector provenance).

Concepts and principles: ECTS, at least at the European level, evolves towards a system with less emphasis on the role of workload. It becomes closer to the conceptual basis of ECVET. Greater use of validation of non-formal and informal learning also makes the distinction between qualifications and education and training programmes better understood, and hence closer to the EQF conception of qualifications.

The conceptual difference between modules and units remains. However, the national VET landscape does not fully embrace the notion of units (being independent of the training pathway) and, while some countries maintain their units-based systems, others use systems where units and modules are used interchangeably. Therefore, the distinction becomes less relevant in practice. EHEA framework and EQF maintain their differences in level descriptors and their use.

Impact: in the status quo situation the two credit systems come closer to each other in their underpinning concepts. However, the use of different abbreviations makes them 'sound' different to the general public. Learners and education and training institutions (e.g. teachers) may believe that these are different credit systems.

Qualifications documents are issued with the EQF level on them; this makes the EQF known to the public both in VET and HE. The EHEA framework is for policy makers and the national HE framework, and its level descriptors, are mainly used by those designing HE programmes. At the same time, the use of the EHEA framework goes well beyond Europe and the structure of three cycles is becoming common across the world.

The referencing process for the two frameworks is completed. Their governance remains as in 2009, based on the cooperation within groups of national representatives. They have an updated mandate as their original mandate to follow-up and accompany the referencing process has been completed. Their mandate consists mainly of promoting these frameworks to the wider public and potentially at international level. They also have a role to play in designing guidelines and promoting common understanding of these instruments (seminars, training, etc.). However the instruments are mainly left for the different national institutions and qualifications authorities to use as they see fit. The governance does not explicitly concern identification of difficulties and inconsistencies and there are few means (financial, as well as the capacity of the structure to formulate strong recommendations) to address these inconsistencies. There is, therefore, a certain distance between official discourse and national implementation, which somewhat undermines trust in European governance of these instruments.

As an alternative to this first option, in a four plus (4+) scenario, governance is strengthened towards stronger monitoring, evaluation and feedback relating to the way these tools are implemented at national and institutional level. This process is governed through expert groups and groups of national representatives.

This alternative could imply that governance is also concerned with monitoring and evaluating implementation and issuing recommendations. Therefore, the difficulties in implementation are identified and discussed in European expert forums. These are addressed through recommendations. This process enhances the transparency and mutual trust in the way the instruments are governed at European level.

8.3.2. Option 2 – Two instruments

Nature: there is a single set of European credit arrangements guidelines and a single qualifications framework.

The single set of credit arrangements guidelines can be called ECTS, because of the already well established character of this brand and also the fact that it is used and known well beyond the 32 countries participating in the European OMC in education and training. It can also be called something completely different, to signal to the different actors that this is a new improved tool. None of the decisions can be taken easily. HE does not want to give up the known brand and VET stakeholders do not want to use the ECTS brand. Rebranding the instrument is more problematic than the conceptual integration. The concept of credit evolves closer to the ECVET approach of understanding credit as assessed learning rather than as a measure of volume. The use of points serves a descriptive role and this is recognised. The distinction between modules/units is of less importance, as in the above scenario.

The single qualifications framework is the EQF. All countries have structured their HE systems in three cycles and these have been proven EHEA compatible in the past. However, HE institutions as part of their lifelong learning agendas are designing more qualifications that do not fit into the three cycles, mostly because they are small. These are, for example, qualifications that address particular employer or adult population needs. The short cycle level is increasingly used by both HE and VET. In consequence, HE institutions buy more strongly into the national overarching frameworks and consider the relevance of a framework that only offers three levels and is restrictive in the size of qualifications.

Both instruments are governed at European level with participation of both communities (VET and HE). This governance includes stronger planning, steering pilot project work to strengthen aspects and objectives of these

instruments (for example through the lifelong learning programme), as well as monitoring, evaluation and review. National practices in using these instruments are evaluated/reviewed and recommendations to countries are based on a peer-review model. The difficulties in implementation are discussed in European and national platforms.

Impact: there is greater consistency in the implementation of the two tools. Evaluations identify the nature and scale of the problem and recommendations are provided for countries to address the problems. European implementation is planned with resources to explore innovations and promote them. The governance process also creates greater trust between European HE and VET stakeholders (though they may no longer be 'labelled' as such). However, this requires that:

- (a) resources (financial and human) are allocated to stakeholder coordination and consultation;
- (b) resources (financial and human) are provided for the piloting, its follow-up and evaluation;
- (c) countries are committed to the implementation of these instruments, which are responsible for setting priorities for EU cooperation;
- (d) countries are open to evaluation and review.

The qualifications systems have better legibility for learners and education and training institutions. There is a single set of levels and a single 'label' used to describe credit. This consistency is expected to support cooperation across the sectors even though this also depends on other factors.

As an alternative to this second option, in a two minus (2-) scenario, governance remains mainly focused on dissemination and communication with little monitoring, review and feedback.

There is better legibility of the qualifications systems for learners. However, the benefits of stronger governance are not observed. Even though common guidelines for VET and HE are formulated as part of the governance process, their understanding and implementation remains varied and uneven between VET and HE. This is a result of path dependency of the 'old' four different instruments. As in the previous scenario, this situation creates a discrepancy between official discourse about the tools and the situation at institutional level which, in turn, affects mutual trust.

8.3.3. Option 3 – All in one

Nature: there is a single European credit and qualifications framework (ECQF).

The principles for credit systems (both the measure of volume and possibilities for accumulation, transfer and recognition credit) are embedded in

the European qualifications meta-framework. The framework can recommend use of units/modules (as ECVET and ECTS do) but cannot require it across all national qualifications systems. The principles of the referencing process remain as in status quo: it is the national qualifications system/framework referenced to the ECQF. However, additional criteria, as in opportunities to accumulate, transfer and gain recognition of credit are added: the current EQF referencing criteria already make reference to validation of non-formal and informal learning. The use of a common European credit points convention is also among the referencing criteria. Together with the level of the qualification, the number of credit points appears on the qualification document and the transcripts issued.

The governance of the system, as in the 'two instruments' scenario, is based on planning, monitoring, evaluation, feedback and steering. There is a unique governance structure, undertaken through a process of planning, experimentation, evaluation and review. However, the governance structure has several levels. There still remains a broader grassroots network of institutions (both in VET and HE) who are more concerned with aspects around accumulation, transfer and recognition of credit systems as well as a more institutionalised European body whose concern is mainly the use of levels and of the credit points convention to describe qualifications.

Impact: qualifications are required to be described through a common measure of volume enhancing the capacity of the framework to 'signal' the nature of qualifications.

Through integration in the qualifications framework, credit arrangements gain greater visibility and emphasis in policy. However, the extent to which these will translate to better opportunities for learners and increased transfer and accumulation will depend on measures taken at national (possibly regional or system) or institutional level.

As in the 'two instruments' scenario, better coordination requires commitment and additional resources (compared to status quo) on the side of both the participating countries and the institution in charge of coordination. The tighter links between a broader network of actors involved in credit systems and a single European body for ECQF lead to better transfer between grass-roots and European developments. The bottom-up and top-down processes meet more efficiently than in the previous scenarios.

This scenario demands reflection on the involvement of non-EU Bologna countries. While increased resources are unlikely to be available through the Bologna process (which does not have the necessary structures in place) the international dimension of the EHEA framework needs to be taken into account.

9. Conclusions

9.1. General conclusions

Before presenting conclusions about the relationship between qualifications frameworks and credit systems, as formulated in the analytical framework, it is necessary to draw some general conclusions.

The analysis of frameworks that have been in place for some time suggests it is unlikely that the objectives will be met in the short term. Even for the more modest objectives of describing systems and introducing transparency, it is likely to take time before the wider group of stakeholders – not only those directly concerned with their design, such as employers, education and training providers and guidance staff, but also citizens – will be able to use the framework and credit systems to navigate the inherent complexity of qualifications systems. This is likely to take even longer if the frameworks and their policy objectives are ambitious. Additional reforms of the qualifications system (that go beyond a framework or credit approach) will be needed as frameworks or credit arrangements are mixed with and affected by other policies and practices. If such reforms are envisaged, these should not undermine the way stakeholders value and trust existing qualifications.

The complexity of the qualifications systems that are in place, and the number and diversity of interests of the parties involved, make it a challenge to translate qualifications frameworks and credit systems into flexible opportunities for learners. Frameworks and credits promote flexible opportunities but this does not yet mean that education and training institutions will use them, nor that learner demand for flexibility will increase. Flexibility is not an objective, but should serve the needs of those who require it. There is currently little evidence of the extent of demand from learners for flexibility in achieving qualifications. Given that achieving flexibility is not a simple exercise, it can be argued that it will be best achieved in relation to priority target groups or priority qualification subsystems where added-value is greatest.

It should also be noted that flexibility in achieving qualifications is, in many countries, a different issue from the flexibility of the training offer, especially for adults. Adults are the target group where the benefits of flexibility are probably clearest, even though limits to the benefits of flexibility also need to be highlighted; this is especially so for the low-skilled who might not have the competence to manage their learning pathways alone) (Cedefop, Brandsma,

2001). While many European countries agree with the need for flexible training for the adult population ⁽¹⁰⁸⁾ they distinguish this from the pathways leading to qualifications. This is because their conception of qualifications relates to formal education and training systems and/or the possibilities of practising an occupation. Where qualifications frameworks have the objective of embracing the broadest offer of learning opportunities (in line with a lifelong learning perspective), they will have to take account of the significant complexity of subsystems and actors as a result of the fragmentation of adult learning provision. Existing qualifications frameworks and credit arrangements have different approaches to dealing with the complexity, stemming from the use of loose conventions, through quality assurance and guidelines to regulation.

Many European countries are currently developing qualifications frameworks predominantly concerned with the qualifications offer from formal education and training (Cedefop, 2009e). However, the adult learning ⁽¹⁰⁹⁾ sphere, which is the most fragmented and lacking transparency as well as where the needs for flexibility are likely to be greatest, would probably benefit most from a common approach to describing qualifications or from the introduction of a register. At the same time, it can be argued that demand for this type of learning is mostly local and the offer should remain locally managed.

9.2. Different logics

This study shows that the choices in terms of inclusiveness of frameworks and credit arrangements have implications on governance arrangements, the extent and detail of requirements. The larger the number and the broader the type of actors involved in including qualifications in the framework or using credit systems and credit conventions, the more detailed the guidelines (and possibly the requirements) of these instruments and consequently the greater the need for an authoritative structure or structures (in cases of partnership governance). The feasibility of such approaches needs to be carefully examined in each specific context.

Finally there are two different logics in the design of qualifications frameworks and credit points conventions. The first is outward oriented, in which

⁽¹⁰⁸⁾ See the national reports in the European Employment Observatory (2007) which show that many EU countries are implementing flexible or modular programmes for adult learning (e.g. Belgium fr, Belgium nl, Germany (to a certain extent), Ireland, the Netherlands, Finland and Sweden). Not all these countries consider these courses as qualifications.

⁽¹⁰⁹⁾ Or at least the segments of adult learning eligible for public funding as it is unlikely that a framework could cover all learning opportunities.

a framework and the use of credit conventions are introduced to make qualifications better understood abroad. This argument is an important aspect of the Bologna process, underpinned by the ambition to strengthen the world-wide reputation of European higher education and consequently to attract international students. However, the interest of global training providers (such as vendors) in qualifications frameworks development is also most likely due to this type of consideration.

If this is the prevailing logic, it is understandable that these instruments are mainly concerned with qualifications from the formal system, which are the ones where international competition is most likely to apply.

The second is inwards oriented, where framework and credit arrangements are introduced to respond to issues of access to and efficiency of lifelong learning opportunities in the qualifications systems.

When this is the main logic in the qualifications system, it is unlikely that the expected benefits will be achieved if the adult learning sector is excluded. Within most European countries the formal system is fairly well understood already and credit arrangements (such as equivalence or statutory access to pathways) exist, although the level of progression remains an issue. Accumulation, which is a key feature of credit systems, will represent a real added value for adults or early school leavers, more than for anyone else.

The use of a common credit points convention is typically a mechanism employed in a national system that bridges diverse subsystems. The implementation of a credit system requires greater homogeneity in how qualifications are designed and structured and is hence more common for subsystems or even awarding bodies: one ministry, one university or one large private provider.

9.3. Qualification descriptions and system transparency

Qualifications frameworks and the use of a common credit points convention describe the qualifications offer using levels and quantification of the volume of learning; these enable qualifications to be distinguished at the same level according to their size. This is especially useful in systems where homogeneity of level and volume of learning outcomes with the same title is not ensured or where new titles are introduced. Quantification becomes a useful criterion, particularly if qualifications from outside the formal system (in which qualifications are typically rather large) are included in the framework (e.g. if qualifications from

the adult learning sector which can be very specialised are located next to mainstream initial education and training system qualifications).

This role of qualifications frameworks and credit points is also important from an international perspective. While certain qualifications systems are already well understood by the population of a country (because of the limited number of qualifications and qualification titles involved, as well as their relative homogeneity) it may be of interest to the stakeholders to have their system understood abroad. The reasons for this may be, for example, the desire to attract foreign students or to signal the (high) level of qualification achievement of the population to potential foreign investors.

However, the role of qualification titles in making the qualifications system understood to the broad public should not be ignored, as these remain the 'landmarks' by which learners and employers understand the system. Those thinking about qualifications in terms of level and volume are those designing or regulating qualifications or recognising them, for example, for admission or exemption.

9.4. Qualifications design

The framework and credit mechanisms (levels, learning outcomes, units, credit points) serve not only to describe or promote the qualifications systems but also to shape the way qualifications are designed. This can be achieved through rules and regulation but also through quality assurance aspects built into the framework/credit arrangements or by giving the opportunity to those designing qualifications to use the mechanisms in the most appropriate way. Therefore, framework and credit arrangements can leave more or less space for diversity in qualification design within the subsystems.

Many qualifications frameworks that do not have regulatory aspects of their own are underpinned by regulation that already exists in the qualifications system or its subsystems. Therefore, it is not always the framework that puts imposes the requirements of qualification design as it can only function because such rules already exist.

The use of a common credit points convention alone (without the need to use units/modules) requires that, when designing a qualification, the volume of the qualification is measured, or, if the volume is given a priori that learning outcomes meet the expected volume. The nature of more complete credit systems has much greater impact on the way qualifications are designed as it requires systematic integration of credit arrangements in qualification design.

This means, for example, developing pathways across qualifications (e.g. using common or equivalent units), articulation of the content of qualifications to ensure progression, or systematic integration of possibilities to achieve credit through validation of non-formal and informal learning. This study also shows that several countries adopt an approach where only a credit points convention is used at the level of the system while the subsystems or even institutions (e.g. in higher education) have the potential to develop adapted credit systems.

The way frameworks and credit arrangements shape qualification design does not concern the same aspects of qualifications. Qualifications frameworks require processes to ensure the take-up of the levels and level descriptors (i.e. the framework mechanisms) for use of qualifications. These processes concern the way level descriptors are used to (re-)design the content of qualifications by relevant institutions. Such institutions often already have more or less explicit rules/procedures/understanding of how to design the content of their qualifications. Decisions about the level of learning outcomes in these qualifications are not systematically a result of a technical comparison of level descriptors with the learning outcomes but also a process of bargaining among stakeholders concerned. Credit arrangements, however, concern the design of qualifications components (units/modules) and their link with components from other qualifications, from other systems or learning contexts (such as validation of non-formal and informal learning). Articulation of credit arrangements around the level of learning outcomes is closely related to the conception of qualifications in the system: some consider that only a qualification has a level, others assign level also to units/modules.

9.5. Governance of mechanisms

Both frameworks and credit arrangements have technical features in the form of the mechanisms they represent. The approach to implementation can take different forms, such as regulation, quality assurance or guidelines. It is embedded in the existing division of competence and powers among players in the qualifications systems as well as their motivation to act in one way or another, for example to design new qualifications or to recognise credit.

Governance will therefore reflect existing relationships among stakeholders. It can be designed as top-down, with an authoritative regulatory body, based on consensus with a partnership structure designed to moderate the ambitions and proposals of different stakeholders; or bottom-up, empowering the stakeholders on the ground to make decisions (e.g. recognise credit) based on common

guidelines. In any case, a governance structure will affect the behaviour of different parties concerned to achieve the policy objectives. Therefore, the governance of these mechanisms needs to take into account a number of questions:

- (a) framework governance typically concerns the following aspects:
 - (i) who has the competence to decide the level and to include qualifications in the framework and how?
 - (ii) is there a control mechanism?
 - (iii) who manages what is in the framework (e.g. to make sure it is not outdated) and how?
 - (iv) what physical form does the framework have (i.e. a single register or more registers)?
- (b) the governance of credit arrangements concerns:
 - (i) which credit arrangements are possible (legislation or rules can enable or constrain access requirements)?
 - (ii) how is credit described (documentation) and assigned (assessment)?
 - (iii) who has the competence to recognise credit?
 - (iv) who designs the rules to accumulate credit?
- (c) the governance of a credit points convention typically concerns:
 - (i) who has the competence to decide on the volume of a qualification? Is this set *a priori* per qualification title? Can it differ for qualifications with the same type/title? Does it have to be 'measured' *a posteriori* for each individual qualification?
 - (ii) how strict the regulation on measuring the volume of qualifications should be? Is it based on guidelines or set *a priori*? Is there a verification process and, if yes, who can decide whether the volume as expressed in credit points is in line with the content of the qualification?
 - (iii) who has the competence to decide on the volume of components and how?
- (d) the governance of credit systems concerns:
 - (i) what (detailed and comparable) information is required for all qualifications on their content (i.e. what is the template to be used to describe the content of qualifications through units/modules) to decide on use of common units or set up equivalence?
 - (ii) who decides whether to develop a new unit/module or to use an existing one and how?
 - (iii) who is managing (and how) the process of updating the units/modules and how this impacts other qualifications where credit systems are used?

- (iv) according to what rules and on what basis (transcript, record of achievement) is the credit accumulation and transfer managed?

This list, which contains the main aspects of governance for the framework and credit instruments, shows that:

- (a) there is potentially considerable work to be undertaken and protocols to be established and enforced. In many countries, these instruments make explicit in a systematic way what used to be implicit in the system or its subsystems which requires agreement by a number of parties. In reality most credit systems are organised around loose guidelines and decentralised decisions on transfer and accumulation;
- (b) there is a great variety of players involved when the two instruments are considered together, ranging from national authorities to local institutions, making their joint governance a complex issue;
- (c) governance arrangements are closely related to the existing divisions of competence and powers in the system. Moving towards centralised governance of credit arrangements (through credit systems) is likely to be more problematic in highly decentralised systems than in centralised ones.

9.6. The 'openness' of qualifications systems

The transition from the existence of qualifications framework and credit arrangements to an open system where learners can (and do) develop flexible learning paths involves more than the implementation of the framework and credit mechanisms. While both instruments support this goal (if integrated or if existing in parallel) the existence of real opportunities for learners depends on a number of other aspects: incentives and drivers (e.g. economic or demographic pressures); the financing mechanisms in the system; the ability and resources of learning providers to offer and manage flexibility; and the awareness of learners about these opportunities and their motivation to use them.

Qualifications frameworks and credit arrangements affect qualification design and improve comparability, thus making it easier to identify 'zones' of possible transfer. But differences in qualification design are only one aspect hindering credit transfer and accumulation opportunities.

It is still unclear whether the integration of credit arrangements and qualifications frameworks (in their active role) has greater impact on qualification system openness than other combinations of credit arrangements and frameworks. There is, so far, no measurement of how systems perform in enabling flexible pathways and whether people use them. Also, both instruments

raise debate and awareness of flexibility, which may, in the longer term, positively impact on the other obstacles to transfer, such as institutional acceptance of credit transfer and accumulation policies.

Working definitions

Term	Source	Working Definition
Accumulation	Working definition elaborated for this study	The process through which individuals can build on learning that took place or learning outcomes that were achieved in different contexts to be awarded qualifications. This process is governed by national, sectoral or institutional requirements on what learning or learning outcomes can be accumulated to which qualification. These rules constrain or open-up (depending on the qualifications system) the possibilities of education and training pathways the learners can follow to achieve qualifications. In countries where credit systems are in place, credit accumulation is a core function of these. However, other means for accumulation unrelated to a formalised credit system may exist.
Assessment of learning outcomes	ECVET Recommendation	Methods and processes used to establish the extent to which a learner has in fact attained particular knowledge, skills and competence.
Credit for learning outcomes (credit)	ECVET Recommendation	A set of an individual's learning outcomes which have been assessed and which can be accumulated towards a qualification or transferred to other learning programmes or qualifications. Credit is typically described using credit points.
Credit arrangements	Working definition elaborated for this study	As recognition of credit gained by an individual through, for example, the existence of equivalences, use of exemptions, existence of units/modules that can be accumulated and transferred, the autonomy of providers who can individualise pathways, validation of non-formal and informal learning, etc. Credit arrangements are broader than the use of credit points convention or credit systems.
Credit points convention	Working definition elaborated for this study	Defines a common approach to measuring the volume of learning that describes credit.
Credit system	Working definition elaborated for this study	Is based on the use of components of qualifications (units/modules) and has clearly described and formalised rules on how components can be accumulated and transferred. Credit systems embed credit arrangements into qualifications design. This includes arrangements such as the use of common or equivalent units, articulation of the content of qualifications among each other, building qualifications up from a pool of units, etc.
Education or training pathway	Cedefop terminology	Is a set of related education or training programmes provided by schools, training centres, higher education institutions or VET providers, and that facilitates individuals' progression within or between activity sectors.
Education or training path	Cedefop terminology	The sum of learning sequences followed by an individual to acquire knowledge, skills or competences.

Term	Source	Working Definition
Learning outcomes	EQF Recommendation	Statements of what a learner knows, understands and is able to do on completion of a learning process defined in terms of knowledge, skills and competence.
Module	Working definition elaborated for this study	A specified element of a training programme which may be assessed and validated (formative assessment) but not recognised.
Progression	Working definition elaborated for this study	The potential to recognise an individual's qualifications or learning in order to be admitted or enter (possibly with exemptions) education and training at a higher level. The term progression may also be used to refer to passing from education and training to the labour market.
Qualifications framework	Cedefop terminology	Is an instrument for the development and classification of qualifications (e.g. at national or sectoral level) according to a set of criteria (e.g. using descriptors) applicable to specified levels of learning outcomes.
Qualifications system	Cedefop terminology	Comprises all activities related to the recognition of learning outcomes and other mechanisms that link education and training to the labour market and civil society. These activities include: <ul style="list-style-type: none"> • definition of qualification policy, training design and implementation, institutional arrangements, funding, quality assurance; • assessment, validation and certification of learning outcomes.
Qualifications title	Working definition elaborated for this study	Understood as the different denominations used to name qualifications (e.g. 'bachelor degree' (UK, Scotland), ' <i>Brevet de Technicien Supérieur</i> ' (France), 'Advanced certificate' (South Africa)). This term is used here because in many countries the use of certain qualifications titles is regulated and underpinned by requirements concerning the learning outcomes, training, assessment, etc. behind the design and award of the qualification. Typically only institutions that meet certain criteria may award qualifications with these titles. The qualification titles are usually a well-defined group of qualifications (for example, they typically do not span more than two levels but may also exist only on one level of qualifications framework).
Qualification types	Working definition elaborated for this study	Understood as a broader group of qualifications that may have certain common characteristics but may be different in terms of levels, volume or possibly programmes leading to them. This term is used here because certain qualifications frameworks differentiate between qualifications types. These may have different processes according to how they are referenced to the framework. For example, the French CQP (<i>Certificat de Qualification Professionnelle</i>) is a qualification awarded by sectoral organisations, but may exist at all levels of the qualifications framework and may have very different volumes. The Slovenian qualifications system differentiates between three qualification types: those awarded by the formal system, those awarded after validation of non-formal and informal learning (NVQs) and other qualifications such as those awarded by the private sector (e.g. in adult learning).

Term	Source	Working Definition
Recognition of learning outcomes	ECVET Recommendation	The process of attesting officially achieved learning outcomes through the awarding of units or qualifications.
Transfer	Working definition elaborated for this study	The means through which learners are able to have learning which took place in one context (country, system, institution) recognised in another context. The expression credit transfer refers to the process through which credit awarded in one setting can be taken into account for other qualifications or training pathways. However, transfer is not exclusively linked to the use of credit. Formal mechanisms or informal practices for exemption from studies or recognition of elements of qualifications may exist in the absence of a credit system.
Unit	ECVET Recommendation	A component of a qualification that can be assessed, validated and recognised.
Validation of learning outcomes	ECVET Recommendation	The process of confirming that certain assessed learning outcomes achieved by a learner correspond to specific outcomes which may be required for a unit or a qualification.

List of abbreviations

ANFA	Association Nationale pour la Formation Automobile (France) National Association for Training in the Automobile Sector
ANKOM	<i>Anrechnung beruflicher Kompetenzen auf Hochschulstudiengänge</i> (Germany) Accreditation of vocational skills to university degree programmes
ANTA	Australian National Training Authority (Australia)
AQF	Australian qualifications framework (Australia)
AQTF	Australian quality training framework (Australia)
AVCC	Australian Vice-Chancellors Committee (Australia)
BEP	<i>Brevet d'Études Professionnelles</i> (France) Certificate of vocational education (upper-secondary level)
BIBB	Bundesinstitut für Berufsbildung (Germany) Federal Institute for Vocational Education and Training
BMBF	Bundesministerium für Bildung und Forschung (Germany) Federal Ministry of Education and Research
BTS	<i>Brevet de Technicien Supérieur</i> (France) Advanced technical diploma (post-secondary non-tertiary level)
CA	Credit arrangements
CAP	<i>Certificat d'aptitude professionnelle</i> (France) Certificate of vocational aptitude (lower-secondary level)
CCEA	Council for the Curriculum, Examinations and Assessment (UK)
Cedefop	European Centre for the Development of Vocational Training
CHE	Council on Higher Education (South Africa)
CHEPS	Center for Higher Education Policy Studies
CNCP	Commission Nationale de la Certification Professionnelle (France) National Commission for Vocational Qualifications
CQP	<i>Certificat de Qualification Professionnelle</i> (France) Vocational qualification certificate awarded by sectoral organisations
CS	Credit system
DCELLS	Department for Children, Education, Lifelong Learning and Skills (UK)
DEA	<i>Diplôme d'Études Approfondies</i> (France) Postgraduate studies
DECVET	Pilot initiative for developing and testing ECVET in the German vocational education and training system
DESS	<i>Diplôme d'Études Supérieures Spécialisées</i> (France) Postgraduate specialised studies

DEUG	<i>Diplôme d'Études Universitaires Générales</i> (France) General university studies
DfES	Department for Education and Skills (UK)
DG EAC	Directorate-General for Education and Culture (European Commission)
DUT	<i>Diplôme Universitaire de Technologie</i> (France) Advanced technical diploma (post-secondary non-tertiary level)
EACEA	Education, Audiovisual and Culture Executive Agency
ECTS	European credit transfer and accumulation system
ECTS/DS	European credit transfer and accumulation system/diploma supplement
ECVET	European credit system for vocational education and training
EEA	European economic area
EHEA	European higher education area
EQF	European qualifications framework
ESIB	European Student Information Bureau (now ESU see below)
ESU	European Students' Union
EU	European Union
EUA	European University Association
EWNI	England, Wales and Northern Ireland
FDf	Foundation degree forward (UK)
GCSE	General certificate of secondary education (UK)
GNVQ	General national vocational qualification (UK)
HE	Higher education
HEQC	Higher Education Quality Committee (South Africa)
HN	Higher national (UK)
IFES	Instituto de Formación y Estudios Sociales (Spain) Institute of Education and Social Studies
INCUAL	Instituto Nacional de las Cualificaciones (Spain) National Qualifications Institute
INCHER-Kassel	International Centre for Higher Education Research – Kassel
ISCED	International standard classification of education
KMK	Kultusministerkonferenz (Germany) Education and culture ministerial conference
LLL	Lifelong learning
LLLP	Lifelong learning programme
LO	Learning outcomes
LSC	Learning and Skills Council (UK)
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs (Australia)

MENESR	Ministère de l'Éducation nationale de l'enseignement supérieur et de la Recherche (France) Ministry of National Education, Higher Education and Research
MEPSD	Ministerio de Educacion, Política Social y Deporte (Spain) Ministry of Education, Social Policy and Sport
MTAS	Ministerio de Trabajo e Inmigración (Spain) Ministry of Employment and Immigration
NCP	National coordination point
NCVER	National Centre for Vocational Education Research (Australia)
NFIL	Non-formal and informal learning
NGO	Non-governmental organisation
NQAI	National Qualifications Authority of Ireland (Ireland)
NQF	National qualifications framework
NQS	National qualifications system
NVQ	National vocational qualification (UK)
OECD	Organisation for Economic Cooperation and Development
Ofqual	Office of the Qualifications and Examinations Regulator (UK)
OMC	Open method of coordination
OPCA	Organisme Paritaire Collecteur Agréé (France) Accredited joint contribution-collecting body
PLA	Peer-learning activity
PwC	PriceWaterhouseCoopers
QA	Quality assurance
QCA	Qualifications and Curriculum Authority (UK)
QCDA	Qualifications and Curriculum Development Agency (UK)
QCF	Qualifications and credit framework (UK)
QF	Qualifications framework
QF/CS-CPC	Qualifications framework/credit system – credit points convention
RATE	Register of Australian tertiary education (Australia)
RERS	<i>Repères et Références Statistiques</i> (France) Statistical references
SAQA	South African Qualifications Authority (South Africa)
SCQF	Scottish credit and qualifications framework (UK)
SME	Small and medium-sized enterprise
SQA	Scottish Qualifications Authority (UK)
SSDA	Sector Skills Development Agency (UK)
SVQ	Scottish vocational qualification (UK)
TWG	Technical working group

UAPME	European Association of Craft, Small and Medium-sized Enterprises
UK	United Kingdom
UK-EWNI	United Kingdom – England, Wales and Northern Ireland
UMALUSI	Quality Council for General and Further Education and Training (South Africa)
VAE	<i>Validation des Acquis d'Expérience</i> (France) Validation of non-formal and informal learning
VET	Vocational education and training
VQRP	Vocational qualifications reform programme (UK)
ZMT	Zones of mutual trust

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Linking credit systems and qualifications frameworks

An international comparative analysis

Credit systems and qualifications frameworks are pivotal to modernisation of VET and qualifications systems. This study reviews the development of those tools in the context of the Copenhagen and the Bologna processes (ECVET, ECTS, EQF-LLL, EHEA-QF) and across a sample of European and non-European countries (Australia, Finland, France, Germany, Scotland, Slovenia, South Africa, Spain, the UK-EWNI (England, Wales and Northern Ireland) and the UK-Scotland.

It analyses development initiatives and reforms of credit systems and qualifications frameworks. The articulation between both tools reveals difficulties and opportunities. This analysis leads to grounded insights in the functioning of credits systems and qualifications frameworks concerning learning pathways (transfer and progression), governance of education and training systems, and qualifications policies, especially qualification designs and awarding procedures.

This international comparative study invites debate on possible futures for European tools within the European education area.



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