

**Project “EQF and compatibility of sectoral qualifications
between the countries”**

No. 137852-LLP-2007-LT-KA1EQF

**COMPARABILITY OF THE STRUCTURE OF
QUALIFICATIONS IN THE SECTORS OF
CONSTRUCTION AND HOSPITALITY IN AUSTRIA,
CZECH REPUBLIC, FRANCE, IRELAND AND
LITHUANIA**

Synthesis report of the work package No. 2

Prepared by:

**Vidmantas Tūtlys, Centre for Vocational Education and Research Vytautas Magnus
University**

With the contributions of:

Jakob Khayat, Camillo Sitte Lehranstalt (Austria)

Miroslav Kadlec, Milada Stalker, NUOV (Czech Republic)

M’Hamed Dif, BETA Céreq Alsace (France)

Carmel Kelly, National Qualifications Authority of Ireland (Ireland)

2008

1. METHODOLOGICAL BACKGROUND FOR THE COMPARATIVE ANALYSIS OF THE SECTORAL QUALIFICATIONS BETWEEN THE COUNTRIES AND THE USE OF THE EUROPEAN QUALIFICATIONS FRAMEWORK

Seeking to disclose the possibilities and limitations of the EQF in comparing of sectoral qualifications between the countries there can be discerned the following levels of the comparability and comparison of the sectoral qualifications:

1. Conceptual level is defined by the comparability and compatibility of the main concepts and terms related to qualifications in the sectoral and national contexts. What are the similarities and differences of the concepts of qualifications, learning outcomes, competences, knowledge etc.? The level of compatibility and comparability of these concepts and their understanding by the different stakeholders of the sectors can directly influence the possibilities of the comparison of qualifications, as well as the needs and possibilities to use the reference instruments and measures (like the EQF) in order to improve the common understanding needed for the comparison of qualifications. The more this conceptual level of the sectors in different countries is similar, the easier is to compare the qualifications between these sectors. There can be noticed important influence of the National qualifications frameworks and systems in this field, because in many cases sectors use the concepts and terms elaborated in these systems and frameworks. In such cases it becomes very difficult to discern any purely sectoral approach towards the concepts and terms. In order to implement and to apply EQF as a common referencing tool it is necessary to evaluate the flexibility of the EQF methodological basis and the main grounding concepts.

2. Contextual level: comparability of the sectoral environment and context of designing, provision and usage of qualifications – structure and development of the sectors, the situation of VET and human resource development in the sector, applied policies of skills development, etc. It is important to understand the main factors of the context of sectors, influencing the sector specific characteristics of qualifications as well as those factors which facilitate the comparability of the sectoral qualifications in the sectors of different countries.

3. Contents level is defined by the comparability of the contents of the sector in terms of qualifications (map of qualifications of the sector), as well as the comparability of the contents of sectoral qualifications in terms of their composition of the other units, like competences, units of qualification etc.

1.1. Conceptual level of the comparability of qualifications

Can the EQF be the effective instrument of comparison of qualifications in terms of comparability and compatibility of the main concepts and terms related to qualifications in the sectoral and national contexts?

Analysing the basic concepts and terms of the EQF and their capacities to generalize the understanding and interpretation there can be discerned the following concepts and their definitions:

Learning outcomes defined by the EQF as statements of what learner knows understands and is able to do on completion of a learning process and expressed in terms of knowledge, skills and competence (European Commission, 2008).

Competence defined by the EQF as ‘proven ability to use knowledge, skills and personal, social and/ or methodological abilities, in work or study situations and in professional and personal development. In the context of European Qualifications Framework, competence is described in terms of responsibility and autonomy.’

Qualification by the EQF defined as ‘formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards’ (European Commission, 2008).

Whereas the concept of qualification does not cause significant controversies in the understanding and interpretation in the different national, sectoral or institutional contexts and does not pose significant challenges for comparison process, this is not the case of the concepts of the competence (and competences) and learning outcomes providing much more space and possibilities for the different interpretations and, subsequently, different applications in the practices related to designing, provision and awarding of qualifications. One of the core and underlying differences in understanding and interpretation of these concepts is the difference in the orientation of the frameworks of qualifications and VET systems towards the performance output or to the attainment of the education and training standards (Brockmann, Clarke, Winch, 2008). These differences are caused by the core characteristics of the VET systems and models and interrelationships between the VET systems and socioeconomic models. The orientation of qualifications frameworks and VET systems towards the performance output is typical for the ‘market model’ of the VET and liberal market economies (the UK, Ireland). One of the main factors influencing the development of this approach in the ‘market model’ of the VET and liberal market economies is the orientation to the current needs of the workplace performance and the flexibility of the acquisition of narrow skills needed of the accomplishment of the particular tasks at the workplace. Critics of this approach stress that this approach is based on ‘a Taylorist separation of conception and execution, with the designers of qualifications deciding which actions constitute competent performance and candidates simply demonstrating that they can perform actions’ (Grugulis, 2007). The orientation towards the attainment of the education and training standards is typical for the school based and especially dual model of the VET and for the regulated market and neocorporativist socioeconomic systems of the ‘continental Europe’ (Delamare Le Deist, Winterton, 2006, Brockmann, Clarke, Winch, 2008). This approach is based on assumption, that the ‘learning process is provided through the curriculum, intended to enhance the value of the labour itself, unattached to a specific output’ (Brockmann, Clarke, Winch, 2008) requiring more holistic understanding of the learning outcomes and competences, as well as more attention to the organization and regulation

of the process of learning and training basing it on the coordination of the interests of social stakeholders. How these two orientations or approaches can be reconciled in such a 'meta-framework' of qualifications as the EQF? What are the implications of these differences of approaches for the comparability and compatibility of the sectoral qualifications and for the application of the EQF in this process? In the scientific discussion there can be noticed different answers to these questions. Brockmann, Clarke, Winch state that these approaches are methodologically incompatible with each other and the EQF can not resolve this problem:

The EQF, or indeed any qualification framework, cannot be used to assess any particular workplace-based performance, but is a template for schemata, which are used to classify performances of a different order. It follows that there must be a structural symmetry between the design of the EQF and the national qualifications for which it is meant to act as a comparator. Currently, however, the EQF retains an ambiguity that different countries may interpret in different ways with some, like Germany regarding it as a comparator of standards and others, like England regarding it as a comparator of learning outcomes. This very ambiguity belies the difficulties inherent in operating such a system when performance is assessed not just according to output in the workplace but according to the development of individual labour through a curriculum and, where something more than narrow task-related skills and basic knowledge is required (Brockmann, Clarke, Winch, 2008).

Bremer notes the problems related to the lack of the quality of the EQF what implies the decoupling of the education and training systems from the vocational requirements (Bremer, 2008). Grollmann doubts whether any generic framework of qualifications 'can actually be applied to the variety of contexts and sectors of education and work'. He states that 'linear grading concept does not depict the reality of solving tasks and coping with challenges in vocational education and the world of work' implying that 'the subjective dimensions and the graduation of levels on which such knowledge and skills are being developed would need to come under scrutiny in relation to the settings in which that learning is taking place' (Grolmann, 2008). Critics note the incoherence of the functions which are prescribed to learning outcomes in the EQF to provide 'a notional progression in which achievement at each level beyond level 1 implicitly presupposes achievement at level 1 and all the levels below the one which is currently being assessed' and 'to provide a means of establishing whether someone has satisfied the criteria at any given level irrespective of their achievements at any other level. (Brockmann, Clarke, Winch, 2008).

Markowitsch and Luomi-Messerer note that the EQF 'is very much a political/pragmatic tool and not a scientific/empirical tool' implying that its designing and constitution is based on the compromise between the scientific and systematic approach and the political requirements of more pragmatic character (Markowitsch, Luomi-Messerer 2008). Following this approach there can be stated, that the practice of the usage of the EQF in referencing the qualifications can generate the solutions for the existing inconsistencies of the approaches and concepts of learning outcomes and competences.

Analysing this problem of the compatibility of concepts of the competences and learning outcomes there can be discerned the following levels of the formation of these concepts with the specific factors influencing the formation of these concepts at the each level:

- level of the institutions of the work represented by the sector or branch institutions, enterprises, their human resources development policies and strategies and their participation in the designing, provision and awarding of qualifications;
- national level represented by the national policies of education and human resource development, national qualifications systems and frameworks;
- European Union level represented by the EU policies and strategies and their instruments.

At the each of this level the development of the concepts of competences and learning outcomes are influenced by the different compromises between the scientific-systemic approach and the practices of the VET, employment and human resources development.

1.1.1. Level of the institutions of the work in the formation of the concepts

Level of the institutions of the world of work represented by the sector or branch institutions, enterprises, their human resources development policies and strategies, participation of these institutions in the designing, provision and awarding of qualifications. *At this level certain collective concepts of competences and/or learning outcomes are constituted and developed, applied in the representation, defence and implementation of the interests of the different social groups related to work and learning. Here we can discern the concepts of competences of employers (enterprises) and their organizations, unions and other employee organizations, VET and educational institutions.*

There can be proposed the following assumptions about the socioeconomic factors influencing the formation of the concepts of qualifications, competences, learning outcomes and other concepts of the qualifications frameworks:

- The level of organization and development of the social stakeholders: the more stakeholders are organized and their activities developed in the field of education, training and human resources development, the bigger is their influence in the formation of the concepts and terms.
- Proactive approach of the employers and unions towards learning and human resources development. This approach is important to understand the role of concepts and terms.
- The ratio of power of the stakeholders in the branches: more powerful stakeholders (for example, employers organizations) have more influence in the formation of the concepts;

The models of the socioeconomic development of the society, their evolution influence the powers of the social stakeholders and the ways of their relations are very important factors for the evolution of the concepts of competences and learning outcomes at the institutional level (for example, in a liberal model of the welfare state enhances the constitution and development of the concepts of competences and learning outcomes as

an instrument of effective human resource management and development; a social democratic model of the welfare state creates preconditions for social stakeholders to understand the competences and learning outcomes more as the possibilities and measures for the development of employment and social cohesion, etc.). Historical evolution of the socioeconomic development of the society plays the most important role here (*theory of the dependence on the path of historical development proposed by Douglass C. North (North 1990)*).

Relationship between the scientific-systemic approach and the practices of the employment, management and human resources development in formation of the concepts’. At the level of the institutions and branches of the world of work one of the most important factors for the formation of the concepts related to qualifications are the concrete practices of the employment, management and human resources development. These practices have direct impact on the understanding and application of these concepts.

The influence of the practices of the employment, management and human resources development in formation of the concepts’ can be noticed by the following factors:

1. Preference to use the term competence instead of the learning outcomes and very strong orientation towards the approach of learning outcomes in the vocational education and training. The term of competence etimologically is closer to the practical activity and its needs and this makes it more relevant to the institutions and branches of the world of work. In the definitions of the concept of competence there is a very strong emphasis on the origin of the competence from the needs and requirements of the workplace and enterprise, when these are treated like “raison d’être” of the competence:

*“Professional competence is a combination of knowledge, skills, experience and behaviours exerted in the precise context. The competence appears since the **moment of its application in the professional situation**. Therefore it must be designed, evaluated, validated and developed in the enterprise.”*

*“Key competences – individual or collective (**competences**) which **provide to the enterprise the competitive advantage and fit to the core of the work** (individuelles ou collectives sont celles qui donnent un avantage concurrentiel à l’entreprise et qui correspondent au coeur du métier)” (La compétence professionnelle, enjeu stratégique, 1998).*

The similar attitude is expressed towards the qualifications:

Professional qualification ensures the **potential resources** which are **applied by the employee for the disposition of employer**. It is the combination of the knowledge, skills and professional behaviour **recognized as useful and valorised by the profession in the function of typical situations**. (La qualification professionnelle garantit les ressources potentielles mises à la disposition de l’employeur par le salarié. Elle est un socle de savoirs, savoir-faire et comportements professionnels reconnus utiles et valorisés par une profession en fonction de situations types. Elle est indiquée à priori au moment de la

conclusion du contrat de travail.) (*La compétence professionnelle, enjeu stratégique, 1998*)

Here it is stressed that the qualification is the potential resource shared by the employer and employee, but defined and recognized referring not to the needs of the concrete workplace but to the value for the occupation, or profession.

2. Stressing of the instrumental character of the learning outcomes, competences and qualifications and their use in the human resource management and development practices.

Learning outcomes should focus on their "usefulness" for employment and employability. (...) This new approach, focussing on competences and no more only on academic titles, should also strongly contribute to reach the parity of esteem and links between VET and general education, in particular with higher education. (...)

In order to be fully consistent with the learning outcomes approach, the logic should be based on professions and work organisation and not on the results of academic input orientated system. (UEAPME, 2006)

The instrumental character of the concept of competence is disclosed through the use of this concept for the management of the individual performance in work organization and human resource management:

*Competence is the **construct which permits to explain the differences of the individual performance.** (La compétence est une construction qui permet d'expliquer des différences individuelles dans la performance).*

*Application of the competence permits to **respond to the requirements of flexibility and reactivity** due to:*

- *the **new forms of the work organization,***
 - *the modernized and operational **human resource management***
- (L'utilisation de la compétence permet ainsi de répondre à des*

impératifs de flexibilité et de réactivité grâce à :

- *de nouvelles formes d'organisation du travail,*
- *une gestion des ressources humaines modernisée et outillée.) (La compétence professionnelle, enjeu stratégique, 1998)*

3. The recognition, that the individual /employee is the solely responsible for the development of his/her competence, leaving for the employers only the responsibility to stimulate and to help individual to achieve it.

What is very important to emphasize here is that no-one but the individual can be responsible for his or her competence development. It is not the case any more that management thinks for the employees and tells them what they should learn and whether

they should learn. Every individual must continuously be hunting for new competence, and the management responsibility is to stimulate this and to make it possible when the proposals come. (...) more and more people should be paid according to what they can do and not according to what, at a certain moment, they do. (<http://www.lifelonglearning.co.uk/conference/sp08-rl.htm>)

4. In the countries with the dual system of vocational education and training, the institutional and sectoral approaches to the concepts of competences and learning outcomes are much wider and based on the balance between the needs of the education and training and the needs of work. This is very typical for Germany and Austria, where the competences are regarded through the dimensions of the practical/professional competence (Fachkompetenz) and personal competence (Personalkompetenz) and it encompass very wide range of the underpinning knowledge, skills and abilities (ibw, 2008; Becker, Spöttl, 2008). This approach to competence is related to the European traditions of ‘core occupational competence’ and “places a firm emphasis upon the acquisition of a broad set of technical, methodological, strategic and socio-communicative capabilities.” (Competence and human resource development in multinational companies in three European Union Member States, 2001)

What are the implications of the relying of the concepts of qualifications, competences and learning outcomes on the concrete practices of the employment, management and human resources development for the comparability of the sectoral qualifications frameworks and for the usage of the NQF and EQF in comparing the sectoral qualifications?

The approach of the concepts of qualifications, competences and learning outcomes based on the concrete practices of the employment, management and human resources development in the most cases lacks of consistency and common reference due to the existing diversity of the above mentioned practices. Therefore these concepts are too related to the contexts of these practices of the employment, management and human resources development and their application in comparison of qualifications inevitably causes failures of understanding and interpretation.

For this reason it is needed to find a more neutral approach towards the concepts of qualifications and competences, for example, in the national policies of education and human resource development, national qualifications systems and frameworks.

1.1.2. National level represented by the national policies of education and human resource development, national qualifications systems and frameworks

The main factors influencing the constitution and development of the concepts of qualifications, learning outcomes and competences at the national level are:

- national policies of education and human resource development,
- national qualifications systems and frameworks;

Relationship between the scientific-systemic approach and the practices of the employment, management and human resources development in formation of the concepts’. Relationship between the scientific-systemic approach and the practices of the employment, management and human resources development in formation of the concepts’ at the national level can be disclosed by searching the answers to the following questions:

1. What is the role and influence of the national system of education and the world of work (employers) in designing and development of the conceptual basis of the national qualifications frameworks and systems in the countries? How the existing socioeconomic model and the model of VET system influence the designing and development of the conceptual basis of the national qualifications frameworks and the national systems of qualifications?
2. What are the consensus of the scientific-systemic approach and the practices of the employment, management and human resources development in formation of the concepts’ of the national qualifications systems and frameworks? How this consensus is reflected by the applied main concepts and definition?

Overview of the concepts of learning outcomes and competences in the project partners’ countries

Lithuania

In Lithuania designing and development of the conceptual basis of the national qualifications framework and system has been performed by the experts of the education, training and human resources development. The initial stage of the designing of the National System of Qualifications and the National Qualifications Framework was the designing and development of the conceptual basis of the system and framework. Here the main players were the experts from the education and training institutions, universities, Ministry of Education and Science and the Ministry of Social Affairs. The drafts of the concepts were discussed and agreed in the wider circle of the stakeholders involving the representatives of the employers, unions, education and training institutions, etc. There can be stated, that conceptual basis of the National System of Qualifications and the National Qualifications Framework was designed basing on the scientific- systemic approach and then enriched and supplemented by referencing to the practices of the employment, management and human resources development. Looking for the possible reasons of this approach there can be distinguished the following:

1. Lack of the coherent, consistent and developed practices of the employment, management and human resources development which could become the source for the designing of the conceptual basis of the National Qualifications System and Framework. It was related to the overall lack of experience of post-soviet society and state in the market economy, democratic civil society, social partnership and the influence of this shortage of experience for the development of the education, training, human resources development and industrial relations. For this reason the designers of the National System of Qualifications and the National Qualifications Framework paid a lot of attention for

the analysis of the experiences and know-how of the countries which at the moment had already designed and established their systems and frameworks of qualifications: Scotland, Ireland, France, Finland, Australia, and New Zealand.

2. Lithuania is a small country in terms of population and has rather homogenous and transparent system of education and training dominated by the state institutions. Vocational education and training is based on the school model which increase the role of VET institutions, government and related VET experts in the discussions on the conceptual issues of the vocational training, qualifications and human resources development policies. Despite the fact that the reform of vocational education and training aimed at wide decentralization of the VET system orienting it to the needs of the labour market, at the same time the Ministry of Education and Science and other governmental institutions retained and in some regards even strengthened their power and influence upon the vocational education and training. The Ministry of Science and Education and the Ministry of Social Security and Labour are still the main policy makers, initiators and coordinators of the Lithuanian VET system. Based on the legal acts of Lithuania, mainly the state or the state founded institutions, with the exception of the Chamber of Commerce and the Chamber of Agriculture, remain the main actors in the VET system. For this reason the governmental institutions have had a big influence in proposing and disseminating (or even imposing) the concepts of competences and qualifications. The scientific-systemic approach of the concepts of the National Qualifications Systems and Framework should increase the expertise and methodological quality of the contents of the Framework but in the same time it poses the bigger challenge to ensure the common acceptance of the conceptual basis of Framework amongst the stakeholders in order to persuade them, that the Framework is not imposed by the group of experts, but is designed with the wide participation of the all stakeholders and interest groups.

Consensus of the scientific-systemic approach and the practices of the employment, management and human resources development in formation of the concepts' of the National Qualifications System and Framework is achieved by the discussion and dissemination of the basic concepts designed according to the scientific-systemic approach with the all stakeholders involved in the development of the human resources on the national, sectoral and regional levels. Looking at the conceptual issues one of the core ideas which provide the sound basis for this consensus is the idea, that qualifications are designed and assessed by the world of work, referring to the existing and future needs of the professional activities. This idea is rather clearly expressed both in the concepts of qualifications and competences, as well as in the conceptual design of the descriptors of the National Qualifications Framework.

The descriptors of qualifications levels are based on two main parameters:

- (a) competences, as the abilities to perform certain tasks and operations in the real or imitated context of activity
- (b) characteristics of activity in terms of autonomy, complexity and changeability of activities.

Competences in the concept of the National Qualifications Framework are defined by the knowledge, skills, attitudes and approaches acquired during learning at a training institution or at the workplace. The concept of competence is derived from the world of work, or, more precisely, from the interface of the fields of work and learning. Competences are understood as learning outcomes applied in carrying out a professional activity and referred to the requirements and specifications of the system of activities. According to this definition, a qualification is defined as the entirety of acquired competences required by a certain professional activity and recognized by the relevant State institutions.

The concept of competence in the national qualifications system of Lithuania attributes an important role to integrating systematically provided knowledge and skills in designing and providing competences and qualifications. Knowledge acquired in the general education plays a crucial role in progressing from one qualification level to another (especially in the first level of qualifications).

The concept of competence used in the National System of Qualifications and in the National Qualifications Framework of Lithuania is derived from the interrelations between the world of work and the system of education and are understood as a bridge between the system of work and the system of education (Concept of the National Qualifications System of Lithuania 2007).

The defined functional, cognitive and general competences are constituted of the skills, knowledge and key skills and abilities with different weight of these components, depending on the type of competence: skills predominate in the functional competences, knowledge – in the cognitive competences and the key skills and abilities – in the general competences (Fig.).

Functional competences		
Skills	Knowledge	Key skills and abilities

Cognitive competences		
Knowledge	Skills	Key skills and abilities

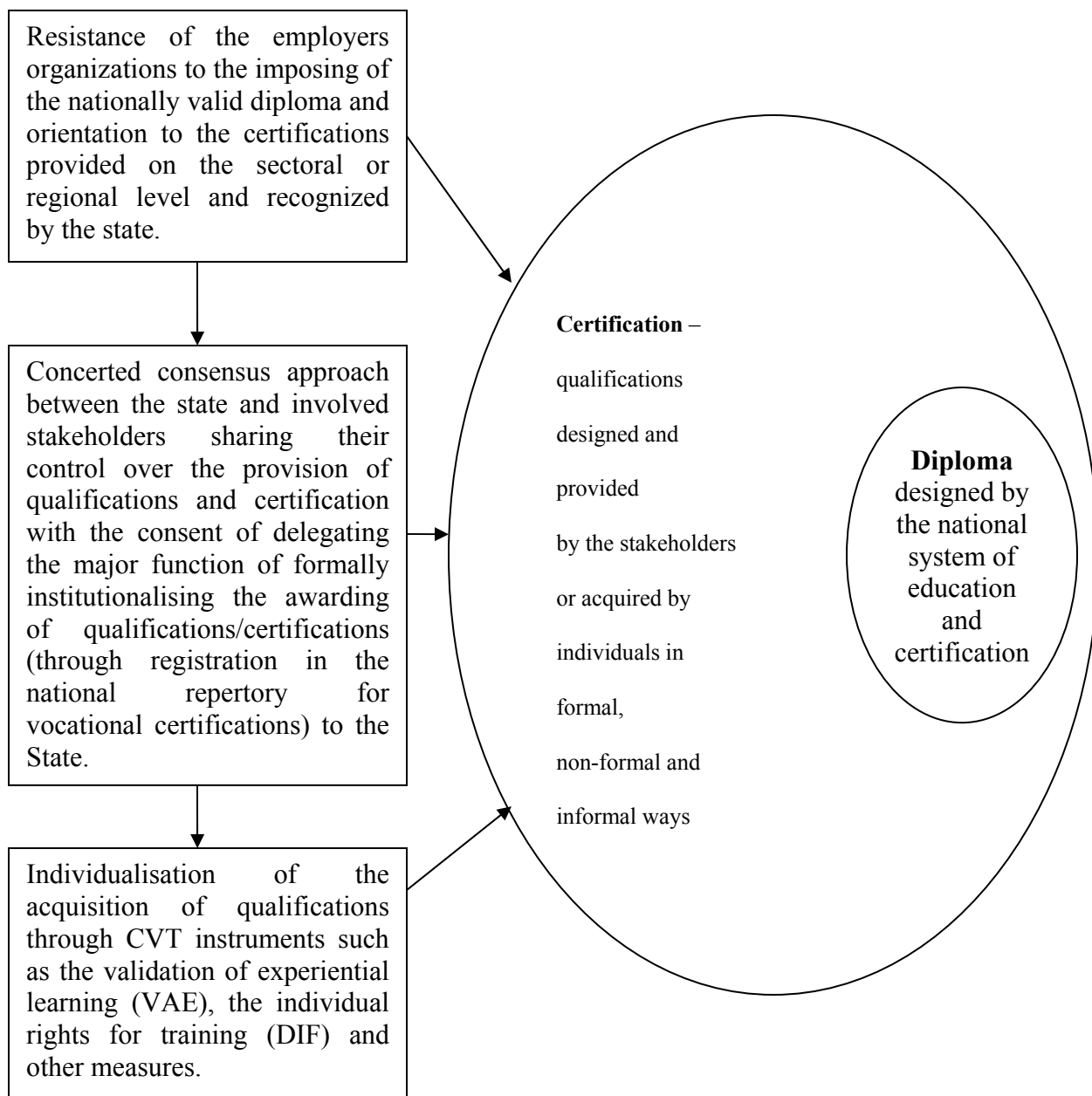
General competences		
Key skills and abilities	Knowledge	Skills

Fig.: Composition of functional, cognitive and general competences

There can be concluded that the strive to tune the concepts of the education system and the world of activities in the scientific-methodological approach of the designing of conceptual basis of the National Qualifications Framework of Lithuania is one of the most important measures to achieve the compromise between the theoretical-methodological approach and the real practices of the employment, management and human resources development.

France

The designing and development of the concepts of the National Qualifications Framework and especially the concept of qualification (certification) in France was influenced by the consensus based policy of the continuing vocational education and training which acquired more definitive policy structure in the law on the lifelong learning and social dialogue introduced in 2004. The implementation of the recognition of the experiential learning (validation des acquis de l'expérience-VAE) in its extended and enriched version by the social modernization law of 2002, the creation of the national repertory for vocational certification (RNCP) and the national commission for vocational certification (CNCP), including the introduction of supplementary CVT instruments facilitating the individual rights for training. All these undertaken measures have expanded the notion of 'certification' and made it less dependent from the formal training. Qualification in terms of certification acquired the functions of the measure or instrument of the individual social promotion and development. Fabienne Maillard and José Rose note, that the concept of 'certification' encompass and subsumes all the existing pathways to the occupations including all existing titles of qualifications besides the diploma elaborated by the ministries (Maillard, Rose, 2008).



Historically the development of the concept of ‘certification’ in France was influenced by the two approaches: a) the resistance of the employers organizations to the imposing of the nationally valid diploma and orientation to the certifications provided on the sectoral or regional level and recognized by the state which later turned to b) consensus approach of the employers, other stakeholders and state institutions seeking to share their control over the provision and awarding of qualifications and related certifications, combined with the intentions of employers to liberate themselves from the organizational and financial constraints related to the provision of qualifications by delegating this function to state in the same time sustaining certain influence and participation in designing, provision and assessment of qualifications. This process was

strongly enhanced by the intensifying international competition and development of the strong neocorporatist structures on the sectoral and regional levels.

According to Anne-Marie Charraud the term of certification poses certain problems, because it is very influenced by the European reflections with the domination of the Anglo-Saxon approaches to qualifications. The European projects of cooperation and mutual trust enhance the simplification of the approaches and practices related to qualifications (Maillard, Rose, 2008).

According to José Rose, despite of the wide diversity of qualifications, diploma and their providers, the system of qualifications in France is largely dominated by the diploma issued by the national system of education and these qualifications are regarded in the society as a hard currency comparing to the other 'certifications'. The qualification in France is still very strongly determined by the theoretical knowledge and theory based training (Maillard, Rose, 2008).

Annie Boudier notes the importance of the recognition and validation of the learning potential of work situations which was the basis of a new engineering method to design qualifications - the activity-based terms of reference (référentiels d'activité) applied with the creation in 1985 of the Baccalauréat Professionnel (vocational baccalaureate) (Boudier, 2008).

This new engineering method was extended to all vocational qualifications concerning both initial and continuing training. Nowadays, qualifications wanting to be included in the national framework must prove that they have been designed by a special commission where social partners have agreed on the occupational profile at which the qualification is targeted, with the help of an activity-based term of reference (référentiel d'activité).

There can be concluded that the conceptual basis of the National Framework of Qualifications in France was designed with the domination of the theoretical-methodological approach due to the strong influence of the state and national system of education in the provision of qualifications. However, the concept of 'certification' is very wide, the framework is based on a concerted consensus approach between the state and all involved stakeholders sharing their control over the provision of qualifications/certifications with the consent of delegating the major function of formalising and institutionalising the awarding of qualifications and related certification (through the national repertory for vocational certification - RNCP) to the state. This is basically implemented within the framework of various CVT promotion instruments such as the individualisation of the acquisition of qualifications through the validation of experiential learning (VAE), the individual rights to training (DIF) and other measures. These factors ensure strong liaisons of the concepts with the real practices of the employment, management and human resources development including the formation of the concepts of competences and their classification methods. In this connection, there is a well established link (since 2006) between the national repertory of vocational certification (RNCP) and the operational repertory for occupations and trades (ROME) (<http://www.anpe.fr/espacecandidat/romeligne/RliIndex.do>).

Czech Republic

The designing and development of the conceptual basis of the national qualifications framework and system in the Czech Republic is very similar to the above described case of Lithuania and is based on the scientific - systemic approach and then enriched and supplemented by referencing to the practices of the employment, management and human resources development. The reasons of it are the same as indicated in the analysis of the case of Lithuania.

In the case of Czech Republic there can be noticed, that the scientific - systemic approach and orientation towards the concepts of learning outcomes and competences is integrated in the state led curricular reform in initial vocational education at the upper secondary level. The curriculum of VET is based on learning outcomes and competences “which systematically supports the complementarities and equivalence of all acquired skills, independently of how they were acquired.”

The understanding of the concept of competence is very wide, encompassing knowledge, skills, attitudes, habits and other personal qualities of the graduate and described from the position of the student. Therefore competence defines the skills or knowledge that the student (learner) should have, how (s)he should act and which activities (s)he should be capable of performing.

Similarly like in France and in other countries the designing of the National Qualifications Framework in the Czech Republic is closely related with the practices and procedures of the evaluation and recognition of the learning outcomes achieved in the continuing vocational training, as well as through the professional experience. The laws foreseen rather flexible ways for the achievement of qualifications by introducing the partial qualifications.

The approach of classification of competences indicates the intentions to find the compromise between the requirements of the scientific-systemic approach and the needs posed by the really performed activities. Competences consist of the skill and a knowledge components (scientific-systemic approach) and classified both according to the type of activity and level of expertise (needs posed by the really performed activities).

There are discerned the following three components of competence:

- *Special competences, which describe what a worker in the given position, should be capable of from a technical point of view, e.g. diagnosis of automotive problems, measurement of electrical quantities, double entry bookkeeping, etc.*
- *General competences, which describe what a worker in the given position should be capable of beyond his or her specialisation, in other words skills not specific to his or her area of expertise, like teamwork, decision making, problem solving, management, etc.*
- *Technical knowledge, which describes the technical background of the particular position. This refers not to specific information, but rather to subjects which form the technical background of the position, such as glass preparation, organisation of postal transport, diseases of farm animals.*

Similarly like in the case of Lithuania it can be noticed the importance of the underpinning knowledge expressed as the knowledge from the subjects forming the technical background of the performed work.

Austria

Designing and development of the conceptual basis of the national qualifications framework and system in Austria is also performed by the experts of the education, training and human resources development. It provides institutional possibilities for the establishment of the coherent and homogenous conceptual basis of the National Qualifications Framework. However there must be considered other very important factors which requires strong consideration in designing and implementing of the concepts and which pose certain challenges in this process:

1. Dual system of the vocational education and training, which is initially oriented to the input and not learning outcomes approach with the strong emphasis on the structured institutionalized training providing wide and strong underpinning knowledge needed for the accomplishment of the tasks of activities. As it was stated before, the compatibility of the dual system with the learning outcomes and competences approach is quite problematic due to some fundamental differences in these approaches.

2. Extensive involvement of the social partners in implementing VET decisions, especially in the field of the development of curricula and qualifications. In Austria social partners make a major contribution to formulating the regulations and ordinances prescribing the content of the company-based part of apprenticeship training, as well as they are responsible for the maintaining of the technical institutes (Fachhochschulen) providing the continuing vocational training. This situation poses the requirement to settle a general understanding of the underlying concepts of the VET, qualifications and learning outcomes between the social partners and state, because the training in Austria must comply with legally stipulated content (Winterton, 2007). The result of this process is the concepts of qualifications and competences based on the input approach typical for the dual VET system and the strong “attachment” of the stakeholders to these concepts making them rather suspicious to the initiatives to alter them with other concepts and approaches.

These factors can partially explain the situation that in Austria there are no general understanding and concept of the learning outcomes and competences not only on the national level, but also in the sectors (Lassnig, Vogtenuber, 2008). The analysis of the application of the learning outcomes approach in Austria shows, that only some elements of the learning outcomes are present in the all training, learning and study plans and curricula and there is no systematic and complete approach based on the learning outcomes in these fields (ibw, 2008). Some experts propose, that the learning outcomes approach must be introduced in the centralized way as a Top-Down-Process, coordinated

by the government indicating, that this is the only way to design the coherent descriptors of the national Qualifications Framework (Lassnig, Vogtenuber, 2008). There can also be noted, that the orientation towards the learning outcomes differentiates in the fields of training: in some sectors and fields of training this orientation is stronger than in other (). For example, in some vocational education and training standards in the sector of construction (Ausbildungsordnung für den Lehrberuf TiefbauerIn) the orientation towards the learning outcomes approach is even stronger than in other standards.

The vocational education and training standards in general are input oriented: there are listed knowledge, skills and transferable competences grouped in units indicating what is the need of training the learner must know and be able to do prescribed from the perspective of what knowledge and skills there has to be provided to the learner by the VET institution.

Concept of competence in Austria is more used in the curricula of the higher vocational and technical schools (höhere technische und gewerbliche Lehranstalten - HLA). The general training aims in these curricula are designed according to the learning outcomes approach and are based on the concept of competence differentiated into specialized professional competence (der Fachkompetenz), methodical competence (Methodenkompetenz), social competence (Sozialkompetenz) and personal competence (Selbstkompetenz) (). While the education and training tasks of the some subjects are described with the orientation to the learning outcomes, there still prevails input perspective with in field-specific education and training goals. The analysis of the contents of the descriptors of the qualifications profiles of the higher education – bachelor and masters degrees study programs shows that there exists some confusion in use of the concepts of training contents, training goals and learning outcomes and the descriptors are written both on the perspective of the learners and educational institutions (ibw, 2008).

Experts indicate, that for the classification of the learning outcomes into the future NQR it is required to establish a broadly accepted understanding of basic terms, a uniform methodical approach as well as a comparison methods based on fixed criteria ().

There have been launched some initiatives for the designing of „education standards“ in the field of general and vocational education with the aim to design the transparent and learning outcomes based qualifications. The competences indicated in the education standards concerns the core fields of instruction subjects (e.g. English) or the core topics of the entire vocational field of training (e.g. the higher institute for electro-technology). The education standards from the school-based education and training are in a close relationship with the National Qualifications Framework by representing the learning outcomes indicated in the training curricula.

Concluding there can be noticed that the conceptual basis of the National Framework of Qualifications in Austria was designed with the domination of the theoretical-methodological approach fostered by the national system of education, experts and involved social partners. Dual system of vocational training and active involvement of the social stakeholders in the curriculum design and standards development activities presuppose the favourable conditions to achieve consensus between the scientific-

systemic approach and the practices of the employment, management and human resources development in formation of the concepts of qualifications, competences and learning outcomes in Austria.

Ireland

Designing and development of the conceptual basis of the National Qualifications Framework of Ireland is based on the compromise approach between the scientific-systemic way of concepts design and the ideas from the real practices of the employment, management and human resources development. There can be discerned the following factors which influenced such approach in designing and development of the conceptual basis of the National Qualifications Framework in Ireland:

1. Tradition of the voluntarism and liberal-market orientation combined with the interest based involvement and participation of the stakeholders in the VET, higher education and human resources development policies. Combination of the market voluntarism and active social partnership involvement were one of the most important characteristics of the transformation of the economy since the late 1980s (Winterton, 2007). It implied the requirement to combine the voluntarism and involvement of the all stakeholders in the policies of education, training and human resources development. Equally in the designing of the National Qualifications Framework the wide involvement of the stakeholders has been combined with the reference to their interests related to the designing, provision and awarding of qualifications. It also implied the needs to search for the wide conceptual basis of the Framework which would refer to the diversity of the interests and needs of the stakeholders.

2. Fast economic development and rapid “internationalization” of the labour market with the growing flows of the migrant workforce posed important challenges for the management of the human resources in the all levels: enterprise, sector and national level. These challenges were related both with the issues of the economical effectiveness and the social justice and cohesion related to the positioning of the migrant workforce into the structures of the national economy. National Qualifications Framework being one of the key responses to these challenges it had to be transparent, clear and widely accessible. It implied the necessity for the designers of the conceptual basis of the Framework to consider the existing needs, requirements and practices of the human resource management and development in the different sectors of economy and to propose wide, flexible, inclusive and understandable conceptual basis of the Framework. There can be noticed rather strong determination to make the National Qualifications Framework the real instrument for the comparison, evaluation, communication related to qualifications for the wide society, especially for the learners and employers (*Learners and employers need to be able to compare awards*). It implies the requirement of the visibility of the elements, clarity of the relationships within the Framework and its transparency. Again, from the one side it requires the unified and systemic approach in designing the concepts of the framework (scientific-systemic approach) and from the other side it requires strong relationships of these concepts with the existing reality of the qualifications, training and human resource development.

3. Variety of the existing providers of awards and qualifications demanded to consider the existing practices and experiences in the provision and awarding of

qualifications. In the same time it posed the requirement of the unified and systemic approach in the structuring of qualifications, as well as unified approach in the field of the conceptual basis of structuring.

How this compromise between the setting of the unified conceptual basis of the Framework and making it flexible and inclusive is achieved? From the point of view of the institutional organization here can be stressed the absence of the direct central regulation in favour of the delegation of functions from the National Authority of Qualifications to the awarding bodies.

“The Authority has no direct role in setting standards for awards (beyond supporting the maintenance and improvement of standards through the framework) or in assessment: these are matters for the awarding bodies and providers. It is the responsibility of awarding bodies to develop named awards – that is, the awards that learners receive for achievement in a specific field of learning. As a result, the standards of awards are expressed increasingly in terms of framework learning outcomes. Following on from this, education and training providers are increasingly describing the learning associated with their programmes and the component modules within these programmes in terms of the standards to be achieved, i.e. as learning outcomes, rather than in terms of the inputs and processes associated with the learning.”

Even the “translation” of the Framework level indicators and award-type descriptors into training programmes and aligning of the assessment methods was delegated to the individual training providers and awarding bodies. Authority only provides the support for the individual training providers and awarding bodies in these processes.

Another important factor is the wide involvement of the stakeholders in designing the main concepts and definitions. Social partner representatives actively participated in the Consultative Group established for the designing of the National Qualifications Framework, they are also the members of the National Qualifications Authority and of the Awards Councils.

In the consultation process, prior to 2003, the definition of knowledge, skill and competence was identified by various commentators as containing an important indication of the philosophy of learning underpinning the Framework. ... The approach adopted by the Authority has been to be as broad as possible in spelling out our understanding of knowledge, skill and competence, while recognising that learning which is not assessed against standards cannot be included in the Framework.

All this led to the development of the comprehensive, wide and flexible underlying concepts of the National Qualifications Framework, seeking to obtain the acceptability of the Framework amongst the stakeholders and users and, in the same time, to ensure its coherence and operativeness:

Proceeding from the expression used in the legislation, which defined learning as “knowledge, skill or competence”, the Authority developed an understanding of how learning might be further analysed or parsed, first into three strands of knowledge, know-how and skill and competence and then further into eight sub-strands. This analysis drew

on a number of different intellectual traditions, ancient and modern, formulating an understanding that was deliberately eclectic and hence as comprehensive as possible. Pragmatically this had the effect of being intelligible and acceptable to a wide variety of stakeholders, which is an essential feature for such a key element of a national framework, while at the same time having coherence.

Despite of the fact that the implementation of the National Qualifications Framework was one of the most important factors facilitating the dissemination and use of the learning outcomes in the field of education, training and human resource development, the research of the impact of Framework evidences, that this impact of Framework “on the widespread and effective use of learning outcomes within the education and training system” is rather limited and “the use of learning outcomes is contested in some sectors and amongst some providers.” (Background paper on the development, implementation and impact of the National Framework of Qualifications and related policies on access, transfer and progression, 2008).

One of the possible reasons for this situation is that the objective to design the comprehensive and all inclusive conceptual basis for the National Qualifications Framework resulted to its complexity what in turn, decreased the clarity and acceptance of the Framework to the stakeholders and citizens. The conceptual basis of the National Qualifications Framework of Ireland is very rich in the concepts and contains the concepts of knowledge, skill, competence and learning outcomes having rather complicated inter-relationships in the above mentioned structure of the eight sub-strands.

Concluding there can be noticed that the conceptual basis of the National Framework of Qualifications in Ireland was designed seeking to find the compromise and balance between the theoretical-systemic approach fostered by the need of coherence of the Framework and the need for the wide acceptability and applicability of the concepts due to the liberal and interest-based cooperation approach in designing the framework. This relative consensus between the scientific-systemic approach and the practices of the employment, management and human resources development in formation of the conceptual basis of the Framework besides the positive effects had some impact on the increase of the complexity of the concepts decreasing the transparency and clarity of the concepts and Framework itself.

1.3. European Union level represented by the EU policies and strategies and their instruments

The development of these concepts of competences at the EU level is a relatively very recent process, related to the following factors:

- increasing international mobility of learners and employees’
- the development of the single EU labour market;

- EU socioeconomic development strategies (Lisbon strategy) and related policies

The concepts of competences in the international meta-frameworks of qualifications (European Qualifications Framework) are defined in a more abstract way, applying culturally and politically neutral definitions.

Relationship between the scientific-systemic approach and the practices of the employment, management and human resources development in formation of the concepts' at the European Union level can be disclosed by analysing the contents of the applied concepts and definitions and the process of the agreement on these concepts in the designing and implementation of the European Qualifications Framework and other similar EU policy instruments.

One of the possible ways can be the analysis of the compatibility of the concepts used at the national level with the concepts used in the European Qualifications Framework.

There can be discerned the following criteria of this comparative analysis:

1. Methodological compatibility of the concepts related to the level of compatibility of the theoretical-methodological approaches on which the concepts are built. Are the concepts used in the national qualifications frameworks compatible with the concepts of the EQF on the methodological basis and what are the implications of the possible methodological incompatibilities for the application of the EQF?

2. Similarities and differences in the width of the concepts used in the NQF and in the EQF. Whether the concepts used in the EQF encompass the contents of the analogue concepts in the National Qualifications Frameworks, or vice-versa, the concepts of the NQFs are wider than the concepts used in the EQF? What are the implications of these situations for the application of the EQF in the comparison and compatibility of qualifications?

Case 1: The concepts and notions used in the EQF are sufficiently wide and generic and encompass the concepts used in the National Qualifications Frameworks of the countries. Implications: it enables the flexible use of the EQF in comparing the qualifications and learning outcomes between the countries; it poses the problems if the concepts applied in the EQF are too generic and wide to encompass the meanings which can be incompatible on the methodological basis.

Case 2: The concepts and notions used in the National Qualifications Frameworks are wider than the analogue concepts used in the European Qualifications Framework. Implications: it does not impede the process of comparison of qualifications with the help of the EQF if the core/basic elements of the concepts in the National Qualifications Frameworks and the EQF coincide.

3. Application and further differentiation of the concepts in terms of classifications of the designed objects.

Criteria of analysis	Interpretation in the National Qualifications Frameworks of the countries					Interpretation in the EQF: similarities and differences
Compared concepts	Lithuania	Austria	Czech Republic	France	Ireland	
Qualification	Qualification is defined as entirety of the acquired competences required by the certain professional activity and recognised by the empowered state institutions. The recognition of qualification is confirmed with the nationally approved diploma and certificates.	EQF definition applied: A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.	A complete qualification is person’s ability to perform an occupation, possibly several occupations. A complete qualification is the ability to perform a certain occupation (possibly several occupations); A partial qualification is the ability to perform a certain work activity or a coherent set of work activities enabling to perform a profession.	Professional qualification (certification) registered in the national register of qualifications attests qualification – capacity to realize the professional activities in the context of the different work situations according to the degree of responsibility defined in the descriptor of qualification. Definition of this concept can be developed and interpreted following two	Qualification is defined as an award – proved and certified set of learning outcomes needed for the performance of the activity or its part. Four classes of award-types have been identified for the Framework: major, minor, special-purpose and supplemental. * a major award-types are the principal class of awards made at each level, and capture a typical range of achievements at	In principle the understanding and interpretation of the concept of qualification in the national qualifications frameworks and systems of the analysed countries corresponds to the definition used in the EQF. The central point and basis of this similarity is the indication that qualification is a formal recognition of the acquired learning outcomes (EQF, NQF Ireland) or competences (NQFs of Lithuania, France, Czech Republic)

				<p>approaches: collective approach and individual approach.</p> <p>In the first case, it is the social recognition of the mastery in knowledge, skills and competences which are necessary for the work at the workplace.</p> <p>In the second case, the qualification of a person presents his/her individual operational capacity to occupy certain workplace. (La validation des acquis de l'expérience : mode d'emploi – Centre Inffo 2005)</p>	<p>the level – for example, Junior Certificate at Level 3, or Honours Bachelor Degree at Level 8</p> <ul style="list-style-type: none"> • a minor award-type provides recognition for learners who achieve a range of learning outcomes, but not the specific combination of learning outcomes required for a major award • special-purpose award-types are made for specific, relatively narrow, purposes – for example, the Safe Pass certification of 	<p>required for the execution of professional activities and work tasks. The definitions of qualifications in many cases disclose the structure of qualifications and even distinguish the types of qualifications referring to their scope (complete and partial qualifications in the NQF of Czech Republic, major, minor, special purpose and supplemental awards in the NQF of Ireland). In the case of France the concept of qualification integrates individual (more subjective) and</p>
--	--	--	--	---	--	---

				<p>Qualification can be achieved in the process of training and awarded with the diplome, titre (titre) or certificate of vocational qualification (CQP).</p> <p>Vocational qualification provided by the ministry of employment is called 'professional title' (« titre professionnel »). This title evidences that its bearer masters the competences, abilities and knowledge permitting to exercise qualified occupational activities. (Art 1</p>	<p>competence in health and safety in the construction industry</p> <ul style="list-style-type: none"> • supplemental award-types are for learning which is additional to a previous award. They could, for example, relate to updating and refreshing knowledge or skills, or to continuing professional development. 	<p>collective (objective) approaches. Semantically there can be noticed the exception of the term of 'award' used to designate the qualification in the NQF of Ireland. This term stresses that the provision of qualification is based on the official decision of the state authorities based on the certain demonstrated 'merits' or achievements of the candidates.</p>
--	--	--	--	---	---	---

				du décret n° 2002-1029 du 2 août).		
Methodological compatibility	There can not be noticed any significant obstacles for the compatibility of the concepts of qualifications in the analysed NQFs on the methodological level.					
Similarities and differences in the width of the concepts	The width of the concepts of qualifications differs due to the fact, that some concepts integrate the typologization of qualifications according to their structure (NQFs of the Czech Republic, Ireland) or according to the approaches of their development and application (NQF of France). However, these differences do not present significant problems for the comparability of the concepts.					
Application and further differentiation of the concepts in terms of classifications of the designed objects	The further differentiation of the concepts in terms of classification of designed qualifications and their elements can pose certain problems of comparability and compatibility on the conceptual level, because it is not evident, whether, for example, the partial qualification in the National Qualifications Framework of Czech Republic can be comparable to the units of qualifications in the NQF of Lithuania or to the certain types of awards (special – purpose, minor, supplemental) in the NQF of Ireland. This question demands further clarifications and investigations.					
Learning outcomes	The term of learning outcomes is not used in the texts of the National Qualifications Framework of Lithuania. It is replaced by the term of	EQF definition applied: Learning outcomes means statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge,	The term of learning outcomes is not explicitly used in the National Qualifications Framework of Czech Republic. It is replaced by the term of	The term of learning outcomes is not explicitly used in “cadre des certifications professionnelles” in France. It is replaced by the term of competences and	Results of the training and learning process in terms of knowledge, skills, abilities, through the evaluation and assessment leading to the acquisition of	The concept of learning outcomes is used in the NQF of Ireland and the concept of learning outcomes from the EQF is applied in the designing of the National Qualifications Framework of

	competences.	skills and competence	competences.	other terms.	awards – qualifications.	Austria. In the NQFs of Lithuania, Czech Republic and France this concept is not explicitly applied and it is replaced by the concept of competences.
Methodological compatibility	The concept of learning outcomes used in the EQF is sufficiently wide, general and comprehensive, as well as neutral not to pose the obstacles and problems for the comparison and comparability of the qualifications from the NQFs which are based not on learning outcomes, but on competences or other similar concepts. For example, the competences in this context can be defined as the learning outcomes applied in the work process – in execution of the work tasks and solution of work problems.					
Similarities and differences in the width of the concepts	The concept of learning outcomes used in the EQF is not ‘tied’ to the requirements or specifications of the professional activity as it is in the case of the concept of competences. In turn it can integrate the different types of learning outcomes acquired in the all fields of education and training and applied in the different contexts (of professional activity and beyond it).					
Application and further differentiation of the concepts in terms of classifications of the designed objects						
Competences	The ability to perform a work	Concept of competence in Austria	Vocational competencies	Competence is defined as the	Competence in the National	The concepts of competence in the

	<p>task in real or simulated situations. Competences are based on knowledge and practice acquired through learning and studies. The quality of competences is dependent on work experience of an individual. Competences required for wider activity (profession) fall under the category of qualification.</p>	<p>is more used in the curricula of the higher vocational and technical schools (höhere technische und gewerbliche Lehranstalten - HLA). The general training aims in these curricula are designed according to the learning outcomes approach and are based on the concept of competence differentiated into specialized professional competence (der Fachkompetenz), methodical competence (Methodenkompetenz), social competence (Sozialkompetenz) and personal competence (Selbstkompetenz)</p>	<p>(abilities) determine what an individual should know as regards vocational skills and knowledge (e.g diagnosis of vehicle defects, electrical quantity measurement, double entry bookkeeping, etc.);</p> <p>General competencies (abilities) (cross-sectional, transferable, interdisciplinary) determine what an individual should manage beyond his or her qualification, that is the ability to cope with a certain complex of activities regardless of</p>	<p>capacity to combine a set of knowledge (savoirs), skills (savoir-faire) and general abilities (savoir-être) seeking to accomplish the task or execute the activity. It is always the objective of professional activity (finalité professionnelle). The result of the application of competence is evaluated in the certain context referring to the autonomy, available resources etc.</p>	<p>Qualifications Framework of Ireland is understood as a capacity of a person to act in the work expressed in the substrands of the work context (width, changeability, limits, familiarity with context), autonomy of execution (individual and work in groups), ability to learn and insight.</p>	<p>NQF's of the analysed countries do not contradict to the contents of the concept of competence defined in the EQF. The only significant difference is that the concept of competence in the EQf is wider and encompasses the abilities to 'use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development' while the concepts of competence in the analysed NQFs are more centred on the requirements and needs of</p>
--	---	---	---	--	--	---

			vocational qualification (e.g. work in a team, decision making, problem analyses, people management, etc.).			professional activities.
Methodological compatibility	<p>The main problems of the methodological compatibility of the concepts of competence in the NQFs of Lithuania, Austria, Czech Republic, France and Ireland are related to the differences in defining the structure of competences and the differences of the typologies of competences. How to compare the functional, cognitive and general competences (Lithuania) with the professional (Fachkompetenz), methodical (Methodenkompetenz), social and personal competences (Personalkompetenz) in Austria or to the vocational and general competences in the Czech Republic? There can be found some parallels, as for example, functional competences → professional competence (Fachkompetenz) → vocational competence, but these comparisons require more comprehensive and deep analysis of the contents of concepts.</p>					
Similarities and differences in the width of the concepts	<p>The last part of the definition of the competence in the EQF states that in the context of the EQF ‘competence is described in terms of responsibility and autonomy’ does not directly reflect the contents of the definitions of competence in the NQFs of the analysed countries. In the concept of the NQF of Lithuania autonomy, complexity and changeability are the characteristics of activities which pose the requirements of competences. In the NQFs of Czech Republic, France and Ireland autonomy and responsibility are also understood as the context of activity which influences the requirements of competences.</p>					
Application and further differentiation of the concepts in terms of classifications of the designed objects						

http://www.cncp.gouv.fr/CNCP/contenus/supp/supp_glossaire.htm

1.2. Contextual level of the comparability of qualifications: the influence of the sectoral environment and specificities to the comparability and compatibility of qualifications in the sectors of different countries

There can be discerned the following main factors of the influence of the sectoral environment and specificities to the comparability and compatibility of qualifications in the sectors of different countries:

1. Structure of the sectors in terms of the size of enterprises: ratio between the number of the big enterprises and the SME's.
2. Structure of the sectors in terms of the demographical characteristics of the workforce: age, education level, country of origin (share of the immigrant workforce).
3. Levels of the business internationalization in the sectors (share of the domestic and international or foreign enterprises in the sector).
4. Levels of the development and institutionalization of industrial relations in the sectors.

All these factors have certain influences for the qualifications in the sectors in terms of their structure, contents, characteristics and usage in various situations. Due to the limited scope of the research project, limits of the time and budget resources the research of the factors of the sectoral characteristics and environment and their influence to the comparability and compatibility of qualifications is not foreseen in this research project. Nevertheless, there can be proposed some assumptions on these influences which could be verified with the further researches.

1. There can be discerned the following influences of the size of enterprises to the contents and structure of the qualifications of employees in the sectors:

Qualifications in the big enterprises	Qualifications in the SME's
There tend to dominate and develop more specialized and narrow qualifications with bigger weight of special functional competences and skills needed for the execution of work tasks in the concrete workplaces.	More general and extra-functional qualifications are required by the more flexible work organization, shortage of the human resources and possibilities for the human resource management and development.
Competences of employees constituting qualifications are more regularly and frequently updated, renewed and developed using rather wide possibilities of the continuing vocational training and skills development.	Development, upgrading and updating of competences is rather irregular and comparatively random due to the limited financial and organizational possibilities in the provision and funding of continuing vocational training.
Qualifications of employees are more	A content of qualifications is rather stable

<p>sensitive to the changes of the socioeconomic and organizational environment. Therefore the contents of qualifications can change rather quickly.</p>	<p>due to more general and extra-functional competences which constitute the qualifications and the contents of activities encompassing execution of the different tasks and requiring multi-skilling.</p>
<p>Maintenance and development of competences constituting the qualifications are less dependent on the external training providers and the system of initial vocational training due to the availability of financial, human and organizational resources for the continuing vocational training.</p>	<p>Maintenance and development of competences constituting the qualifications are more dependent on the external financial and institutional support and cooperation with the initial vocational training institutions.</p>
<p>Qualifications and competences tend to be more strongly formalized and recognized in the practices of the human resource management of the company due to the more complex human resource management practices and more intensive industrial relations (more organized negotiations between the employers and unions) in the big enterprises.</p>	<p>The recognition of qualifications and competences acquired in the informal and non-formal ways (experience based) is much weaker and irregular due to the comparatively weak and unstructured human resource management and industrial relations.</p>
<p>Qualifications are more “autonomous” from the public providers and in the same time more dependent on the enterprise. Big enterprises with the developed systems of human resource development usually establish their own qualifications frameworks.</p>	<p>Qualifications are less autonomous on the enterprise and sectoral level and more dependent from the public providers. SME’s usually do not have sufficient possibilities nor the needs to develop their own frameworks of qualifications or to design the qualifications by themselves.</p>
<p>Qualifications tend to be more polarized in terms of the level of knowledge, skills and competences: there can be discerned elite “high skills” qualifications versus “low skills” qualifications. This differentiation and polarization through the Matthew effect influence the accessibility of the development of the skills, knowledge and competences in the big enterprises, strengthening the polarization of qualifications. Sometimes it leads to the development of the “high-skilled – low skilled” workforce in the sector.</p>	<p>The pool of qualifications in the structure of the human resources of the SME’s is more homogenous, depending on the type of the sector: in the SME’s of the “high-skills” sectors there dominate “high-skills” qualifications and in the “low skills” sectors there dominate low and middle level qualifications.</p>

Due to these influences the differences of the sectors in terms of the size of enterprises can pose the difficulties in comparing the qualifications without the references to the national qualifications frameworks and the EQF. Qualifications from the different countries belonging to the same occupations and even having the same titles can significantly differ in terms of their contents (specialized versus broad, updated, actual versus outdated, more formalized versus less formalized, more enterprise dependent versus more centred on the public VET and higher education provision, etc.). Such situation poses the demand to use the external and more general references, such as national qualifications frameworks and the EQF.

2. Structure of sectors in terms of the age, education level of employees, their country of origin (share of the migrant workforce in the human resources of sector).

Differences in the structure of the sectors in terms of age of employees influences the differences of qualifications in the following ways:

- Sectors with the dominating or bigger share of the senior employees tend to develop the qualifications which are more based on experience and are more stable. Practical experience, developed practical skills and knowledge of the workplace needs, requirements, norms of execution and cooperation with others are very important elements of such qualifications. The hierarchical structuring of qualifications in such sectors can be more influenced by the factor of seniority and loyalty to the enterprise and less by the quality of the competences of employees.
- Sectors with the higher share of the young employees tend to develop qualifications which are more based on the human capital acquired in the initial vocational training and higher education as well as on the flexibility of employees and their abilities to apply the possessed human capital in highly competitive and changing work environment. Application of the new knowledge and know-how is one of the crucial characteristics of such qualifications. The hierarchical structuring of such qualifications in the human resources management practices is more based on the competitiveness of the possessed human capital which is ensured by the quality of possessed knowledge, skills and competences.

Differences of the structure of human resources in the sectors in terms of the education level of employees are caused by the different conditions of the acquisition of qualifications. This variety of conditions is created by the different paths of the development of education systems and institutions, differences in the paths of the economical and social development, employment, technological development, differences in the evolution of the occupations, etc. These differences can create the situations when the same occupational positions in the sectors of different countries are occupied by the employees possessing the education and qualifications of the very different levels (for example, in some countries the nurses have higher education diploma, in other countries they work with the certificates received after the completion of the VET schools or courses). It presents important obstacles for the direct comparison of the sectoral qualifications in the countries, because the same titles of qualifications can represent very different contents in terms of quality of competences.

In the sectors with the lower level of education of employees the qualifications tend to be less strengthened by the underpinning knowledge and more based on the practical skills, while in the same sector with higher level of education of employees the underpinning knowledge will constitute more important part of qualifications.

Differences in the structure of the human resources of sectors in terms of the share of the immigrant workforce can have the following influence on the differences of the contents of qualifications:

- Sectors with the higher volume of the immigrant low skilled and unskilled workforce usually have more precarious and insecure jobs and tend to develop the low skills equilibrium (Brown, Lauder, Green, 2001). Such sectors can integrate the workforce with very different backgrounds of competences and qualifications (for example, construction sector in Lithuania in the period of the last 4-5 years). Qualifications and competences of the immigrant workforce are often less formalized and recognized, their contents can be very scattered and diversified.

- Sectors with the with the higher volume of the high-skilled immigrant workforce can also develop very different qualifications and competences of the employees, but this process is usually more structured and ordered by the human resources development strategies and policies and by the individual career development strategies. Therefore it often leads to the formal recognition of the acquired competences and qualifications.

In general there can also be made an assumption, that the sectors with the higher volume of the immigrant workforce are closer to the certain assimilation of the competences and qualifications of their workforce, because the integration of the workforce with the different qualifications and competences tend to decrease the specificities of the sectoral qualifications and to increase the weight of similar and general elements and characteristics.

- Sectors with the lower volume and share of the immigrant workforce are stronger in preserving the specific characteristics of their qualifications and the processes of the acquisition and awarding of qualifications.

All these differences can also create obstacles for the comparability of competences and qualifications between the different countries.

3. Differences of the sectors in terms of their levels of internationalization (share of the domestic and international enterprises in the sector) can have the following influence on the comparability of the qualifications in the sectors:

- Qualifications in the more “internationalized” sectors (with higher presence of the international and foreign capital enterprises) can be easier comparable due to the reason that internationalization of the sector tends to equalize the structure of these sectors in terms of qualifications, as well as to assimilate the contents of qualifications in the sectors of different countries.

- Comparison of the sectoral qualifications between the same sectors with the different extent of internationalization (very different shares of the international enterprises in the sectors) can pose certain problems due to the differences of the structure and contents of qualifications.

4. Differences of the sectors in terms of the levels of development of industrial relations can have the following influence on the comparability of the qualifications in the sectors:

- Qualifications in the sectors with the higher-level of development of industrial relations are usually more influential to the quality and equality of employment and career possibilities. Developed branch or sectoral agreements between the social partners concerning the wage levels (Germany) or the continuing vocational training of employees (France) create very favourable conditions for the development of the employees' competences and acquisition of qualifications by motivating and empowering the employees and employers to cooperate and co-invest in the continuing vocational training and skills upgrading. Besides, intensive social partnership in vocational education and training and higher education is one of the most important preconditions for the development of the quality of qualifications, leading to higher employability, employment quality and competitiveness of the economy.

- Qualifications in the sectors with the lower level of development of industrial relations are more dependent on the formal education and training, which often must compensate the shortages caused by the reluctance of the employers and employees to invest in training. With the domination of the formal public provision of qualifications it is much more difficult to acquire qualifications through the validation of the non-formal and informal learning outcomes. Employers are less interested in development and provision of qualifications to the employees due to the risk posed by the poaching.

Concluding there can be stated, that the differences of sectoral environment and specificities influence the important differences of the structure and contents of the sectoral qualifications in the different countries. It poses certain difficulties of the comparability and compatibility of qualifications in the sectors of different countries. Therefore these differences of sectoral context can be a very important factor which implies the need to apply the national qualifications frameworks and the European Qualifications Framework in comparing the qualifications.

2. Research of the structure and contents of the sectoral qualifications and their compatibility with the EQF

1. Analysis of the structure and contents of qualifications in the construction / or hospitality sectors in the partner countries. This task consists of two parts:

a. Definition the existing qualifications levels in the sector indicating their criteria: characteristics of activities – work complexity, autonomy of execution, changeability, specific characteristics of the socio-professional roles, work organization, etc. The results of analysis can be presented in the following table:

Sector / sub sector	Occupations in the subsectors (fields of work)	Qualifications ordered according to the sectoral levels indicating reference to the level of EQF	Description of the criteria of qualifications levels in the sector
---------------------	--	--	--

b. The analysis of sectoral qualifications and their hierarchy in the sector should also evaluate the analysis of the structure and contents of qualifications in terms of the units of qualifications (or similar elements) and competences. In this field there should be analyzed two different hierarchically ordered groups of sectoral qualifications for each analyzed sector. For example: *kitchen assistant, assistant of cook, cook, chief of the kitchen; junior waiter, waiter, waiter-barmen, supervisor of barmen; assistant of bricklayer, bricklayer, senior bricklayer, foreman of bricklayers*. This analysis should include the definition and listing of the units of qualifications (if they exist in the sector) and competences (cognitive, functional, general - social, personal, etc.). It should be indicated what qualitative and quantitative changes in the combination of competences constituting the qualification are central and determinant for the attribution of qualification to the certain level in the sectoral framework or hierarchy of qualifications.

The results of such analysis can be presented in the following table:

Qualification:	Competences constituting the units of qualification / or qualification as a whole			Which competences are determinant for the attribution of qualification to the certain level in the sectoral framework or hierarchy of qualifications?
	Functional	Cognitive	General	

There can be discerned the following sources of information for this analysis:

- occupational standards (if they exist);
- VET standards (if they exist);
- data of different researches of activities available in the partners countries;
- in case of the absence of above mentioned sources of information the partners can execute small research of activities by interviewing the employees or experts in the sector.

For definition of the structure and contents of sectoral qualifications frameworks (1st table) it is sufficient to analyse the information available from the existing documents: occupational standards, VET standards, different catalogues and registers of qualifications and then to discuss the completed tables with the local experts in the sector.

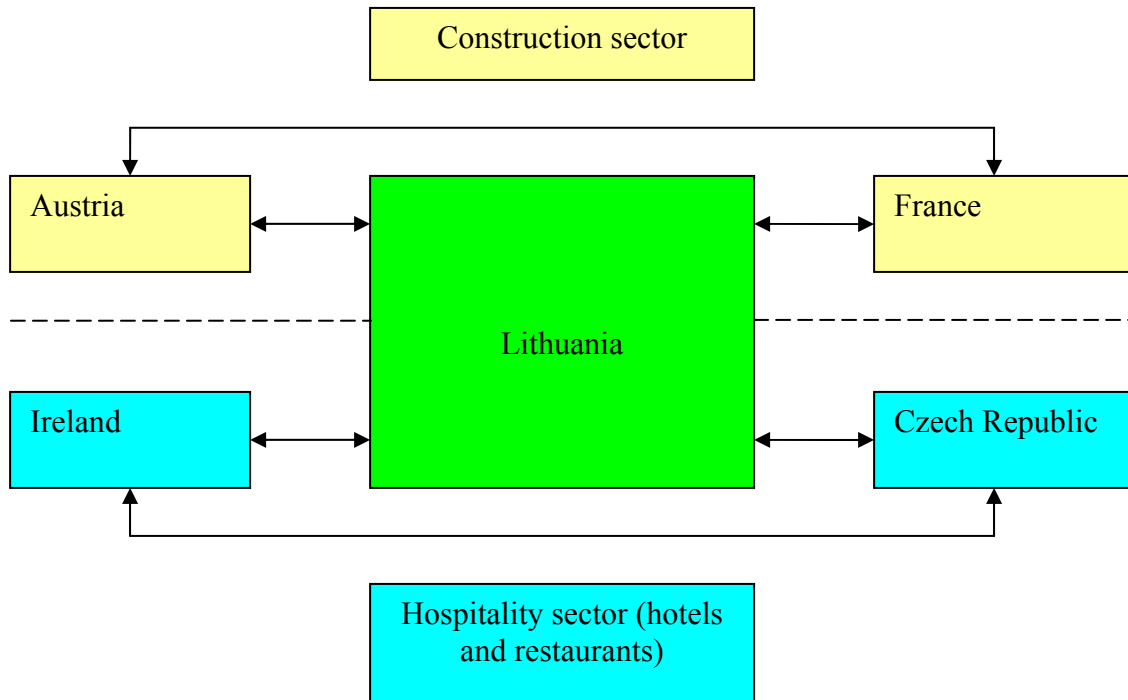
For the analysis of the structure and contents of qualifications in the sector (2nd table) there can also be used information from the existing documents. If these sources of information are not available there can be conducted panel interview with the group of experts in the field with the questions listed according the contents of the proposed table:

- *What are the main work tasks of the skilled execution of work?*
- *Can there be discerned the units of qualifications? If so, what are these units?*
- *What competences constitute qualification or the units of qualification? (What competences are needed for the execution of the tasks of activities?).*
- *Which competences are determinant for the attribution of qualification to the certain level in the sectoral framework or hierarchy of qualifications?*
- *What are the most common ways of the acquisition of qualification (formal initial and continuing training, non formal and informal learning, etc.)?*
- *How this qualification is recognized and awarded? Are there any sector specific procedures or requirements for the recognition or awarding of qualification?*

3. Referring to the data obtained from the previous researches there should be analysed how the hierarchy of the sectoral qualifications frameworks correspond to the EQF in terms of the

attribution to the levels and in terms of the correspondence between the competences of sectoral qualifications to the EQF level descriptors.

The comparison of qualifications is executed in 2 sectors (construction and hospitality) and in 3 countries for each sector:



Comparison is executed in 2 stages:

1. Comparison of the *maps of qualifications* identified by the partners in the analysis of the work package 2. This comparison has to answer the following questions:
 - 1.1. What are the similarities and differences in the occupational structure of the sectors and in the relation of the ordering of occupations and qualifications in the sectors?
 - 1.2. What are the similarities and differences in the criteria of levelling of qualifications in the sectors?

- 1.3. What are the similarities and differences in the numbers of levels of sectoral qualifications between the countries? Can there be noticed any clear matches of the hierarchical sets of qualifications in the sectoral frameworks of different countries?
- 1.4. On which levels there can be noticed the biggest differences in the levelling of qualifications?
2. Comparison of the structure of selected and analysed qualifications of the same sectors belonging to the analogical (or close/similar) levels in the sectoral frameworks. This comparison has to provide the answers to the following questions:
 - 2.1. What are the similarities and differences in the structural units of composed qualifications in terms of size of these units and their type (units of qualifications, competences, learning outcomes) as well as their numbers?
 - 2.2. How the contents of the compared qualifications match to each other in terms of autonomy, responsibility and complexity of activity? Where are the biggest mismatches of the contents of qualifications? What are the similarities and differences of the criteria for the description of the contents of qualifications?

2.1. Research of the structure and contents of the sectoral qualifications and their compatibility with the EQF

After the preliminary analysis of the first draft reports of research there can be noted the following:

1. Approaches of the structuring of qualifications in the sectoral frameworks are quite different between the partners' countries. There can be discerned the following types of these approaches:

a. Occupational approach, when qualifications are grouped according to the occupations, each occupation encompassing certain numbers of levels of qualification, which can be adhered to certain levels of the EQF (Lithuania, France, Czech Republic). For example:

Bricklaying (qualifications) - Lithuania:

Bricklayer level 2 (EQF)

Bricklayer level 3 (EQF)

Bricklayer level 4 (EQF)

Bricklayer level 5 (EQF)

France:

Concrete pouring, reinforcing, spreading, levelling, smoothening and sealing worker (EQF3, FQF5)

b. More levelling oriented approach, when qualifications are grouped according to their belonging to the different qualifications levels in the sector based on the characteristics of performance (Austria, Czech Republic), for example:

Construction sector qualifications in Austria:

Auxiliary workers (Bauhilfsarbeiter und Bauhilfsarbeiterinnen) (EQF1, 2)

Semi-skilled workers often skilled in a different works of construction (Angelemnte Bauarbeiter) (EQF3)

Skilled workers of construction after the apprenticeship (Facharbeiter) (EQF 4)

Experienced foremen (Vizepolier) (EQF4)

Supervisors, construction site practical managers (Meister, Poliere, Obermeister, Hauptpoliere) (EQF5)

Technical and commercial employees of construction (Technische und kaufmännische Angestellte) (EQF1-5)

Waiter qualifications in Czech Republic:

Assistant waiter (EQF 2)

Basic serving (EQF 3)

Advanced serving (EQF 3)

Bartender (EQF 3)

Sommelier (EQF 3)

In both cases there can also be noted some signs of mixed approach which encompass the occupational and level oriented approaches each having similar influence and importance for the structuring of qualifications in the sector. This is especially noticed in the occupations and qualifications related to the management and work organization (supervisors, high technicians and technical executives, draughtsman etc.). The qualifications have very clearly expressed vertical levelling combined with the occupational specialisation. For example, in the qualifications of the restaurants sector of Czech Republic the qualifications of the cooks are more structured according to the occupational approach (different fields of occupations and specialisations) while the qualifications of waiter – according to the approach of hierarchical levelling (above given example).

2. There can be discerned the following institutional and occupational basements of the differentiation and structuring of sectoral qualifications:

a. Existing work practices and settings, existing pathways of skills upgrading combined with the structure of the qualifications supplied by the VET and higher education institutions. In some areas of sectors predominate the existing work practices and settings and they decide the way of the structuring of qualifications, in other areas the characteristics and structure of the

qualifications provided by the VET and higher education institutions plays the major role in this regard. This can be noted in Lithuania and Czech Republic.

b. Collective agreements between the employers and unions of the sector which define the qualifications in the sector and their structuring (Austria, France). For example, in Austria sectoral qualifications in the building construction sector are based on the collective agreements (Kollektivvertrag) which are negotiated in every sector between Chamber of Commerce (Wirtschaftskammer Österreich) and Labour Union (Österreichischer Gewerkschaftsbund). In France the employers' organizations and unions are also actively involved in the definition of qualifications in the sectors.

3. Criteria for ascribing sectoral qualifications to certain levels are quite different:

a. Application of the functional, cognitive and general competences and their combinations in the different contexts of activity (Lithuania, Czech Republic). Research in the construction sector conducted by the Vilnius university 2 years ago disclosed, that due to the big shortage of the skilled workforce construction sector recruited a lot of unskilled and low-skilled persons having no formal qualifications nor professional experience in the field of construction and through training in the workplace and experiential learning this workforce was integrated in the sector.

b. Credentials acquired in the initial and continuing vocational training or higher education institutions (certificates, diploma). This is especially valid for those sub-sectors and occupations which are traditionally regulated by the state-authorities (safety engineer, architect etc.) (Austria, France).

c. Credentials and the practice in the execution of activity in the field. This is especially clearly expressed for the higher level qualifications in the construction sector in Austria and France, but also can be noted in other countries (Lithuania, Czech Republic).

2.2. Comparison of the *maps of qualifications* in the sectors of construction and hospitality in Austria, Czech Republic, France, Ireland and Lithuania

2.2.1. The similarities and differences in the occupational structure of the sectors in relation to the ordering of occupations and qualifications in the sectors.

Construction sector, countries – Austria, France, Lithuania

Map of qualifications in the construction sector of Austria

Qualifications of the construction sector in Austria can be divided in two main groups: qualifications of workers and employees (or specialists). The qualifications of workers are further divided according to their levels into the following groups of qualifications:

- a. External auxiliary staff in the construction sector (security, safety, catering services etc. - Sonstiges Hilfspersonal). These are usually low skilled employees with the qualifications which can be adhered to the EQF level 1.
- b. Auxiliary construction workers (Bauhilfsarbeiter und Bauhilfsarbeiterinnen). These workers are usually low skilled or unskilled. Their qualifications can be adhered to the EQF level 1 (for those having until 6 months of work experience) or to the EQF level 2 (for those having more than 6 years of the work experience). The main criterion for the levelling of these qualifications is work experience.
- c. Semi-skilled workers (Angelernte Bauarbeiter) which are often skilled in a different sector or profession. These workers already possess the knowledge and skills needed for the execution of tasks in certain occupations and their qualifications can be adhered to the EQF level 3. Workers with these qualifications execute the work tasks requiring both manual work and the use of different machinery and equipment. There can be mentioned the following qualifications of this group: (worker for preparation of road construction, operators of loading machinery, crane operators, miners, welders, masonry workers, concrete workers, railway builders, etc. - Asphaltierervorarbeiter, Baggerführer, Drittelführer, Düsenführer, Eisenbahnoberbauvorarbeiter, Führer von Turm-, Derrick-Kränen, Grädern, Straßenfertigern, Zugmaschinen. Sprengmeister, Führer von Zugmaschinen, Lastkraftwagen, Raupenfahrzeugen, Lokomotiven, Heißmischmaschinen. Mineure, Montierer im Eisenbahnoberbau, Schweißer. Steinmaurer, Asphaltiererarbeiter mit Gußasphalt, Eisenbieger und Eisenflechter, Gerüster, Schaler, Abbrucharbeiter im Straßenbau von Hand aus, Asphaltierer mit qualifizierten Tätigkeiten, Bermenschlichter, Betonierer, Gleiswerker, Grundbauleger, Kesselmann).
- d. Skilled workers (Facharbeiter). This group of qualifications can be further divided into apprentices (Vorarbeiter, Lehrling) and skilled workers (Facharbeiter). Apprentices are trained in 3 ways: 1st: A Contract of apprenticeship is established between the apprentice master (employer, e.g. construction company, builder) and the apprentice. 2nd: Competences not covered by the employer are covered by a federal "Lehrwerkstätte". 3rd: Vocational school (3 years during apprenticeship). Skilled workers (Facharbeiter) acquire their qualifications only after passing the final examination ("Lehrabschlussprüfung").

These qualifications can be adhered to the EQF level 4 (apprentices – Vorarbeiter can also be attributed to the EQF level 3). The main criterion for the attribution of qualifications to this level or group is the acquired, assessed and recognised competences leading to the awarding of qualification.

- e. Specially experienced foremen (Vizepolier). There are no formal requirements for the acquisition of the "Vizepolier" qualification, usually specially experienced foremen are appointed to this qualification. This qualification is attributed to the EQF level 4.

The qualifications of employees (specialists) are divided into the following levels:

1. Senior foremen (Meister, Poliere, Obermeister, Hauptpoliere). They are employed as auxiliary staff for the managers and engineers in transmitting and distribution of the tasks of work to the workers. Skilled workers of construction can acquire the qualification of the senior foremen (Poliere) after the minimal work experience of 10 years in the construction. The main criteria for the acquisition of this level of qualification - work experience in the field of occupation. This level of qualification can be adhered to the EQF level 5.
2. Technical and Commercial employees (Technische und kaufmännische Angestellte). This group of qualifications is subdivided into 5 levels and one special group: "Polier".
 - 2.1. The first level is composed of the auxiliary office workers - typists, copiers, etc. (Kassenboten, Schreibkräfte, Vervielfältiger, Stenotypisten). The main occupations are auxiliary office and commercial tasks. These qualifications are acquired after the completion of at least 2 years course in the vocational school or 6 years in the secondary school. These qualifications can be attributed to the EQF level 2.
 - 2.2. The second level is composed of the auxiliary specialists of the construction technical field (auxiliary technical staff, designers of drawings, auxiliary staff of storage of materials, etc. - Bautechnische Gehilfen, Bauzeichner, Kanzleihilfen, Magazinsgehilfen, Stenotypisten, Telefonisten, Lagerführer). Their work consists of auxiliary technical tasks, work according to the instructions and prescribed requirements. The qualification is acquired after the completion of the 2 years course in the vocational school in the fields of construction or close occupational fields (carpenters, electricians, gas and water installation specialists, plumbers etc.) or through the corresponding work experience in the fields of construction work. These qualifications can be attributed to the EQF level 3.
 - 2.3. The third level consists of the qualifications of construction engineers and technicians, construction machinery engineers and technicians, accounting and purchasing specialists (Bauingenieure und Bautechniker, Baumaschineningenieure und Baumaschinentechniker, Buchhalter, Einkäufer). The work is rather specialised and requiring autonomous and responsible work according to the general requirements and standards. The qualification is acquired after the completion of the vocational training in the construction or related field and at least after 4 years of work practice in the field. These qualifications can be attributed to the EQF levels 4 and 5.

- 2.4. The fourth level consists of the employees in purchasing, managers and supervisors of construction works, senior machinery engineers, and accountants (Baukaufleute, Bauleiter, erste Baumaschineningenieure, Bilanzbuchhalter, Statiker). Work of the higher level occupations requiring autonomous and highly responsible execution of commercial, managerial and technical tasks, human resource management, and management of the construction site works. The qualification is acquired after the studies at the higher school or passing of the construction master craftsman examination and minimal 1 year of practice in the field. These qualifications can be attributed to the EQF level 5.
- 2.5. The fifth level of qualifications includes the manager of the big construction sites or departments of construction enterprises (Bauleiter selbständiger Großbaustellen, Leiter von selbständigen Abteilungen). Highly responsible managerial work. The qualification is acquired after the completion of the studies at the higher school or passing of the construction master craftsman examination and minimal 4 year of practice in the field. These qualifications can be attributed to the EQF levels 6 and 7.

Map of qualifications in the construction sector of France

Qualifications of the construction sector in France can be classified according to the sub-sectors of the construction sector and occupations in these sub-sectors. There can be distinguished the following sub-sectors, occupations and qualifications:

1. Clearing site and laying down ground foundations

1.1. *Clearing site, Laying down ground-foundations and preparing necessary building tools and materials (ROME code n°: 42111). Attributed qualifications:*

- Clearing site and ground preparation worker (EQF1),
- Preparing binder and ground coating materials/products worker (EQF1),
- Spreading coating materials worker (EQF1),
- Construction tools and materials manipulator (EQF1),

The persons having these qualifications execute simple tasks (requiring basic general knowledge and skills) under direct supervision in structured context. Qualification acquisition requirement: end of lower-secondary school level with interest and/or experience in the field.

- Masonry assistant worker (EQF2).

This qualification permits accomplishing tasks, requiring basic general knowledge and skills, under direct supervision in structured context. Qualification acquisition requirements: CAP (Professional Aptitude Certificate) in the domain.

1.2. *Construction and maintenance of the building pathways, pavements, ground piping and drainage systems (ROME code n°: 42112)*

- Pavement, driveway and lawn ground construction/maintenance worker (EQF2). This qualification permits accomplishing tasks and relatively simple solutions by selecting and using (with some autonomy) basic tools and materials. Qualification acquisition requirement: end of lower-secondary school level with interest and/or experience in the field.
- Ground piping and drainage system installation/maintenance worker (EQF3). This qualification permits executing specific tasks (requiring general and factual knowledge with a range of cognitive and practical skills) in the domain with some autonomy within the framework of the guidelines of work requirements and context. Initial qualification acquisition requirements: CAP (Professional Aptitude Certificate) or BEP (Professional Studies Diploma) in the domain.

1.3. *Construction and assembly works of concrete (ROME code n°: 42113)*

- Concrete preparation and homogenisation worker (EQF3). This qualification permits to execute tasks selecting and using (with some autonomy and adaptability to the context) basic and domain specific methods, tools, materials, information, solving task-related simple problems. Minimum initial qualification requirement in the domain is usually a CAP (Professional Aptitude Certificate).
- Concrete pouring, reinforcing, spreading, levelling, smoothing and sealing worker (EQF3).
- Assembling prefabricated/reinforced concrete structures worker (EQF3).

These qualifications permit to execute tasks selecting and using basic and domain specific methods, tools, materials, information, solving task-related related simple problems (requiring general and factual knowledge with a range of cognitive and practical skills). Minimum qualification requirement in the domain is usually a CAP (Professional Aptitude Certificate).

- Professional concrete worker (EQF4). This qualification comprises solutions to specific problems of work, autonomy of execution, ability to use technical guidelines and other information about materials, equipment etc., responsibility for the quality control and repairs, supervision of the routine work of others. Qualification requirements: professional experience in different activities of concrete construction activities, and usually holding to a CAP (Professional Aptitude Certificate) or BEP (Professional Studies Diploma) in the domain.

1.4. *Masonry (bricklaying) (ROME code n°: 42114)*

- Masonry bricklayer (executing simple masonry/bricklaying tasks and operations under the guidelines and supervision of a professional bricklayer) (EQF2). This qualification permits to execute masonry tasks and operations with

a very limited autonomy under the responsibility and the supervision of professional mason. Initial qualification level requirement within French FQF is CAP or BEP (level 5) in the domain.

- Professional masonry bricklayer (dealing with different masonry tasks and operations, including undertaking repairing actions and team work organisation and supervision) (EQF3). This qualification permits to accomplish masonry tasks and problem solutions with autonomy and responsibility by selecting and applying methods, tools, materials, including the responsibility for repairing, supervision of the routine work of others, evaluation and improvement of work results. Initial qualification level requirement within French FQF is BP or BT (level 4).

2. Setting-up building structures

2.1. *Setting-up metal and concrete building structures (ROME code n°: 42121)*

- Pre-assembler of metal and reinforced concrete parts of building structures (EQF2). Minimum qualification requirement in the domain is usually a CAP (Professional Aptitude Certificate).

- Mounting worker of metal and reinforced concrete building structures, including scaffolding, lifting and carrying equipment mounting, organisation and supervision of team working tasks and operations (EQF3). This qualification comprises self-management of work execution together with the supervision of the routine work of others, generation of solutions to specific problems of work. Initial qualification level requirement within French FQF is BP (Vocational certificate) or BT (Technician Certificate) (level 4) in the domain.

2.2. *Setting-up timber building structures (ROME code n°: 42122)*

- Carpenter assisting in producing, processing and assembling and mounting different timber structures of the building (EQF2). This qualification permits to execute simple tasks (requiring basic general knowledge and skills) and solve routine problems under direct supervision and using simple rules and instruments. Formal qualification requirement: CAP or BEP as a carpenter.

- Carpenter in charge of producing, processing and assembling and mounting different timber structures of the building, including the organisation and supervision of team-work tasks and operations wooden structures preparation and mounting (EQF3). This qualification permits to accomplish tasks and to solve related problems (with some autonomy and adaptability to work assignments and context) by selecting and applying methods, tools, materials, including supervision and repairing responsibility (requiring general and factual knowledge with a range of cognitive and practical skills). Formal qualification requirement starting by CAP or BEP (level FQF5) and ending up as team leader with level 3 in EQF (FQF4).

2.3. Roofing (ROME code n°: 42123): Flat roofing

- Roofer assisting in flat roofing with tiles, slate or melting coating (EQF2). This qualification permits to execute roofing simple tasks and solving routine problems under direct supervision and using simple rules and instruments. Formal qualification requirements: CAP or BEP.

- Roofer in charge with flat roofing tasks, including repairs, team work organisation and supervision (EQF3). Formal qualification requirement: BP or BT.

2.4. Roofing (ROME code n°: 42123): Arched roofing

- Roof thatching worker (assisting in setting and covering arched roofing structures) (EQF2). Formal qualification requirements: CAP or BEP.

- Thatcher in charge of setting and covering arched roofing structures, including maintenance, organisation and supervision of team work roofing tasks and operations (EQF3). Formal qualification requirement: BP or BT.

2.5. Installing water-proofing and insulation systems (ROME code n°: 42124)

- Installer of water proof system (in the building roofs, walls, floors, terrace and façade) (EQF3).

- Installer of sound proof and thermal insulation systems (EQF3).

These qualifications permit to accomplish tasks and solve related problems by selecting and applying methods, tools, materials, including supervision and repairing responsibility. Formal qualification requirement: BP or BT.

3. Equipment installation

3.1. Installation and maintenance of the electric components (ROME code n°: 42211).

- Installation and maintenance of electrical wiring and light - construction electrician (EQF4).

- Installation and maintenance of electrical heating and ventilation components - construction electrician (EQF4).

- Installation and maintenance of electrical security and alarm components - construction electrician (EQF4).

These qualifications permit accomplishing tasks and solving related problems by selecting and applying methods, tools, materials, including supervision and repairing responsibility. Formal qualification requirement: BP or BT.

3.2. *Installation and maintenance of health and thermal facilities (ROME code n°: 42212)*

- Worker of installation, launch and maintenance of the heating system facilities (EQF4).
- Worker of installation, launch and maintenance of the ventilation /air conditioning facilities system (EQF4).

These qualifications comprise self-management of work execution together with the supervision of the routine work of others, generation of solutions to specific problems of work. Initial qualification level requirement within French FQF is BP (Vocational certificate) or BT (Technician Certificate) (level 4) in the domain.

- Welding -plumbing worker (EQF3).
- Lagging worker (EQF3).

These qualifications permit to accomplish specific work tasks and solving problems by selecting appropriate materials, instruments and methods of work, supervision of the routine work of others. Initial qualification level requirement within French FQF is CAP or BEP (level 5) in the domain

4. Installation of fitments

4.1. *Installing of latches, hinges and locking systems (ROME code n°42221)*

- Joiner (processing, assembling, fitting and maintenance of wooden products, supports and structures including doors and windows) EQF2
- Installer of hinges, latches and locking system (EQF2)

These qualifications permit to execute specific work tasks and solving problems (with some autonomy and adaptability to work requirements and context) by selecting appropriate materials, instruments and methods of work with a certain autonomy. Initial qualification level requirement within French FQF is CAP or BEP (level 5) in the domain.

4.2. *Panel adaptation and fitting (ROME coden°42222)*

- Partition and support fitments installation worker (EQF2).
- Kitchen and storage fitments installation worker (EQF2).

These qualifications permit to accomplishing specific work tasks and solving problems by selecting appropriate materials, instruments and methods of work (with some autonomy and adaptability to work requirements and context). Initial

qualification level requirement within French FQF is CAP or BEP (level 5) in the domain.

5. Finishing touches

5.1. *Installation of surface rigid coating (ROME code n°: 42231)*

- Wall coating worker with rigid coating products such as ceramics, tiles and synthetic products (EQF3).
- Floor and terrace coating worker (with rigid products such as tiles, earthenware, ceramics etc) (EQF3).

These qualifications permit to accomplish specific work tasks and solving problems (with some autonomy and adaptability to work requirements and context) by selecting appropriate materials, instruments and methods of work with a certain autonomy. Initial qualification level requirement within French FQF is CAP or BEP (level 5) in the domain.

5.2. *Installation of surface flexible coating (ROME code n°: 42232)*

- Coating worker assisting in the preparation of flexible coating materials and products (such painted paper, textiles, carpets, etc.) (EQF2). Initial qualification level requirement within French FQF is CAP or BEP (level 5) in the domain.
- Coating skilled worker in charge of flexible coating, including organisation and supervision of team working tasks and operation (EQF3). This qualification permits to accomplish specific work tasks and solving problems by selecting appropriate materials, instruments and methods of work (with some autonomy and adaptability to work requirements and context). Minimum initial access qualification requirements within French FQF are CAP or BEP in the domain or as a professional: BP (professional Certificate)/ BT (Technician Certificate).

5.3. *Painting and decoration (ROME code n°: 42233)*

- Home painting decorator assisting in the preparation of the painting and decoration supports and products, including simple painting and paperhanging tasks and operations (EQF2). Minimum initial access qualification requirements within French FQF are CAP or BEP in the domain.
- Home painting decorator in charge of painting, decoration repairing operations, including the organisation and supervision of team working tasks and operations (EQF3). Minimum initial access qualification requirements within French FQF are CAP or BEP in the domain or as a professional painting-decorator: BP (professional Certificate)/BT (Technician Certificate).

6. Supervisors, high technicians and technical executives

6.1. Supervisors (ROME code n° 61231 and code n° 61232)

- Supervisor of building site preparation work operations (EQF4).
- Supervisor of construction and maintenance of driveways and underground drainage system operations (EQF4).
- Supervisor of concrete construction, assembly and maintenance work operations (EQF4).
- Masonry work operations supervisor (EQF4),
- Supervisor of setting-up and maintenance of metal and concrete building structures operations (EQF4),
- Supervisor of setting-up and maintenance of timber building structures operations (EQF4);
- Supervisor of roofing work operations (EQF4),
- Supervisor of work operations connected with the installation and maintenance of water proofing, insulation, ventilation, health and thermal facilities systems (EQF4).
- Technical supervisor of the operations of electrical components installation and maintenance (EQF4);
- Supervisor of fitments installation and maintenance operations (such as panel adaptation and fitment, rigid and flexible and coating). (EQF3);
- Supervisor of finishing touches operations (such as painting and decoration) (EQF3).

These qualifications comprise taking the responsibility of accomplishing various construction operations on the site through team work organisation and supervision with adaptability to work requirements and circumstances in solving related problems. Formal qualification requirements are CAP, BEP, BP (professional Certificate) or BT (Technician Certificate) in the domain.

6.2. Draughtsman (ROME code n° 61221)

- Draughtsman (in charge of transforming «the future building project» into drawing projects and technical solutions by using his/her construction and architecture related knowledge and techniques in compliance with regulations concerning building construction or space management standards. This might include taking the required responsibility of directing, coordinating and monitoring team working in the domain) (EQF5). This qualification permits to exercise basically functional complex tasks requiring a comprehensive, specialised, factual and theoretical knowledge, including a wide range of cognitive and practical skills which are necessary for the

development of creative solutions to complex and unpredictable problems. Minimum initial qualification requirement in the domain is BAC+2 or 3.

6.3. Head of construction technical- economic engineering (ROME code n° 61223 and n° 61224)

- High technician of construction technical-economic engineering (in charge of carrying out the technical-economic feasibility studies concerning the development of construction/installation "project", which includes determining the technical processes, methods of organization, implementation and flow-up of their costs. This includes undertaking, according to experience, related supervisory responsibilities). (EQF6). This qualification permits to exercise, manage and supervise complex technical-economic feasibility projects, including taking the responsibility for functional decision-making in unpredictable work context. Initial formal qualifications: BAC+2 (such as BTS: High Technician Diploma) in the domain.

- Construction technical-economic engineer (in charge of carrying out the technical-economic feasibility studies concerning the development of construction/installation "project", which includes determining the technical processes, methods of organization, implementation and flow-up and their costs. This includes undertaking, according to experience, related supervisory responsibilities). (EQF7). This qualification permits to exercise, transforming, managing and supervising complex technical-economic and professional activities, approaches and strategies requiring highly specialised knowledge and problem-solving skills. Qualification requirements: 2nd cycle of the university level of certification (Master degree in the domain).

6.4. Architect (ROME code n°: 61211)

Architect in charge of conceptualising and expressing by means of sketches or diagrams of the configuration of a construction project (a building/or a construction space). Identifying the technical possibilities which are best suited to the construction site and taking into account the constraints imposed by the client, the urbanisation and the environmental scheme and standards. This includes taking the responsibility of the overall construction operations programming, organisation and follow-up. (EQF7/8). Exercising, transforming, managing and supervising complex technical-professional activities, decision making process and strategies in unpredictable work contexts, using advanced knowledge and specialised skills and techniques (with substantial authority, innovation, autonomy and commitment to the development and implementation of new ideas and processes) in the domain. Qualification requirements: 2nd or the 3rd cycle university level of certification in architecture.

7. Road construction

7.1. Road construction and maintenance (ROME code n°: 42111, 61 223, 61231 and 61232)

- Road construction preparation worker dealing with the preparatory work on the road construction site (EQF1). This qualification comprises execution of simple tasks

(requiring basic general knowledge and skills) and solving routine problems under direct supervision and using simple rules and instruments. Initial qualification requirement: end of lower-secondary school level with interest and/or experience in the road construction field.

- Road construction and maintenance worker dealing with preparation of site ground, digging works, driving and manipulating road construction machines, tools and materials, laying down the road basement and coating (EQF2). This qualification comprises executing work tasks and operations with some autonomy under the responsibility and the supervision of professional road construction supervisor. Initial qualification level requirement within French FQF is CAP or BEP (level 5) in the domain.

- Worker on the construction and maintenance of pavements, driveways and cycling pathways (EQF2). Qualification requirement: end of lower-secondary school level with interest and/or experience or holding a CAP (Professional Aptitude Certificate) in the domain.

- Supervisor of road construction works (organising, supervising work teams operations on the construction site) (EQF3). Responsible for the accomplishment of road building works on the site through team work organisation and supervision with adaptability to work guidelines and context requirements in solving related problems. Formal initial qualification requirements are usually CAP (Professional Aptitude Certificate), BEP (Professional Studies Certificate) in the domain.

7.2. Head of road building and maintenance technical-economic engineering (ROME code n° 61223 and n° 61224)

- High technician in road construction technical-economic engineering (in charge of carrying out the technical-economic feasibility studies concerning the development of a road construction "project", which includes determining the technical processes, methods of organization, implementation and flow-up and their costs. This includes undertaking, according to experience, related supervisory responsibilities). (EQF6). Qualification permits to exercise, manage and supervise complex technical and professional activities, including the responsibility for the operational decision-making processes in an unpredictable work context. Initial formal qualifications: BAC+2 (such as BTS: High Technician Diploma) in the domain.

- Road construction technical-economic engineer (in charge of carrying out the technical-economic feasibility studies concerning the development of road construction "project", which includes determining the technical processes, methods of organization, implementation and flow-up and their costs. This includes undertaking, according to experience, related supervisory responsibilities). (EQF7). Qualification permits to exercise, transform, manage and supervise complex technical-economic and professional activities, approaches and strategies requiring highly specialised knowledge and problem-solving skills. Qualification

requirements: 2nd cycle of the university level of certification (Master degree in the domain).

There can be noticed that the qualifications in the construction sector of France are quite narrow and permits to execute narrowly specialised work tasks. The main levelling criteria are the requirements posed by the autonomy and complexity of the executed tasks. The autonomy is very important criteria for the higher level qualifications. Despite the fact that the France is probably the only country which implemented the system of the recognition of the non-formally and informally acquired competences and qualifications (validation des acquis de l'expérience – VAE) the formal institutional acquisition of qualifications remain very important factor of its adherence to certain levels.

Map of qualifications in the construction sector of Lithuania

The structuring of qualifications in the construction sector in Lithuania is rather similar to the structuring of qualifications in France – the qualifications are grouped according to the typical sectoral occupations or fields of activities in the sector. The typology and structure of the occupations in the sector defines the disposition of the qualifications. There can also be noticed some links between the qualifications belonging to the different occupation or their groups – this is a result of the multiskilling of the employees in the sector which was especially enhanced by the recent economical and social changes, challenges of the increasing and intensifying competition on the national and international level and the shortages of the skilled workforce, when the employers were faced with the need to invest in the training of the available employees in order to widen their qualifications and in such way to fill in the skills gaps or to hire and train the unskilled workforce, also paying more attention to the wider and more flexible qualifications.

Research in the construction sector of Lithuania, conducted by the group of sociologists from the Vilnius University (2008) has disclosed, that the hierarchical structuring of qualifications in the construction sector is defined by the level of the development of the technological (functional) and social (general) competences. Higher level functional knowledge and skills become a very important symbolic capital which opens the wider possibilities for the advancement in the hierarchical structure of the qualifications in the sector. In this sense there can be stated that the structure of qualifications in the construction sector of Lithuania until recent times has been very open (it can be accessible for any workforce independently from their possessed skills and competences due to the practices of the internal training and professional socialization in the enterprises of the sector and provides rather free possibilities for the advancement in the hierarchy of qualifications depending on the employees efforts in the development of the skills and competences at the workplace). Nowadays, due to the beginning of the crisis in the construction sector and decreasing needs of the workforce this situation changes and sector again becomes more closed for the workforce not having the official (recognized) qualification related to the sector.

Analysing the structure of qualifications in the construction sector of Lithuania there can be distinguished two sub-sectors: general construction, or the construction of the inhabitant buildings and the special construction, which includes road building, building of bridges and other communications. Each sub-sector consists of the following occupations which encompass the groups of qualifications of the different size and hierarchical height:

Subsector: general construction

1. Bricklaying

Qualifications:

Bricklayer (simple unsophisticated masonry constructions, assistance in repair of masonry constructions - EQF2). The level of qualification is decided by the work executing simple tasks under direct supervision in structured context.

Bricklayer (bricklaying in making ordinary masonry constructions, simple operations of repair of masonry constructions - EQF3). The level of qualification is decided by selection and applying of basic methods, tools, materials, information, solving simple work problems.

Bricklayer (bricklaying in making different masonry constructions, execution of repair of masonry constructions, team work organization - EQF4). The level of qualification is decided by solution of specific problems in a field of work, autonomy of execution of task within certain guidelines of work context, supervision of the routine work of others, evaluation and improvement of work results.

2. Concrete works (concrete pouring)

Qualifications:

Concrete worker (assistance in making simple concrete items and constructions - EQF2). The level of qualification is decided by work executing simple tasks under direct supervision in structured context.

Concrete worker (concrete pouring and repair of concrete constructions - EQF3). The level of qualification is decided by selection and applying of basic methods, tools, materials, information, solving simple work problems.

Concrete worker (concrete pouring, repair of concrete constructions, team work organization - EQF4). The level of qualification is decided by finding of solutions to specific problems of work, autonomy of execution, ability to use technical guidelines and other information about materials, equipment etc., responsibility for the quality control and repair, supervision of the routine work of others.

3. Concrete floor pouring works

Qualifications:

Concrete floor pouring worker (concrete floor pouring - EQF3). The level of qualification is decided by selection and applying of basic methods, tools, materials, information, solving simple work problems.

Concrete floor pouring worker (concrete floor pouring and team work organization - EQF4). The level of qualification is decided by solutions to specific problems of work,

autonomy of execution, ability to use technical guidelines and other information about materials, equipment etc., responsibility for the quality control and repair, supervision of the routine work of others.

Looking at these qualifications there can be stated, that the qualifications levels in the construction sector corresponding to the EQF levels 2, 3 and 4 are defined by the following characteristics of activities:

Level, corresponding to the EQF level 2 - execution of simple tasks and solving routine problems under direct supervision and using simple rules and instruments.

Level, corresponding to the EQF level 3 - accomplishment of tasks and solution of problems by selecting and applying methods, tools, materials, responsibility for the completion of tasks, repair of faults. Autonomous accomplishment of simple work tasks and problems with the supervision and assistance of higher skilled employees.

Level, corresponding to the EQF level 4 - accomplishment of tasks and solution of problems by selecting and applying methods, tools, materials, responsibility for the completion of tasks, repair of faults, supervision of the routine work of others, evaluation and improvement of work results. Higher autonomy of execution, ability to use technical guidelines and other information about materials, equipment etc., responsibility for the quality control and repair, supervision of the routine work of others.

These characteristics define the levels of qualifications in the most of the cases with the rare exceptions, when the content of activity includes some special performance methods or technologies.

4. Assembling of the ferroconcrete structures

Qualifications:

Assembler of ferroconcrete structures (execution of the general construction work, assembling of ferroconcrete structures - EQF3).

Assembler of ferroconcrete structures (incl. team-work organization - EQF4)

5. Assembling of metal structures

Qualifications:

Assembler of metal structures (assembling of metal constructions - EQF3).

Assembler of metal structures (assembling of metal constructions and team-work organization - EQF4)

6. Flat roofing

Qualifications:

Roofer working with melting coat (covering of flat roofs - EQF2).

Roofer working with melting coat (covering and repair of flat roofs - EQF3).

Roofer working with melting coat (covering, repair of flat roofs, incl. team work supervision - EQF4).

7. Span roofing

Qualifications:

Thatcher of span roofs (assembling and covering of span roof structures - EQF2).

Thatcher of span roofs (assembling, covering and repair of span roof structures - EQF3).

Thatcher of span roofs (assembling, covering, repair of span roof structures, team work organization - EQF4).

8. Iron and tinsmith works

Qualifications:

Tinsmith (simple tin cover (iron) works, repair of tin coverings - EQF3).

Tinsmith (specific tin cover (iron) works, repair of tin coverings - EQF4).

9. Clearing and handling of the building environment

Qualifications:

Worker of the environment handling (preparation of the construction site, elementary operations of installing of the pavements and lawns - EQF2).

Worker of the environment handling (preparation of the construction site, installing of the pavements and lawns - EQF3).

Worker of the environment handling (preparation of the construction site, installing of the pavements and lawns, team work organization - EQF4).

10. Woodworking of construction

Qualifications:

Carpenter (wood processing, production and assembling of wooden structures, assembling of timbered walls, wooden finish, assembling of windows and doors - EQF2).

Carpenter (wood processing, production and assembling of wooden structures, assembling of timbered walls, wooden finish, assembling of windows and doors, repair of wooden products and structures - EQF3).

Carpenter (wood processing, production and assembling of wooden structures, assembling of timbered walls, wooden finish, assembling of windows and doors, repair of wooden products and structures - EQF4).

11. Painting

Qualifications:

Housepainter (simple painting and paperhanging tasks and operations, assistance to more skilled employees - EQF2).

Housepainter (painting and paperhanging, repair of painted surface - EQF3).

Housepainter (painting and paperhanging, repair of painted surface, supervision of the teamwork - EQF4).

12. Lagging

Qualifications:

Lagging worker (simple auxiliary operations in lagging and finishing of lagged structures - EQF2).

Lagging worker (lagging, finishing and repair of lagged structures - EQF3).

Lagging worker (lagging, finishing and repair of lagged structures, teamwork organization – EQF4).

13. Plasterboard mounting

Qualifications:

Plasterboard assemblers (mounting, finishing and repair of plasterboard walls and ceilings - EQF2). Execution of the simple tasks and solving simple problems under the supervision of the higher skilled employees.

Plasterboard assemblers (mounting, finishing and repair of plasterboard walls and ceilings - EQF3). Higher responsibility for the completions of tasks in work, autonomous execution of the correction and repair works, selecting and applying basic methods, tools, materials and information.

Plasterboard assemblers (mounting, finishing and repair of plasterboard walls and ceilings - EQF4). Autonomy in the completions of tasks in work, execution of the correction and repair works, selecting and applying basic methods, tools, materials and information in solving specific problems, broader work context.

14. Tiling

Qualifications:

Tile layer (laying of tiles - EQF2).

Tile layer (laying of damp-course and tiles- EQF3). Higher responsibility for the completions of tasks in work, broader functions of activities, selecting and applying basic methods, tools, materials and information.

Tile layer (laying of damp-course and tiles- EQF4). Autonomy in the completions of tasks in work, selecting and applying basic methods, tools, materials and information in solving specific problems, broader work context.

15. Technical woodworking

Qualifications:

Woodworker (manual and machined processing of wood, finishing of wood, laying of wooden floor and parquet floor, mounting of windows and doors - EQF3).

Woodworker (manual and machined processing of wood, finishing of wood, laying of wooden floor and parquet floor, mounting of windows and doors, production of wooden parts and products, repair of wooden products - EQF4).

16. Plastering

Qualifications:

Plasterer (simple plastering - EQF2).

Plasterer (simple plastering, unsophisticated decorative plastering, repair of plastering - EQF3).

Plasterer (simple plastering, decorative plastering, repair of plastering - EQF4).

17. Electrical system works

Qualifications:

Electrician of the building electrical system (preparatory operations for installation of the electrical system - EQF2).

Electrician of the building electrical system (installation of the simple electrical system and elements of systems - EQF3).

Electrician of the building electrical system (installation of the electrical system-EQF4).

Electrician of the building electrical system (installation and repair of the complex electrical systems - EQF5).

Qualifications level corresponding to the EQF level 5 appears in more complex and responsible occupations of the construction sector - as, for example, in the occupation of the

electrical system works. This qualifications level is defined by the following characteristics of activities: review of performance of self, use of comprehensive, specialized, factual and theoretical knowledge in the field of work, exercise of management and supervision in the context of work with unpredictable change.

18. Plumbing

Qualifications:

Plumber (preparatory internal and external plumbing and sewerage works, preparation for the installation of the heating systems - EQF2).

Plumber (internal and external plumbing and sewerage works, installation of the heating systems - EQF3).

Plumber (complex internal and external plumbing and sewerage works, installation of the complex heating systems, testing of the sewerage and heating systems - EQF4).

19. Welding

Qualifications:

Welder (welding of metal constructions and their elements - EQF2).

Welder (welding of metal constructions and their elements, welding of plastic profiles, testing of welded joints - EQF3).

Welder (welding of metal constructions and their elements, welding of plastic profiles, welding of pressure vessels and piping, testing of welded joints - EQF4).

Coordinator-supervisor of the welding operations (preparation of welding specifications, testing and quality control of welds, selecting welding equipment, materials and technologies, supervision and organization of welding work - EQF 5). Exercise of management and supervision in the context of work with unpredictable change, review of performance of work applying comprehensive, specialised, factual and theoretical knowledge and experience in the field.

Coordinator-supervisor of the welding operations (supervision and management of the complex welding processes and projects, coordination and organization of the welding operations and works, preparation of quality standards and technical documentation - EQF 6).

Qualifications, corresponding to the EQF level 6 appears only in the technically complex and managerial occupations of the construction sector. These qualifications are defined by the following characteristics of activities: management of complex technical and professional activities and processes, decision making in unpredictable work contexts using advanced knowledge of a field of work including critical understanding of principles.

20. Installation of the ventilation systems

Qualifications:

Assembler of the ventilation systems (preparatory operations for the mounting of the ventilation systems - EQF 2).

Assembler of the ventilation systems (mounting of simple ordinary ventilation units and equipment - EQF 3).

Assembler of the ventilation systems (mounting of ventilation systems and execution of fire-fighting and thermal insulation of ventilation systems - EQF 4).

Assembler of the ventilation systems (mounting of complex ventilation systems and execution of fire-fighting and thermal insulation of complex ventilation systems, execution of the testing and adjustment of ventilation systems - EQF 5).

21. Management and supervision of the general construction works

Qualifications:

Supervisor of the general construction works (organization of the execution of works in the workplaces, analysis of technical documents - EQF5).

Manager of the general construction works (organization of the execution of construction works on the site, quality control, analysis and preparation of technical documents - EQF6).

Manager of the general technical maintenance of the building (technical supervision and maintenance of the construction works, analysis and preparation of the technical documents - EQF6).

22. Management of the specific construction works

Qualifications:

Manager of the mounting of electrical system (organization of the mounting of electrical system, analysis and preparation of technical documents - EQF6).

Manager of the plumbing installation work (organization of the mounting of plumbing and sewerage systems, analysis and preparation of technical documents - EQF6).

Manager of the mounting of low-voltage electrical installations (organization of the mounting of low-voltage electrical installations, analysis and preparation of technical documents - EQF6).

23. Management of the construction companies and their departments

Qualifications:

Manager of the department of construction company (organization of the construction work, communication with customers, analysis and preparation of technical documents, communication with subcontractors - EQF6).

Manager of the construction company - EQF7. Management and transforming complex work contexts requiring new strategic approaches, taking the responsibility for reviewing the strategic performance of organization.

Qualification corresponding to the EQF level 7 appears only in the occupation of the highest level management of construction companies.

Subsector: road building

Qualifications:

Roadman (preparation of the building site, simple preparatory and auxiliary works and operations - EQF2).

Road building and maintenance worker (preparation of the site, ground, digging works, laying of the basement of roads, laying and processing of the paving, marking and painting of roads, exploitation of road building machines - EQF3).

Road building and maintenance worker (preparation of the site, ground, digging works, laying of the basement of roads, laying and processing of the paving, surface processing of roads, marking and painting of roads, repair of roads, exploitation of road building machines - EQF4).

Road building and maintenance worker (preparation of the site, ground, digging works, laying of the basement of roads, laying and processing of the paving, surface processing of roads, marking and painting of roads, repair of roads, exploitation of road building machines, supervision and organization of team working - EQF5).

2.2.2. Comparability of the *maps* of qualifications in the construction sectors of Austria, France and Lithuania

Comparing the structure of the qualifications in the construction sector of Austria, France and Lithuania there can be discerned the following similarities and differences:

1. Looking at the hierarchies of the sectoral qualifications in the sectors there can be stated that this sector in the all compared countries is dominated by the qualifications corresponding to the EQF levels 3 and 4. There can also be found qualifications corresponding to the EQF level 2, while qualifications, corresponding to the EQF levels 5 and 6 are not numerous and belong to the more technically complex occupations requiring higher level responsibility, autonomous application of the specific knowledge and skills, social and management skills.

2. Analysing the comparability of the qualifications structure of the construction sector between the 3 countries there can be noticed, that the maps of qualifications of France and Lithuania are more comparable to each other, than the structure of qualifications of Austria. The possible reason of this situation is that the qualifications in France and Lithuania are grouped in the

similar ways – based on the existing occupations in the sector. The case of Austria is a little bit different - here the basic reference for the grouping of qualifications is based on the levels of skills and types of the performed activities (unskilled, semi-skilled, skilled, specially skilled / auxiliary works, supervision and foreman work).

3. The main differences and difficulties in comparison of the construction sector qualifications maps appear on the higher level of qualifications. For example, it is rather complicated to find the analogues for the qualifications of the construction engineers and technicians, construction machinery engineers and technicians in Austria (Bauingenieure und Bautechniker, Baumaschineningenieure und Baumaschinentechniker) structures of construction sector qualifications in France and Lithuania. In France, for example, the closest analogue to this qualification would be a high technician of construction technical-economic engineering (in charge of carrying out the technical-economic feasibility studies concerning the development of construction/installation "project", which includes determining the technical processes, methods of organization, implementation and flow-up of their costs. This includes undertaking, according to experience, related supervisory responsibilities). But this qualification is attributed to the EQF level 6. It is interesting, that the qualification of the construction engineer today is almost inexistent in Lithuania (maybe it is due to the changes in the work organization and technologies in the construction sector permitting wider multi-skilling and driving more attention to the managerial and not engineering functions), but when this qualification was present in the sector, it included the higher education and could be adhered to the EQF levels 6 or 7. This example demonstrates, that seeking to understand the differences of sectoral qualifications between countries it is not sufficient to analyse only the maps of qualifications. Such analysis also requires to look more deeply into the structures of the qualifications themselves and to compare these structures of the analogical qualifications of the different countries. It will be done in the next chapter of this report.

2.2.3. Hospitality sector, countries – Czech Republic, Ireland, Lithuania

Map of qualifications in the hospitality sector of Czech Republic

Qualifications in the subsector of restaurants are grouped according to the 3 rather big occupations: cooking, waiter work and management of restaurant.

1. Cooking qualifications:

Kitchen helper (EQF 2)

Cook for dumpling production (EQF 2)

Cook for preparation of fast food (EQF 2)

Cook - distributor (EQF 2)

The following requirements of the performance of activity and characteristics of activities permit to ascribe these qualifications to the EQF level 2:

Familiarity (be familiar)with work procedures and technological standards, selection of appropriate procedures, selection of appropriate raw materials, assessment of quality of work and products, diagnostics of technological problems or while operating machines and equipments, application of correct technological procedures.

Cook preparing the hot meals (EQF 3)

Cook preparing the cold meals (EQF 3)

Cook preparing the meals to order (EQF 3)

Cook producing of desserts in restaurants (EQF 3)

Restaurant industry worker (EQF 3)

The following requirements of the performance of activity and characteristics of activities permit to ascribe these qualifications to the EQF level 3:

Familiarity with work procedures and technological standards and their proper usage, selection of appropriate technological procedures, selection of appropriate raw materials, assessment of quality of work and products, diagnostics of technological problems, recognition of possible results of applied measures and suggestion of solution, application of correct technological procedures according to various conditions and requirements.

Head of production – head chef (EQF4)

The following requirements of the performance of activity and characteristics of activities permit to ascribe these qualifications to the EQF level 4:

Familiarity with norms, documentations, standards and legal regulations used in sector, selection of appropriate procedures, selection and usage of appropriate raw materials according to desired results, assessment of quality of products and services and finding causes of shortcomings and finding solution for further progress. When problems arise, ability to recognise context of possible social aspects with respective problems, determination of causes of non standard behaviour and situations in own activity, judging the relevance of information, evaluation of the results of other activities with a view to their application to procedures and methods and their modification in response to various conditions and desired outcomes, integration of specialised knowledge in problem solving, suggestion of improvements and new procedures and products, leadership of activities of small team that applies chosen procedures according to given conditions and requirements.

2. *Waiter qualifications:*

Assistant waiter (EQF 2)

The following requirements of the performance of activity and characteristics of activities permit to ascribe this qualification to the EQF level 2:

Familiarity with procedures and standards, selection of appropriate procedures, selection and usage of appropriate raw materials and equipment, assessment of quality of work and services, recognition of problems arising during work procedures or operating equipment, application of basic serving techniques.

Waiter of basic serving (EQF 3)

Waiter of advanced serving (EQF 3)

Restaurant industry worker (EQF 3)

Bartender (EQF 3)

Sommelier (EQF 3)

The following requirements of the performance of activity and characteristics of activities permit to ascribe this qualification to the EQF level 3:

Familiarity with procedures of serving and their usage, selection of appropriate equipment, selection of appropriate raw materials, assessment of quality of products and services, finding causes of shortcomings and problem solution diagnostics of technological problems, recognition of possible results of applied measures and suggestion of solution, application of correct technological procedures according to various conditions and requirements.

3. Restaurant management qualifications:

Front of house manager (EQF 4)

The following requirements of the performance of activity and characteristics of activities permit to ascribe this qualification to the EQF level 4:

Familiarity with norms, documentations, standards and legal regulations used in sector, selection of appropriate procedures, selection and usage of appropriate raw materials according to desired results, assessment of quality of products and services and finding causes of shortcomings and finding solution for further progress. When problems arise, ability to recognise context of possible social aspects with respective problems, determination of causes of non standard behaviour and situations in own activity, judging the relevance of information evaluation of the results of other activities with a view to their application to procedures and methods and their modification in response to various conditions and desired outcomes, integration of specialised knowledge in problem solving, suggestion of improvements and new procedures and products, leadership of activities of small team that applies chosen procedures according to given conditions and requirements.

Manager of the food preparation and serving sector (EQF 5)

The following requirements of the performance of activity and characteristics of activities permit to ascribe this qualification to the EQF level 5:

Familiarity with documentations, norms, regulations and procedures used in the sector, selection of appropriate procedures, methods, means, raw materials from several possibilities according to desired results and conditions, assessment of quality of products and services, determining causes of shortcomings and finding solution, recognition of possible problems when applying chosen procedures and methods, determining causes of problems and suggestion of solutions, ability to recognise context of possible social aspects when solving problems, analysis of causes of non standard behaviour and their context, analysis of common problems, occurrences and procedures. Judging the relevance of specialised information, evaluation of the results of other activities with a view to their application, application of various procedures in response to various conditions and desired outcomes including the social point of view, solving problems related to generalisation and abstract thinking, integration of specialised knowledge in problem solving, suggestion of new procedures and products, leadership of a team in complex professional activities in unpredictable conditions.

Subsector of hotels has the following qualifications:

Doorman (EQF 2)

Maid (EQF 2)

The following requirements of the performance of activity and characteristics of activities permit to ascribe this qualification to the EQF level 2:

Familiarity with procedures and standards, selection of appropriate procedures, selection and usage of appropriate raw materials and equipment, assessment of quality of work and services, recognition of problems arising during work procedures or operating equipment, application of basic serving techniques.

Private accommodation manager (EQF 3)

Housekeeping manager (EQF 3)

The following requirements of the performance of activity and characteristics of activities permit to ascribe this qualification to the EQF level 3:

Familiarity with work procedures and using them, selection of appropriate materials, assessment of quality of work and services, determining causes of shortcomings and finding optimal solution (procedure), diagnostics of problems, recognition of possible results of applied measures and suggestion of solution, finding causes of non standard behaviour of guests, application of chosen procedure in response to various conditions and requirements.

Concierge (EQF 4)

Management of small accommodation facilities (EQF 4)

Head of the accommodation sector (EQF 4)

The following requirements of the performance of activity and characteristics of activities permit to ascribe this qualification to the EQF level 4:

Familiarity with norms, documentations, standards and legal regulations used in sector, selection of appropriate procedures, selection and usage of appropriate raw materials and equipment according to desired results, assessment of quality of products and services and finding causes of shortcomings and finding solution for further progress. When problems arise, ability to recognise context of possible social aspects with respective problems, determination of causes of non standard behaviour and situations in own activity, judging the relevance of information evaluation of the results of other activities with a view to their application to procedures and methods and their modification in response to various conditions and desired outcomes, integration of specialised knowledge in problem solving, suggestion of improvements and new procedures and products, leadership of activities of small team that applies chosen procedures according to given conditions and requirements.

Manager of hotel services (EQF 5)

The following requirements of the performance of activity and characteristics of activities permit to ascribe this qualification to the EQF level 5:

Familiarity with documentations, norms, regulations and procedures used in the sector, selection of appropriate procedures, methods, means, raw materials from several possibilities according to desired results and conditions, assessment of quality of products and services, determining causes of shortcomings and finding solution, recognition of possible problems when applying chosen procedures and methods, determining causes of problems and suggestion of solutions, ability to recognise context of possible social aspects when solving problems, analysis of causes of non standard behaviour and their context, analysis of common problems, occurrences and procedures. Judging the relevance of specialised information, evaluation of the results of other activities with a view to their application, application of various procedures in response to various conditions and desired outcomes including the social point of view, solving problems related to generalisation and abstract thinking, integration of specialised knowledge in problem solving, suggestion of new procedures and products. Leadership of a team in complex professional activities in unpredictable conditions.

Analysing the map of the qualifications in the hospitality sector of Czech Republic there can be stated that it is a low skilled sector – most of the qualifications can be attributed to the EQF levels 2, 3 and 4. Only two qualifications from the management occupations can be attributed to the EQF level 5:

Manager of the food preparation and serving sector (EQF 5)

Manager of hotel services (EQF 5)

Some wider groups of qualifications are grouped according to the specializations in the execution of concrete activities of the occupation, as, for example: *Cook for dumpling production (EQF 2)*, *Cook for preparation of fast food (EQF 2)*, *Cook - distributor (EQF 2)*, *Cook preparing the hot meals (EQF 3)*, *Cook preparing the cold meals (EQF 3)*, *Cook preparing the meals to order (EQF 3)*, *Cook producing of desserts in restaurants (EQF3)*.

There also can be noted, that the criteria for the attribution of the level in some lower levels are quite high, for example, level 2 qualifications encompass assessment of quality of work and services, level 3 qualifications include diagnostics of problems, recognition of possible results of applied measures and suggestion of solution, finding causes of non standard behaviour of guests.

Map of qualifications in the hospitality sector of Ireland

Hospitality sector of Ireland consist of the following occupations and qualifications:

Sub-sector of the hotels and guesthouses

1. Cleaning of the hotel and its facilities

Qualifications:

Housemaid (cleaning and ordering of the rooms of hotel) (NFQ Level 4; EQF Level 3)

Cleaner Supervisor (cleaning and ordering of the rooms of hotel, coordination and supervision of the work of housemaids, accounting of the materials and means of cleaning) (NFQ Level 5; EQF Level 4)

2. Welcoming and reception of the guests and visitors

Qualifications:

Receptionist (meet and greet guests, check in, check out, organise bill payment) (NFQ Level 4; EQF Level 3)

Maître d'hôtel (administrator) (meeting and accompanying of the hotels guests, maintenance of the order in the hotel, servicing of the guests during their stay, coordination of the activities of other employees, selling of the hotel services, work with documents) (NFQ 6; EQF Level 5)

3. Room reservation

Qualifications:

Reservations Manager (selling of the hotel services, coordination of staff, work with documents) (NFQ Levels 6 and 7; EQF Level 5 and 6)

4. Management of hotel

Qualifications:

Hotel Manager (strategic planning, organization and control of the hotel activities, reporting of the results of activities, representation of the hotel) (NFQ Level 8; EQF Level 6)

Subsector of the bars and restaurants

1. Primary preparation of the products and raw materials

Qualifications:

Kitchen Assistant (washing of dishes, primary food preparation, maintenance of hygiene in the kitchen etc) (NFQ Level 3, EQF Level 2)

2. Cooking - making of dishes and confectionary products

Qualifications:

Cook (cooking and finishing off the dishes, maintaining hygiene in the kitchen, work with documents) (NFQ Level 4; EQF Level 3)

Cook (cooking and finishing off the dishes, maintaining hygiene in the kitchen, planning and organization of the work in the kitchen, work with documents) (NFQ Level 6; EQF Level 5)

3. Servicing the guests of the restaurant and bar

Qualifications:

Bar staff (serving of guests at the bar, maintenance of the bar) (NFQ Level 4; EQF Level 3)

Bar supervisor (serving of guests at the bar, maintenance of the bar, supervising bar service operations) (NFQ Level 6; EQF Level 5)

Waiting Staff (reception of the guests, serving of meals, maintenance of the restaurant room) (NFQ Level 4, EQF Level 3)

Restaurant Supervisor (reception of the guests, serving of meals, restaurant supervision, maintenance of paperwork) (NFQ Level 6, EQF Level 5)

4. Restaurant and Bar Management

Qualifications:

Bar Manager (organization and control of the work of auxiliary staff of bar, selling of the services of bar, organization of the supplies of products and services, work with documents) (NFQ Level 7 and 8; EQF Level 6)

Restaurant Manager (organization and control of the work of auxiliary staff of restaurant, selling of the services of restaurant, organization of the supplies of products and services, work with documents)(NFQ Level 7 and 8; EQF Level 6)

The structure and contents of the hospitality sector qualifications is very similar to that of Czech Republic. Maybe the only distinguished feature is comparatively small number of qualifications in the occupations of the sector.

Map of qualifications in the hospitality sector of Lithuania

The hospitality sector of Lithuania consists of the following sub-sectors, occupations and qualifications:

Subsector of hotels

1. Cleaning of the hotel facilities and maintenance of the property and cleanness in the hotel.

Qualifications:

Cleaner, charwoman (cleaning and supervision of the property in the common facilities of the hotel - EQF2)

Housemaid (cleaning and ordering of the rooms of hotel - EQF3)

Senior housemaid (cleaning and ordering of the rooms of hotel, coordination and supervision of the work of housemaids, accounting of the materials and means of cleaning - EQF4)

2. Welcoming and reception of the guests and visitors

Qualifications:

Doorkeeper (meeting and accompanying of the hotels guests, maintenance of the order in the hotel - EQF3).

Porter (meeting and accompanying of the hotels guests, surveillance of the order in the hotel, servicing of the guests during their stay - EQF3).

Maître d'hôtel (administrator) (meeting and accompanying of the hotels guests, maintenance of the order in the hotel, servicing of the guests during their stay, coordination of the activities of other employees, selling of the hotel services, work with documents - EQF5). This activity includes exercise of complex tasks in the context of work with unpredictable change applying comprehensive, specialised, factual and theoretical knowledge and a comprehensive range of practical skills and experience in the field.

Chief maître d'hôtel (senior administrator) (management and coordination of the activities of other employees, selling of the hotel services, work with documents, meeting and accompanying of the hotels guests, maintenance of the order in the hotel, servicing of the guests during their stay - EQF6). This activity includes management of complex organizational and professional activities and processes, decision making in unpredictable work contexts using advanced knowledge of a field of work including critical understanding of principles.

Manager of the reception service (organization of the work of reception service, work with documents, servicing of the guests, control of the general order in the hotel, selling of the hotel services - EQF6).

3. Keeping the property of the hotel

Qualifications:

Steward (ensuring satisfaction and accounting of the needs of hotel property, coordination of the cleaning activities, organization and control of the work of other employees of the hotel maintenance - EQF5).

Manager of the room service (ensuring satisfaction and accounting of the needs of hotel property, coordination of the cleaning activities, organization and control of the work of other employees of the hotel maintenance, supervision of the general order in the hotel, work with documents - EQF6).

4. Organization of the conferences and events

Qualifications:

Conference attendant (preparation of the coffee brakes, lunches and fourchets, maintenance of the general order in the conference rooms - EQF3).

Technical assistant of conferences and events (preparation of the conference rooms, maintenance of the general order in the conference rooms - EQF4).

Administrator of the conference centre (coordination and regulation of the work of employees involved in the organization of conferences, informing of customers, supervision of the ordering of food, beverages and dish, control and supervision of the exploitation of the conference equipment, cooperation with the manager-coordinator of the conferences- EQF5).

Manager-coordinator of the conference centre (selling of the conference services, organization of the preparation of conference rooms - EQF5).

Chief administrator of the conference centre (coordination and regulation of the work of employees involved in the organization of conferences, coordination of the activities of conference information centre, work with documents, organization and coordination of the sales of conference services - EQF6).

Manager of the conference centre (work organization of the employees of conference centre, planning of the activities of conference centre, cooperation with the customers and suppliers - EQF6).

5. Room reservation

Qualifications:

Manager of reservations (selling of the hotel services, coordination of orders, work with documents - EQF5).

6. Management of hotel

Qualifications:

General manager of the hotel (strategic planning, organization and control of the hotel activities, reporting of the results of activities, representation of the hotel - EQF7). This activity includes management and transforming complex work contexts requiring new strategic approaches, taking the responsibility for reviewing the strategic performance of organization.

Subsector of restaurants

1. Washing of dish

Qualifications:

Dishwasher (washing of dish, cleaning and ordering of the prescribed facilities - EQF2).

2. Cleaning of the restaurant facilities

Qualifications:

Cleaner (cleaning of the restaurant room, kitchen, toilets and auxiliary facilities - EQF2).

3. Primary preparation of the products and raw materials

Qualifications:

Kitchen worker (washing of dish, assistance in maintaining the cleanness and proper ness in the kitchen, primary preparation of food products - EQF2).

4. Supply of products and materials

Qualifications:

Supplier (supply of food products and other goods - EQF3).

5. Cooking - making of dishes and confectionary products

Qualifications:

Pizza baker (baking of pizza and maintaining the cleanness in the kitchen - EQF3).

Cook (cooking and finishing of the dishes, maintaining of the cleanness in the kitchen, work with documents - EQF3).

Confectioner (making and finishing of the confectionary products, maintaining of the cleanness, work with documents - EQF3).

Cook (cooking and finishing of the dishes, planning and organization of the work in the kitchen, maintaining of the cleanness in the kitchen, work with documents - EQF4).

Confectioner (making and finishing of the confectionary products, maintaining of the cleanness, work with documents, planning and organization of work of other employees - EQF4).

Senior cook (cooking and finishing of the dishes, planning and organization of the work in the kitchen, keeping the order in the kitchen maintaining of the cleanness in the kitchen, work with documents - EQF4).

Chief of the kitchen (cooking and finishing of the dishes, planning and organization of the work in the kitchen, keeping the order in the kitchen maintaining of the cleanness in the kitchen, work with documents - EQF5).

Senior confectioner (making and finishing of the confectionary products, maintaining of the cleanness, work with documents, planning and organization of work of other employees - EQF5).

6. Servicing the guests of the restaurant

Qualifications:

Barmen (serving of the guests at the bar, maintenance of the bar, work with documents - EQF3).

Waiter (reception of the guests, serving of meals, maintenance and supervision of the restaurant room - EQF3).

Barmen (serving of the guests at the bar, preparation of drinks and light meals, maintenance of the bar, work with documents - EQF4).

Waiter (reception of the guests, serving of meals, maintenance and supervision of the restaurant room - EQF4).

Administrator of the restaurant room (reception of the guests, serving of the meals, organization, coordination and control of the work of waiters and barmen, maintenance and supervision of the restaurant room, control of acceptance and execution of advance orders, work with the documents, cashier control - EQF5).

7. Management of restaurant

Qualifications:

Manager of restaurant (organization and control of the work of auxiliary staff of restaurant, selling of the services of restaurant, organization of the supplies of products and services, work with documents - EQF6).

Food production technologist (creation of the recipes of meals and designing of menu, organization of the work of cooks and confectioners and quality control, planning of the production and technological activities of restaurant, work with documents - EQF6).

Managing director of restaurant (planning of activities and profit of restaurant, organization and control of work of staff, work with documents - EQF6).

Analysing the structure of the qualifications in the hospitality sector of Lithuania there can be noted very rich variety of qualifications in the both sub-sectors. Some qualifications are quite narrowly specialised – like pizza baker, confectioner, and conference attendant. In general there also can be noted rather big variety of the qualifications of higher levels compatible with the EQF levels 5, 6 or even 7.

2.2.4. Comparability of the *maps* of qualifications in the hospitality sectors of Czech Republic, Ireland and Lithuania

Comparing the structure of the qualifications in the hospitality sector of Czech Republic, Ireland and Lithuania there can be discerned the following similarities and differences:

1. With the exception of the case of Lithuania the sector of hospitality is a low skilled sector, dominated by the qualifications comparable to the EQF levels 3 and 4.
2. The content of qualifications in general is quite easily comparable between the partners' countries, especially in the lower levels of qualifications. The criteria for the definition of qualifications levels in the EQF are quite sufficient for the comparison of the qualifications in this sector in partners' countries.
3. More complicated cases of comparison are encountered when comparing the qualifications of the higher levels. Here are several examples of this case:

Compared qualification	Czech Republic	Ireland	Lithuania
Senior cook (chef)	<p><i>Head of production – head chef (EQF4)</i></p> <p>Familiarity with norms, documentations, standards and legal regulations used in sector, selection of appropriate procedures, selection and usage of appropriate raw materials according to desired results, assessment of quality of products and services and finding causes of shortcomings and finding solution for further progress. When problems arise, ability to recognise context of possible social aspects with respective problems, determination of causes of non standard behaviour and situations in own activity, judging the relevance of information, evaluation of the results of other activities with a view to their application to procedures and methods and their modification in response to various conditions and desired outcomes, etc.</p>	<p><i>Cook</i> (cooking and finishing off the dishes, maintaining hygiene in the kitchen, planning and organization of the work in the kitchen, work with documents) (NFQ Level 6; EQF Level 5)</p>	<p><i>Chief of the kitchen</i> (cooking and finishing of the dishes, planning and organization of the work in the kitchen, keeping the order in the kitchen maintaining of the cleanness in the kitchen, work with documents - EQF5).</p>
Hotel administrator	<p><i>Management of small accommodation facilities (EQF 4)</i></p> <p>Familiarity with norms,</p>	<p><i>Maître d'hôtel (administrator)</i> (meeting and accompanying of the hotels guests, maintenance of the order in the hotel, servicing of the</p>	<p><i>Maître d'hôtel (administrator)</i> (meeting and accompanying of the hotels guests, maintenance of the order in the hotel, servicing</p>

<p>documentations, standards and legal regulations used in sector, selection of appropriate procedures, selection and usage of appropriate raw materials and equipment according to desired results, assessment of quality of products and services and finding causes of shortcomings and finding solution for further progress. When problems arise, ability to recognise context of possible social aspects with respective problems, determination of causes of non standard behaviour and situations in own activity, judging the relevance of information evaluation of the results of other activities with a view to their application to procedures and methods and their modification in response to various conditions and desired outcomes, etc.</p> <p><i>Manager of hotel services (EQF 5)</i></p> <p>Judging the relevance of specialised information, evaluation of the results of other activities with a view to their application, application of various procedures in response to various conditions and desired outcomes including the social point of view, solving problems related to generalisation and abstract thinking, integration of</p>	<p>guests during their stay, coordination of the activities of other employees, selling of the hotel services, work with documents) (NFQ 6; EQF Level 5)</p>	<p>of the guests during their stay, coordination of the activities of other employees, selling of the hotel services, work with documents - EQF5). This activity includes exercise of complex tasks in the context of work with unpredictable change applying comprehensive, specialised, factual and theoretical knowledge and a comprehensive range of practical skills and experience in the field.</p> <p><i>Chief maître d'hôtel (senior administrator)</i> (management and coordination of the activities of other employees, selling of the hotel services, work with documents, meeting and accompanying of the hotels guests, maintenance of the order in the hotel, servicing of the guests during their stay - EQF6). This activity includes management of complex organizational and professional activities and processes, decision making in unpredictable work contexts using advanced knowledge of a field of work</p>
---	--	--

	specialised knowledge in problem solving, suggestion of new procedures and products. Leadership of a team in complex professional activities in unpredictable conditions.		including critical understanding of principles.
--	---	--	---

3. The comparative analysis of the structure and contents of qualifications in terms of the units of qualifications (or similar elements) and competences

Such analysis should start from the general evaluation of the fact how the partners succeeded to analyse the contents of their selected qualifications in the sectors according to the proposed structure indicated in the following table:

Qualification:	Competences constituting the units of qualification / or qualification as a whole			Which competences are determinant for the attribution of qualification to the certain level in the sectoral framework or hierarchy of qualifications?
	Functional	Cognitive	General	

It is important to know, whether the existing internal structure of the qualifications in the sectors can be analysed using one model, or it is too different between the countries and requires different approaches of comparison. Comparing the structures of qualifications in the construction and hospitality sectors in Lithuania, Austria, Czech Republic, France and Ireland there can be noticed specific characteristics of these structures.

3.1. Analysis of the internal structures of qualifications in the partners' countries

Austria

There is presented case of the qualification of construction worker - bricklayer. There are discerned two types of this qualification:

1. "Hochbauer" is a new term for "Maurer" and can be translated as bricklayer or mason. Sectoral level II b (=Facharbeiter), best fit EQF 4.
2. "Tiefbauer" can be translated as Construction worker. Similar to "Hochbauer", but more to infrastructural buildings (e.g. foundations, tunnels, roads, bridges, railroads, power plants ...). Specialised in reinforced concrete and steel

constructions, advanced construction techniques. Sectoral level II a.)
"Vorarbeiter, Level II b.)" "Facharbeiter" best fit EQF 4.

There can be discerned two types of the work tasks:

- Work tasks requiring one type of competences – functional, cognitive or general. Usually these work tasks are very simple and belong to the preparatory stage of the work execution (to prepare the workplace, to clean, etc.).
- Work tasks requiring combining several types of competences, especially combinations of cognitive and functional competences (for example, to define the demand of materials, to prepare the concrete mix, to execute the simple bricklaying constructions, to preserve the brick constructions, to build the light walls etc.). Usually such work tasks are more complex and require more complicated combinations of the different competences.

Analysed qualification of the bricklayer includes the competences which can be adhered to the EQF qualifications levels 3 and 4.

Cognitive Competence Level 3: knowledge of facts, basics, general concepts and subjects in the field of work and learning.

Example: basic knowledge about the construction materials; basic knowledge about the storage requirements of the construction materials; knowledge about the preservation of the construction materials

Functional Competence Level 3: cognitive and practical skills needed for the execution of tasks and solving of problems, ability to choose and to apply basic methods, tools, materials and information.

Example: to be able to assist in measuring; to use the required measuring devices and auxiliary materials; to perform the adjustments with the help of scale or measuring band.

Cognitive Competence Level 4: wide range of theoretical and factual knowledge in the field of work and learning.

Example: knowledge of the types, qualities and the possibilities of application and processing of the construction materials; knowledge of their identification and description, typologies, forms and transporting qualities.

Functional Competence Level 4: cognitive and practical skills needed for the solution of the specific problems in the work and learning.

Example: to be able to use and apply the tools, equipment, construction machines and auxiliary measures; correctly store the tools and measuring equipment; to use the right exploitation materials; to be able to clean and preserve the tools and equipment ; to perform simple repair or technical servicing of the machines and equipment.

Analysing the quantitative distribution of these competences in the qualifications of the *Hochbauer* and *Tiefbauer* there can be noticed the following:

1. Cognitive competences of the level 3: 6 units in the qualification of *Hochbauer* and 18 units in the qualification of *Tiefbauer*.
2. Cognitive competences of the level 4: 24 units in the qualification of *Hochbauer* and 19 units in the qualification of *Tiefbauer*.
3. Functional competences of the level 3: 4 units in the qualification of *Hochbauer* and 1 unit in the qualification of *Tiefbauer*.
4. Functional competences of the level 4: 13 units in the qualification of *Hochbauer* and 10 units in the qualification of *Tiefbauer*.

Analysing these data there can be noticed that the qualification of the *Tiefbauer* includes almost equal volumes of the cognitive competences of the levels 3 and 4 (18:19), while in the qualification of the *Hochbauer* the cognitive competences of the level 4 clearly predominate over the competences of the level 3 (24 units against 6 units). The distribution of the functional competences of the levels 3 and 4 clearly indicates the domination of the level 4 competences in the both types of qualification. It is also noticeable that the *Tiefbauer* has more units of cognitive competences than the *Hochbauer* - 37: 30, but *Hochbauer* has more units of the functional competences

than *Tiefbauer* – 17:11. We can conclude from this that the work tasks in the qualification of the *Tiefbauer* demands more developed knowledge basis (abilities to apply the theoretical and factual knowledge in the execution of the work tasks) than the work tasks in the qualification of *Hochbauer*. It can be explained by the specificity of the work contents of the *Tiefbauer* (specific work environment and conditions), which poses specific requirements related to the work safety, application of materials and equipment.

There can be noticed that the general competences are not discerned separately but they are integrated in the units of the functional and cognitive competences.

France

There can be discerned the following characteristics of the structure of qualification in the construction sector of France:

1. Competences are classified into 3 types:

- Technical core competences, corresponding to functional competences. Examples: Manipulating construction materials, tools and equipment (on the construction site), Digging and laying down the building foundations, Concrete preparation, mixing and/or homogenisation, Sketching masonry tasks to be performed and determining required materials, tools and equipment, bricklaying and grouting.
- Capacities (cognitive, social and physical), corresponding to cognitive and general competences. Examples: ability of handling loads, supporting bad weather and heat, ability to use basic maths and geometry skills to calculate, sketch and measure areas and volumes with accuracy, ability to apply knowledge about concrete setting times, methods of laying and finishing, ability to apply knowledge about different types of grouting products and materials used in bricklaying, their composition, their qualities and ways of using them, including methods and practices of quality and safety controls, ability to work methodologically and carefully (through implementing security instructions).
- Associated transversal competences, corresponding to complementary functional, cognitive and general competences, which can be applied in the different work contexts and workplaces. Examples: conducting machines and equipments of transportation, demolition, digging, carriage and storage, driving licence, general knowledge in welding and plumbing,

familiarity with basic concepts in security, mechanics and electricity, having a driving licence.

It is difficult to define the weight of these types of competences in the qualification, especially in defining the level of qualification. It seems, that for the qualification corresponding to the levels 3 or 4, all above listed types of competences have almost equal importance for the execution of the work tasks, maybe with a little higher importance and weight of the technical core competences and associated transversal competences. Besides, the competences are not prescribed to the levels of qualification. It poses some difficulties in comparing the contents of qualification to the qualifications of the other countries.

Qualification	Competences constituting the units of qualification / or qualification as a whole			Which competences are determinant for the attribution of qualification to the certain level in the sectoral hierarchy of qualifications?
	Technical core competences	Capacities (cognitive, social and physical)	Associated transferable competences	
4. Masonry (bricklaying) (ROME: occupation/qualification code n°: 42114)	<p>T4a- Sketching masonry tasks to be performed and determining required materials, tools and equipment.</p> <p>T4b- Preparation and mixing of mortars, grouts and other bonding agents</p> <p>T4c- Measuring and cutting of required building blocks: bricks, stones, tiles, marbles, etc.</p> <p>T4d- Transportation of bricks and bonding products to assembly location by wheelbarrow or forklift.</p> <p>T4e- Measuring the size of the wall, levelling and determining the amount of</p>	<p>C4a- Ability to use basic maths and geometry skills to measure, to sketch and calculate angles, areas and volumes with accuracy.</p> <p>C4b- Ability to apply knowledge about different types of grouting products and materials used in bricklaying, their composition, their qualities and ways of using them, including methods and practices of quality and safety controls.</p> <p>C4c- Ability to work near vacuum and adaptability to team working and their frequent changes</p> <p>C4d- Physical ability of handling loads</p> <p>C4e- Ability to work</p>	<p>G4a- Familiarity with basic concepts in security, mechanics and electricity.</p> <p>G4b- Conducting transportation and lifting machines and equipments.</p> <p>G4c- Having a driving licence</p>	<p>Basically all core technical competences and capacities (especially T4a, T4C, T4e, T4f, T4h, C4a, C4b, C4e), including associated competences (especially G4a) for qualified (professional) bricklayer.</p>

	<p>spacing required between bricks, including the installation of angle iron around the base of the wall to support load of bricks using hammer drill and wedge anchors.</p> <p>T4f- Bricklaying and grouting.</p> <p>T4g- Washing bricks with acid and water removing mortar from bricks, and providing a clean finish</p> <p>T4h- quality and safety controls.</p>	<p>methodologically and carefully (through implementing security instructions).</p>		
--	--	---	--	--

Lithuania

There can be discerned the following characteristics of the structure of qualification in the construction sector of Lithuania:

1. Competences are classified into 3 types:

- Cognitive competences, involving the ability to use special factual knowledge in a professional activity (materials, techniques, tools and instruments, etc.), ability to use the methodical knowledge (planning and management of activity, quality standards and quality management, occupational safety requirements, environmental requirements, etc.), ability to employ in practice the multi-purpose knowledge (foreign languages, economics, law, information science etc.).

- Functional competences, which involve the ability to perform specific tasks, operations and functions of activity.

- General competences, which involve multi-purpose skills of a wide range of application, development of which is mostly based on personal qualities. General competences can be classified in the different categories: formal cognitive competences (analytical, critical, systemic thinking, creativity, learning skills etc.), formal psychomotor competences (fast reaction, good coordination of movements), personal competences (accuracy, responsibility, honesty, self-confidence, etc.), social competences (communication skills, tolerance, team working skills, leadership skills, etc.), ethical competences, as abilities to follow socially accepted norms of behaviour and communication.

2. The competences of the each type has the different weight in the different levels of qualifications:

Bricklayer qualification of the level 2:

- Functional competences are the most important for the execution of relatively simple tasks in the homogenous and simple work context. Therefore the simple functional competences define the level of qualification. For example: *to mason the simple structures (walls, etc.) ensuring the right vertical and horizontal positioning.*

- Cognitive competences are closely related to the execution of simple work tasks and work context. The content of the cognitive competences is rather narrow. For example: *to apply the knowledge about the technology of masonry work, ways of bricklaying and finishing of masonry.*

- Physical and psychomotorical qualities make the basis of general competences. For example: *good reactive ness, physical strength and ability to work in height.*

Bricklayer qualification of the level 3:

- Increasing complexity and variability of activity requires more complex combinations of functional and cognitive competences. These combinations of functional and cognitive competences are defined by the technology of work.

- Cognitive competences include the application of specific and general education knowledge. The content of the cognitive competences is wider and includes introductory knowledge of technologies, calculations. For example: *to apply the knowledge on the selection and dosing of the materials preparing the grout; knowledge about the qualities of grout and the influence of the air conditions for the grout, application of the additives against freezing etc.; about the preparation of the chalk and clinker grout.*

- The functional competences remain the most important for the attribution of qualification to a certain level of hierarchy.

- Physical and psychomotorical qualities make the basis of general competences.

Bricklayer qualification of the level 4:

- Increasing complexity and variability of activity requires more complex combinations of functional and cognitive competences. Synthesis of functional and cognitive competences is crucial for the execution of tasks.

- Cognitive competences include the application of wide range special knowledge and general knowledge. The content of the cognitive competences is wider and includes technologies, calculations, general knowledge of natural sciences (chemistry, physics). For example: *to apply the knowledge about the technologies of bricklaying and masonry, different kinds of joints of bricks, finishing of masonry, masonry of chimneys and outlet channels, reinforcement and anchoring of masoned structures, decorative masonry, tolerances and allowed deviations of the masonry.*

- The general competences are widened by the social skills.

Czech Republic

There can be discerned the following characteristics of the structure of qualification in the sector of hospitality in the Czech Republic:

1. The structure of qualifications well fits into the proposed model of the classification into the functional, cognitive and general competences.

2. Most of the qualifications in the hospitality sector have rather big variety of the functional and general competences, but the volume of the cognitive competences is relatively much lower. It can be explained by the nature of the activities in this sector, dominated by comparatively low-skilled occupations.

3. Functional competences are determinant for the attribution of qualification to the certain level in the sectoral hierarchy in the analysed qualifications of the hospitality sector. This can be also explained by the comparatively low-skilled nature of the sector activities. The general competences become more important and even determinant in the higher level qualifications, as for example in the case of the qualifications of the manager of the food preparation and serving sector, or the manager of hotel services. It is also interesting, that the general competences are levelled into 3 levels: 1 – elementary; 2 – intermediate; 3 – advanced.

4. The structure of qualifications is very clear, simple and transparent, providing the good possibilities to trace the transferability of the competences in the different qualifications and to compare the contents of the qualifications of the different levels (for example, attribution of the codes to the competences and qualifications).

Ireland

The structure of qualification in the case of Ireland is the most complicated and comprehensive of the all project partners' countries.

The descriptors of qualifications are broken down in three strands:

- knowledge (K), corresponding to the cognitive competences,
- know-how and Skills (S), corresponding to the functional competences,
- competences (C), corresponding to the general competences.

The strands are further broken down into eight sub-strands: knowledge is characterised by the breadth and kind, know –how and skill is characterised by the range and selectivity, competences are described with the categories of context, role and insight (see the table below). These categories are used for the setting of the typical learning outcomes which are associated with the qualification of the certain level.

Qualifications are divided into modules defined by specialised and general work tasks (for example, core culinary skills, breakfast cookery, contemporary-ethnic cuisine, Deli-Larder, pastry, etc.), each module consisting of the units indicating more narrow specialisation oriented towards the types of the results of activities (continental breakfast, full cooked breakfast, buffet breakfast), each unit having the range of the learning outcomes (understand and apply cookery processes such as boiling, braising, baking, roasting, grilling, steaming, stewing poaching, stir frying and micro-waving, identify the cuts and quality points of beef, bacon, pork, lamb, chicken, salmon, trout, cod, Plaice and Shellfish, recognise the quality points of a range of vegetables and potatoes, know how to prepare varied and palatable meals for vegetarians.

This structure of qualifications permits to describe the qualifications in the very comprehensive and detailed way, as well as to design the qualifications of the different contents by selecting different options of units and the learning outcomes. It is very useful for the learners enhancing their autonomy and independent decision making in

constructing of their qualifications and planning their acquisition process, as well as for the providers of training and employers, providing the comprehensive information for the modelling of the provided and needed qualifications. However, it poses rather important difficulties in making the comparisons with the contents of qualifications of the other countries. The description of the learning outcomes in many cases is rather wide and comprise the combinations of the theoretical knowledge, practical skills and general abilities, for example: *learners should be able to identify, prepare, present and serve breads, toasts, scones, pastries and preserves; juices, fruits, cereals, porridge and hot beverages; apply nutritional knowledge to menu planning, modifying recipes where appropriate to produce more nutritious menu items; comprehend and apply cost and quality control procedures as they apply to the production of pastes, breads and gateaux; identify a range of Irish and European cheeses, including quality points, and have the skills necessary to prepare and present a cheese board.* The number of the learning outcomes depends on the width and complexity of the units of qualification: the more complex and wide is the contents of the unit, the more learning outcomes belong to these units.

Table 1: Award-Type Descriptor for The Level 4 Certificate in Culinary Skills (NFQ Level 4)

Strands:		Knowledge		Know-how and Skill		Competence			
Sub-strands:		Breadth	Kind	Range	Selectivity	Context	Role	Learning to Learn	Insight
Typical Learning Outcomes:		Broad Range of Knowledge	Mainly concrete in reference and with some elements of abstraction or theory	Demonstrate a modest range of practical and cognitive skills and tools	Select from a variety of procedures and apply solutions to a variety of predictable problems	Act in familiar and unfamiliar contexts	Act with considerable amount of responsibility and autonomy	Learn to take responsibility for own learning within a supervised environment	Assume partial responsibility for consistency of self-understanding and behaviour

Level 4 Certificate in Culinary Skills	4	Plan a prepare a range of wholesome foods based on an understanding of the theory related to commodities and cooking processes (K1)	Have a theoretical knowledge required for an understanding of catering operations and systems (K2)	Demonstrate consistently the skills and understand of the relevant theory necessary for Larder/Deli work (S1a)	Demonstrate understanding, through application, of safe and hygienic practices in environmental hygiene, personal responsibilities and work (S2)	Demonstrate an understanding of the importance of customer care and good personal, interpersonal and professional communication skills (C1)	Respond appropriately to fire and first aid requirements (C2)	On completion of programme, participants will have worked in an established organisation/enterprise that has been deemed suitable to provide quality work experience. The learner will have participated in the work-related sector for a minimum period of 10 days (C3)	Students are taught to evaluate own performance and interaction with others. Personal skills include appropriate dress, adaptability, reliability, punctuality, health and safety awareness and appropriate use of initiative (C4)
				Demonstrate consistently the skills and understand of the relevant theory necessary for Pastry work (S1b)					

3.2. Comparison of the structures of qualifications in the sectors of construction and hospitality of Austria, France, Lithuania, Czech Republic and Ireland

Comparing the structures of qualifications in the sectors of construction and hospitality in the project partners countries there can be discerned the following similarities and differences which influence the comparability of the contents of qualifications from the different sectors and countries:

1. Similarities, which increase the comparability of the contents of qualifications between countries:

a. The structure and contents of qualifications in the analysed countries are based on learning outcomes or competences. In France, Austria, Czech Republic and Lithuania the contents of qualifications is described using competences, Ireland – in terms of competences and learning outcomes.

b. There can be noticed some similarities between the countries in terms of the applied typologies of competences. These similarities are noticed in the descriptors of qualifications of Lithuania, Czech Republic and partially Austria. In these descriptors there can be found functional, cognitive and general competences. France uses a little different typology of competences, but it can also be comparable with the proposed typology of functional, cognitive and general competences: technical core competences correspond to functional competences, capacities (cognitive, social and physical), correspond to cognitive and general competences, associated transferable competences correspond to the functional, cognitive and general competences which can be applied in the different work contexts and workplaces. The case of Ireland is more complicated and different, despite of the fact, that the descriptors of qualifications of Ireland use the strands which by contents correspond to the proposed typology of competences: knowledge corresponds to the cognitive competences, know-how and skills correspond to the functional competences, competences correspond to the general competences.

c. The content of the qualifications of the similar levels is quite similar in terms of the autonomy and complexity of the tasks and required competences or learning outcomes. It is clear from the analysis of the adherence of the competences to the levels of the EQF (where the competences have the prescribed levels to the EQF) and these similarities are very clear from the comparison of the descriptors of qualifications of construction sector of Austria, Lithuania and France (similar work tasks and competences) and of the descriptors of hospitality sector of Czech Republic, Ireland and Lithuania. These similarities will be analysed and described in more thorough way in the further work-packages of the project.

2. Differences, which complicate comparison of the contents of qualifications between countries:

a. Differences caused by the different specific characteristics of the system of activities and vocational training. These differences are particularly evident analysing the descriptors of Austria and Ireland. In Austrian case it is the description of the

Hochbauer and *Tiefbauer* qualifications, in the case of Ireland it is the flexible structure of the descriptors of qualifications based on the units, modules and learning outcomes. The specific qualifications as *Hochbauer* and *Tiefbauer* can pose the problems in finding the analogues in the other countries, while the flexible structure of the qualification like in Ireland also can make difficulties in comparison, because it permits very wide variety of the possible sets of the learning outcomes making the contents of qualification.

b. Differences of the structures of qualifications caused by the different approaches to the structural parts of qualifications and their classification. For example, in the case of Austria competences are described in the integrated way as the units of qualification without the differentiation in the types, for example: *knowledge of the types, qualities, formats and applications of the natural and artificial stone; to install the connection structures suitable for the different types of walls; to construct the walls and masonry elements (Kenntnis der Arten, Eigenschaften, Formate und Verwendung natürlicher und künstlicher Steine; Einsetzen der richtigen Verbandsarten für Wände aller Art; Herstellen von Wänden und Mauerwerksteilen; Herstellen von Ausmauerungen)*. In case of Ireland the qualifications are described using complex structure based on competences, units of qualifications, modules and derived learning outcomes. There are also the above mentioned differences of the typologies of competences (the case of France). These differences pose certain difficulties in comparing the qualifications of the different countries, but they do not prevent from the comparison based on the analysis of the contents of qualifications in terms of requirements of activities (autonomy, complexity, technological requirements, etc.).

3.3. Possibilities of the EQF to be the effective measure in comparing the different sectoral qualifications

Through the analysis of the observed similarities and differences of the structures of the sectors of construction and hospitality in terms of occupations and qualifications and the structures of the qualifications in these sectors, there can be discerned the following possibilities of the effective use of EQF for the comparison of these qualifications:

1. The structure of the EQF descriptors based on the knowledge, skills and competence in the most cases was sufficient and helpful in comparing and prescribing the different sectoral qualifications to the certain EQF level despite of the specificities of the structures of the sectors in terms of occupations and qualifications and the structures of the qualifications in these sectors. Therefore the EQF can be regarded as an effective instrument for the comparison of the sectoral qualifications in the different countries.

2. One of the potential problems in the sectoral qualifications to the certain levels of the EQF is that the characteristics of the autonomy and responsibility sometimes are not sufficient for this purpose, and the characteristic of complexity of activity is not explicitly reflected in the EQF descriptors. For example, in the case of Austria such problem can be noticed in adhering the qualifications of construction engineers and technicians, construction machinery engineers and technicians, accounting and purchasing specialists. These activities are rather specialised and require autonomous and responsible work according to the general requirements and standards, but one of the main parameters distinguishing the levels of these qualifications is the complexity of activity.

3. Some difficulties appear in the cases when the descriptors of compared sectoral qualifications seem to have more or less different structure from the structure of the EQF descriptors. This is the case of the descriptors of qualifications in France. Here the qualifications are described basing on the typology of the technical core competences, corresponding to functional competences or skills, capacities (cognitive, social and physical), corresponding to cognitive and general competences, or knowledge and competence and associated transferable competences, corresponding to the skills, knowledge and competence which can be applied in the different work contexts and workplaces. It seems, that for the qualification corresponding to the EQF levels 3 or 4, all above listed types of competences have almost equal importance for the execution of the work tasks, maybe with a little higher importance and weight of the technical core competences and associated transferable competences.

4. Analysing the qualifications of the construction sector and, partially, from the hotels and restaurants sector of Lithuania there can be noticed one rather distinctive and important difference between the contents of qualifications which should be adhered to the levels 3 and 4 (EQF). First of all, the works tasks and competences required for the accomplishment of these tasks in the qualifications of the 3rd level in many cases are less numerous than in the qualifications of the 4th level and the complexity of contents of these tasks and competences is also quite lower in the level 3 than 4. Level 4 qualifications in many cases involve the application of the wider range of knowledge and skills in the accomplishment of more complex work tasks often related to the wider range

of options and variants of the execution and its results. For example, the bricklayer of level 3 makes simple masonry structures of several types (ex., walls), while the bricklayer of the level 4 can make wide range of different masonry structures including the sophisticated options like arches, arched ceilings etc. The further diversification of the variability of work tasks can also be noted in the level 5 but it is not as important and distinctive as between the levels 3 and 4. However, such characteristics are rather weakly represented in the EQF descriptors, i.e. these descriptors lack of the criteria for the levelling of qualifications according to the variability of tasks and their execution and complexity of the activity.

Referring to the previously discerned two dimensions of the comparability of the sectoral qualifications (the structures of the sectors of construction and hospitality in terms of qualifications and the structures of the qualifications in these sectors) the relationship between these two dimensions can be helpful for the evaluation of the comparability of sectoral qualifications and for the assessment of the potential of the EQF in the comparison of sectoral qualifications. There can be discerned the following typical cases of comparability for the each above mentioned dimension:

a. Comparability of the structures of sectors in terms of the qualifications.

1a. Smooth comparability of the structures of sectors in terms of the qualifications because of the similar occupational structure of the sectors and similar dispositions of the hierarchies of qualifications in the compared sectors (construction and hospitality sectors of Lithuania, Czech Republic, Ireland, France). This is especially valid for the areas of the lower levels of qualifications in the sectors. The possible reason of this situation is that the qualifications the sectors of these countries are grouped referring to the existing occupations in the sector.

2a. Comparison is possible, but due to the differences in the occupational structure and hierarchical structuring of qualifications caused by the different paths of development of the sectors in the compared countries it requires to apply certain methodical measures for referencing. It is the case of the Austria, where the basic reference for the grouping of qualifications is based on the levels of skills and types of the performed activities (unskilled, semi-skilled, skilled, specially skilled / auxiliary works, supervision and foreman work). Similar problems are encountered in comparing the higher level qualifications and their groups between the countries, when there can be difficult to find analogues of qualifications between the countries.

b. Comparability of the structures of qualifications in the sectors.

1b. Smooth comparability due to the similar structure and contents of qualifications, when the structure and contents of qualifications in the analysed sectors are based on learning outcomes or competences and when the applied typologies of competences are similar between the sectors in the different countries (the case of Lithuania, Czech Republic and partially Austria).

2b. Comparison requires additional efforts and methodical aids, because of the differences of the structure and contents of the descriptors of qualifications in the sectors and countries (differences of the descriptors of qualifications in France, Ireland, Lithuania and Austria). These differences are caused by the different specific characteristics of the system of activities and vocational training or by different approaches to the structural parts of qualifications and their classification.

The relationship of these dimensions creates certain sets of conditions for the comparison of sectoral qualifications and for the application of the EQF in the comparison of sectoral qualifications from the different countries (Table 2):

Possibilities of the application of the EQF in comparing the sectoral qualifications	1b. Smooth comparability of the structures of qualifications (the case of Lithuania, Czech Republic and partially Austria)	2b. Comparison of the structures of qualifications requires additional efforts and methodical aids, because of the differences of the structure and contents of the descriptors of qualifications in the sectors and countries (differences of the descriptors of qualifications in France, Ireland, Lithuania and Austria)
1a. Smooth comparability of the structures of sectors in terms of qualifications (construction and hospitality sectors of Lithuania, Czech Republic, Ireland, France)	Sectoral qualifications in the different countries can be compared relatively easy and this comparison does not require additional references and methodical aids. EQF can be used as the reference tool assuring correctness and precision of comparison.	The similarities of the structures of sectors in terms of qualifications permit to ignore the possibilities of the deviations of comparison related to the specificities of the sectors in the different countries. In this situation the EQF can be used as effective translation tool helping to overcome the differences of the structure and contents of the descriptors of qualifications in the sectors and countries.
2a. Comparison of the structures of sectors in terms of the qualifications is possible, but due to the differences in the occupational structure and hierarchical	In comparing the qualifications and defining the correspondence of their levels in the other countries it is important to consider the position of qualification in the	The most complicated case, because the differences of the occupational structure and hierarchical structuring of qualifications in the same sector between the countries and the differences of the structure and contents of the descriptors of

<p>structuring of qualifications caused by the different paths of development of the sectors in the compared countries it requires to apply certain methodical measures for referencing (case of the construction sector of Austria).</p>	<p>hierarchical structure of the “home” sector and its possible equivalent in the sector of the compared country. The EQF becomes an important tool in defining the equivalents of the level of qualification if the direct definition of the equivalents is not possible or complicated due to the important differences in the occupational structures of sector in the different countries.</p>	<p>qualifications in the sectors and countries together significantly increases the possibilities of mistakes and deviations in comparing the qualifications. In using the EQF for the comparison of qualifications it is very important to consider both the influence of the local occupational structure and hierarchical structuring of qualifications to the knowledge, skills and competence (in terms of autonomy and responsibility) of the compared qualifications, as well as to consider possible deviations in defining the equivalents of qualifications from the differing structures of their descriptors.</p>
--	--	---

Table 2. Relationship of the dimensions of the comparability of the sectoral qualifications and the possibilities for the application of the EQF in comparing the sectoral qualifications

Concluding remarks

Despite obvious and objective differences in the structures of the sectors of construction and hospitality in terms of occupations and qualifications and the structures of the qualifications in these sectors the main general and unifying factors are characteristics of activities and the learning outcomes defined by these characteristics. These unifying factors provide the basis for the comparison of the sectoral qualifications between the countries.

For this reason the European Qualifications Framework can be effective measure for the comparison of the different sectoral qualifications between the countries.

Nevertheless there still exists different possibilities for the improvement of the contents of the EQF descriptors which can increase its effectiveness in using as a tool of comparison of the sectoral qualifications: more comprehensive specification of the complexity of activity, further development of the criteria for the levelling of qualifications according to the variability of tasks and their execution and complexity of the activity, etc.

References

A Proposal for the Concept, Structure and Processes of the National Qualifications Framework (2008) Národní ústav odborného vzdělávání. Prague

Becker M., Spöttl G. (2008) Berufswissenschaftliche Forschung. Berufliche Bildung in Forschung, Schule und Arbeitswelt, Band 2, Peter Lang Internationaler Verlag der Wissenschaften, Frankfurt am Main

Brockmann M., Clarke L., Winch Ch. (2008) Can performance-related learning outcomes have standards? Journal of European Industrial Training Vol. 32 No. 2/3, Emerald Group Publishing Limited, pp. 138-156

Delamare Le Deist F., Winterton, J. (2005) What is Competence? Human Resource Development International, March 2005, Vol. 8, Nr. 1, pp. 27-46

Dif, M. (2007): "Accreditation of experiential learning in vocational education to foster professionalisation", in Bernd Baumgartl, Fatma Mizikaci and Dean Owen (Eds.): "from here to there: Mileposts of European higher education", Naverme/Publications, Vol.7B, March, pp.151-159.

European Commission (2008) The European Qualifications Framework for Lifelong Learning (EQF), Luxembourg: Office for Official Publications of the European Communities

Grollmann, Ph. (2008) Professional competence as a benchmark for a European space of vocational education and training. Journal of European Industrial Training Vol. 32 No. 2/3, Emerald Group Publishing Limited, pp. 138-156

Grugulis I. (2007) Management, Training and Human Resources Development. Palgrave, London

Integrovaný systém typových pozic (Integrated System of Standard positions)

www.ktp.istp.cz

Kvalifikační a hodnoticí standardy: kuchař – číšník, NÚOV 2007. Qualification and assessment standards: cook – waiter, NÚOV 2007 (In cooperation with the field group on gastronomy, hospitality and tourism)

Maillard F., Rose J. (ed.) (2007) Les diplômes de L'Éducation nationale dans l'univers des certifications professionnelles. Relief 20. Céreq. Marseille

Markowitsch J., Luomi-Messerer, K. (2008) Development and interpretation of descriptors of the European Qualifications Framework. European Journal of Vocational Training, Vol. 42-43, Cedefop, pp.

Národní soustava kvalifikací (National Qualifications Framework) www.narodni-kvalifikace.cz

Národní soustava povolání (National System of Occupations) www.nsp.cz

NQR in der Praxis am Beispiel des Baubereichs (2008) Institut für Bildungsforschung der Wirtschaft. Wien

Professional Standards for Construction, Hotels and Restaurants Sectors (2008).Lithuanian Labour Market Authority under the Ministry of Social Security and Labour. Vilnius

Projekt NSK, *Rozvoj Národní soustavy kvalifikací (On the Development of the National Qualifications Framework)*, NÚOV 2006

Projekt NSK, *Návrh pojetí, struktury a procesů Národní soustavy kvalifikací (Proposal of Concept, Structure and Processes of the National Qualifications Framework)*, NÚOV, 2007

Projekt NSK, *Metodika tvorby hodnoticích standardů pro dílčí kvalifikace (The Methodology of the Development of Assessment Standards for Partial Qualifications)*, NÚOV 2007

ROME - Répertoire Opérationnel des Métiers et des Emplois: The Operational Repertory for Occupations and Employment, ANPE (Agence National pour l'Emploi) - National Agency for Employment, <http://www.anpe.fr/espacecandidat/romeligne/RliIndex.do>.

RNCP - Répertoire National des Certifications Professionnelles : National Repertory for Vocational Certifications, CNCP (Commission Nationale de la Certification Professionnelle)- National Commission for Vocational certification, <http://cncp.gouv.fr/CNCP/>

<http://www.arbeiterkammer.at/>

<http://www.wien.bauakademie.at/>

<http://www.oeibf.at/>

<http://www.ibw.at/>