

## Overview of Sectoral Qualification Frameworks

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For further information on the project please consult: [www.project-nqf-sqf.eu](http://www.project-nqf-sqf.eu)

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Short summary:

The objective of WP4 is to describe the way of referencing SQFs to the EQF.

SQFs are available in various aggregate states: sometimes there is only a draft available, sometimes “isolated” sectoral qualifications neither to be considered a part of a sectoral nor NQF, sometimes already elaborated systems exist which could work like full-fledged NQFs.

Although their relationship to the work process seems obvious according to their sector-orientation, it is not self-evident that this relationship is properly expressed in a way that the sectoral qualification becomes comparable with similar qualifications embedded in NQFs.

In order to decide how sectoral qualification approaches could best be referenced to the EQF – directly or over NQFs – it is also important to know what the relationship of sectoral systems to national systems is.

It has therefore to be investigated which stakeholders are supporting a SQF and if they are able and willing to fulfill quality assurance issues comparable to those mentioned in the list of referencing criteria provided by the EQF Advisory Group.

The aim of deliverable 12 is to provide an overview on existing SQFs and describe the different SQFs according to their objectives and structure.

## (1) Working methodology

For the collection of relevant information from the Partners, a template containing key questions has been developed (Annex 1). Partners involved in this work package were in charge to identify required data by means of a desk research or interviews carried out with the contribution of experts in the field.

More specifically, the strategy stated by the project for developing an analysis at the national level, identified three sectors (public services, logistics and construction), and for an analysis carried out at a transnational level, three others out of them (construction, retail and ICT) were suggested. For the sake of simplicity the following table is given to show the sectors investigated by the indicated Partner.

Partner	Country	Short-name	Sector
P2	DE	DEKRA	ICT (Transnational perspective)
P4	FR	AFT	Logistics (National perspective)
P5	ES	FLM	Public services (National perspective)
P6	RO	ACPART	Construction (National perspective)
P8	FR	CREDIJ	Construction (Transnational perspective)
P12	NL	Kenniscentrum	Retail (Transnational perspective)

The template provided to carry on interviews is based on two main domains selected to investigate Sectors, Sectoral Qualifications and Frameworks on one side, and the way in which sectoral qualification systems or frameworks link to EQF on the other. In particular reading the questionnaire it is worth noting that the first three questions address the need to trace a general picture of the sector on a European-wide perspective, also showing the main qualifications and qualification standard schemas, when existing, together with access mechanisms eventually provided for the occupation/profession. The subsequent three questions dig into the specific countries for which the analysis has to be dealt with, investigating there the System and the Framework, focusing also on the specific economic/organizational requirements and processes at the base of the sector qualifications stemming from and growth. On this line further information is given by studying the way in which learning outcomes have been processed and the descriptors expressed and tested. Still at the national level, four other questions address the relationship of sectoral qualifications to the national training system, stakeholders involvements, quality, credibility and mutual trust assured, accompanying the whole presentation with a SWOT analysis developed for the specific Sectoral Qualification System considered. Giving evidence to the work process is on the foreground of the whole study carried out in the project, hence the perception of the expert on SQF is also expected to sprout from the answers given on this facet.

Concerning the link to EQF, while the first question focus on the need of such connection, the second one stresses procedural issues and the third deals on the responsibility of the link development and maintenance. The last three questions treat the EQF level consistency, categories and descriptors, digging also into mutual trust and quality assurance topics.

Hence, moving from the information gathered using the tool described above, two simplified diagrams have been assumed as the easiest way to represent country statements with respect to the main topics to be dealt with in the project. The first one is a simple table (see Table 1) showing the state of the art on SQF, NQF and the link to EQF, while the second is the well-known SWOT schema, which gives the perception of the expert on the topics related to SQF link to NQF (see Fig. 1) and SQF link to EQF (see Fig. 2).

As reported in the objective summary, some sectors have been chosen to sustain a bottom up analysis, that is studying a way to link sectoral qualifications to NQF and/or EQF: the starting point is given in this case by the qualifications themselves. An opposite perspective is also given by other sectors for which do exist experiences carried out according to a top-down approach, which means that in this different scenario the starting point is offered by the EQF framework used as a guideline to specify a common sectoral qualification holding at a transnational level. The latter case involves a deeper analysis on issues like social dialogue and stakeholder involvement, which plays a basic role when transnational issues involving salaries and contracts have to be taken into account.

## (2) Public Services sector (Spain)

### (2.1) Overview

In Spain, only a single public initiative, out of the many public and private examined, has been found which is currently trying to link SQF to NQF. The domain it affects is placed in the public services sector, which seems to put little resistance to changes in this context. One of the reasons lies on the fact that the linkage SQF-NQF-EQF could have huge political implications on the private side, since it could imply to reassess workers professional levels (and, consequently, to rise their salaries).

This initiative, that will first impact on public workers of the Cantabria Region (i.e., 20.425 people, around the 60% of the total number of employees) and will be later adopted by the whole country, has been carried out by means of a collective agreement between public employees and Cantabria Government established in February 2010.

One of the motivations behind the creation of a SQF is the need of having professional categories homogeneously defined within the sector in order to guarantee homogeneous salaries.

It is worth remarking that Spain already has a NQF (at the present time only for VET) related to the EQF; hence, once a SQF is linked to an official qualification described in the NQF, it will be automatically linked to the EQF. However, as anticipated, there are many implications limiting this process, mainly linked to the raise of salaries and to the fact that the labor market still does not see the need to have SQFs linked to the EQF, being EQF considered a "government education thing" far from the labor market experience.

Furthermore, when performing a link to NQF, special attention should be paid to the fact that **SQFs are described in terms of "professional categories" (related to job positions), and not in terms of qualifications (related to competences).**

SQF-NQF-EQF		
<b>Is SQF established?</b>		
Yes	Under construction	No
<b>Is NQF established?</b>		
Yes	Under construction	No
<b>Is there a link between SQF and NQF?</b>		
Yes	Under construction	No
<b>Is there a link between SQF and the EQF?</b>		
Yes	Under construction	No
<b>SQF is referenced to the EQF through NQF?</b>		
Yes	Under construction	No

Note: Only for VET

Note: NQF is referenced to EQF

Table 1

### (2.2) SWOT analysis

Main benefits, chances, constraints and risks of the Spanish experience are summarized in Figures 1 and 2.

	Helpful	Harmful
	Strenghts	Weaknesses
Internal Origin	<ul style="list-style-type: none"> <li>Many sectors consider that NQF does not offer the complete and updated training that market requires. For this reason, part of SQF is integrated in the basic training and part is offered in parallel to NQF.</li> <li>Collective agreements are assumed by all public entities in their HR policies and managed according to EFQM/ISO quality standards. Since the domain is public, trust or commitment can be found.</li> </ul>	<ul style="list-style-type: none"> <li>SQFs in general are described in terms of "Professional/Categories" not using qualifications. These Professional Categories are pretty much related to job positions rather than to "competences".</li> </ul>
External Origin	<ul style="list-style-type: none"> <li>Part of SOF is already related to NQF. As a consequence, when a professional category of the SQF is linked to an official qualification described in NQF, it will be automatically linked to EQF.</li> </ul>	<ul style="list-style-type: none"> <li>Referencing SQF to NQF will be a sensitive issue that will be dealt at collective agreement and will take years at least at the private company realm.</li> <li>Political implications: change professional category of a current SQF is a big issue.</li> <li>Economic crisis.</li> </ul>

Figure 1 - Link between SQF & NQF

<b>Internal Origin</b>	<b>Helpful</b>	<b>Harmful</b>
	<b>Strengths</b>	<b>Weaknesses</b>
<b>External Origin</b>	<b>Opportunities</b>	<b>Threats</b>
	<ul style="list-style-type: none"> <li>_ NQF is already related to EQF. As a consequence, when a professional category of the SQF is linked to an official qualification described in NQF, it will be automatically linked to EQF.</li> </ul>	<ul style="list-style-type: none"> <li>_ There is no representation of this SQF at European level. This is a regional initiative following National guidelines.</li> <li>_ Link SQFs to EQF could imply to reassess workers professional levels which could eventually lead to salaries rise at large.</li> <li>_ Political implications: change professional category of a current SQF is a huge issue.</li> <li>_ Labour market still doesn't perceive the need of linking SQF to EQF since EQF is still considered one of this multiple "government education thing" far from labour market reality.</li> <li>_ To achieve EQF in an institutionalized way via NQFs, as Spain is formally doing (SQF-NQF-EQF), companies may show resistance in using it, since they may not be confident on NQF level descriptions; they may argue on who is in charge to decide levels to be assigned to a qualification - e.g. a worker with technical abilities related to level 2, but with some managerial responsibilities, could also have access to level 3 - and for competences descriptions (competences contained in the National Qualification Catalogues may not be up to date, in case of market technological/ structural changes).</li> <li>_ Economic crisis.</li> </ul>

Figure 2 - Link between SQF & EQF

### (3) Construction sector (Romania)

#### (3.1) Overview

At the present time no sectoral qualification frameworks do exist here for the construction sector, and there are some concerns with respect to the development of this kind of tool, since Romania intends to create a national qualification framework which would encompass all sub-national qualifications obtained by formal, informal and non-formal learning.

By the way, recently, Romania has been involved as a partner in the SQF-CON "Developing and Introducing Sectoral Qualifications Frameworks for the European Construction Industry" project, funded under the Lifelong Learning Programme - Leonardo da Vinci (01/02/2008 – 31/01/2010). The aim of this project was to develop a framework of qualifications in the construction sector according to the EQF guidelines, by also developing a matrix following the principles of qualifications described in terms of learning outcomes at different levels of responsibility (from 1 to 5), for qualifications related to the phases of construction for a building with multiple (24) apartments (planning, establishing site, landscape works, production of apartments and road works, measurements, reception work, invoicing). This project allowed main actors in national construction industries and training organizations to relate their national standards, qualifications, networks and certificates to a common framework, in order to improve transparency between national training systems, comparability of VET results by using learning outcome approach and better functioning of the labor market. Finally, the network created during the project, can foster the exchange of methodologies, instruments and good practices, thus achieving quality assurance, transparency and coordination between VET systems of participating countries.

However, the adoption of a common framework within this sector, could be threatened by the fragmentation of representative industries: in fact, since 1990, a privatization process took place which profoundly changed the industrial picture by transforming it from a scenario characterized by few large installations belonging to the State

to a new context with more than 20.000 small private enterprises (that probably consider less important the internationalization aspect).

SQF-NQF-EQF		
<b>Is SQF established?</b>		
Yes	Under construction	No
<b>Is NQF established?</b>		
Yes	Under construction	No
<b>Is there a link between SQF and NQF?</b>		
Yes	Under construction	No
<b>Is there a link between SQF and the EQF?</b>		
Yes	Under construction	No
<b>SQF is referenced to the EQF through NQF?</b>		
Yes	Under construction	No

Table 2

(3.2) SWOT analysis

Main benefits, chances, constraints and risks of the Romanian experience are summarized in Figures 3 and 4.

Internal Origin	Helpful	Harmful
	Strengths	Weaknesses
	<ul style="list-style-type: none"> <li>One of the reasons behind the creation of a SQF linked to a NQF is the need of having professional categories homogeneously defined within the sector in order to guarantee homogeneous salaries.</li> </ul>	<ul style="list-style-type: none"> <li>In a scenario of more than 20.000 private enterprises, the small enterprises probably consider less important this aspect.</li> </ul>
External Origin	Opportunities	Threats
	<ul style="list-style-type: none"> <li>Actors in national construction industries and training organizations will be able to relate their national standards, qualifications, networks and certificates to a common framework, in order to improve transparency between national training systems, comparability of VET results by using learning outcome approach and better functioning of the labour market.</li> </ul>	<ul style="list-style-type: none"> <li>Discontinuity of VET politics at national level.</li> </ul>

Figure 3 - Link between SQF & NQF

Internal Origin	Helpful	Harmful
	Strengths	Weaknesses
	<ul style="list-style-type: none"> <li>SQF will better foster the achievement of quality assurance, transparency and coordination between VET systems of different countries. This will strengthen construction industry in coming years when qualified personal will be less and competition of industries and enterprises to gain the best people will increased in order to improve its competitiveness and power to contribute to the Lisbon goals.</li> </ul>	<ul style="list-style-type: none"> <li>In a scenario of more man 20.000 private enterprises, the small enterprises probably consider less important the internationalization aspect.</li> </ul>
External Origin	Opportunities	Threats
	<ul style="list-style-type: none"> <li>Actors in national construction industries and training organizations will be able to relate their national standards, qualifications, networks and certificates to a common framework, in order to improve transparency of training systems, comparability of VET results by using learning outcome approach and better functioning of the labour market.</li> </ul>	<ul style="list-style-type: none"> <li>Concerning the decision to adopt EQF, once created a SQF, the main threats are the indifference of employers and a fragmentary understanding of EQF principles.</li> </ul>

Figure 4 - Link between SQF & EQF

#### (4) Logistics sector (France)

##### (4.1) Overview

The French perspective for building qualification frameworks is known as “competence” based approach, being the term “competence” covering skills, knowledge and competence as a whole. The building of these frameworks always starts by an economic context study of a particular job position, followed by an in-company analysis of jobs, thus ensuring ultimately a qualification framework that is consistent with work processes.

Logistics qualification frameworks in France are addressed by the Transport and Logistics Branch which defines the policy mainly through collective agreements. There are three main sub-systems in the French Logistics qualifications system. Qualifications are formalised through diplomas which are created at the initiative of the Ministry of Education, through “Professional Titles” emanating from the Labour Ministry and through Professional Qualification Certificates (CQPs) which are elaborated on the basis of collective agreements directly decided upon by social partners representing Logistics companies and workers. With the exception of CQPs, these qualifications are referenced to the National Registry of Professional Certifications (RNCP).

The original provider of qualification frameworks in the Logistics sector has traditionally been the Ministry of Education. However, logically, this institution’s perspective has always more oriented towards knowledge acquisition than towards concrete work considerations. This explains why the creation of a sectoral qualification system in the Transport & Logistics’ field first resulted from two parallel trends: that consisting in an increased specialisation in the definition of diplomas emanating from the National Education system and that deriving from the gained consciousness for the need of qualification frameworks driven by the Labour Ministry to better suite the needs of workers and companies.

It is assumed that the distinction between the National Qualifications System and the Sectoral Qualifications System lies not in the identity of their creators but in the job positions they relate to, so both qualifications system appear to be supplementary, if not complementary.

As regards the linking of SQFs to the EQF, it seems French authorities have decided to implement different strategies that ruled out direct linking to the EQF and preferred indirect linking through the NQF referencing system.

SQF-NQF-EQF		
<b>Is SQF established?</b>		
Yes	Under construction	No
<b>Is NQF established?</b>		
Yes	Under construction	No
<b>Is there a link between SQF and NQF?</b>		
Yes	Under construction	No
<b>Is there a link between SQF and the EQF?</b>		
Yes	Under construction	No
<b>SQF is referenced to the EQF through NQF?</b>		
Yes	Under construction	No

Table 3

##### (4.2) SWOT analysis

Main benefits, chances, constraints and risks of the French experience are summarized in Figures 5 and 6.

	Helpful	Harmful
	Strenghts	Weaknesses
Internal Origin	<ul style="list-style-type: none"> <li>_ The same actors are involved in the process of elaboration of qualification frameworks, from the analysis of job functions, work processes and derived abilities to the certification stage. This ensures the taking into account of sectoral needs.</li> <li>_ The creation of a sectoral qualification system in the Transport &amp; Logistics’ field first resulted from two parallel trends consisting in an increased specialisation in the definition of diplomas emanating from the National Education</li> </ul>	<ul style="list-style-type: none"> <li>_ The sectoral aspect of qualification frameworks is not obviously apparent since public authorities which develop NQFs carry a formal role in the definition of most SQFs. Moreover, some SQFs are not related to a common referencing system.</li> </ul>



	system and that deriving from the gained awareness for the need of qualification frameworks driven by the Labour Ministry, to better suite the needs of workers and companies. _ It is assumed that the distinction between the National Qualifications System and the Sectoral Qualifications System lies not in the identity of their creators but in the job positions they relate to, so both qualifications system appear to be supplementary, if not complementary.	
External Origin	<b>Opportunities</b> _The presence of social partners in instances deciding upon policy and action as regards SQFs ensures the sectoral particularities and necessary adaptation to the economic environment together with change in work processes, will be taken into consideration.	<b>Threats</b> _ One of the risks lies in the fear of a progressive homogenization of qualification frameworks and the subsequent risk of losing the different "cultural" approaches to building such frameworks.

Figure 5 - Link between SQF & NQF

Internal Origin	<b>Helpful Strengths</b> _ Referencing the French Logistics Qualification Frameworks to the EQF facilitates employment and mobility whilst setting a common reference for all Europeans working in this Sector.	<b>Harmful Weaknesses</b> _ Linking the French Logistics Qualification Frameworks to the EQF implies that French stakeholders would have to shift from a "competence" approach to one where skills, knowledge and abilities are clearly and formally separated and distinguished. Moreover, stakeholders and learners would have to shift their mindset from a system from five levels of referencing to one of eight levels.
	<b>Opportunities</b> _The qualification's credibility could be enhanced as work processes would be better mirrored and a greater comparability of qualifications would be possible.	<b>Threats</b> _ One of the risk is that the Logistics Qualification Frameworks might not be directly linked to the EQF.
External Origin		

Figure 6 - Link between SQF & EQF

## (5) Transnational analysis

As stated above, the investigation has been focused on Retail, Construction and ICT sectors, being them relevant experiences carried out at the EU level, each one having its own identity in terms of life cycle process and obtained results. While the Retail and ICT sectors provide a clear example of a top-down strategy, instead Construction proposes a different one based on the integration of top-down and bottom-up approaches.

### (5.1) Overview of the Retail Sector

The European social partners, within the retail sector, are EuroCommerce and Uni Europa Commerce. EuroCommerce, established in 1993, represents the retail, wholesale and international trade sectors in Europe. Uni Europa Commerce is the European trade union representing the retail employees. At their sectoral social dialogue committee in April 2009, EuroCommerce and Uni Europa Commerce decided to develop a joint project to establish a European network for anticipating skill needs in the commerce sector. With this project, the social partners intended to implement better cooperation among all the relevant stakeholders such as companies, member organizations of the social partners at national and European level.



The role of social partners in the various countries differs widely. For instance in Poland and Romania the role of social partners is rather weak. In other countries like the Scandinavian countries, Spain, Portugal, Cyprus, Germany and the Netherlands social partners cooperate on VET and have a well-established social dialogue. Retail qualifications are present in all of the European countries. However, there are still several barriers to the recognition of qualifications acquired abroad, since countries show marked differences in the design and regulation of VET systems. For this reason, a SQF could help training authorities in better defining Europe-wide qualifications.

At the present time, no international frameworks exist. This is due to the fact that, first, European social partners have to reach an agreement on the subject of skill needs. In this view, the TIPTOE "Testing and Implementing EQF and ECVET Principles in Trade Organizations and Education" project, funded under the Lifelong Learning Programme - Leonardo da Vinci (01/10/2008 – 30/09/2010) could be used as an input for the construction of a common industry-driven EQF profile. The main objective of this project was to overcome not only the gap between the different European VET and qualification systems, but also the differences in the content and interpretation of occupations on the European labor market in the trade sector, by investigating labor market and educational field, by integrating these results in a map for the two areas, and by exploiting the map for defining guidelines for the interpretation and application of EQF.

However, one of the main threats affecting the definition of a common framework is linked to the fact that the retail sector has a poor image: in fact, since retail tasks are quite easy and learnable on the job, many employees enter the sector in a part-time temporary job; hence, employers still do not see the need for special education. As a consequence, in the definition of a sectoral framework, special attention should be given to the involvement of stakeholders.

SQF-NQF-EQF			
<b>Are SQFs established?</b>			
Yes	Under construction	No	Note: Not completed
<b>Are NQFs established?</b>			
Yes	Under construction	No	Note: Not completed
<b>Is there a link between SQFs and NQFs?</b>			
Yes	Under construction	No	Note: through Formal WEB Qualification
<b>Is there a link between SQFs and the EQF?</b>			
Yes	Under construction	No	
<b>SQFs are referenced to the EQF through NQFs?</b>			
Yes	Under construction	No	Note: NQF is not yet referenced to EQF

Table 4

### (5.1.1) SWOT analysis

Figure 7 depicts the main benefits, chances, constraints and risks linked to the creation of a common framework within the retail sector.

	Helpful	Harmful
	Strengths	Weaknesses
Internal Origin	<p>_ A transnational trade qualification framework could be able to profile retail functions, and to describe their essence and the most important subjects within them.</p>	<p>_ Retail sector is characterized by large enterprises, on the one hand, and small enterprises on the other. While large ones have a HR management department and complex education programmes, small ones often have lack of time and money for VET, and, for them, international perspectives seem to cover lesser importance.</p> <p>_ At present time, no international frameworks exist for Retail. This is due to the fact that, first, European social partners have to reach an agreement on the framework of skill needs.</p> <p>_ Retail qualifications are present in all of the European countries. However, there are still several barriers to the recognition of qualifications acquired abroad, since countries show marked differences in the design and regulation of VET systems.</p>

	Opportunities	Threats
External Origin	<ul style="list-style-type: none"> <li>_ Understanding of qualifications and mobility could be improved.</li> <li>_ The development of an international framework could be the domain where discussing the sector and its functions.</li> <li>_ Countries having a weak developed sectoral education system will profit from the discussion at European level; furthermore, an international SQF can strengthen their national sectoral education.</li> <li>_ SQF could help training authorities in better defining Europe-wide qualifications.</li> <li>_ Main issues are overcoming the gap between the different European VET and qualification systems, and differences in the content and interpretation of jobs in the European labour market within the trade sector.</li> </ul>	<ul style="list-style-type: none"> <li>_ Retail has a poor image: in fact, since retail tasks are quite easy and learnable on the job, many employees enter the sector in a part-time temporary job; hence, employers still do not realize the need for special education. As a consequence, in the definition of a sectoral framework, special attention should be given to the involvement of stakeholders.</li> <li>_ Lack of credibility with employers and/or learners, that could be overcome by involving, while designing international sectoral qualifications, social partners and employers from the participating countries.</li> </ul>

Figure 7 - Common framework within the “Retail” sector

#### (5.2) Overview of the Construction sector

Construction is the largest industrial sector in the EU. What is called “Construction Industry” consists of more than 100 trades and professions including: developers; designers (architects, engineers); suppliers of construction materials and equipment and contractors (tile fixers, plumbers).

It has been widely accepted that great number of qualifications should first refer to NQF and then to EQF to improve manageability, order and organization.

A relevant transnational initiative related to the referencing of sectoral qualifications in the construction sector to the EQF is represented by the Sectoral Qualification Framework developed in the frame of the project “Developing and Introducing a Sectoral Qualifications Framework for the European Construction Industry (SQF-Con)” funded under the Leonardo da Vinci programme. According to project guidelines, a sectoral qualification framework should be restricted from level 5 to level 1 and based on three steps: first, the structure of the Sectoral Qualification Framework is defined, by working out the phases of the construction process and the subdivision, by levels, of descriptors according to the sector-specific requirements of the construction industry. Phase-level schemes are then filled in with knowledge, skills and competences.

The methodology does not show an implementation of the sectoral qualification framework to national vocational qualification education and training systems in the construction sector. However, it is underlined that this step is essential in order to get the most from the use of the framework itself. Two approaches have been envisaged, either top-down or bottom-up. The top-down approach is based on building consensus on the methodology through the involvement of and acceptance by institutions and organizations responsible for education and training in the construction industry in the respective country (taking into account relevant stakeholders, e.g. public authorities, social partners, chambers, etc.). With respect to the bottom-up application, one of the possibilities taken into account was based on the development of equivalence grids enabling for comparison of certificates with respect to the sectoral framework (exploiting learning outcome descriptions in the diploma supplements). An additional possibility was also related to the recognition of formal non-formal and informal learning, that could be achieved by defining rules and procedures for linking knowledge, skills and competences acquired at the workplace to descriptions available in the formal framework and by defining assessment tests (to be jointly designed by training institutions and construction companies).

SQF-NQF-EQF		
<b>Are SQFs established?</b>		
Yes	Under construction	No
<b>Are NQFs established?</b>		
Yes	Under construction	No
<b>Is there a link between SQFs and NQFs?</b>		
Yes	Under construction	No
<b>Is there a link between SQFs and the EQF?</b>		
Yes	Under construction	No
<b>SQFs are referenced to the EQF through NQFs?</b>		
Yes	Under construction	No

Table 5

(5.2.1) SWOT analysis

Figure 8 depicts the main benefits, chances, constraints and risks linked to the creation of a common framework within the construction sector.

	Helpful	Harmful
	Strengths	Weaknesses
Internal Origin	<ul style="list-style-type: none"> <li>_ Enables and increases permeability, transparency and comparability of construction qualifications.</li> <li>_ Promotes access and progression of education and training.</li> <li>_ Enables mobility of people in the sector.</li> </ul>	<ul style="list-style-type: none"> <li>_ Awareness of frameworks is limited, blockages of information flow pertaining to frameworks within stakeholder groups are perceived is difficult.</li> <li>_ Linking of individual learner wages to levels.</li> <li>_ Limited adoption of learning outcomes based approach; incomplete credit system.</li> <li>_ Stakeholders perceive there is a need to re-examine the definition of the levels of the European framework. Confusion about a number of frameworks at the European level.</li> </ul>
External Origin	<ul style="list-style-type: none"> <li>_ Identify employability features and attract employers with a clear education framework.</li> <li>_ Harmonise sectoral qualifications across EU members.</li> <li>_ Limit duplications. Increase matching of qualifications.</li> </ul>	<ul style="list-style-type: none"> <li>_ Bureaucracy is not useful.</li> <li>_ Language and semantics barriers.</li> </ul>

Figure 8 - Common framework within the "Construction" sector

(5.3) Overview of the ICT sector

In the ICT sector a European wide competence based reference framework, called European e-Competence Framework does exist. It can be used and easily understood by ICT professionals and human resources managers, small and medium sized enterprises, public sector and educational and social partners across the European Union. It focuses on competences needed to develop, operate and manage ICT projects and processes, to exploit and use ICT, to make decisions, develop strategies, and foresee new scenarios. It is intended as a means to support the definition of jobs, training courses, qualifications, career paths, formal and non-formal learning paths, certifications etc. in the ICT sector. Its application is centred upon workplace competence definition, profiling, assessment and measurement. Although it can be related to other qualification/certification/knowledge frameworks, its purpose is to provide a set of reference competences for the sector. It defines proficiency levels that can be used to provide detailed profiling and assessment. As the European e-Competence Framework becomes more universally applied further applications can be envisaged, as curriculum and ICT qualification and certification development. It refers to competences rather than job profiles. The competence-based approach is considered to be more flexible as, between companies, it is common to find identical job titles that correspond to different job descriptions (and vice-versa); moreover, both job titles and descriptions are often inadequate when expressing capabilities required in a complex and dynamic workplace like ICT one. The European e-Competence Framework is structured into four dimensions. These dimensions reflect

different levels of business and human resource planning requirements in addition to job/work proficiency guidelines.

In the ICT sector there are two initiatives which can be considered main organisational umbrellas for ICT skills promotion at European level: 1) The European e-Skills Forum and 2) The CEN Workshop on ICT Skills. It can be observed that every Europe-wide relevant activity in the field is linked to events/work taking place under the auspices of these initiatives.

SQF-NQF-EQF		
<b>Are SQFs established?</b>		
Yes	Under construction	No
<b>Are NQFs established?</b>		
Yes	Under construction	No
<b>Is there a link between SQFs and NQFs?</b>		
Yes	Under construction	No
<b>Is there a link between SQFs and the EQF?</b>		
Yes	Under construction	No
<b>SQFs are referenced to the EQF through NQFs?</b>		
Yes	Under construction	No

Table 6

### (5.3.1) SWOT analysis

Figure 9 depicts the main benefits, chances, constraints and risks linked to the creation of a common framework within the ICT sector.

Internal Origin	Helpful	Harmful
	Strengths	Weaknesses
	The strength of the European e-Competence Framework is the extensive engagement of European stakeholders in development. '	As in most approaches, lack of ability to create a wide awareness of its existence across the nation states of the EU.
External Origin	Opportunities	Threats
	Currently exploited by its application in a variety of European based project contexts such as the SME community and the creation of typical job profiles.	Competitive nature of some industry frameworks that seek to maximise the commercial potential of their proprietary assets at the expense of a potential unifying standard.

Figure 9 - Common framework within the "ICT" sector

## (6) Conclusions

Based on the sectors analyzed, the emerging scenario shows two of them, Construction in Romania, together with its transnational instance, and Retail, bounded to its transnational perspective, that are both experiencing the development of a SQF, even though limited to specific projects contexts. Strategies adopted there by project partners include the exploitation of EQF guidelines for the definition of core elements of a qualification. In this picture just drawn private bodies and enterprises drive the whole process.

For what concerns the ICT sector, the European e-Competence Framework establishes a European common language for ICT competences that can support the definition of jobs, training courses, qualifications, career paths, formal and non-formal learning rules, certificates, etc. Taking advantage of this enhanced scenario national ICT frameworks can be linked to the European e-Competence framework thus gaining a European dimension, in line with EQF semantics .

On the other hand, a national SQF has been developed in both the Spanish public services and the French logistics sectors, the latter mainly within the private domain. Both initiatives should exploit NQFs in order to be linked to EQF. As an example the French Logistics Qualification Frameworks to be linked to the EQF, requires that French stakeholders accept to shift from a "competence" approach organized in 5 levels, to the one (organized in 8 levels, where skills, knowledge and abilities be formally separated and distinguished.

Furthermore, the scenario becomes more complex when private domains are taken into account. In fact, based on the results of the analysis, the link SQF-NQF might imply reassessment of professional levels of workers and this could also heavily affect wages. For this reason, and because of awareness that NQFs are everywhere too rigid to comply with fast changes experienced by the labour market, enterprises seem to prefer a direct link SQF-EQF. Another key point that should be considered when linking a given SQF to the EQF, is the difference between competences and performance needs: usually, qualifications are described in terms of competences, while wages are linked to performance. These two standpoints are not related to each other. In any case, despite enterprise preferences, the EQF Advisory Board has recommended that SQFs should not be referenced directly to the EQF, but only to NQFs, which in its turn will be linked to EQF. This guarantees a direct link between National Agencies for the Qualification Frameworks and the European Commission, providing also a uniform reading and understanding of the qualifications at National level.

In conclusion, several aspects threaten the link SQF-EQF, even when indirect path through NQF is considered:

- political implications (as in the case of Spain): change of professional categories is a big issue;
- poor knowledge of EQF principles (as in the case of Romania);
- loosing of cultural differences as a consequence of progressive homogenization of qualification frameworks (as in the case of France);
- lack of need of sectoral qualifications (as in the case of Retail sector): in the retail sector most of the time the only element often sought by employers is motivation, since abilities can be gained through learning on the job;
- language and semantic barriers (as in the case of Construction sector);
- highly fragmented structure of the sector: characterized by small companies, mainly working locally, which probably have less interest in the internationalization process.

In order to deal with these constraints, the suggestion coming from the analysis, at this stage of the process, addresses the opportunity to strengthen and widen the dialogue with stakeholders.

## Annex 1

### Template for the collection of material from Partners

#### 1) Sectors, Sectoral Qualifications, SQS/NQS, SQF/NQF

- Please provide a picture of the sector (statistics data, impact on occupation, trends, structure, etc.). Who represents the sector at the European level (international organizations, associations, companies, etc.)?
- What are the qualifications and qualification standards in the selected sector? Please, describe the qualification structure (definitions of concepts and terms, input/outcome orientation, modularization, learning outcomes, descriptors, non-formal and informal learning, etc.).
- What are the modalities for accessing the profession/occupation (e.g. licenses, training requirements, apprenticeship, career evolution, etc.)?
- What are the Sectoral Qualifications Systems and Frameworks in the selected country/countries? Please distinguish if they are established or under development, their size, structure, scope, etc.
- What are the processes/needs leading to the emergence/creation of sectoral qualifications (e.g. fragmentation of qualifications across Europe, increase of workers mobility, need for a better quality of qualifications, etc.)? Please describe also how the definition of a sectoral qualification improves the weaknesses of the previous scenario.
- Which are the approaches for the identification/definition of learning outcomes and for the application/test of descriptors?
- What is the relationship of sectoral qualifications to the national training system (e.g. the sectoral qualification is a supplement offered in parallel to national qualification system, it is integrated as an obligatory part of the basic training, etc.)? For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. "are they an evolution from national to European or vice versa", or "do they pursue a bottom-up or a top-down strategy").
- Please describe the Stakeholders involvement and the relations with the labour market/learner's perspective (are they supporting a sectoral qualifications framework?). Who is the owner of the qualifications? What are the social dialogue initiatives at the national/transnational level in the considered sector? Are representative stakeholders at all levels (national and European) involved? If not, why? Are there relations with other sectoral initiatives at national or transnational level?
- How are quality, credibility and mutual trust assured (e.g. common guidelines for evaluating candidates, European Examination Commission, etc.)?
- Please describe the strengths, weaknesses, opportunities and threats of the analysed Sectoral Qualification System. How do you think the SQF could be enhanced and refined in order to make work processes transparent?

#### 2) Referencing to the EQF

- Is there a need for linking sectoral qualifications to the EQF? What are the related constraints (weaknesses) and benefits (strengths)? How the link to the EQF will affect the credibility of the qualification (opportunities)? Which are the risks (threats) of the link to the EQF? What will be the consequences for the labour market and the individuals? Are there any obstacles to the linking to the EQF?
- What kind of procedures are planned or in progress for referencing sectoral qualifications to the EQF? Do these procedures allow a direct link to the EQF or do they require an indirect link? Please analyse the pros and cons of the direct link (common strategy, link of individual qualifications, responsible

bodies, application of criteria, procedures, descriptors) and the indirect link (referencing of a single sectoral qualification defined at the national level/of all qualifications in all countries, linking to NQF versus inclusion in the NQF, transparency of procedures, etc.).

- Who will be responsible for referencing sectoral qualifications to the EQF?
- Are sectoral levels consistent with EQF levels (if not, how should they be modified)?
- Is there the possibility to use the same EQF categories for describing learning outcomes or should they be adapted (in this case, please explain how they should be modified)? Is the referencing to the EQF based on all EQF descriptors (knowledge, skills and competences)?
- Which are the strategies for supporting credibility and fostering mutual trust between private and public stakeholders? Which are the roles, responsibilities and measures for quality assurance? Is there any relation/consistency with national and European recommendations/indicators?

## Annex 2

### Questionnaires provided by the Partners

#### Annex 2.1

##### "Public services" sector (Spain)

###### 1) Sectors, Sectoral Qualifications, SQS/NQS, SQF/NQF

- **Please provide a picture of the sector (statistics data, impact on occupation, trends, structure, etc.). Who represents the sector at the European level (international organizations, associations, companies, etc.)?**

The NQF as far as VET only, has been recently published in Spain and formal and labour education have been adapted to this framework and to its qualification descriptions. In relation to SQF, there is no SQF to date referred to NQF. This will be a sensitive issue that will be dealt at collective agreement and will take years at least at the private company realm. The reason of this issues resides in the fact that to link SQF's to NQF could imply to reassess workers professional level which could eventually lead to salaries rise at large. Moreover SQF's in general are described in "Professional Categories" NOT in Qualifications. These Professional Categories are pretty much related to Job positions than related to "competences". As NQF has been recently put in place ( VET only) and just now educational system and non-formal learning ( VET ruled by Ministry of Labour) has been adapted to it, few initiatives, if any, have been carrying out to relate SQF to NQF. As expected the natural beginning of this process should be found at public service area where governments put no resistance to the change as oppose to private sector. So no "private" initiatives were detected trying to link SQF" to NQF. The National Qualification Institute of Spain ( INCUAL) likewise has no acknowledge about the existence of such initiatives in the territory.

Just one 'PUBLIC' initiative where identified this is a collective agreement between public employees and Cantabria Government. This collective agreement was negotiated by labour unions and government and was published in February of 2010 with annual reviews foreseen. In this agreement each professional category of the public SQF is linked to an official qualification described in NQF ( which in Spain is already related to EQF). No other Public initiative was detected as well.

Statistics: this SQF has a regional level and is concerned to personnel on public administration only.

The total nr. of employees of Public Administration at regional level is 33.576 people.

This SQF identified cover specifically 20.425 employees: 60% of total personnel.

There is no sectoral representation as such at European level seeing they are public administration. In any case a European representation could be found at Labour Unions level.

Trends: This is the first initiative identified. At public level is expected that the entire country will assume this trend as the collective agreements are renegotiated every year.

Also because, as governmental structures, they MUST be ahead on implementing innovative HR policies according with EU requirements and policies regardless all costs this could imply.

At private level this process simply does not exist. This is because of all political implications the linking of SQF-NQF-EQF may launch, as explained at the questionnaire. Moreover the collective agreements negotiations are almost paralyzed throughout the country due to the crises, so no movement in this regard will happen in the near future.

Impact on Occupation: this agreement effects on the overall public workers in Cantabria region.



- What are the qualifications and qualification standards in the selected sector? Please, describe the qualification structure (definitions of concepts and terms, input/outcome orientation, modularization, learning outcomes, descriptors, non-formal and informal learning, etc.).

There is NO qualifications as such. The SQF is described as far as 51 professional categories and all structures mentioned in the question do not apply to these categories. Each professional category of this public SQF however is, by this new collective agreement, linked to na official qualification described in NQF ( which in Spain is already related to EQF). The Qualifications of NQF in Spain are described in competences unities with training modules associated to each competence.

- What are the modalities for accessing the profession/occupation (e.g. licenses, training requirements, apprenticeship, career evolution, etc.)?

Public selection via an exam and career evolution according to Public government career path schemes.

- What are the Sectoral Qualifications Systems and Frameworks in the selected country/countries? Please distinguish if they are established or under development, their size, structure, scope, etc.

You may find as many SQF as economic sectors. All of them are NOT based in qualifications but in Professional Categories which derived from collective agreements from the past.

- What are the processes/needs leading to the emergence/creation of sectoral qualifications (e.g. fragmentation of qualifications across Europe, increase of workers mobility, need for a better quality of qualifications, etc.)? Please describe also how the definition of a sectoral qualification improves the weaknesses of the previous scenario.

The SQF's, in the format they exist currently in Spain, are born as consequence of negotiations between Business Association and Labour Union of a certain sector in a form of collective agreements. They are created to address the need of having professional categories homogeneously defined along the sector in order to guarantee homogeneous salaries as well.

- Which are the approaches for the identification/definition of learning outcomes and for the application/test of descriptors?

Not applicable to SQF's in the format they exist currently in Spain.

- What is the relationship of sectoral qualifications to the national training system (e.g. the sectoral qualification is a supplement offered in parallel to national qualification system, it is integrated as an obligatory part of the basic training, etc.)? For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. "are they an evolution from national to European or vice versa", or "do they pursue a bottom-up or a top-down strategy").

Part of SQF is integrated on obligatory part of the basic training and part is offered in parallel to national qualification system since many sectors consider that NQF does not offer the complete and update training that market requires.

For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. "are they an evolution from national to European or vice versa", or "do they pursue a bottom-up or a top-down strategy").

Just one 'PUBLIC' initiative was identified and this is a collective agreement between public employees and Cantabria Government. In this specific collective agreement each professional category (which are much more related to job positions) of the public SQF is linked to a official qualification described in NQF (which in Spain is already related to EQF). Although the final aim WAS NOT to related SQF to EQF, we can consider an evolution form National to European seeing when relating SQF to NQF, automatically the professional category will be related to EQF for , In Spain, NQF (VET only) is already related to EQF.

- Please describe the Stakeholders involvement and the relations with the labour market/learner's perspective (are they supporting a sectoral qualifications framework?). Who is the owner of the qualifications?

This Public SQF is designed by Government and Labour Unions. The labour market as far "public sector" is ruled by the framework defined within the collective agreements, considering "framework" as the professional categories defined in such agreements.

What are the social dialogue initiatives at the national/transnational level in the considered sector? Are representative stakeholders at all levels (national and European) involved?

If not, why? Are there relations with other sectoral initiatives at national or transnational level?

No European level and/or representation of this SQF. This is a regional initiative following directions of National.

- How are quality, credibility and mutual trust assured (e.g. common guidelines for evaluating candidates, European Examination Commission, etc.)?

Collective agreements for this sector "public service" is assumed by all public entities in their HR policies and implemented and managed according EFQM / ISO quality standards. The processes of selection are public procedures strongly standardized and controlled. Being a "public" realm few or no room for deviations on credibility, trust or commitment can be found, seeing is widely public and controlled by law.

- Please describe the strengths, weaknesses, opportunities and threats of the analysed Sectoral Qualification System. How do you think the SQF could be enhanced and refined in order to make work processes transparent?

This single initiative, although public is a first.

## 2) Referencing to the EQF

- Is there a need for linking sectoral qualifications to the EQF? What are the related constraints (weaknesses) and benefits (strengths)?

Structurally speaking NO. Once a SQF is linked to an official qualification described in NQF, it is automatically linked to EQF since Spain NQF is already related to EQF. In some way this is a strength.

Politically speaking also NO. This linking process presents very important weaknesses. On one hand Labour market still do not see the need of linking SQF to EQF, for one thing EQF is out of its reality for the moment and is considered one of this multiple "government education thing" far from labour market reality. On the other the process of linking SQF to NQF at private market level will be a very lengthy, complex and political process. Linking of SQF to NQF is a process handled at sectoral collective agreements level.

The implications are that if sectoral collective agreements rely on NQF-VET to establish standards and salaries, the salaries should be increased in many current occupations seeing many workers can be polyvalent in some way accordingly with a company internal policies for the production activity. So, Business Associations Representatives manifests that: The worker is LEVEL 2 seeing his technical abilities are related to this level. By the fact that he has more responsibilities this is not a general characteristic of Level 2. Happened that in this specific work place due to the particularities of the work process he has some of these tasks sometimes ( level 3 tasks). He is not a level 3 because of that. Tomorrow he will be in another work place without these responsibilities and he will keep be a Level 2 "pure" again.

Labour Unions says: He is level 3 since he has complete technical abilities of level 2 and assume managing positions of level 3.

Education Experts says: we saw 2 levels mixed.

What is the final decision considering this decision will affect the worker salary? Who at the end decide if the occupation under discussion will be level 2 or 3?

**How the link to the EQF will affect the credibility of the qualification (opportunities)?**

The link does not affect the credibility of the qualification itself as it did not affect it when NQF(VET) was linked to EQF. This is simply an additional tool that allows to translate the qualification from one environment to another. If the credibility is affected in some way the root of this lack of credibility would not be the EQF but the trust on the NQF where it is related.

The greatest obstacle is the fact that if we want to adapt the EQF in a "institutionalized" way via national qualification frameworks as we are formally doing ( EQF-NQF-SQF), may be companies can have resistances in using it seeing they may not rely in the NQF levels descriptions and/or competences descriptions due to:

1) NQF levels descriptions: Depending on who won *the final decision* described above, companies will rely more or less in a occupational Level assigned.

2) NQF Competences Descriptions: The pace official bodies update the National Qualification Catalogues face critical remarks coming from companies seeing these competences are not updated with marked technological/structural changes and the profiles through which students are trained get old quickly. In Spain they foresee to update the Catalogue every 5 years, may be revisions every 3.

**Which are the risks (threats) of the link to the EQF?**

The link of SQF to NQF presents many political issues as explained before. One alternative would be to link SQF directly to EQF.

EQF levels description by its nature can easily be adapted to most of Job Description system ( Systems built by Consultancy companies implemented in companies). This in part could facilitate the adaptation to labor marked as far as companies adaptation. They would not have to change anything, just refer their levels to EQF levels ( In theory – in practice there is no case identified so far, the majority of companies does not even know what is EFQ). Although operatively this is possible and we have e-IT skills form UK as a good example, this have some risks:

Companies Occupational Profiles: Structured Companies (usually big ones) have Job Position descriptions done accordingly to a System (there are many in the market). In general these systems established Levels for Job Positions. These levels can be related to EQF levels directly.

What is the problem here: Only big companies could do that seeing SME's usually do not use this formal Job Position systems. However SME's comprehend more than 90% of total companies in Europe, so these companies would have difficulties to match this process.

Other important risk is that is SQF's are linked directly to EQF independently they will:

- o 1<sup>st</sup> – Surpass the Official Educational System
- o 2<sup>nd</sup>–The EQF relation may not be reliable since you may have as many different SQF structures & control as sector you may find in the labor market. The trading SQF of France can be far different from trading SQF in Spain since both are built in different ways.

#### What will be the consequences for the labour market and the individuals?

The main risk of all this is that EQF remains as a theoretical reference with no practical use and the mobility in Europe remains in very low levels as it is right now for the major part of workers.

#### Are there any obstacles to the linking to the EQF?

Politically all obstacles.

On one hand Labour market still do not see the need of linking SQF to EQF, for one thing EQF is out of its reality for the moment and is considered one of this multiple "government education thing" far from labour market reality. On the other the process of linking SQF to NQF at private market level will be a very lengthy, complex and political process. Linking of SQF to NQF is a process handled at sectoral collective agreements level.

The implications are that if sectoral collective agreements rely on NQF-VET to establish standards and salaries, the salaries should be increased in many current occupations seeing many workers can be polyvalent in some way accordingly with a company internal policies for the production activity. So, Business Associations Representatives manifests that: The worker is LEVEL 2 seeing his technical abilities are related to this level. By the fact that he has more responsibilities this is not a general characteristic of Level 2. Happened that in this specific work place due to the particularities of the work process he has some of these tasks sometimes (level 3 tasks). He is not a level 3 because of that. Tomorrow he will be in another work place without these responsibilities and he will keep be a Level 2 "pure" again.

Labour Unions says: He is level 3 since he has complete technical abilities of level 2 and assume managing positions of level 3.

Education Experts says: we saw 2 levels mixed.

What is the final decision considering this decision will affect the worker salary? Who at the end decide if the occupation under discussion will be level 2 or 3?

- What kind of procedures are planned or in progress for referencing sectoral qualifications to the EQF?

Do these procedures allow a direct link to the EQF or do they require an indirect link?

Please analyse the pros and cons of the direct link (common strategy, link of individual qualifications, responsible bodies, application of criteria, procedures, descriptors) and the indirect link (referencing of a single sectoral qualification defined at the national level/of all qualifications in all countries, linking to NQF versus inclusion in the NQF, transparency of procedures, etc.).

There is one official planning in this regard at the moment at public and private levels. There is only isolated initiatives, in fact just one was detected and at public level where is easier to implement any of these "novelties" since they are strongly binded to political policies.

- Who will be responsible for referencing sectoral qualifications to the EQF?  
In any case collective agreements will handle this via linking NQF to SQF.
- Are sectoral levels consistent with EQF levels (if not, how should they be modified)?
- Is there the possibility to use the same EQF categories for describing learning outcomes or should they be adapted (in this case, please explain how they should be modified)? Is the referencing to the EQF based on all EQF descriptors (knowledge, skills and competences)?

Which are the strategies for supporting credibility and fostering mutual trust between private and public stakeholders? Which are the roles, responsibilities and measures for quality assurance? Is there any relation/consistency with national and European recommendations/indicators?

It depends on how detailed the professional categories of the SQF are describe (usually not so detailed to a extend that could relate to EQF in a way as a Job position Description of a big company can related). To change professional category of a current SQF is a big issue due to its political roots.

## Annex 2.2

### “Construction” sector (Romania)

#### 1) Sectors, Sectoral Qualifications, SQS/NQS, SQF/NQF

- Please provide a picture of the sector (statistics data, impact on occupation, trends, structure, etc.). Who represents the sector at the European level (international organizations, associations, companies, etc.)?

Construction industry in Romania is one of the most active and dynamic sectors of National economy. Until 1990, the construction industry in Romania was structured into large building or installations trusts belonging to the State, with branches spread throughout the country and over one million employees.

These enterprises are those having built in Romania houses, roads, railways, tunnels, dams, industrial and in many other countries a large number of residential, non-residential, industrial and engineering constructions objectives.

After 1990, the general movement of transition to market economy and privatization of industry, the large construction trusts were sprayed over 20 thousand private enterprises of different sizes, from very small to very large ones. Currently, in Romania there are no construction companies with state capital. The number of employees of these new enterprises has decreased drastically along with the decrease of the construction works orders, especially in the first years after 1990.

After 2000, with settlement on general economic principles of market economy, the works in the construction industry began to grow, and this phenomenon has grown every year.

The construction sector recorded after 1989, one of the fastest privatization of the national economy, in 2003 reaching a share of 99.51% in the number of companies with majority private capital, and in 2007 a share of 99.87%.

On the construction market in Romania appeared more and more frequent major Western construction companies which have not met a significant competition from domestic firms. Developers, who based their financial power creates a wide horizon for the construction industry, make their presence felt increasingly more. The main foreign entrepreneurs have entered the Romanian market were prestigious companies, with rich experience in construction works such as Bouygues, Strabag, Iralstrade, Diekat, Astaldi, Ozer Construction, Summa, Bechtel and others.

Many projects were executed by these companies, ranging from highways, municipal works, supermarkets and rehabilitation of monumental buildings. In most cases, these large companies have worked with Romanian subcontractors, which show their technical and technological capacity to work across Europe. So the almost constant position of subcontractor of Romanian companies is due only to insufficient financial capacity to undertake construction works on their own.

In Romania, the following ministries are primarily involved in the construction sector and regulate the construction economic activity: Ministry of Transports, Ministry of Interior (responsible with public order), Ministry of Agriculture (which coordinates local agencies, issue environment authorizations for commercial societies, performs controls and implement regulations in the environment protection area, applicable in Romania), Ministry of Finances (which monitors and implement the fiscal regulations approved by the Government and by the Parliament), Ministry of Labour (which is watching over the implementation of the social protection as stipulated by the Labour Code).

In addition to ministries, there are some national and local agencies and other institutions with practical responsibilities in establishing a procedural framework for legal entities in order to achieve regulated activities. Procedures implemented by public bodies are related to: issuance of permits, certifications, licences for operation, collection of local taxes, impose the application of certain standards and procedures in the industry, issuing licences and certifications of compliance, etc.

An important institution involved in the construction sector is Inspectorate for Constructions which main role is to check the technical documentation for the erection of new buildings and the legal authorizations issued by local authorities.

Romanian Constructors Association (ARACO) is a professional association of owner of construction companies that have as main goal to promote economic and technical interests.

If before 1990, over 1 million people worked in construction, their number fell continuously to a point. Later, the development of the sector led to a number of about 360 thousand workers, at the level of 2007. Initially, the reasons for this substantial decreasing were on one hand the reduced construction activities during the first years after 1990, and the orientation of workers to other activities, on the hand the emergence of travel and work opportunities for better wages in other European countries.

In 2007, which marked a great development of this sector, in the construction sector in Romania was needed at least another 150-200 thousand workers. At that time, the Sectoral Committee has been

particularly involved in human resources development in the sector and in filling the gap created by the lack of human resources by increasing productivity and by a higher qualification of existing resources. Also, the main trade unions and employers' association in the sector signed, in 2006, a Sectoral Agreement which stipulated, among others, doubling the minimum wage within 2 years. As a last resort, they took into account the possibility of bringing skilled workers from other areas such as China, Pakistan and India. But the annual growth trend was not continuous, and since 2008, was noted a decreasing trend, the number of employees currently bringing a number of approx. 385 thousand workers (from approx. 420 thousand workers in 2008) with further downward trend.

- **What are the qualifications and qualification standards in the selected sector? Please, describe the qualification structure (definitions of concepts and terms, input/outcome orientation, modularization, learning outcomes, descriptors, non-formal and informal learning, etc.)**

Presently, professional qualifications in Romania are expressed in terms of learning outcomes. For initial training programmes (IVET) in the formal education, the qualifications are described by the vocational training standards (SPP), and for adult training the learning outcomes are described by the occupational standards (SO) and by the vocational training standards (SPP) as well.

Here we have some examples of occupational standards:

#### SCAFFOLDER:

The scaffolder from the construction sector should be able to measure, to assemble, install, raise, to fit, fix, adapt, dismantle, maintain, verify elements of scaffolding and/or scaffolding systems of various types used for construction, renovation and repair of various objectives.

The scaffolder activity is done in teams, on construction sites, inside or outside buildings (outdoor), at height, in difficult places of access, being often exposed to cold, heat and humidity. To accomplish its work, the scaffolder use specific equipments.

In carrying out its tasks, the scaffolder must have basic knowledge of mathematics, strength of materials, knowledge of the technical documentation, knowledge of the methods of assembly, installation, removal, maintenance items scaffold / scaffolding systems function their diversity, knowledge of static stability, knowledge of the types of scaffolding, the concepts of width, length and height, a reinforcement and installation path / Floorings access, knowledge of the tools, equipments and other accessories used in the field, specific knowledge stability, reliability and way of anchoring the scaffolding, knowledge of legal provisions on OSH and in emergencies, as well as the environment, etc.

#### CARPENTER:

Carpenter is the worker operating in dedicated workshops, in workshops of the construction site and/or working in various construction sites, using various tools and equipments: saw, drilling machine, electric saws, etc. In terms of importance, conditions of performance and complexity level, carpentry work are classified in: main works, secondary, labour protection and specials.

The carpenter makes wood strength structures, execute the necessary elements of the structure, makes joints in accordance with the execution plans, assemble the structures of resistance and, depending on specific situations, disassemble temporary wood structures after completion of the resistance structure to what they were provided.

#### SANITARY AND GAS PLUMBER:

Sanitary and gas plumber in the construction sector should be able to measure, cut, to combine and pose pipelines, to carry passes through walls and floors for pipes, to fit pipes, machineries, equipments used in sanitation, accessories, put in service installations, to replace, to repair pipes, fittings and their joints, to diagnose and remedy the defects found in all types of installations and machineries / equipment used in sanitation, to use water supply, sewerage, fire fighting, natural gas and perform work for their maintenance. Activity plumber and gas technical and sanitary is done in teamwork and usually indoors, but there may be cases when this activity can be achieved and outside the buildings, that is why he may be exposed to cold, heat and humidity.

In carrying out its tasks, sanitary and gas plumber must have basic knowledge of mathematics, hydraulics, mechanics, construction mechanics, strength of materials used in the work of installation, interpretation of the documentations and technological schemes, connecting technology, normatives in the field and rules of the state inspection for boilers under pressure recipients lifting equipments.

To obtain the qualification the sanitary and gas plumber must have a gas installer permit issued by the National Authority for Regulation for the Reglementation in the Natural Gas Field (ANRG).

Regarding HE, there is a methodology to achieve National Qualifications Framework in Higher Education where it is shown how to describe qualifications for this level of training.

Thus, the qualification is the formal acknowledgement of the value of the individual learning outcomes



for the labour market, as well as for the continuing education and training, by means of a study document (diploma, certificate or attestation) awarding the legal right to practice a profession/trade.

The description of qualifications obtained through university studies involves the following four stages:

Stage I – describe the study field/programme by means of professional and transversal competences (fill in Grid 1);

Stage II – identify, for each study programme, the correlations between competences and content areas, study disciplines and their related credits (fill in Grid 2);

Stage III – develop the educational plan for the study programme according to the competences that define the qualification;

Stage IV – develop the discipline sheet according to the educational plan and the competences that define the qualification

In the field of constructions, there are several vocational training standards which have been already defined in terms of learning outcomes within PHARE Project TVET RO 0108.01. As far as it is concerned the continuous vocational training or adult training, there is a Methodology for the development and revision of occupational standards and vocational qualifications where the main aspects for qualification descriptions are:

Each qualification is achieved by selecting appropriate units of occupational standards;

For each of the occupational standard units selected for the composition to form a professional qualification appropriate form of professional competence that defines the essential skills and knowledge necessary for that professional competence;

Finally, for each form of competence assessment methods are selected.

Higher education from Romania provides qualifications in this field of constructions. Thus, according to GD no 635 of 24.06.2008, higher education in Romania includes in its structure the fundamental field Engineering Sciences comprising the Bachelor university study field Civil Engineering which includes the study programmes/specialisations: Civil, industrial and agricultural construction; Railways, roads and bridges; Buildings and fortifications; Facilities Construction and Hydraulic; Mine Construction, Sanitary Engineering and Environmental Protection; Land Reclamation and Rural Development; Civil Engineering, Urban Engineering and Regional Development, Metropolitan transport infrastructure.

Currently, higher education qualifications (Bachelor and Master's levels) are being defined under an ESF funded project – “Development of an operational system of qualifications in higher education in Romania” – DOCIS, implemented by ACPART/ UECNCFPA. The main objectives of this project aim at the development of a National Qualifications Framework in Higher Education as well the design and implementation of the National Qualifications Register in Higher Education.

- **What are the modalities for accessing the profession/occupation (e.g. licenses, training requirements, apprenticeship, career evolution, etc.)?**

Access of gymnasium graduates to VET is made in compliance with the provisions of OMECT no 5166/26.08.2008 on the approval of methodology for the organisation of the admission timetable in the public high school and vocational education for the academic year 2009-2010. The graduate may chose this based on the average score obtained during the 4 years in gymnasium. Gymnasium graduates who cannot enter the formal education and training system may chose work-based apprenticeship organised by a training provider authorised by NATB, in order to acquire a qualification.

With regards to initial vocational education and training (IVET), access from one study level to another (vertical progression) is made based on the provisions of the Education Law no 84 / 1995, by passing examinations for certification of professional competences. Access from one profile to another (horizontal progression) is made by transfer; in this case, the student must sit a theoretical and practical examination for those subject matters he/she had not studied previously.

For progression from IVET / CVT to higher education the student must go through all stages leading to the award of baccalaureate diploma, which ensures access to admission to higher education.

IVET is provided both in formal and in non-formal and informal system. CVT is managed by NATB, which also deals with IVET organised in non-formal or informal contexts. Thus, a person who was already initiated in a qualification may continue his/her training by following an improvement, specialisation or retraining course delivered by providers authorised by NATB. In compulsory education it was developed a system for the recognition of basic education within the frame of the “Second Chance” Programme.

Validation of informal and non-formal learning has to date mostly been available in non-academic sectors. Some efforts have been made to bridge VET and higher education.

With regards to recognition of non-formal /informal learning (RNFIL), there is a practical guide for

schools which might participate to this recognition as authorised centres for the assessment and certification of professional competences. This authorisation is granted by NATB, as authority for adult training. When schools start activating as assessment centres, those who want formal recognition of the competences they acquired in non-formal/informal contexts will undertake the assessment process leading to this certificate.

The individuals who would like to be assessed in the view of recognising of vocational competencies acquired through non-informal and informal ways should address to an assessment centre authorised for such occupation/qualification.

After the certificate was issued, the individual may use it for various purposes, such as:

- present it to an employer, for recruitment purposes or to justify promotion or a raise;
- present it to regulating authorities, clients or insurance companies to demonstrate that he/she is entitled to practice a profession;
- may use it to be admitted to a course either in compulsory education or in higher education, requiring certain qualifications as entry requirements;
- may use it to request to be exempted from following a part of a formal study programme (only in case of a partial certificate for a module or unit of competence).

The certification is a collaborative process between the NATB and recognized assessment centres. Certificates are issued by the NATB and delivered by assessment centres to customers. The assessment centres are accredited by NATB.

- **What are the Sectoral Qualifications Systems and Frameworks in the selected country/countries? Please distinguish if they are established or under development, their size, structure, scope, etc.**

In Romania it doesn't exist yet a Sectoral Qualifications Framework in Construction but there are concerns for the development of such an instrument since Romania intend to create a National Qualifications Framework which would encompass all sub-national qualifications obtained by formal, informal and non informal.

Romania has participated as a partner in a project financed by the European Programme for Lifelong Learning Leonardo da Vinci and implemented by a consortium of organizations dedicated to professional qualifications in four countries, namely Germany, Holland, Italy and Romania. The project « Developing and introducing Sectoral Qualifications Framework for the European construction Industry » was carried out from 02/01/2008 to 01/31/2010 and aimed to develop a framework of qualifications in the Construction Sector agreed to organize the social partners at European level, so there is a fundamental reference document recognition training of employees in this sector. This document will be consistent with the philosophy and structure of the European Qualifications Framework and will contain specific details of occupations in industry practice identified in relation to work activities and phases of work described in any project. Results of the project aims to develop the matrix following the principles of qualifications in terms of learning outcomes at different levels of responsibility (from 1 to 5), for qualifications related to the phases of construction for a building with 24 apartments.

Planning;

Establishing site;

Landscape works;

Production of apartments and road works;

Measurements, reception work, invoicing.

- **What are the processes/needs leading to the emergence/creation of sectoral qualifications (e.g. fragmentation of qualifications across Europe, increase of workers mobility, need for a better quality of qualifications, etc.)? Please describe also how the definition of a sectoral qualification improves the weaknesses of the previous scenario.**

By the project « Developing and introducing Sectoral Qualifications Framework for the European construction Industry », Romania has proposed to accomplish its objectives by enabling actors in national construction industries and training organizations to relate their national standards, qualifications, networks and certificates to a common framework, in order to improve transparency between national training systems, comparability of VET results by using learning outcome approach and better functioning of the labour market. This project focuses on creating a transnational network of actors who have a significant role in defining a sectorial framework of national qualifications This network can be viewed as a way to improve the exchange of methodologies and instruments on the basis of a mutual exchange among peers.

Thanks to such a way of working, SQF will better foster the achievement of quality assurance, transparency and coordination between VET systems of participating counties to the project. This will



strengthen construction industry in coming years when qualified personal will be less and competition of industries and enterprises to gain the best people will increased in order to improve its competitiveness and power to contribute to the Lisbon goals.

- Which are the approaches for the identification/definition of learning outcomes and for the application/test of descriptors?

Qualifications are defined in terms of learning outcomes. Professional qualifications are developed by direct derivation from the proper occupational standards.

- What is the relationship of sectoral qualifications to the national training system (e.g. the sectoral qualification is a supplement offered in parallel to national qualification system, it is integrated as an obligatory part of the basic training, etc.)? For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. "are they an evolution from national to European or vice versa", or "do they pursue a bottom-up or a top-down strategy").

In Romania, according to Tripartite Agreement on the National Qualifications Framework, NQF is seen as a tool for classification of qualifications in accordance with a set of criteria to integrate and coordinate national qualifications subsystems. This means that the NQF aims national system of qualification which can be obtained by: general secondary education, vocational and technical education, continuing vocational training, apprenticeship, higher education.

National Qualifications Framework in Romania will be created according to the principles of the EQF, and in terms of the Qualifications Framework in Construction Sector, Romania is interested reporting qualifications those achieved at national level to the European level, the project mentioned before (« Developing and introducing Sectoral Qualifications Framework for the European construction Industry ») being an example in this way, Romanian partner- House of Vocational Builders, becoming a member of the Transnational Network SQF-CON partners to continue its work in the project in the frame of the Social Dialogue in construction at European level as well as on national levels in participating member states.

- Please describe the Stakeholders involvement and the relations with the labour market/learner's perspective (are they supporting a sectoral qualifications framework?). Who is the owner of the qualifications? What are the social dialogue initiatives at the national/transnational level in the considered sector? Are representative stakeholders at all levels (national and European) involved? If not, why? Are there relations with other sectoral initiatives at national or transnational level?

In this moment, in Romania there are several changes within the institutions that have a significant role in developing qualifications. In 2003, the National Adult Training Board (NATB) assumed the attributes of COSA, the body that was to elaborate a methodology for occupational analysis and the development of occupational standards in accordance with European developments in this field. NATB continued their activity in the field of occupational standards and assessment/certification of professional competences. In 2010, the National Adult Training Board (NATB) became National Council of Qualifications and Adults' Vocational Training. The Technical Secretariat of the National Council of Qualifications and Adults' Vocational Training merged with the National Agency for Qualifications in Higher Education and Partnership with Economic and Social Environment - ACPART and became the Executive Unit of the National Council for Qualifications and Adult Training. From 4 January 2011, the new National Law of Education provides the creation in three months of the National Qualifications Authority, which oversees the national qualifications system.

In the construction sector, Sectorial Committee for Vocational Training in Construction is responsible for the content of occupational standards and professional qualifications in the field. Sectorial Committee is formed of representatives of employers and unions in the construction sector which includes: Romanian Association of Construction Entrepreneurs, General Federation of Trade Unions FAMILY and National Trade Union Federation of Construction- Assembly "Anghel Saligny". Technical Secretariat of this Sectorial Committee is provided to the House Builders Vocational which promotes and acts for the development of human resources in building and construction industry. The organization represents the social partners from building and construction industry in relationship with National Authority for Qualifications.

- How are quality, credibility and mutual trust assured (e.g. common guidelines for evaluating candidates, European Examination Commission, etc.)?

In Romania, the law in the field of continuing vocational training has incorporated several elements of quality assurance, starting from 2000, but it has been a little systematized. Now, in Romania there is a quality assurance system in FPC. Legislation concerning the authorization of providers of FPC and the institutions meant to implement became operational in 2004. From 2004 until now have been several

assessments of the authorization process of providers of FPC who led to the conclusion that the quality assurance system in FPC must be improved and harmonized with all requirements of the European Assurance Reference Framework for Vocational Education and Training – EQARF VET.

Since now, the way that is approached quality assurance issues differ considerably from the formal system, to the informal and non-formal. The model applied in non-formal and informal system is based on skills assessment centers authorization, while the model applied in the formal approval is based on adult training providers.

Thus, in January 2009 it has started a project coordinated by NATB, financed by FSE with POSDRU, for a period of three years, headed "Quality assurance in continuing vocational training system in Romania-CALISIS" which aims to develop and implement a national system of quality assurance in continuing vocational training compatible with European Assurance Reference Framework for Vocational Education and Training – EQARF VET.

As far as it is concerned the pre-university education, the Romanian Agency for Quality Assurance in Pre-university Education (ARACIP) is responsible for the external evaluation of the quality of education as well as for the authorisation, accreditation and regular evaluation of pre-university education institutions. For the higher education the National Agency for Quality Assurance in Higher Education - ARACIS has the mission to perform external evaluation of the quality of education provided by higher education institutions and by other providers of initial and continuing education and training programmes specific to higher education.

- Please describe the strengths, weaknesses, opportunities and threats of the analysed Sectoral Qualification System. How do you think the SQF could be enhanced and refined in order to make work processes transparent?

It is quite difficult to achieve such an analysis in the context in which we can't yet speak of the existence of a Qualifications Framework of the Construction Sector.

## 2) Referencing to the EQF

- Is there a need for linking sectoral qualifications to the EQF? What are the related constraints (weaknesses) and benefits (strengths)? How the link to the EQF will affect the credibility of the qualification (opportunities)? Which are the risks (threats) of the link to the EQF? What will be the consequences for the labour market and the individuals? Are there any obstacles to the linking to the EQF?

In Romania, it has been taken the decision to adopt the principles of the European Qualifications Framework (EQF), one part of the obstacles that may arise in applying these principles are related to the discontinuity of political will at national level, fragmentary understanding of these principles or indifference of employers.

- What kind of procedures are planned or in progress for referencing sectoral qualifications to the EQF? Do these procedures allow a direct link to the EQF or do they require an indirect link? Please analyse the pros and cons of the direct link (common strategy, link of individual qualifications, responsible bodies, application of criteria, procedures, descriptors) and the indirect link (referencing of a single sectoral qualification defined at the national level/of all qualifications in all countries, linking to NQF versus inclusion in the NQF, transparency of procedures, etc.).

In Romania, it has been taken the decision to adopt the principles of the European Qualifications Framework (EQF), which is seen as an important motivation to improve the methodological framework for the development and review of professional qualifications, as an integral part of creating a National Qualifications Framework. Therefore, in the last years CNFPA has implemented several projects PHARE, which resulted in several documents that underpin the development of occupational standards in line with the EQF. These documents are:

### Methodologies

Methodology for Occupational Analysis ( September 2009) ;

Occupational Standards and Qualification development and review methodology (September 2009);

Methodology for Verification and Validation of Occupational Analysis, Occupational Standards and Qualifications (September 2009);

Methodology for Certification of Qualifications and Competences (September 2009).

### Guidelines

Guidelines for the application of the Methodology for Occupational Analysis (September 2009);

Guidelines for the application of Occupational Standards and Qualifications development and review methodology (September 2009);

Guidelines for the application of the Methodology for Verification and Validation of Occupational

Standards and Qualifications (September 2009).

In terms of assessment and certification of professional competences, besides the legal framework, there is a very important document: The Professional Competences Assessor Guide, and related documents. All occupational standards, documents on developing occupational analysis, occupational standards and associated qualifications and all documents relating to the process and the system of assessment and certification of professional competences can be found and downloaded in Romanian version at [www.cnfpa.ro](http://www.cnfpa.ro).

Also, ACPART has made a methodology to achieve National Qualifications Framework for Higher Education in Romania in accordance with the requirements of the EQF.

- **Who will be responsible for referencing sectoral qualifications to the EQF?**

Establishing a framework of sectoral qualifications reported to the EQF is directly link to the needs of a particular sector and is made as long as which sectorial committee (ex. Constructions) has initiative to achieve a SQF.

- **Are sectoral levels consistent with EQF levels (if not, how should they be modified)?**

As we sad before, Romania hasn't defined a sectoral framework of qualification, but there are interests in elaborating a National Qualifications Framework which encompass all the educational subsystems.

- **Is there the possibility to use the same EQF categories for describing learning outcomes or should they be adapted (in this case, please explain how they should be modified)? Is the referencing to the EQF based on all EQF descriptors (knowledge, skills and competences)?**

National Qualifications Framework alignment (NQF) to EQF resulted in the adoption of the EQF level descriptors. Level of descriptors, such as currently are defined, might include in the future other reference elements such as knowledge, complexity, portability, etc. Also, key competency units set in the EQF, are transferable to all activity sectors, on the same level of autonomy and responsibility, to support labor market integration, social inclusion and lifelong learning.

- **Which are the strategies for supporting credibility and fostering mutual trust between private and public stakeholders? Which are the roles, responsibilities and measures for quality assurance? Is there any relation/consistency with national and European recommendations/indicators?**

As it was said above, Romania is trying to adopt the recommendations at European level by carrying out projects to lay the foundations of methodology and guidelines for application of these methodologies to achieve a national qualification framework compatible with the EQF. New institution, National Qualifications Authority will have responsibilities related to implementing and updating the National Qualifications Framework, and quality assurance in this area.

### Annex 2.3

#### "Logistic" sector (France)

##### 1) Sectors, Sectoral Qualifications, SQS/NQS, SQF/NQF

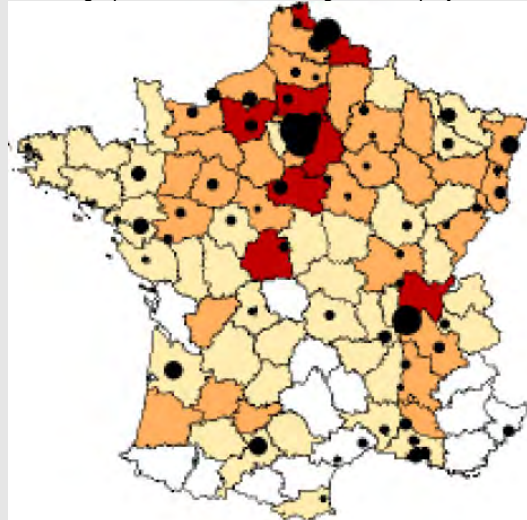
- **Please provide a picture of the sector (statistics data, impact on occupation, trends, structure, etc.). Who represents the sector at the European level (international organizations, associations, companies, etc.)?**

In terms of applicable collective agreements which govern many of the employment and qualification related aspects of the activities at stake, the logistics sector in France is under the umbrella of the road transport & transport auxiliary activities' branch. This implies that a specific logistics branch does not exist to this day in France, at least not in a publicly recognised structure as such. Thus, most logistics job functions are considered to be in fact transport auxiliary activities.

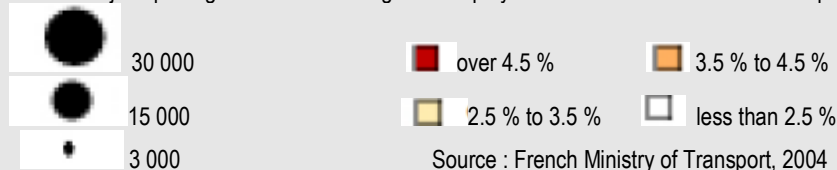
The transport and logistics branch accounts for over 1.6 million employees, amongst which approximately 350 000 workers do not carry specific transport or logistics job functions as these functions, albeit crucial to the proper functioning of companies, (administrative, accounting etc.) can be found in many other industries. Out of the 1.6 million employees, over 800 000 are directly involved in purely logistics activities, such as forklift drivers, order pickers, warehouse operators, logistics engineers and logistics operators. The logistics industry in France is moreover highly integrated as only one third of logistics services are conducted as for reward services, whereas two thirds are conducted for own account.

The geographic distribution of logistics, as regards occupation, is concentrated around the larger French cities such as Paris, Lille and Lyon which benefit from an easy access to efficient transport infrastructures (motorways, airports, seaports etc.). The following shows the geographical distribution of logistics-related employment.

Geographical distribution of Logistics' employment



Number of jobs per logistics zone      Logistics employment share in the overall local employment figure



Source : French Ministry of Transport, 2004

The Logistics sector in France is characterised by a low rate in executive/managerial positions occupied by employees, with a rate of 9 % whereas in the overall economy this rate reaches 18 %. However, this rate reaches 24 % if mid-level managerial positions are taken into consideration (against 38 % in the overall economy). The proportion of low qualification job positions is one of the highest in the merchant economy.

In terms of unemployment, the rate for the entire branch (*i.e.* Transport & Logistics) increased by 13 % in 2009, totalling 541 698 people declared unemployed (*Source: OPTL Report, 2010*). Amongst these jobs seeking logistics professionals, 11.2 % are youths aged under 25.

As regards representation of the branch, numerous organizations act both on national and European levels depending on the issue at hand. Perhaps one of the most active is the French logistics association «ASLOG» (Association française pour la logistique) which is a professional organisation actively involved in representing the logistics companies' interests in France, but also in Europe as it is a prominent member of the European Logistics Association (ELA) which also promotes the sector's interests on a European level, notably in the area of training standardization.

Other professional organisations such as FEDIMAG (Fédération nationale des prestataires logistiques et des magasins généraux agréés par l'Etat) and TLF (Fédération des entreprises de transport et de logistique de France) represent the Logistics' sector interests in many instances including negotiations regarding public policies and social partners' actions. Moreover, the FNTR (Fédération nationale du transport routier) is yet another professional organisation which, albeit mostly representing Road Transport companies, covers a portion of the Logistics sector involving non mobile transport workers (*e.g.* warehouse workers, forklift drivers etc.). The FNTR is quite active on the European scene and is a founding member of the IRU (International Road Transport Union) which acts as the Transport industry's advocate worldwide.

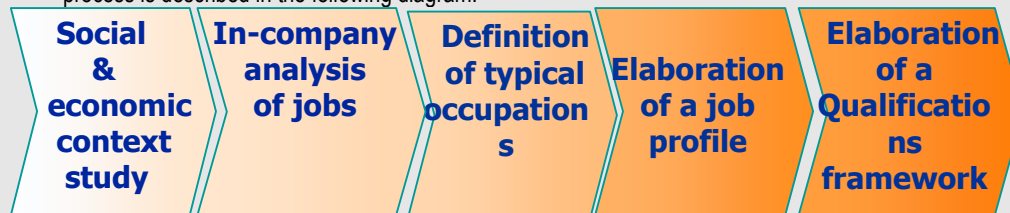
- **What are the qualifications and qualification standards in the selected sector? Please, describe the qualification structure (definitions of concepts and terms, input/outcome orientation, modularization, learning outcomes, descriptors, non-formal and informal learning, etc.)**

The qualification system aims at both providing training to individuals as well as ensuring certification for the training programmes. As regards vocational education and training, the training aims to equip trainees with the competences (encompassing in France knowledge, skills and competences) required in the labour market, whereas certification aims to the assessment and validation, against a predefined standard, of these competences.

In France, the "Social Modernisation Act" of 2002 introduced a system of non-formal learning

recognition, a system of job experience validation (VAE, for “Validation des Acquis de l’Experience”), through which any person with at least three years of professional experience can obtain an official recognition of his skills through the award of a professional diploma, or “title”, or the award of a professional qualification certificate (CQP).

The French approach for building qualification frameworks is known as “competence” approach, the term “competence” covering skills (ability to apply knowledge and use know-how), knowledge (outcome of the assimilation of information through learning) and competence (proven ability to use knowledge, skills and personal/social/methodological abilities). The building of these frameworks always starts by an economic context study of a particular job position, followed by an in-company analysis of jobs, thus ensuring ultimately a qualification framework that is consistent with work processes. The basic pattern of this process is described in the following diagram:



Moreover, although not all Logistics qualifications have been conceived in a modularized way (i.e. the training consists in a number of predetermined units called modules, each independent, albeit reflecting a certain degree of coherence), there is growing interest in the sector for such an approach as a module is designed from the skills or group of skills targeted rather than from the knowledge expected to be acquired. Modularization allows trainees to achieve their qualification goals by following a personalised path, which is likely to take into consideration skills acquired through professional experience and which enables the validation of skills module by module.

- **What are the modalities for accessing the profession/occupation (e.g. licenses, training requirements, apprenticeship, career evolution, etc.)?**

In France there are no rules limiting access to Logistics professions, with the exception of specific limitations concerning those occupied in the treatment of hazardous goods and who need to undergo a certain number of specific short training sessions, and of course those who also act as professional drivers and who, under the provisions of Directive 2003/59/EC have to undergo both initial qualification training (280 hours or 140 hours if eligible for the accelerated initial qualification training) as well as periodic training sessions (35 hours) every five years.

- **What are the Sectoral Qualifications Systems and Frameworks in the selected country/countries? Please distinguish if they are established or under development, their size, structure, scope, etc.**

Logistics qualification frameworks in France are addressed by the Transport and Logistics Branch which defines policy mainly through collective agreements (e.g. Branch National Agreement of November 25th 2004, extended in 2005, on vocational training in Road Transport & auxiliary activities). Bearing in mind these facts, it can seem surprising, albeit not incoherent, that there are three main sub-systems in the French Logistics qualifications system, each serving different purposes accordingly with their sources. Qualifications are formalised through diplomas which are created at the initiative of the Ministry of Education, through “Professional Titles” emanating from the Labour Ministry and through Professional Qualification Certificates (CQPs) which are elaborated on the basis of collective agreements directly decided upon by social partners representing Logistics companies and workers.

However, even though three distinct avenues for qualification exist in the French system, it is to be noted that, in which ever avenue considered, social partners are at the core of the actual qualification framework building. They are the ones who ultimately “fill in the frameworks.

With the exception of CQPs, these qualifications are referenced to the National Registry of Professional Certifications (RNCP), which is composed of five levels, Level I being the highest and Level V being the lowest, and which is managed by the CNCP (National Commission for Professional Certification) The currently established logistics qualifications are listed in the following table :

Qualification	Diploma	Professional Title	CQP	RNCP Level
CAP agent d’entreposage et messagerie	X			V
BEP Logistique et commercialisation	X			IV



Bac Pro Logistique	X			IV
TP Technicien en Logistique d'entrepôt		X		IV
TP Cariste d'entrepôt		X		V
TP Préparateur de commandes en entrepôt		X		V
TP agent magasinier tenue de stocks		X		V
BTS Transport	X			III
TS MEL		X		III
DUT Gestion Logistique et Transport	X			III
Licences Professionnelles en logistique	X			II
CERELOG		X		II
Masters Spécialisés Logistique	X			I
CQP Manutention Portuaire			X	
CQP Agent logistique			X	

Other smaller qualifications exist but they are neither referenced to the RNCP, nor given recognition from Branch professionals.

- What are the processes/needs leading to the emergence/creation of sectoral qualifications (e.g. fragmentation of qualifications across Europe, increase of workers mobility, need for a better quality of qualifications, etc.)? Please describe also how the definition of a sectoral qualification improves the weaknesses of the previous scenario.

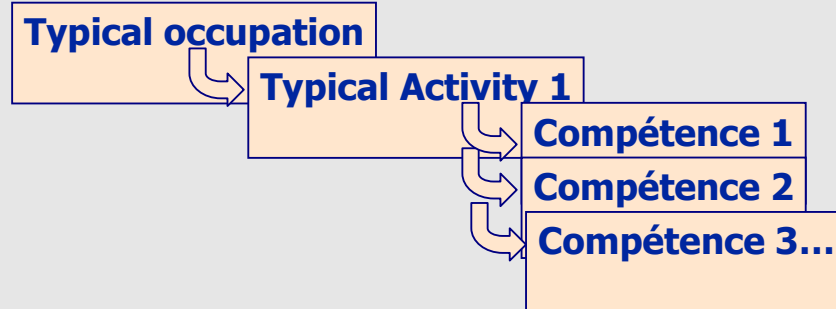
The original provider of qualification frameworks in the Logistics sector has traditionally been the Ministry of Education. However, logically, this institution's perspective has always more oriented towards knowledge acquisition than towards concrete work considerations. This explains why the creation of a sectoral qualification system in the Transport & Logistics' field first resulted from two parallel trends : that consisting in an increased specialisation in the definition of diplomas emanating from the National Education system, and that deriving from the gained consciousness for the need of qualification frameworks driven by the Labour Ministry to better suite the needs of workers and companies. Thus, "Professional Titles" were created.

However, the implication of state bodies such as Ministries inevitably put some, however not insurmountable, constraints on social partners' involvement in the process of elaboration of frameworks. Moreover, ministries have to take into consideration the general public's interests and therefore cannot provide specific frameworks tailored to the precise needs of a small number of companies. This explains why social partners steadily started elaborating "customised" qualification frameworks, named "Professional Qualifications Certificates" (CQPs), and tailored to the needs of very few specific job occupations. In elaborating these CQPs, social partners enjoy and use such a substantial amount of freedom that it is not surprising the CNCP is reluctant to referencing these CQPs to the RNCP levels. This is not a policy position, but merely reflects the fact that CQPs do not always meet the standards the CNCP welcomes.

- Which are the approaches for the identification/definition of learning outcomes and for the application/test of descriptors?

Learning outcomes, defined as the set of knowledge, skills and competences one attains after the completion of a training process, are identified in through the traditional "competence" approach. In the

process of creating a qualifications framework, a Professional activities and competences framework is elaborated, in which a typical occupation is broken down in typical activities and then in “competences” (requires interviews with professionals, experts), which encompass in France three learning outcomes, knowledge, skills and competences. In this regard, it is plain to understand that the descriptors which will be identified come directly from the analysis of work processes and will most likely be appropriate and accurate.



- What is the relationship of sectoral qualifications to the national training system (e.g. the sectoral qualification is a supplement offered in parallel to national qualification system, it is integrated as an obligatory part of the basic training, etc.)? For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. “are they an evolution from national to European or vice versa”, or “do they pursue a bottom-up or a top-down strategy”).

As mentioned above, there are three avenues for accessing Logistics qualifications frameworks in France : one emanating from the Ministry of Education (diplomas) and includes the basic training system, one from the Labour and Employment Ministry (Professional Titles) and one directly from social partners (CQPs).

It seems impossible to argue that the Logistics Qualifications System is supplementary to the National Qualifications System, for most qualification frameworks are elaborated, at least formally, by National authorities. Of course a set of specifically Logistics-oriented qualifications have been developed by both ministries involved, but the fact is only CQPs can really be considered to be created by the “Logistics’ industry”.

In this regard, under the condition it is assumed that the distinction between the National Qualifications System and the Sectoral Qualifications System lies not in the identity of their creators, but rather in the job positions they relate to, both qualifications system appear to be supplementary, if not complementary.

- Please describe the Stakeholders involvement and the relations with the labour market/learner’s perspective (are they supporting a sectoral qualifications framework?). Who is the owner of the qualifications? What are the social dialogue initiatives at the national/transnational level in the considered sector? Are representative stakeholders at all levels (national and European) involved? If not, why? Are there relations with other sectoral initiatives at national or transnational level?

The general architecture of the Logistics qualifications system clarifies the relationship between stakeholders on one hand and the labour market/learners on the other hand. The Joint National Commission for Employment and Vocational Training (CPNE in French) is responsible for the definition of policies aiming at the development of vocational training in the Logistics sector and is a key partner of other implicated actors. However, if the CPNE is regularly consulted during the process of building qualification frameworks, it does not directly participate in the creation of Diplomas and Professional Titles.

Diplomas and Professional Titles qualification frameworks are elaborated within Consultative Professional Commissions (CPCs) composed of social partners (employers and workers’ representatives), public authorities (*i.e.* representatives of the Ministries involved) and experts. Each public authority involved deals with a specific CPC which develops vocational training –related qualification frameworks. For instance, The Ministry on Education consults the 11<sup>th</sup> CPC for the elaboration of Diploma-related qualification frameworks.

However, from a formal point of view, CPCs are “merely” consulted, as officially qualification frameworks are decided upon by the relevant Ministry, the Ministry of Education for Diplomas, and the Labour Ministry for Professional Titles. These ministries are actually the official “owners” of Logistics qualification



frameworks related to Diplomas and Professional Titles.

Nevertheless, the CPNE is the owner and direct actor when the elaboration of qualification frameworks leading to CQPs, as these frameworks are so precisely tailored to the Logistics' sector's needs that they do not necessitate the intervention of a public authority.

But since social partners are members of the CPNE as well as the CPNE, it is clear that the labour market always has its say in the process of creation of Logistics qualifications frameworks. Moreover, these social partners are also quite active in representing the sector's actors' interests on other matters such as Employment both at a national level and, in some instances where the social partners are member of transnational institutions (e.g; International Road Union, European Transport Workers' Federation), at a European level.

- How are quality, credibility and mutual trust assured (e.g. common guidelines for evaluating candidates, European Examination Commission, etc.)?

The quality and credibility of Logistics qualification frameworks is ensured through the fact that the same actors (i.e. representatives of the Branch) participate in their elaboration and therefore use the same standards for learning outcomes measurement and for the evaluation of candidates. Moreover, with the exception of CQPs, all qualification frameworks are referenced to one of the five levels of the RNCP, thus easing comparison and trust.

- Please describe the strengths, weaknesses, opportunities and threats of the analysed Sectoral Qualification System. How do you think the SQF could be enhanced and refined in order to make work processes transparent?

#### Strengths

The Logistics Qualification System's main strength is that the same actors – social partners – are involved in the process of elaboration of qualification frameworks, from the analysis of job functions, work processes and derived abilities to the certification stage. This ensures the taking into account of sectoral needs.

#### Weaknesses

The sectoral aspect of qualification frameworks is not obviously apparent since public authorities (Ministries) which develop NQFs carry a formal role in the definition of most SQFs.

Moreover, some SQFs are not related to a common referencing system. Such is the case for CQPs.

#### Opportunities

The presence of social partners in instances (CPNE, CPCs) deciding upon policy and action as regards SQFs ensures the sectoral particularities and necessary adaptation to the economic environment and change in work processes will be taken into consideration.

The growing importance of the EQF will perhaps prompt sectoral stakeholders to develop a generic list of abilities capable of better mirroring work processes, or at least to use the methods fitting this purpose that will inevitably be developed on a European level.

#### Threats

Given its complexity, there is a minor risk learners might not be able to fully read the architecture of the Logistics Qualification System.

## 2) Referencing to the EQF

- Is there a need for linking sectoral qualifications to the EQF? What are the related constraints (weaknesses) and benefits (strengths)? How the link to the EQF will affect the credibility of the qualification (opportunities)? Which are the risks (threats) of the link to the EQF? What will be the consequences for the labour market and the individuals? Are there any obstacles to the linking to the EQF?

#### Strengths

Referencing the French Logistics Qualification Frameworks to the EQF would facilitate employment mobility whilst setting a common reference for all Europeans working in this Sector.

#### Weaknesses

Linking the French Logistics Qualification Frameworks to the EQF implies that French stakeholders would have to shift from a "competence" approach to one where skills, knowledge and abilities are clearly and formally separated and distinguished.

Moreover, stakeholders and learners would have to shift their mindset from a system from five levels of referencing to one of eight levels.

#### Opportunities

However the qualification's credibility could be greatly enhanced as work processes would be better mirrored and a greater comparability of qualifications would be possible.

And perhaps the fact that the same descriptors and methods are used could make possible the future construction of Logistics qualification frameworks at a European level.

#### Threats

One of the risks lies in the fear of a progressive homogenization of qualification frameworks and the subsequent risk of losing the different “cultural” approaches to building such frameworks.

There is also a risk the Logistics Qualification Frameworks might not be directly linked to the EQF.

- **What kind of procedures are planned or in progress for referencing sectoral qualifications to the EQF? Do these procedures allow a direct link to the EQF or do they require an indirect link? Please analyse the pros and cons of the direct link (common strategy, link of individual qualifications, responsible bodies, application of criteria, procedures, descriptors) and the indirect link (referencing of a single sectoral qualification defined at the national level/of all qualifications in all countries, linking to NQF versus inclusion in the NQF, transparency of procedures, etc.).**

A special Commission was supposed to finalize in 2010 a report on the way to link the French NQFs to the EQF. However, there has been some delay and this reports is now expected to be finalized sometime in 2011. Despite this setback, some information has leaked from the proceedings of the commission. As regards, the linking of SQFs to the EQF, it seems French authorities have decided to implement different strategies ruled out direct linking to the EQF, and preferred indirect linking through the NQF referencing system.

This can be viewed as bad news since this orientation might slow down or even prevent the evolution of SQFs towards the use of common criteria, procedures and descriptors in order to be “referenceable” to the EQF.

Moreover, this orientation could generate a lack of transparency in terms of the procedures used for referencing to the EQF. There is a fair chance the procedure for linking the French NQFs to the EQF will be transparent for all European stakeholders, however the process of linking the Logistics Qualification Frameworks to NQF referencing system might appear to be somewhat esoteric, thus weakening the comparability of qualifications.

- **Who will be responsible for referencing sectoral qualifications to the EQF?**  
Although the decision has not been made to this day, there is a fair probability the body in charge of referencing – indirectly – the French Logistics Qualification Frameworks to the EQF will be the CNCP (National Commission for Professional Certification).
- **Are sectoral levels consistent with EQF levels (if not, how should they be modified)?**  
The French Logistics Qualification Frameworks, when they are referenced to the national referencing system, the RNCP, are linked to one of its five levels, Level 1 being the highest and Level 5 being the lowest.  
This is not consistent with the EQF levels which consist of eight different levels structured in the opposite hierarchical direction. This is why the French NQF referencing system will be modified as regards the number of levels it describes and the hierarchical structuring of these levels, in order for it to become fully consistent with the EQF levels.
- **Is there the possibility to use the same EQF categories for describing learning outcomes or should they be adapted (in this case, please explain how they should be modified)? Is the referencing to the EQF based on all EQF descriptors (knowledge, skills and competences)?**  
Although no final decision has been made yet, it is both possible and probable that the same EQF learning outcomes descriptors will be used. This should pose no problem since the descriptors currently used in France already encompass these three descriptors
- **Which are the strategies for supporting credibility and fostering mutual trust between private and public stakeholders? Which are the roles, responsibilities and measures for quality assurance? Is there any relation/consistency with national and European recommendations/indicators?**

These questions are irrelevant as regards the French system since public and private stakeholders act upon the elaboration of the Logistics Qualification frameworks and therefore mutual trust is inherent to the process of elaboration itself.

## **Annex 2.4**

### **“Retail” sector (Transnational analysis)**

#### **1) Sectors, Sectoral Qualifications, SQS/NQS, SQF/NQF**

- **Please provide a picture of the sector (statistics data, impact on occupation, trends, structure, etc.). Who represents the sector at the European level (international organizations, associations, companies, etc.)?**

Europe is demographical changing. It's populations are getting older, the number of persons aged 65 and over expressed as a percentage of number of persons aged between 15 and 64 is changing from 1 to 4 in 2010 to 1 to 3 in 2020-2025 and 2 to 2 from 2050. From region to region there will be changes. Structurally weak regions will be affected more by the demographic changes than others. These demographic changes affect education as well as the labour market.

At present, commerce is facing many challenges, such as the introduction of ICT, green retailing, globalisation, trade liberalisation and emerging markets. Service workers are in the majority and the proportion of women is relatively high. The proportion of less educated workers is decreasing and the trend towards 'up-skilling' will continue in the coming years. The majority of employees are under 40, but ageing might lead to staff problems in the near future.

The European Social partners are Euro-commerce and Uni Europa Commerce.

Euro Commerce, established in 1993, represents the retail, wholesale and international trade sectors in Europe. Its membership includes commerce federations in 31 countries, European and national associations representing specific commerce sectors and individual companies.

Uni Europa Commerce is the European trade union representing the retail employees. At their sectoral social dialogue committee in April 2009, EuroCommerce and Uni Europa Commerce decided to develop a joint project to establish an European Network for anticipating skill needs in the commerce sector. With this project, the social partners intended to implement better cooperation among all the relevant stakeholders such as companies, member organisations of the social partners at national and EU level.

The role of social partners in the various countries differs widely. For instance in Poland and Romania the role of social partners is rather weak. In other countries like the Scandinavian countries, Spain, Portugal, Cyprus, Germany and the Netherlands social partners cooperate on VET and have a well established social dialogue.

- **What are the qualifications and qualification standards in the selected sector? Please, describe the qualification structure (definitions of concepts and terms, input/outcome orientation, modularization, learning outcomes, descriptors, non-formal and informal learning, etc.).**

A lot of European countries have retail qualifications in their vocational educational system. Deep going differences between countries in the design and regulation of Vocational Education and Training (VET) systems make it difficult to define common orientations. Networking is important for a better understanding of the differences between countries and should help to relate the national qualifications frameworks to an international oriented framework. EU sectoral councils could contribute to a better understanding at an European level and to an institutional framework.

- **What are the modalities for accessing the profession/occupation (e.g. licenses, training requirements, apprenticeship, career evolution, etc.)?**

In many countries retail has to deal with the fact that retail has a poor image. Many employees enter the sector in a part-time temporary job in order to gain some additional money. They have no specific retail education and the tasks they have to fulfil can be learned at the job. In many cases no special education is needed. It affects the image of working in retail. For students and job seekers it has a low level of attraction due to the salary, the fact that one can enter the profession even without a certificate at the sales level. It is common for only the more senior employees to require educational qualifications, while less skilled workers are often given educational training after they join the company. And even when students chose to be trained for retail it will not mean that they chose a retail career. For instance in Denmark up to 60% skilled workers leave the retail industry after completing training.

On the other hand employers have difficulties in finding employees with the right skills such as marketing, IT, languages, communication, independent decision making and intercultural and social skills. These are becoming more important. These skills require a higher educational level and for the less educated this might become a problem for entering retail. So it's a challenge to ensure that employees have opportunities to receive the adequate training.

- **What are the Sectoral Qualifications Systems and Frameworks in the selected country/countries? Please distinguish if they are established or under development, their size, structure, scope, etc.**

#### Dutch system

In the Dutch Qualification System Retail qualifications are embedded in the VET structure. The Dutch VET system is competence based and thus learning outcome orientated. VET and Higher professional Education (EQF 5 and higher) are two different systems, VET and HE are organised in a different way and under another educational law. Holders of a VET level 4 certificate may enter Higher professional education in which Small Business and Retail Management is one of the most fitting choices. Higher professional education is also learning outcome orientated. The Dublin descriptors are embedded in

higher (professional) education.

The Dutch VET system describes qualifications in terms of Key tasks and related competences.

#### Retail qualifications

VET Level 1	junior sales assistant
VET Level 2	sales assistant
VET Level 3	sales specialist
VET Level 4	entrepreneur retail trade Manager trade
VET level 5	Associate degree – Small Business and Retail Management (for instance)
VET level 6	Bachelor - Small Business and Retail Management

#### Germany

"Cultural sovereignty in Germany is a matter for the federal states. This results in diversity of educational systems at a federal level. Differences in respect of the acquisition of access to further education (an ISCED criterion) are of particular relevance within this context. One of the ways in which the ISCED levels are delineated is the fact that a qualification acquired (within a particular ISCED level) provides access to a higher level of education (or not). The differences between the various federal states in Germany have not been accorded consideration within the construction of the ISCED scale. For this reason, "the most usual" training pathways are used as a guide in the division of the ISCED levels."

#### VET levels in the national educational system

The lower secondary sector (ISCED 2) includes all general schools up until the 9th or 10<sup>th</sup> class. This means that this category encompasses lower secondary school leavers as well as pupils attending an intermediate or upper secondary school who have not yet reached the upper secondary level. It also includes persons who have at least completed vocational preparation even if they have not obtained a school leaving qualification.

The upper secondary sector (ISCED 3A and 3B) includes educational courses which lead to an apprenticeship qualification or another vocational school qualification.

As soon as a general schooling qualification (higher education entrance qualification) is held in conjunction with an apprenticeship qualification or a vocational qualification at an institute such as a vocational school (double qualification), such persons are aligned to the category of "post-secondary, non-tertiary education" (ISCED 4A). Combinations of two vocational programmes from ISCED 3B are located at 4B.

ISCED 5B is a shorter and more practically oriented level reserved for educational courses at the level of master craftsman or technician training or which facilitate a qualification at a trade and technical school or university of cooperative education, a 2 or 3-year course at a health sector institute of higher education, a university of public administration or the technical schools of the former East Germany. ISCED 5A, on the other hand, is a more theoretically oriented level which particularly includes institutes of higher education and Universities of Applied Sciences."

#### Retail qualifications:

Verkaüfer/Verkaüferin (ISCED 3B?) (2 years)  
Kaufmann/Kauffrau in Einzelhandel (ISCED 3B) (3 years)  
Geprüfter Wirtschaftsfachwirt/Geprüfte Wirtschaftsfachwartin

#### Belgium

Belgium has three provinces each with its own language and structures this also influences the education. In general one can say that the general education has good results. Each year 3000 students are certificated in the full time commercial vocational education. The dual system has a bad reputation and higher professional education is developing.

#### Mainstream secondary education

Since 1989, *full-time secondary education* has been organised in a uniform system. This uniform structure comprises stages, types of education and courses of study. Pupils only make a final choice of subjects in the second stage so that they are first introduced to as many subjects as possible. The majority of teaching periods in the *first stage* is devoted to the core curriculum. From the *second stage*, we distinguish four different education forms:

- General secondary education (aso) places an emphasis on broad general education. Pupils are not prepared for a specific profession. Aso provides a very firm foundation for passing on to tertiary education and that is why most pupils choose to continue studying after aso.
- Technical secondary education (tso) places a special emphasis on general and technical/theoretical subjects. After tso, young people can exercise a profession or pass on to tertiary education. This

education also includes practical classes.

- Secondary arts education (kso) combines a broad general education with active arts practice. After kso, young people can exercise a profession or go on to tertiary education.
- Vocational secondary education (bso) is a practice-oriented type of education in which young people learn a specific occupation in addition to receiving general education. Within one of these education forms, the pupil opts for a particular course of study. A number of these courses only start in the third or even the fourth stage.

In the second and the third stage, there is a common and an optional specific part. In the optional part, the core curriculum is supplemented with a broad range of possible subjects. In the *third stage*, the specific training component can be narrowed down again with a view to facilitate the ultimate career choice or the possible educational pathways in higher education.

In the *fourth stage* consisting mainly of nursing training programmes, no core curriculum is imposed because of the specificity of the training.

A pupil gains the diploma of secondary education after successfully completing six years of aso, tso, or kso or seven years of bso. As a holder of a diploma of secondary education, the young person has unlimited access to higher education. Neither the school, nor the type of education and course of study play a part in this. Exceptions are the degrees in dentistry or medicine for which the young person has to sit an entrance examination. The class committee decides whether or not a pupil has passed. It decides whether or not a pupil has sufficiently achieved the objectives of the curriculum. The class committee consists of the head teacher and all the teachers who teach the pupil concerned.

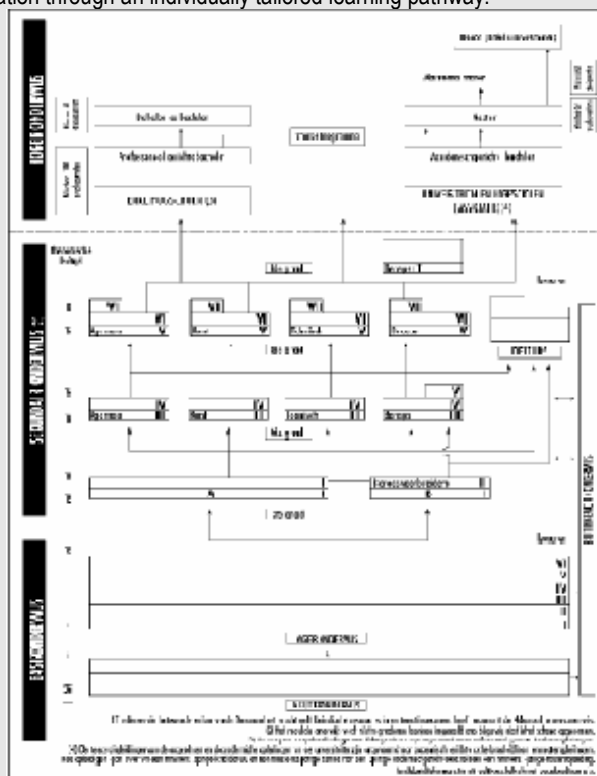
Every year is supported with an orientation certificate, a certificate, a study certificate or a diploma.

Part-time learning and working

From the age of 15 or 16, pupils can transfer to *part-time education*. Part-time learning is available in three ways:

- through part-time vocational secondary education (dbso);
- through apprenticeship (organised by Syntra Vlaanderen);
- through part-time training programmes.

A new Act on learning and working sets out that all young people in part-time education must learn and work for at least 28 hours a week. Furthermore, a better harmonisation of the three existing learning systems is aimed at. In this 'new' part-time education system, young people will be able to attain a vocational qualification through an individually tailored learning pathway.





### Retail education

Sales and 'etalage' (TSO 3<sup>rd</sup> grade, 2<sup>nd</sup> year).

Sales and distribution (secondary after secondary, replaced 3<sup>rd</sup> grade 3<sup>rd</sup> year).

- What are the processes/needs leading to the emergence/creation of sectoral qualifications (e.g. fragmentation of qualifications across Europe, increase of workers mobility, need for a better quality of qualifications, etc.)? Please describe also how the definition of a sectoral qualification improves the weaknesses of the previous scenario.

EU commerce and Uni commerce Europe have a clear concern on VET and future skills needs in the commerce sector. They have agreed on the establishing of a European Network for the anticipation of skills need. The social partners already agreed that it's essential to improve the skills of workers to make them more employable, that the skills mismatch has to be reduced by bringing education and training closer to the labour market, and on the need of the development of a partnership between social partners, labour market institutes, VET providers. It's still open if a formal sectoral international qualification framework is needed. But it could be beneficial to the sector. It could help to improve the image and could increase the mobility. A formal sectoral international qualification framework could also strengthen VET in those countries where VET is rather weak developed.

- Which are the approaches for the identification/definition of learning outcomes and for the application/test of descriptors?

At the moment for retail no international framework exists. Firstly the EU social partners have to reach agreement on priorities on the subject of the skills need. Project outcomes like TIPTOE can be used as an input for constructing an international framework. The tested common profile EQF has a potential transferability because it can be considered industry driven. The TIPTOE results can be elaborated further, and the approach can be transferred to other sectors.

- What is the relationship of sectoral qualifications to the national training system (e.g. the sectoral qualification is a supplement offered in parallel to national qualification system, it is integrated as an obligatory part of the basic training, etc.)? For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. "are they an evolution from national to European or vice versa", or "do they pursue a bottom-up or a top-down strategy"). For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. "are they an evolution from national to European or vice versa", or "do they pursue a bottom-up or a top-down strategy").

Until now no relations exists between retail frameworks, unless you say that the project results of TIPTOE have related some existing national systems. In the project 8 countries participated and the profiles of a sales assistant and shop manager have been researched.

- Please describe the Stakeholders involvement and the relations with the labour market/learner's perspective (are they supporting a sectoral qualifications framework?). Who is the owner of the qualifications?

What are the social dialogue initiatives at the national/transnational level in the considered sector? Are representative stakeholders at all levels (national and European) involved?

If not, why? Are there relations with other sectoral initiatives at national or transnational level?

At an EU level a start has been made by Euro-commerce and Uni Europa Commerce in 2009. Both parties represent at an European level national stakeholders. In December 2010 a conference was held on the subject of establishing a network. In 2010 In Vienna, Helsinki and Athens were workshops with stakeholders on the subject of the retail/wholesale 2020 scenarios described in the EU report VC/2007/0866. The key question of the meetings were: "how are the HR departments of the sector, trade unions and Vocational Training Centres prepared for this?". Those three parties have been involved in the research and meetings. Stakeholders from 24 different countries have been involved. But often only with one stakeholder. So one can say it is just a start. Uni Europe and Euro-commerce have to chose a way to broaden and deepen the intentions.

- How are quality, credibility and mutual trust assured (e.g. common guidelines for evaluating candidates, European Examination Commission, etc.)?

The assurance of quality, credibility and mutual trust should be part of the process. If an international sectoral qualifications framework will be developed, this should be taken care of in the process. On the other hand, when the EQF is working and when there's a good overview of the national sectoral qualifications and the references to EQF, with some description of the content of the vocational education and training this could be a first step.

- Please describe the strengths, weaknesses, opportunities and threats of the analysed Sectoral Qualification System. How do you think the SQF could be enhanced and refined in order to make work processes transparent?

Since one can not speak about an international framework the swot is directed at the current European situation. The strengths of an transnational trade qualification framework would be that it's profiling retail functions. That it describes the essence of the functions and the most important subjects within the functions. This can improve the understanding and can be beneficial to mobility.

It's an opportunity to discuss the sector and the functions in the sector. It could help the discussion in all the participating countries especially those countries that have a weak developed sectoral education system. An international sectoral qualification framework can strengthen their national sectoral education.

In retail on the one hand you will find the large enterprises, often international oriented, and on the other hand you have the SME's. The majority of companies is a SME and most of the employees are working in a SME. Large enterprises have a HRM department and most of the time have complex concepts and education programmes. The multinational companies also use the help available. Such as the European social funds. SME's seldom have these kind of concepts. SME's often have lack of time and money for vocational education. Their focus is most of the time more on the primary task. From the point of view of SME's the international perspective isn't very important. It can become important when international sectoral qualifications will be supported by e-learning and blended learning.

A thread could be a lack of credibility with employers or/and with learners. Therefore it's essential that when designing international sectoral qualifications social partners and employers from the participating countries are involved and that it has broad support in those countries.

## 2) Referencing to the EQF

- Is there a need for linking sectoral qualifications to the EQF? What are the related constraints (weaknesses) and benefits (strengths)? How the link to the EQF will affect the credibility of the qualification (opportunities)? Which are the risks (threats) of the link to the EQF? What will be the consequences for the labor market and the individuals? Are there any obstacles to the linking to the EQF?
- What kind of procedures are planned or in progress for referencing sectoral qualifications to the EQF? Do these procedures allow a direct link to the EQF or do they require an indirect link? Please analyse the pros and cons of the direct link (common strategy, link of individual qualifications, responsible bodies, application of criteria, procedures, descriptors) and the indirect link (referencing of a single sectoral qualification defined at the national level/of all qualifications in all countries, linking to NQF versus inclusion in the NQF, transparency of procedures, etc.).
- Who will be responsible for referencing sectoral qualifications to the EQF?
- Are sectoral levels consistent with EQF levels (if not, how should they be modified)?
- Is there the possibility to use the same EQF categories for describing learning outcomes or should they be adapted (in this case, please explain how they should be modified)? Is the referencing to the EQF based on all EQF descriptors (knowledge, skills and competences)?
- Which are the strategies for supporting credibility and fostering mutual trust between private and public stakeholders? Which are the roles, responsibilities and measures for quality assurance? Is there any relation/consistency with national and European recommendations/indicators?

Linking SQF's to EQF offers the opportunity to compare qualifications at the same level and start the communication on the major sectoral subjects for each function level, the knowledge components, the skills to be learned, the competences.

National systems have their own characteristics, own cultural aspects which influence the qualifications. But when looking at an higher abstraction level one can see common topics at a general level and at a sectoral level. The general topics most often are a common European concern. For instance the significance of reading competence, social inclusion and increasing equality of opportunity. The use of the European competences could be a help in this.

When the descriptors of all countries are available all these descriptors could be used to refine the EQF by using the national refinements in an overall refinement.

The other EQF referencing questions refer to the national referencing process. These questions were also subject of work package 3.

### Dutch situation:

In the Netherlands the so called NLQF is still under construction. The current draft has 8 levels, like the EQF. The 4 levels of Vocational Education and Training are described in the NLQF. The VET levels 1 to



4 are ranked as level 1 to 4 in the NLQF. And level 1-4 are in EQF level 1-4. Higher education starts at level 5 NLQF/EQF. Presently it's undecided if some VET qualifications can also be positioned at level 5. Empirical findings should determine this.

A committee will advise the Minister of education around March 2011. The committee will advise on the draft, the linking of the NLQF with the EQF, procedures of scaling non formal qualifications and the installing of a National Reference Point.

The VET qualifications will probably be referenced to the NLQF according to their VET level. Each sector has its own sectoral qualification structure. So this will probably mean that when the NLQF is established the sectoral VET qualifications will automatically and directly be referenced to NLQF and EQF.

When developing a qualification or when adjusting a qualification the party that's responsible for the developing process will be aware of the NLQF descriptors. The responsibility of referencing will be in the first place a responsibility of the qualification developing partners. So the Centres of Expertise develop in cooperation with the social partners and education the sectoral qualifications. And they will keep the NLQF in mind during the development process. On the basis of the described learning outcomes the qualification will be ranked at the proper level and formalized by the responsible appointed authority. When VET qualifications are changed or adapted the ranking will be based on the description of the learning outcomes. Theoretically it can mean a ranking at a different level. This can be done on purpose and if not one could either decide to rewrite the qualification to fit the desired level or to accept the lower or higher ranking.

For non formal qualifications it will become possible to get a NLQF ranking. This will be a voluntary act of the organisation that's the owner of the qualification. The conditions and procedure are still subject of study.

#### Dutch Retail:

Retail has almost 130.000 outlets and about 750.000 people are employed in retail. Most of these outlets are small sized companies. 119.thousand outlets have less than 10 employees. And about 150 outlets have more than 100 employees. Around 8.800 have 10-99 employees.

The employment is stable. About 60% of the employees is female. And the majority of the employees is relatively young. In the Netherlands retail has a lot of small jobs. Most of the times these are pupils, having a evening or weekend job in the shops, starting at the age to earn their pocket money. They start as an assistant helping to process the goods or working as a cashier (checkout).

#### Dutch system:

In the Dutch Qualification System Retail qualifications are embedded in the VET structure. The Dutch VET system is competence based and thus learning outcome orientated. Holders of a VET level 4 certificate may enter Higher professional education in which Small Business and Retail Management is one of the most fitting choices. Higher professional education is also learning outcome orientated. The Dublin descriptors are embedded in higher (professional) education.

The Dutch VET system describes qualifications in terms of key tasks and related competences.

Due to the fact that a lot of pupils and students work in retail to earn their pocket money, retail has a lot of unqualified workers having no ambition of a retail career. At the other hand students in VET learn and train to become qualified for retail functions. Labour market research shows that almost 40% of the retail employees is 25-45 years of age, and 20% of the employees is older than 45 years.

#### Stakeholders involvement:

In the Dutch VET system it has been legally established that employers, employees and educational institutes are involved in the description of the qualifications. All jobs and functions of vocational education are described in occupational profiles. These occupational profiles form the basis for the qualification files in which qualifications are described. These qualifications describe the knowledge, skills and competences a person need to fulfil a job or a function. The Centres of Expertise have the legal task to develop and maintain the qualifications structure for their sector, as said in full consultation. The national training system largely covers the sectoral qualification system. The VET certificate is the basic certificate and sectors within retail or individual organisations have some additional courses in order to deepen some specific knowledge or to be better geared to special situations. The textile sector offers for instance some additional courses on the subject of product knowledge, and employers offer employees workshops or short courses on subjects as shoplifting and criminality.

## Annex 2.5

### “Construction” sector (Transnational analysis)

#### 1) Sectors, Sectoral Qualifications, SQS/NQS, SQF/NQF

- Please provide a picture of the sector (statistics data, impact on occupation, trends, structure, etc.). Who represents the sector at the European level (international organizations, associations, companies, etc.)?

#### Key Figures (source FIEC)

- \_ Estimated construction investment (EU 27 - 2009) : 1.173 billion €
- \_ 9,9 % of GDP
- \_ 51,4 % of Gross fixed Capital Formation
- \_ 3 million enterprises (EU 27), of which
  - o 95% are SMEs with fewer than 20 and
  - o 93% with fewer than 10 operatives
- \_ 14,9 million operatives :
  - o 7,1 % of Europe's total employment
  - o 29,1 % of industrial employment
- \_ 44,6 million workers in the EU depend, directly or indirectly, on the construction sector

#### Biggest industrial employer in Europe

The European Construction Industry Federation, presented the new edition of its annual statistical report (Statistical Report n°53, edition dated May 2010).

“The broadly negative trend affecting EU economic growth in 2009 has had a significant impact on overall EU construction activity, which suffered a decline of 7.5% in 2009”. “A decline in construction activity in now reported in almost all EU member states, and regarding the various construction subsectors, trends and mechanisms have largely been the same in most EU countries.”

According to FIEC's statistics:

- \_ The reduction in construction activity has largely been concentrated within the new house building (-15.6%) and private non-residential (-10.8%) segments. The former has suffered from poor consumer confidence in the markets, while the latter has experienced the significant drawing back of business demand and investment.
- \_ By contrast, civil engineering suffered a relatively small decrease (“only” -2.8%) and the public non-residential segment even grew by 1.1% in 2009. This reflects decisions made at government level to maintain, bring forward or even increase expenditure on public buildings and infrastructure, as part of the national stimulus packages.
- \_ Rehabilitation and maintenance activities have, in most EU countries, benefited from fiscal incentives in favour of energy efficiency measures and have therefore also recorded a relatively small decrease (-4.1%). Against this backdrop, an internal shift of house building activities has started towards energy efficiency works.
- \_ The downturn in construction has inevitably had a strong impact on the number of persons employed. In 2009, EU employment in construction fell sharply (-8.3%). A further decrease is expected in 2010.

#### REPRESENTATIVES OF THE SECTOR :

- ACe Architects' Council of Europe
- CeMBuReAu European Cement Association
- CepMC Council of European producers of Materials for Construction
- CICA Confederation of International Contractors' Associations -(cica@cica.net)
- eApA European Asphalt pavement Association
- eCCe European Council of Civil engineers
- eCp European Concrete platform
- eFBWW European Federation of Building and Woodworkers
- eFCA European Federation of engineering Consultancy Associations
- euRIMA European Insulation Manufacturers Association
- FIEC (European Construction Industry Federation), representing via its 34 national Member Federations in 29 countries (27 EU & EFTA, Croatia and Turkey)
- REFORME network
- uepC European union of Developers and House Builders

- What are the qualifications and qualification standards in the selected sector? Please, describe the qualification structure (definitions of concepts and terms, input/outcome orientation, modularization, learning outcomes, descriptors, non-formal and informal learning, etc.).

Since there is no European certification authority, there are no qualifications/certifications at the European level, in the construction sector and in any sector. Some international certifications do exist, as for example in nuclear matters, but they are not in our investigation field. Furthermore these certifications are linked to security and not to qualification levels.

- **What are the modalities for accessing the profession/occupation (e.g. licenses, training requirements, apprenticeship, career evolution, etc.)?**

It depends on the country and on the socio-economic context (regulations, agreements, labour market...). There is no European trend, only countries/regions specificities.

- **What are the Sectoral Qualifications Systems and Frameworks in the selected country/countries? Please distinguish if they are established or under development, their size, structure, scope, etc.**

Some are independent from NQFs, some are integrated to NQFs, others are proposed as "optimum models".

- **What are the processes/needs leading to the emergence/creation of sectoral qualifications (e.g. fragmentation of qualifications across Europe, increase of workers mobility, need for a better quality of qualifications, etc.)? Please describe also how the definition of a sectoral qualification improves the weaknesses of the previous scenario.**

*Source SQF-Con*

In the construction industry, a sector specific qualification framework is described as "of most use". European markets for construction are arising and construction orders are submitted transnational.

A sector specific qualification framework will support cross-borders activities and make qualifications more transparent and certificates more readable all over Europe, whatever the country, the vocational education or training system is. Thus, it helps employees to present their qualifications as well as companies and human resource management.

According to that project, the sectoral framework has to cover the 3 varieties corresponding to the various conditions of learning and of working :

Vocational education : school-based, company-based or both

Building activities : civil engineering, new building, renovation

All the professions and occupations

[www.baq-bremen.de/images/stories/pdf/BAQ\\_SQF\\_EU\\_Bau.pdf](http://www.baq-bremen.de/images/stories/pdf/BAQ_SQF_EU_Bau.pdf)

- **Which are the approaches for the identification/definition of learning outcomes and for the application/test of descriptors?**

*Source SQF-Con*

According to SQF-Con, a sectoral qualification framework is proposed, based on the logic, the principles and the structure of the EQF, which describes qualification referring to learning outcomes (knowledge / skills and competences) which are objective and concrete.

In the project, the Learning Outcomes were described specific for the construction sector and ranged in 5 levels according to range and complexity of operation someone has to execute, degree of detailing of instruction necessary to enable someone to fulfill a task, intensity and form of control: may it be that someone is subject of control or if he or she controls others.

For more information, see file :

[www.baq-bremen.de/images/stories/pdf/BAQ\\_SQF\\_EU\\_Bau.pdf](http://www.baq-bremen.de/images/stories/pdf/BAQ_SQF_EU_Bau.pdf)

- **What is the relationship of sectoral qualifications to the national training system (e.g. the sectoral qualification is a supplement offered in parallel to national qualification system, it is integrated as an obligatory part of the basic training, etc.)? For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. "are they an evolution from national to European or vice versa", or "do they pursue a bottom-up or a top-down strategy"). For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. "are they an evolution from national to European or vice versa", or "do they pursue a bottom-up or a top-down strategy").**

*Source SQF-Con*

In the project SQF-Con, the partners suggest that "the Sectoral Qualifications Framework first should be linked to national vocational education and training systems in construction, knowing that such link requires involvement of and acceptance by institutions and organizations responsible for vocational education and training in the construction industry in the respective country.

These may be, according to the national vocational education and training system, public authorities, social partners or chambers.

If the named authorities take initiative to implement the Sectoral Qualifications Framework, this would be foster its application top-down.

To foster it bottom-up there are several possibilities. Construction companies as well as training organisations can check if certificates correspond with the descriptions of learning outcomes of the Sectoral Qualifications Framework. If so, they can develop rules of equivalence.”

In SQF-Con project the partners propose that the LO acquired at the workplace in formal informal or non formal learning could be assessed and tests could be developed and levelled in the purpose to “link results to the national vocational education and training system and again improve transparency of qualifications and certificates.”

For more information, see file :

[www.baq-bremen.de/images/stories/pdf/BAQ\\_SQF\\_EU\\_Bau.pdf](http://www.baq-bremen.de/images/stories/pdf/BAQ_SQF_EU_Bau.pdf)

- Please describe the Stakeholders involvement and the relations with the labour market/learner's perspective (are they supporting a sectoral qualifications framework?). Who is the owner of the qualifications?

What are the social dialogue initiatives at the national/transnational level in the considered sector? Are representative stakeholders at all levels (national and European) involved?

If not, why? Are there relations with other sectoral initiatives at national or transnational level?

See “Common answers” below

- How are quality, credibility and mutual trust assured (e.g. common guidelines for evaluating candidates, European Examination Commission, etc.)?

See previous answers.

- Please describe the strengths, weaknesses, opportunities and threats of the analysed Sectoral Qualification System. How do you think the SQF could be enhanced and refined in order to make work processes transparent?

See “Common answers” below

## 2) Referencing to the EQF

- Is there a need for linking sectoral qualifications to the EQF? What are the related constraints (weaknesses) and benefits (strengths)? How the link to the EQF will affect the credibility of the qualification (opportunities)? Which are the risks (threats) of the link to the EQF? What will be the consequences for the labour market and the individuals? Are there any obstacles to the linking to the EQF?

See “Common answers” below

- What kind of procedures are planned or in progress for referencing sectoral qualifications to the EQF? Do these procedures allow a direct link to the EQF or do they require an indirect link? Please analyse the pros and cons of the direct link (common strategy, link of individual qualifications, responsible bodies, application of criteria, procedures, descriptors) and the indirect link (referencing of a single sectoral qualification defined at the national level/of all qualifications in all countries, linking to NQF versus inclusion in the NQF, transparency of procedures, etc.).

See “Common answers” below

- Who will be responsible for referencing sectoral qualifications to the EQF?

See previous answers.

- Are sectoral levels consistent with EQF levels (if not, how should they be modified)?

See previous answers.

- Is there the possibility to use the same EQF categories for describing learning outcomes or should they be adapted (in this case, please explain how they should be modified)? Is the referencing to the EQF based on all EQF descriptors (knowledge, skills and competences)?

See previous answers.

- Which are the strategies for supporting credibility and fostering mutual trust between private and public stakeholders? Which are the roles, responsibilities and measures for quality assurance? Is there any relation/consistency with national and European recommendations/indicators?

As part of a Leonardo da Vinci project, a European Standard was developed jointly by 5 countries to certify the skills of a senior technician in the plastics industry and in France this certificate is EUROPLASTIC BTS.

This document describes:

- the job activities,
- skills and certification objectives common to all partners' countries,
- the procedures for certification and training in each country (depending of each country, according

to subsidiarity principle)

Based on this document, a training centre in Paris and a German company (BASF) have been organizing for 3 years a training course that includes a European mobility.

150 young apprentices have benefited of a professional English training (6 to 8 weeks), validated in the host country and taken into account in the French certificate of BTS EUROPLASTIC.

The validation of the unit is expressed in credits (ECTS and ECVET credits → with links to an experimental pilot project : EQF BETWIN).

From a practical point of view, the organization of the course and the recognition of the mobility outcomes required the establishment of partnership agreements between the institutions involved in this mobility:

- Partnership agreement called "Memorandum of Understanding,
- Pedagogical agreement called "Learning Agreement"
- Individual record of results called "Personal transcript, integrating Europass documents.

In this example European partners cooperated at a European level, supporting credibility and fostering mutual trust between private and public stakeholders.

### COMMON ANSWERS

Source :

*Dealing with frameworks, searching orientation*

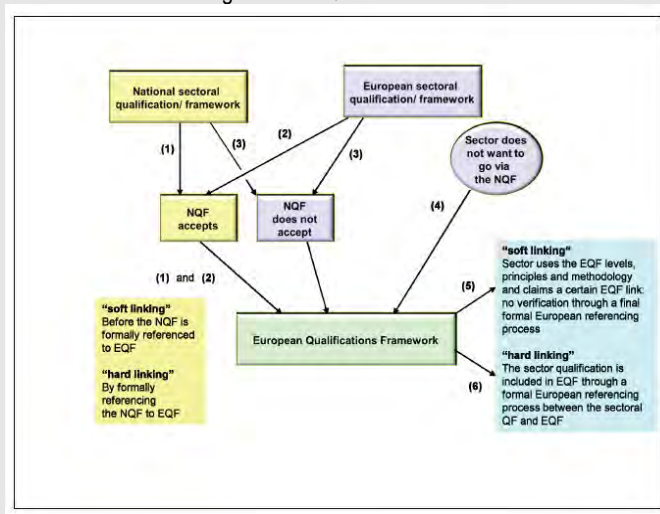
*Sectoral experiences in LdV pilots*

*Loukas Zahilas, Cedefop, Senior Expert, Qualifications and Learning Outcomes*

The EQF Advisory Group – Subgroup C3, report provides information on relevant developments within sectors, largely based on EQF pilot projects, considers reasons why sector based organizations may seek "linking" their qualifications or qualifications frameworks to the EQF or not seek it and how this could be done, including through national qualifications systems or through "direct linkage" to the EQF.

The four main scenarios presented in the graphic below (see graphic 1) are:

- Scenario 1: no possibility for referencing
- Scenario 2: linkage via NQFs
- Scenario 3: "soft" direct linkage to the EQF
- Scenario 4: "hard" direct linkage to the EQF



### Sectoral Referencing Scenarios

Source:

*EQF Advisory Group – Sectoral Subgroup report, June 2010.*

(1): The sectoral qualifications (frameworks) in question are a part of an NQF and will thus be referenced to the EQF through this NQF.

(2): This situation could come in two forms. Either a sector qualification is transposed into a national qualification in several countries or it is a truly transnational qualification with an international awarding body.

(3): A competent national authority might decide not to incorporate a sectoral qualification into its NQF. The provider(s) might in turn resort to linking the qualification directly to the EQF– either by itself or via



an international sectoral organization.

(4): In this situation it is not the national authorities that decide not to incorporate a sectoral qualification into the NQF but the provider or the responsible sector body itself that does not want to negotiate with up to 27 different national authorities to go via the NQF.

In situations (5) and (6) the term “soft linking” is a bit of an euphemism that may also open possibilities for “QF mills”. There is of course the danger of abuse, but there are also limits to what may be done to prevent non-serious<sup>4</sup> providers from claiming an EQF level for their qualifications. It may also well be argued that the danger of abuse is not necessarily linked to a formal possibility for linking sectoral qualifications (frameworks) directly to the EQF.

Regardless of what the formal possibilities are, it seems likely that some providers will claim a direct link and the main challenge may be to raise awareness among learners as well as employers and other users of qualifications of what they need to look out for when faced with a qualifications or a learning programme with which they are not familiar. The EQF AG subgroup report entails no further organizational or procedural issues, since there would be nothing further to organise.

### SCENARIOS 2 AND 3

A common case: linking via NQFs (scenario 2)

This scenario is at first sight straightforward in formal terms: linkage is obtained through established procedures and arrangements at national level established by the competent national authorities. Linkage to the EQF follows from linkage to NQFs.

Providers may, however, find this procedure cumbersome if they need to link to a high number of NQFs.

A practical measure to avoid this is the use of learning outcomes for the definition and description of qualifications. In practical terms this means that while NQFs remain the main instrument for referencing, a systematic strategy promoting the learning outcomes approach outside the formal frameworks could become a valuable instrument for promoting overall transparency. This strategy would, first and foremost, require development of and agreement on a common template for describing qualifications, no matter whether they are awarded through the formal education and training systems or not.

The issues are essentially the same for the “sub-variety” referred to in the report: a sector takes due account of EQF standards in developing its equalization (framework) and uses this as a basis for seeking linkage through NQFs.

The “soft” direct linkage to the EQF (scenario 3)

Under this scenario, the sector uses the EQF levels, principles and methodology and claims a certain EQF link but there is no verification through a final formal European referencing process. This scenario then seemingly raises no procedural issues since it is up to the sector to claim linkage for its qualifications (framework) and to demonstrate the basis for the claim to the satisfaction of those concerned. Essentially, it is then up to the users of the qualifications (framework) to decide whether the claim is accepted or not. This situation could end up with the same qualifications (framework) being recognized at different levels – or refused recognition – by different users, and recognition will here be by individual users (e.g. employers or, if the application is for further study, education institutions or providers) rather than by competent national authorities since there is no linkage to NQFs. For the same reason, it will be difficult to maintain a transparent overview of recognition decisions.

Source :

*SQF-CON project – Frank Bertelmann*

EQF has been too abstract in parts for getting involved all infinitesimal steps and specifications of the construction processes and building sizes and types. This demand has been obvious in at least all partner countries, but it has been assumed throughout the entire EU. So setting up a model how to analyse exemplary reference models and how to proceed in terms of analysis processes has been of vital importance.

The most relevant transnational initiative related to the referencing of sectoral qualifications in the construction sector to the EQF is represented by the SQF developed in the frame of the project SQF-CON – “Developing and Introducing a Sectoral Qualifications Framework for the European Construction Industry” funded under the Leonardo da Vinci programme. The approach adopted in the definition of the framework was based on the logic, the principles and the structure of the EQF. However, while the EQF, in order to be applicable to all the sectors of the economy, describes knowledge, skills and competences by levels at a high degree of details, the sectoral framework designed in the SQF-CON project introduces learning outcomes which are specific for the construction industry. According to the methodological approach of the project, the levels of a SQF in the construction industry have to be expressed according to the demands of the working positions in the considered sector.



On site and within construction enterprises there exists a structured division of labour encompassing different tasks. Their levels can be defined by referring to the range and complexity of operations someone has to execute, by the degree of detailing of instructions necessary to enable someone to fulfil a task, and by the intensity of the control required. In the field of the project, only qualifications up to level 5 were considered (although construction processes could also require learning outcomes at level 6 and higher). Specifically, six levels were defined, i.e. level 5, level 4, level 3a, level 3, level 2 and level 1. One of the principles adopted in the definition of the SQF refers to the need for a (low-level) sector-specific description of learning outcomes. The methodology does not show any application of the framework to national education and training systems in the construction sector. However, project partnership underlined that this step is essential in order to make most use of the framework itself.

Two approaches are envisaged, either top-down or bottom-up.

The top-down approach is based on the involvement of and acceptance by institutions and organizations responsible for education and training in the construction industry in the respective country (taking into account relevant stakeholders, e.g. public authorities, social partners, chambers, etc.). With respect to the bottom-up application, one of the possibilities relies on the development of equivalent grids enabling for comparison of certificates with respect to the sectoral framework (possibly exploiting learning outcome-based descriptions in diploma supplements). An additional possibility is related to the recognition of former non-formal and informal learning, that could be achieved by defining rules and procedures for linking knowledge, skills and competences acquired at the workplace to descriptions in the framework and by defining suitable assessment tests (to be jointly designed by training institutions and construction companies).

Source :

*Dealing with frameworks, searching orientation*

*Sectoral experiences in LdV pilots*

*Loukas Zahilas, Cedefop, Senior Expert, Qualifications and Learning Outcomes*

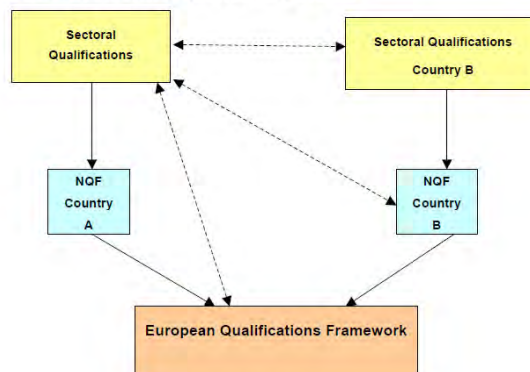
*SECCOMPAT project*

The SECCOMPAT project, launched in the beginning of 2008, examined how the EQF can be helpful for the comparison of sectoral qualifications of different EU countries. The idea had to tackle the complicated process of comparing differences in the structures of qualifications inside the sectors due to sectoral specificities. They used the construction and hospitality sectors in the partner countries, comparing the internal structures of these qualifications and analysing the possibilities of the EQF to be an effective measure in comparing the different sectoral qualifications. The main methods of research were systemic and comparative analysis and the main sources were existing occupational profiles in the sectors, descriptors of the sectoral occupations and qualifications, VET standards and data from different researches of activities available in the partner countries.

They categorised the following cases of comparison (Fig. 1):

1. Direct comparison and compatibility of sectoral qualifications between the different countries without referencing to the NQFs and the EQF..
2. Referencing sectoral qualifications from one country to the NQF levels of another country.
3. Referencing of sectoral qualifications to the levels of the EQF without the referencing of these qualifications to the levels of the NQF of their origin country.
4. Compatibility and comparison of sectoral qualifications between the countries with the intermediation of the NQFs of these countries and the EQF.

Table 3. SECCOMPAT project referencing scenarios



According to the project conclusion:

1. The direct inter-country comparison of sectoral qualifications without referencing to the NQFs and to the EQF face huge problems due to socioeconomic and cultural evolution of the sectors in the different countries, including the different models of the provision of qualifications.
2. Referencing of sectoral qualifications from the one country to the NQF levels of another country involves certain risks and problems as there are big differences in the structures of sectoral qualifications and descriptors and in the understanding of the concepts and definitions of qualifications, competences, etc.
3. Referencing of sectoral qualifications to the EQF without referencing to the NQFs of the countries could be feasible only in those sectors which have developed institutional infrastructure and stakeholder's representation on the European level.
4. Comparison of sectoral qualifications with the referencing through the NQFs and the EQF is the safest way to guarantee quality and transparency .

## Annex 2.6

### "ICT" sector (Transnational analysis)

#### 1) Sectors, Sectoral Qualifications, SQS/NQS, SQF/NQF

- Please provide a picture of the sector (statistics data, impact on occupation, trends, structure, etc.).

The ICT sector in the EU represents 5.6% of EU GDP (670 Billion Euro) and 5.3% of total employment in 2007. 50% of the EU productivity growth (1.1% between 2000-2004), comes from ICT and 25% of research expenditure (2002-2003).

It would not be wise to assess the importance of this sector only by comparing its figures with those of other sectors. Information Technology and Communication is a productivity and innovation enabler providing a driving force for change within the vast majority of all other industry sectors. Although meanwhile the major part of *IT production* is taking place in other parts, this sector plays a crucial role for Europe's economy since ICT has on the one hand become a "cultural technique" like reading and writing, and as it has on the other hand "infiltrated" other sectors applying more and more and more ICT as an instrument to enhance their products and services. This has led to the development of numerous hybrid work processes which are characterized by applying ICT to non-ICT subjects at various levels which requires for more basic ICT skills than before, but makes it also sensible that ICT practitioners work outside the sector to which their profession actually has to be assigned, in particular, if it cannot be expected that a non-ICT-expert is able to fulfill the required tasks (e.g. setting up a database).

In order to be able to deal with requirements arising from these issues proactively, already some years ago stakeholders of various origin defined necessary action as a societal task to be fulfilled at national, but also at European level, and created terms like *information society*, *digital literacy*, *e-business*, *e-government* which can be considered catchwords used to promote developments that now can already be measured against *indexes* allowing for sensible comparison of countries. ICT is a pervasive technology, which is accepted as a vital component in the bid for all industry sectors to remain or achieve world competitiveness.

The current status of *e-business* development is mirrored in the following picture:

#### Retail companies selling online

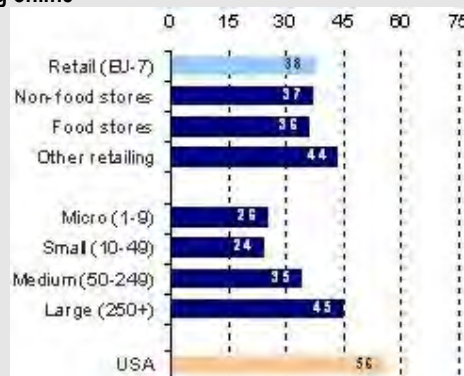


Fig.1

The [e-Business readiness index](#) reflects ICT uptake by firms in the EU Member States on the basis of a selected set of indicators stemming from Eurostat surveys. E-business allows for information to be

acquired and goods and services purchased via the internet with increasing trust, speed and volume. E-business supports the internal processes within a company as well as interactions between different businesses. It is much more than e-commerce, where the focus is on commercial transactions between companies and their customers.

Who represents the sector at the European level (international organizations, associations, companies, etc.)?

### **DIGITALEUROPE**

This organization represents national ICT associations (encompassing company members) as well as enterprises themselves.

Company Members are : Adobe, Agilent, Alcatel-Lucent, AMD, Apple, Bang & Olufsen, Bose, Brother, Canon, Cisco, Corning, Dell, EADS, Elcoteq, Epson, Ericsson, Fujitsu, Hitachi, HP, IBM, Infineon, Ingram Micro, Intel, JVC, Kenwood, Kodak, Konica Minolta, Lexmark, LG, Loewe, Micronas, Microsoft, Mitsubishi, Motorola, NEC, Nokia, Nokia Siemens Networks, Nortel, NXP, Océ, Oki, Oracle, Panasonic, Philips, Pioneer, Qualcomm, Research In Motion, Samsung, Sanyo, SAP, Sharp, Siemens, Sony, Sony Ericsson, STMicroelectronics, Sun Microsystems, Texas Instruments, Thales, Thomson, Toshiba, Xerox. National Trade Associations are: Austria: FEEI Belarus: INFOPARK Belgium: AGORIA Bulgaria: BAIT Cyprus: CITEA Czech Republic: ASE, SPIS Denmark: DI ITEK, IT-BRANCHEN Estonia: ITL Finland: FFTI France: ALLIANCE TICS, SIMAVELEC Germany: BITKOM, ZVEI Greece: SEPE Hungary: IVSZ Ireland: ICT IRELAND Italy: ANITEC, ASSINFORM Netherlands: ICT OFFICE, FIAR Norway: ABELIA, IKT NORGE Poland: KIGEIT, PIIT Portugal: AGEFE Romania: APDETIC Slovakia: ITAS Slovenia: GZS Spain: AETIC, ASIMELEC Sweden: ALMEGA Switzerland: SWICO Turkey: ECID, TESID, TÜBISAD Ukraine: IT UKRAINE United Kingdom: INTELLECT

### **European Metalworkers Federation (EMF)**

The European Metalworkers Federation (EMF) is an umbrella organisation representing 72 metalworking unions (and 4 associated organisations) from 33 countries with a combined total of 5.5 million members. The EMF was established in 1971.

The EMF acts on behalf of representative metalworkers' unions from all of the EU member states as well as from Bulgaria, Turkey, Norway, Iceland, Croatia, Serbia and Switzerland. The EMF is therefore the representative body defending the interests of workers in the European metal industry.

According to its Statutes, the EMF has a mandate for the external representation and coordination of the metalworkers' unions. On the basis of those Statutes and the Executive Committee's decisions the EMF can also coordinate and initiate cross-border trade union actions. In addition to this, in principle it also has a mandate to engage in bargaining at European level.

One of the EMF's main aims is the deepening of the social dimension in the process of European integration. The EMF contributes to it by representing the economic and social interests of workers in the metal industry at European level.

The EMF advocates a social Europe characterised by democracy, freedom, social justice and solidarity. It also defends and promotes the ability of the European social model to face up to future challenges. At the same time it supports Europe's political and economic integration, whilst bearing in mind the unions' traditions and roots in the culture of their own respective nation states. The EMF's core tasks are:

To defend the trade union, social and political interests of the European metalworkers' unions vis-a-vis the European employers' organisations in the metal industry.

To coordinate and implement the initiatives and actions of the European metalworkers' unions at European level.

To serve its member organisations (affiliates) where European interests are involved.

To collaborate with the other federations affiliated to the European Trade Union Confederation (ETUC).

To represent the European interests of the metalworkers' unions at an international level.

The main areas of work are: Industrial Policy, Collective Bargaining Policy, Company Policy and the Social Dialogue.

*Industrial policy* focuses on keeping and developing a strong manufacturing base in Europe and future employment interests of workers in the European metal industry. The EMF is helping to structure the changes in the metal industry brought about by globalisation and seeks to strike a balance between employment interests and competitiveness in its representation of its members' interests.

*Collective bargain policy* includes the coordination of wage policy, the harmonisation of working time policy and the joint approach to training policy through collective agreement. The EMF also plays an active role in intersectoral negotiations at a European level.

*Company policy* focuses on all elements of workers' interests in a multinational company ranging from

economic and industrial development, restructuring and re-organisation and working conditions. It covers information and consultation rights at European level (European Works Councils, EWC) as well as participation rights (Company Statute). At the same time the EMF supports the development of a negotiation role in multinational companies. The EMF company policy involves the European Works Councils, the workers' representatives on company boards, the national trade unions and the EMF EWC coordinators.

*Social dialogue* focuses on building lasting and meaningful dialogue structures with European-level employers' and industry associations in the metal sector. The social dialogue is being developed at the metal sectoral level with the employers' organisation CEEMET as well as at the level of sub-sectors such as the shipbuilding and steel industries. Through the Social Dialogue the EMF seeks to develop common solutions to meet the challenges of global competition and industrial change affecting the metalworking sector across Europe. The EMF strives to improve the economic and social situation of workers by reconciling the legitimate social interests of workers and the need for competitive industries.

The EMF seeks consensus and reconciliation of interests through information, consultation and negotiation.

The most important tools are:

Dialogue with and the submission of demands to European institutions such as the Council, Parliament and the Commission.

Dialogue and the proactive defence of workers' demands in the context of cooperation with European metal industry employers, industry federations and multinational companies.

Initiating and coordinating cross-border European actions aimed at enforcing union demands in the European metal industry.

The negotiation of positions and framework agreements on the basis of the EMF Statutes.

Information and guidance about developments at European level.

**[Council of European Professional Informatics Societies \(CEPIS\)](#)**

The *European IT Professionals* are represented by the [Council of European Professional Informatics Societies \(CEPIS\)](#)

To be the main network of European IT Professionals

To become established as the leading independent European IT Certification Organisation

To raise the profile and promote the views of the European Informatics Societies and Informatics Professionals, to the European Commission and European Institutions

To promote the development of the Information Society through digital literacy, skills, education & research, and professionalism.

*Actors (CEPIS Members):* Austria: Österreichische Computer Gesellschaft (OCG) Belgium: Federation of Belgian Informatics Associations (FAIB-FBVI) Bosnia and Herzegovina: Association of Informatics in Bosnia and Herzegovina Bulgaria: Union of Automation and Informatics (UAI) Croatia: Croatian Information Technology Society (CITS) Cyprus: Cyprus Computer Society (CCS) Czech Republic: Czech Society for Cybernetics and Informatics (CSKI) Denmark: Dansk IT Estonia: Estonian Information Technology Society (EITS) Finland: Finnish Information Processing Association Germany: Gesellschaft für Informatik e.V - (GI), Informationstechnische Gesellschaft im Verband der Elektrotechnik Elektronik Informationstechnik e.V (VDE) Greece: Hellenic Professionals Informatics Society (H.E.P.I.S) Hungary: John von Neumann Computer Society (NJSzT) Iceland: Icelandic Society for Information Processing (ISIP) Ireland: The Irish Computer Society (ICS) Italy: Associazione Informatici Professionisti (AIP) Italy: Associazione Italiana per l'Informatica ed il Calcolo Automatico (AICA) Latvia: Latvian Information Technology & Telecommunications Association (LIKTA) Lithuania: Lietuvos Kompiuterininku Sajunga (LIKS) Luxembourg: Association Luxembourgeoise des Ingenieurs (ALI) Malta: Computer Society of Malta (CSM) Netherlands: Nederlands Genootschap voor Informatica (NGI), Vereniging van Register Informatica (VRI) Norway: Den Norske Dataforening (DND) Poland: Polskie Towarzystwo Informatyczne -Polish Information Processing Society (PTI-PIPS) Portugal: Associação de Profissionais de Informática (PROFIN) Romania: Asociatia Pentru Tehnologia Informatiei si Comunicatii (ATIC) Serbia: Serbian Information Technology Association (JISA) Slovakia: Slovak Society for Computer Science (SSCS) Slovenia: Slovenian Society Informatika (SSI) Spain: Asociación de Técnicos de Informática (ATI) Sweden: DF Dataforeningen i Sverige (Swedish Computer Society) Switzerland: Swiss Informatics Society (SI) Turkey: Informatics Association of Turkey (IAT) United Kingdom: British Computer Society (BCS)

#### **e-Skills Industry Leadership Board**

The mission of the e-Skills Industry Leadership Board (e-Skills ILB) was to lead the ICT sector's

contribution to the development and implementation of a long term e-skills and digital literacy agenda in Europe.

The e-Skills ILB worked in partnership with public authorities across Europe, other industry sectors, SMEs and all relevant stakeholders, building upon the recommendations and other reference initiatives on e-skills.

The e-Skills ILB led the ICT sector's contribution for the development and implementation of a long term e-skills and digital literacy agenda in Europe. The Board provided leadership, coordinated industry advice, pooled resources and expertise in support of EU and Member States policies and actions promoting ICT practitioner, user and e-business skills, and digital literacy, as well as the wider set of skills needed for innovation and employability in the 21st century knowledge-based economy.

In particular, the Board was committed to contributing to the implementation of the ICT Taskforce<sup>1</sup> recommendations and of the European Commission policy Communication and actions on e-Skills and e-Inclusion, building upon previous initiatives on e-skills over the past five years such as the [European e-Skills Forum](#), the Career Space initiative, the e-Skills Competences Consortium, and the Skills for Employability Alliance.

Areas of focus of the e-Skills ILB's work included:

Motivating and empowering future generations with e-skills

Promoting ICT practitioner learning, education, competences and training

Boosting the employability and productivity of the workforce with ICT user skills, including the deployment of multi-stakeholder partnerships.

Provide foresight and support for future skills needed in a changing environment with emerging technologies and new business models.

#### **The European e-Skills Association (EeSA)**

The **European e-Skills Association** is a community of stakeholders supporting the development of e-skills and digital literacy in Europe. EeSA builds on the success of the e-Skills Industry Leadership Board (e-Skills ILB) supported by DG Enterprise and Industry of the European Commission.

EeSA is an umbrella organisation that works in partnership with the European Commission, public authorities across Europe, SMEs and all relevant stakeholders to build upon the European Commission recommendations and other reference initiatives on e-skills.

#### Vision

In a rapidly changing world, e-skills, including digital literacy skills, remain the foundation for Europe's success as an innovative society, in which businesses as much as individuals are able to foster creativity, promote education, increase potential, drive growth and take advantage of career opportunities in all sectors across the region.

#### Mission

The European e-Skills Association (EeSA) acts as a reference European platform to develop ICT skills and competences for professionals, practitioners, citizens, and users across all sectors and society to build a more inclusive, efficient, competitive and innovative Europe. Through its members, EeSA promotes the exchange of ideas, awareness raising and good practices at EU and Member State levels.

#### Activities

The various flagship initiatives of the European Commission's EU2020 strategy for smart growth include The Digital Agenda for Europe, An Agenda for New Skills and Jobs, Youth on the Move and Innovation Union. EeSA through its members participates actively in these initiatives, with the aim of achieving the targets set out by the European Commission. For example, everyone in Europe shall have the opportunity to acquire enhanced digital skills to be able to participate fully in society by 2020; a key action outlined in The Digital Agenda for Europe.

#### Governance

EeSA is governed by its members through the General Assembly (GA) and the Board of Directors (BoD). The BoD is the executive body of EeSA. Two co-Chairs lead both the GA and BoD.

#### Executive Committee

EeSA also has an Executive Committee (ExCom), as well as a secretariat headed by the EeSA General Manager. The Excom led by the co-Chairs steers EeSA policies and supports the BoD in carrying out their tasks and priorities. This committee consists of 3 - 5 Board Directors (or their delegates). The General Manager of EeSA is an ex officio member of the Excom. EeSA members are invited to take on or are assigned specific tasks and commitments in line with the EeSA [Vision and Mission](#).

Members of the EeSA ExCom are as follows: Microsoft, ECDL Foundation, EuroCIO, European Schoonet, Oracle.



### **eSkills Competences Consortium**

The eSCC brings together representatives of the commercial, informal (open, distance or adult learning) and formal (state-recognized) ICT training sectors with the aim of securing endorsement for and use of ICT industry and other non-formal certifications within government endorsed education and training frameworks. Members are drawn from across the ICT skills and training industry, with activities coordinated via a secretariat provided by CompTIA

The eSCC aims to develop mechanisms leading to the endorsement and/or recognition of industry and other non-formal certifications by public sector authorities in the EU Member States. This includes: Promoting the role of industry and other non-formal certifications within EU national education frameworks.

Working to achieve EU Member State and/or regional endorsement of industry and other non-formal certifications so that they are accepted as standard and can qualify for public funding and/or tax credits  
Advising the European Commission in its ongoing consultations relating to formal recognition and public-private ICT training partnerships, particularly with a view to helping implement the recommendations of European e-Skills forum.

The eSCC pursues agreements on the endorsement of industry and other non-formal certifications within the framework of multi-stakeholder partnerships bringing together industry, governments and training institutions, in order to ensure and secure the long-term success of the solutions proposed. eSCC activities include:

Collection and dissemination of international references and model examples of e-skills certification public recognition and/or endorsement

Review and benchmarking of governmental national strategies in the area of recognition (tasks, envisaged changes, etc.) including the role of other agencies, ministries and other stakeholder organizations at a national level

Dialogue with relevant policymakers within EU Institutions and at EU Member State level, e.g. regarding the roles and functions of public authorities relating to formal recognition and/or endorsement of private sector e-skills certifications

Proposing changes to the legal, institutional and organizational framework necessary for the coordinated recognition and/or endorsement of industry and other non-formal e-skills certification at a national level, including requirements for supervision and control.

*Non-formal e-skills certification* includes *vendor certification*; which plays a big role in this sector; there is nothing comparable in other sectors. The reason for this strong position lies in the specific character of this sector: ICT activities are to some extent *context-independent*. This enables replication of education and training across the world. As technology is constantly changing so the education designed by multinational ICT supplier companies is also rapidly changing. National education systems are challenged to keep pace with this rate of change and in consequence ICT training and related qualifications are driven internationally by private enterprise rather than national education institutions. In addition ICT education is naturally an early adopter of on-line education and it benefits from the application of on-line assessment which lends itself to consistent world wide standards of assessment. This model of supplier generated education and assessment operating on a worldwide basis has underpinned the growth and success of ICT vendor certification

It could be argued that the relatively new ICT industry education system has been able to develop unconstrained by the regulations of long established national education systems and has established De facto standards, which have become internationally accepted by employers.

### **European Information Technology Observatory (EITO)**

The European Information Technology Observatory (EITO) is a broad and unique European initiative and publishes market data about the Information and Communications Technology (ICT), as well as the Consumer Electronics (CE) industries in Europe. EITO provides the most essential and up-to-date analyses of the Western and Eastern European ICT and CE markets, including detailed statistics by country and by market segment. In addition to this data, EITO presents special reports on topics of particular interest and, last but not least, an extensive overview of the latest technological developments. Data and reports about the most important international markets, as well as an overall European and world forecasts, round out the comprehensive approach.

Up-to-date and valid information plays an increasingly important role in business and political decision-making. The objective of EITO is to render services for all fields of public life: economy, science, politics and media. EITO improves your knowledge of the information and communications technology, the industry that will decide about the role Europe will be playing on the global electronic market-place in the



21st century.

From 1993 to 2007 the market data and statistics were published in a printed yearbook. Since January 1, 2008, Bitkom Research GmbH continues all EITO activities formerly managed by EITO EEIG.

- **What are the qualifications and qualification standards in the selected sector? Please, describe the qualification structure (definitions of concepts and terms, input/outcome orientation, modularization, learning outcomes, descriptors, non-formal and informal learning, etc.).**

As the eCompetence Framework does not deal with qualifications, but with competences required by industry, these concepts are not discussed in this context. With regard to the qualification framework developed within ICT Lane, see below.

However in national Higher and Vocational Education institutions, ICT educational programs and associated qualifications are established ranging from EQF levels 1-8. These ICT qualifications are governed by the national institutions responsible for all curriculum development, certification and quality control, regardless of the industry sector or the subject matter. In some cases vendor qualifications have been embedded within national qualification systems to provide hybrid qualifications recognized by academia and industry.

- **What are the modalities for accessing the profession/occupation (e.g. licenses, training requirements, apprenticeship, career evolution, etc.)?**

This is ruled in national contexts.

As a general statement it can be said that the ICT industry has less interest in formal qualifications and certifications than in proof of experience and capability. This tendency towards understanding individual practical capability has driven the approach for articulation and measurement of competence. It has directly influenced the development of the European e-Competence framework.

- **What are the Sectoral Qualifications Systems and Frameworks in the selected country/countries? Please distinguish if they are established or under development, their size, structure, scope, etc.**

The European e-Competence Framework is a European wide reference framework of information and communication technologies (ICT) competences that can be used and understood by ICT professionals and human resources managers from ICT user and supply companies, small and medium sized enterprises, the public sector, as well as educational and social partners across the European Union. The European e-Competence Framework focuses on competences needed to develop, operate and manage ICT projects and processes, to exploit and use ICT, to make decisions, develop strategies, and to foresee new scenarios (that can then be adapted and customized into different business contexts). The European e-Competence Framework is intended as a means to support the definition of jobs, training courses, qualifications, career paths, formal and non-formal learning paths, certifications etc. in the ICT sector. Its application is centered upon workplace competence articulation, profiling, assessment and measurement. Although it can be related to other qualification/certification/knowledge frameworks, its purpose is to provide a set of reference competences for the sector (that can be used in all those domains where a competence-based language is required, e.g. in job descriptions, role profiles, competence specifications and articulation of professional development needs). The European e-Competence Framework defines proficiency levels that can be used to provide detailed profiling and assessment (e.g. for effective recruitment, competence gap measurements, etc.). As the European e-Competence Framework becomes more universally applied further applications can be envisaged, as curriculum and ICT qualification and certification development (as it provides a link between jobs, competences and qualifications/certifications). The European e-Competence Framework refers to competences rather than to job profiles. The competence-based approach is considered to be more flexible as, between companies, it is common to find identical job titles that correspond to different job descriptions (and vice-versa); moreover, both job titles and job descriptions are often inadequate (because characterized by a too fixed structure) when expressing capabilities required in a complex and dynamic workplace like the ICT one. The European e-Competence Framework is structured into four dimensions. These dimensions reflect different levels of business and human resource planning requirements in addition to job/work proficiency guidelines. The first dimension (Dimension 1) refers to 5 e-Competence Areas derived from ICT business processes. The second dimension (Dimension 2) provides a generic description for 32 reference e-Competences (clustered under the identified e-Competence Areas). The third dimension (Dimension 3) defines proficiency levels of each e-Competence (a given e-Competence can be "declined" at more than one level and it is assigned a specific proficiency level). Finally, the fourth dimension (Dimension 4) reports a non exhaustive set of knowledge and skills related to a given e-Competence. Each e-Competence Area outlined in Dimension 1 aggregates related e-Competences which are described in Dimension 2. The description embeds

knowledge, skills and attitudes. In Dimension 3, e-Competence descriptions are specified at each appropriate proficiency level. Descriptions still embed knowledge, skills and attitudes, as in Dimension 2. Finally, Dimension 4 makes core knowledge and skills explicit. However, attitudes are still embedded because if separated they would lose their relevance and meaning (i.e. their meaning is only relevant when used in context).

- What are the processes/needs leading to the emergence/creation of sectoral qualifications (e.g. fragmentation of qualifications across Europe, increase of workers mobility, need for a better quality of qualifications, etc.)? Please describe also how the definition of a sectoral qualification improves the weaknesses of the previous scenario.

There are two initiatives which can be considered main organisational umbrellas of ICT skills promotion at European level:

The European e-Skills Forum

The CEN Workshop on ICT Skills

It can be observed that every Europe-wide relevant activity in the field is linked to events/work taking place under the auspices of these initiatives.

#### **The European e-Skills Forum**

This initiative, led by the European Commission, DG Enterprise, supported by CEDEFOP, is based on a broad consensus of stakeholders of various origin that development of European society needs promotion of ICT skills in various fields: *ICT practitioners skills, ICT user skills, e-Business skills*. The background is described on the website of the European Commission:

The success of the Lisbon strategy, the competitiveness of European industry and social cohesion are dependent on the availability and the effective use of information and communication technology (ICT) and the knowledge, skills, competences and inventiveness of the European workforce and citizens. There is a general recognition since the 1990s that the role of ICT on productivity and living standard is critical.

E-skills shortages, gaps and mismatches as well as a persistent digital divide will affect negatively productivity growth, competitiveness, employment and social cohesion in Europe. As ICT is developing rapidly, e-skills are increasingly becoming important and need to be constantly updated. In addition, the development of e-business is increasing the demand for individuals with creativity and higher-level conceptual skills.

Improving the availability of e-skills involves actions both at European and national level, in several areas: education, training, industrial and labour policies primarily, but also in other domains such as immigration, taxation and research.

A look at the history of the forum illustrates the character of this initiative:

As a follow up of the major conference on the e-Economy organised in Brussels on 1-2 March 2001 and the e-Europe and Go Digital initiatives, the Commission established an ICT Skills Monitoring Group in September 2001. Building in particular on the results of Career Space industry-led initiative, its activities focusing on ICT practitioners were complementary to those of the High Level Group on the Employment and Social Dimension of the Information Society which focused on health, ageing, disabled people, inclusion and quality of work. A benchmarking report of national policies was discussed at the European e-Skills Summit organised in co-operation with the Danish Presidency on 17-18 October 2002 in Copenhagen. Council Conclusions were adopted on 5 December 2002.

The Commission established the European e-Skills Forum in March 2003. It was composed of representatives of Member States, Cedefop, the OECD and stakeholders. The Forum released its report "e-Skills in Europe: Towards 2010 and Beyond" in September 2004. Several initiatives and studies were launched in 2005 based on the recommendations of the Forum to prepare for the development of a long-term e-skills agenda.

The Commission established an e-Skills and e-Learning expert group in June 2006 to help designing a long-term e-skills agenda. The group was composed on representatives of Member States, relevant Commission's services, Cedefop, OECD and stakeholders. They met four times including for the European e-Skills 2006 Conference which was organised in Thessaloniki on 5-6 October 2006. It was an important milestone towards the preparation of a long term strategy to ensure adequate e-skills for the future across both workforce and population.

The Commission also established in June 2006 an ICT Task Force to discuss issues relating to the competitiveness of the ICT sector and ICT uptake in Europe. The Task Force set up six working groups, including one on skills and employability. The Task Force released its report in November 2006 including recommendations on e-skills. The European e-Skills Forum, the Thessaloniki Declaration and the report

of the ICT Task Force, include detailed proposals for a long-term e-skills agenda. Meanwhile another e-skills conference took place<sup>1</sup>. The quoted parts of the description should show: The activities of the e-Skills Forum cover various fields of ICT skills, not only ICT practitioner skills. The e-Skills Forum is based on the collaboration of stakeholders of various kinds, including those of member states' governments Using the e-Skills Forum community as a network, other more specific initiatives could and can be launched. As a high-level initiative of collaboration between public and private stakeholders, the e-Skills Forum plays an important role in the *Long Term e-Skills Agenda* of the European Commission.

#### **The CEN Workshop on ICT Skills**

This workshop which started in 2003 is carried out under the patronage of the European Commission, DG Enterprise, with the support of CEDEFOP (as the e-Skills Forum). The organizational structure has not been chosen by chance: European standardization is not possible in the area of educational policy due to contracts valid for the collaboration of member countries in the framework of the European Union; in order to achieve reliability to a certain degree comparable to a standard, it makes sense to organize work in the framework of CEN Workshops, organized by the *European Committee for Standardization (Comité Européen de Normalisation)*. These are workgroups of volunteer experts in the field; what they produce is not a standard in legal terms, but an agreement which can get the value of a standard if expertise behind this agreement is acknowledged by the users of the *CEN Workshop Agreement (CWA)*. Experts working for various stakeholders already mentioned above have used this organizational structure for collaboration within projects for which had to be applied for in the framework of this workshop in order to be funded by the European Commission, DG Enterprise; sometimes also projects were initiated in this context which were funded by other EU programs.

The following CWAs elaborated by this workshop have up to now been published:

CWA 14925:2004 Generic ICT Skills Profiles for the ICT supply industry - a review by CEN/ISSS ICT-Skills Workshop of the Career Space work

CWA 15005:2004 ICT Curriculum Development Guidelines for the ICT supply industry - a review by CEN/ISSS ICT Skills Workshop of the Career Space work

CWA 15515:2006 European ICT Skills Meta-Framework - State-of-the-Art review, clarification of the realities, and recommendations for next Steps

CWA 15893-1:2008 European e-Competence Framework - Part 1: The Framework - Version 1.0

CWA 15893-2:2008 European e-Competence Framework - Part 2: User Guidelines - Version 1.0

CWA 14925 and CWA 15005 refer to the **Career Space Initiative** which was based on a consortium of eleven major ICT companies: *BT, Cisco Systems, IBM Europe, Intel, Microsoft Europe, Nokia, Nortel Networks, Philips Semiconductors, Siemens AG, Telefónica S.A. and Thales*. plus *EICTA*, the European Information, Communications and Consumer Electronics Industry Technology Association (today *DIGITALEUROPE*). It was the objective of this initiative "to put in place a clear framework for students, education and training institutions and governments, that describes the skills and competencies required by the ICT industry". The outcome of this initiative were 18 ICT profiles at academic level. As the CWAs were finished before the EQF came up, the descriptions of these profiles do not include references to it.

The following CWAs deal with the **European e-Competence Framework**. Also work on this framework started before the EQF was established and the CWA was not too far from being finished when the EQF came up, the first CWA dealing with this framework included a very detailed reference to the EQF which at that time, of course, was not yet available in its final version and not yet had passed the consultation process. At the same time, the document showed that the set-up of the framework should and can be linked to various already existing ICT frameworks:

The Workshop concludes that there is no one "correct" approach that can lead to coherent set of recommendations for ICT Practitioner Competence Frameworks in the short term. However, the following recommendations were derived by best practice analysis studying major skills (Competence) frameworks already in place in Europe and worldwide. The following frameworks have particularly informed these recommendations – based on acceptance, take-up and impact:

*SFIA* (UK) (from the predecessor of which the EUCIP Profiles were established);

*AITTS* ("APO-IT") (Germany);

*CIGREF* (France), from which the *Airbus* framework has been developed;

*NWCET* (US) IT Skill Standards developed for the NSSB (on which the *CompTIA Tech Career-Compass*

drew)

It is important to note that all these models are – in accordance with the consensus decision of Workshop participants during the May 2005 meeting in Brussels – *output-oriented / performance based*. The scope of this CWA and of the following recommendations covers only such frameworks and initiatives.

This makes clear that the planned framework should not replace existing frameworks, but deliver a reference for them – irrespective of purpose and political environment of the ICT framework considered, be it a framework which was set up by consensus of social partners and supported by public authorities (as that happened with *AITTS* in Germany), be it a framework of ICT users (as in France), a framework which is linked to an industry structure model (as *SFIA* in the UK, or a standard used by an association of vendors (as *CompTIA Tech Career-Compass*). The major part of the CWA is used to demonstrate in detail how the above mentioned frameworks can be referenced to the European e-Competence Framework, thereby covering the whole range of ICT qualifications which were defined output-oriented or can be relatively easily be described that way – which delivers also an interface to the EQF.

Based on the state-of-the-art review and recommendations of this CWA, in 2008 two further CWAs have been published, including the actual description of the framework and user guidelines.

- Which are the approaches for the identification/definition of learning outcomes and for the application/test of descriptors?

The European e-Competence Framework makes reference to several common concepts (namely knowledge, skill and competence) also defined and used within the EQF. However, if knowledge and skills express the same meaning in both frameworks (although defined in a slightly different form), in the European e-Competence Framework competence is not exactly defined in EQF terms responsibility and autonomy. Although autonomy is made explicit in level descriptors, the European e-Competence Framework definition does not make these notions explicit because they can be difficult to interpret by organizations when applied to individual competences. Thus, in the European e-Competence Framework, competence is defined as “a demonstrated ability to apply knowledge, skills and attitudes for achieving observable results” (thus, the expression “abilities” mentioned in the EQF is close to the “attitudes” used in the European e-Competence Framework). The reason for the creation of a specific definition of competence is motivated by the fact that (a) definitions provided in the European e-Competence Framework are designed to be aligned to company needs and views and are expressed in their language, (b) the European e-Competence Framework reflects company requirements and expectations for workplace capability and (c) the European e-Competence Framework is designed to relate to specific skills and job profile frameworks coming from different cultures and experiences and should therefore provide a translation of these approach together with a European identity. Based on the above definition, the e-Competence descriptions embed and integrate knowledge, skills and attitudes. Skill is defined as “ability to carry out managerial or technical tasks”. Managerial and technical skills are the components of competences and specify some core abilities which form a competence. Attitude means, in the considered context, the “cognitive and relational capacity” (e.g. analysis capacity, synthesis capacity, flexibility, pragmatism, etc.). If skills and knowledge are the components, attitudes are intended as the means for keeping them together. Finally, knowledge represents the “set of know-what” (e.g. programming languages, design tools, etc.) and can be described by operational descriptions. If competences (as needed and applied at the workplace) represent the core building block of the European e-Competence Framework, key skills and knowledge are specified for any e-Competence. In this case, the depth of analysis could be considered too detailed for company needs. Nonetheless, the above details at the skill and knowledge levels are very critical for training institutions that need to specify qualifications in terms of their learning outcomes. In this context, skills and knowledge can represent both e-Competences and the learning outcomes to be reached through learning/training paths. Thus, skills and knowledge represent a bridge between organization competences and vocational training and qualifications.

- What is the relationship of sectoral qualifications to the national training system (e.g. the sectoral qualification is a supplement offered in parallel to national qualification system, it is integrated as an obligatory part of the basic training, etc.)? For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. “are they an evolution from national to European or vice versa”, or “do they pursue a bottom-up or a top-down strategy”).

For transnational analysis, please give an overview of the relations between sectoral qualification systems/frameworks defined at the local level and at the EU level (e.g. “are they an evolution from

national to European or vice versa”, or “do they pursue a bottom-up or a top-down strategy”).

In the first instance the European e-Competence Framework establishes a European common language for ICT competences that can support the definition of jobs, training courses, qualifications, career paths, formal and non-formal learning rules, certificates, etc. In additional national ICT frameworks can be linked to the European e-Competence framework and gain a European dimension. Thus, national ICT competence frameworks, qualification systems, job profiles, etc. could become comparable to competence frameworks, qualification systems, job profiles etc. from other countries. Moreover, competence frameworks, qualification systems, job profiles etc. could receive guidance on how to link to the EQF. Examples of application to the British “SFIA - Skills framework for the information age”, to the French “CIGREF framework on job profiles” and to the German “AITTS - Advanced IT Training System” are considered in the European e-Competence Framework. When aspects related to the application of the European e-Competence Framework to “local” systems and frameworks, it is worth considering also the ICT Lane project funded under the Leonardo da Vinci programme. In the ICT Lane initiative, European experts in ICT qualification and training have developed a sector-specific model for implementing the EQF in the ICT field based on description standards. Within the project, a translation standard for qualification content based on the learning outcome approach applied by the EQF is defined (that also enables ICT qualifications, both public and private, to link to the European e-Competence Framework dimension on knowledge and skills, i.e. Dimension 4) together with a shared format to identify levels according to the EQF (adapting the specific needs of the ICT sector and in accordance with the European e-Competence Framework levels). According to the ICT Lane project, learning outcomes are composed of separate items each described in terms of an action verb. For each action verb, a definition based on the “to be able to” concept and encompassing knowledge, skills and competences is provided. Moreover, for each action verb, the EQF level (lower bound) is specified. Finally, each learning outcome is connected to one competence coming from the European e-Competence Framework (only key learning outcomes are considered). In the ICT Lane initiative, as in the European e-Competence Framework, EQF levels are attributed to learning outcomes and e-Competences, respectively (whereas the EQF should be applied only to a whole national certification system). Moreover, the ICT Lane initiative considered both school curricula and vocational and professional certifications, being the former mainly described in terms of contents and knowledge (thus resulting in a complex link as it is difficult to link pure knowledge to e-Competences) and the latter detailed in terms of capacities, skills or competences (thus easy to be translated in terms of learning outcomes and linked to e-Competences). Still with respect to the application of the European e-Competence Framework, it is worth observing that the link to formal, non-formal and informal achievements (e.g. qualifications) is straightforward if they are oriented towards competences. From a competence perspective, it is unimportant – for instance – when and where a qualification is awarded or how many study hours are involved. Competence demands demonstrable capability obtained through a combination of experience, formal, non-formal and informal acquired abilities/skills and knowledge. Thus, the European e-Competence Framework can be used as a reference model for recognizing competence acquired by ICT practitioners and professionals through their career.

- Please describe the Stakeholders involvement and the relations with the labour market/learner's perspective (are they supporting a sectoral qualifications framework?). Who is the owner of the qualifications?

What are the social dialogue initiatives at the national/transnational level in the considered sector? Are representative stakeholders at all levels (national and European) involved?

If not, why? Are there relations with other sectoral initiatives at national or transnational level?

The involvement of stakeholders is mainly realised over the CEN/ISSS workshop  
(see answer on next question)

- How are quality, credibility and mutual trust assured (e.g. common guidelines for evaluating candidates, European Examination Commission, etc.)?

The framework has been developed by a large number of European ICT and HR experts in the context of the CEN/ISSS Workshop on ICT Skills. The workshop provides a discussion and consensus building platform for both national and international representatives from the ICT industry, public and private vocational training organizations, social partners and other institutions. It aims to create long-term human resources (HR) and competence development solutions for the European Information and Communication Technology (ICT) community. In 2005, further to the recommendations of the European e-Skills Forum, the ICT Skills workshop members concluded that national ICT framework stakeholders, as well as European ICT industry representatives should develop a European e-Competence Reference



Framework. With the encouragement of the European Commission, ICT stakeholders, representatives of ICT Industry (both large companies and users), social partners, national ICT framework actors, as well as ICT higher education, qualification and research centers met for a kick-off early 2006 in order to put this intention into practice. During an intensive follow-up, they designed a programme for the work towards a European e-Competence Framework under the umbrella of the CEN/ISSS workshop. These efforts were welcomed and recognized in the Communication of the European Commission on “e-Skills for the 21st Century: Fostering Competitiveness, Growth and Jobs” of September 2007 and the Competitiveness Council Conclusions of November 2007. In order to achieve a European consensus and useful results at European and national level, the Europe-wide involvement of ICT sector players and stakeholders from business, policy making and education was crucial. Whilst at the political level it was important to get the larger multi-stakeholder public of the European ICT sector on board, at the expert working level focus had been placed upon human resources and ICT management know-how from the European ICT industry. The Framework has been presented at the European e-Skills Conference on 9-10 October 2008 in Thessaloniki. The European e-Competence Framework takes into account the outline of local approaches as, among others, the AITTS, SFIA and the Eucip. The European e-Competence Framework development is supported by the European Commission and the Council of Ministers. The European e-Competence Framework has been updated by CEN/ISSS in late 2010. The maintenance and update activities included further development of the dimension related to knowledge and skills (Dimension 4) with the determination and specification of the way to relate knowledge and skills to the overall framework and a further elaboration of the framework in the related dimension.

- Please describe the strengths, weaknesses, opportunities and threats of the analysed Sectoral Qualification System. How do you think the SQF could be enhanced and refined in order to make work processes transparent?

The production of a methodology document within the latest version 2 of the e-CF provides a good insight into the development and application of the e-CF. Use of this document facilitates a more consistent approach to linking the e-CF to the EQF. In addition, describing the way in which the e-CF was developed and the methodological approaches adopted make this particular sectorial approach open and transparent. The strength of the e-CF is the extensive engagement of European stakeholders in development. The weakness, as in most approaches, is the ability to create of a wide awareness of its existence across the nation states of the EU. The opportunities provide by the e-CF are currently being exploited by the application of the e-CF in a variety of European based project contexts such as the SME community and the creation of typical job profiles. Threats include the competitive nature of some industry frameworks that seek to maximise the commercial potential of their proprietary structures at the expense of a potential unifying standard.

## 2) Referencing to the EQF

- Is there a need for linking sectoral qualifications to the EQF? What are the related constraints (weaknesses) and benefits (strengths)?  
How the link to the EQF will affect the credibility of the qualification (opportunities)?  
Which are the risks (threats) of the link to the EQF?  
What will be the consequences for the labour market and the individuals?  
Are there any obstacles to the linking to the EQF?

The relationship of the eCompetence Framework to the EQF is described within the framework. It has been discussed in detail in documents of WP 2 (Del 4).

- What kind of procedures are planned or in progress for referencing sectoral qualifications to the EQF?  
Do these procedures allow a direct link to the EQF or do they require an indirect link?  
Please analyse the pros and cons of the direct link (common strategy, link of individual qualifications, responsible bodies, application of criteria, procedures, descriptors) and the indirect link (referencing of a single sectoral qualification defined at the national level/of all qualifications in all countries, linking to NQF versus inclusion in the NQF, transparency of procedures, etc.).

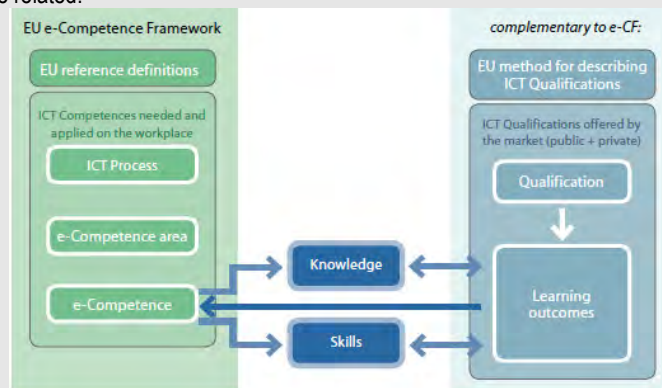
The e-CF project team were aware of the need to relate to the EQF and provided a table demonstrating a relationship between the two models. Given that the EQF and the e-CF were developed from different backgrounds (i.e. Learning outcomes versus competence) and by different stakeholder communities; it is not possible to conclude that there are direct equivalences between the two structures but a strong and consistent linkage has been established.

The table below highlights this relationship.



e-CF Level	related to EQF Level
e-5	8
e-4	7
e-3	6
e-2	4 and 5
e-1	3

- **Who will be responsible for referencing sectoral qualifications to the EQF?**  
Establishing references between disparate frameworks is not a scientific exercise but relies upon expert opinion and consensus. The task of constructing a relationship between the EQF and a sector framework should be conducted by the sector with moderation from a wide group of stakeholders.
- **Are sectoral levels consistent with EQF levels (if not, how should they be modified)?**  
As stated previously, the nature of sector frameworks based upon competence identification is different from the concept of the EQF that focuses upon learning outcomes. However, given this constraint and taking into account the level structure differences between the structures, the e-CF methodology document provides a consistent conversion methodology.
- **Is there the possibility to use the same EQF categories for describing learning outcomes or should they be adapted (in this case, please explain how they should be modified)? Is the referencing to the EQF based on all EQF descriptors (knowledge, skills and competences)?**  
Learning outcomes are strongly related to knowledge and skills in the EQF, as are competence descriptors in the e-CF. It is these common elements that are used to develop a consistent relationship between them. In consequence adaptation is not required. The figure below demonstrates how the EQF and e-CF are related.



- **Which are the strategies for supporting credibility and fostering mutual trust between private and public stakeholders? Which are the roles, responsibilities and measures for quality assurance? Is there any relation/consistency with national and European recommendations/indicators?**  
The essential component needed for the development of a sector framework is the engagement of stakeholders who understand the requirements of their industry. This community is then able to moderate the work of the expert developers and develop essential 'buy in' from a broad stakeholder group.  
Quality outcomes are in the mutual interest of public and private stakeholders. Provided that the development phase of a sector framework is supported by a broad community of public and private stakeholders then an environment is created in which mutual trust and quality assurance is assured.