

**DEVELOPMENT OF SECTORAL  
QUALIFICATIONS DESCRIPTORS  
FOR EQF LEVEL 5**

The project "Development of Sectoral Qualification Descriptors for EQF level 5", No. 2016-1-LT01-KA202-023178

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DESQUADES

PROFESSIONAL QUALIFICATION LEVEL 5



## **INTELECTUAL OUTPUT 1**

### **COMPARATIVE STUDY ON DEVELOPMENTS OF EQF LEVEL 5 QUALIFICATIONS IN EUROPE**

## Introduction

This document is a first report within the Erasmus+ project *Development of Sectoral Qualification Descriptors for EQF level 5* aiming to provide basic elements and recommendations for development of sectoral qualification descriptors. Development of Sectoral Qualification Descriptors for EQF level 5 objectives are oriented towards increasing transparency and recognition of skills and qualifications to facilitate learning, employability and labour mobility through the developments in EQF level 5 at sectoral level.

Internationally comparable qualification descriptors further could be used as a platform for developing new types of qualifications, whether initial or continuing vocational education and training qualifications or short-cycle higher education qualifications.

The overall benefit from this Erasmus+ K2 action project would be better understanding and application (nationally and internationally) of EQF level 5 qualifications, allowing learners to move more easily between different types of education (such as higher education and vocational) and between different levels (such as VET and higher education) at home institutions as well as internationally.

In Europe EQF level 5 qualifications offer various access and progression routes – depending on the type and purpose of a qualification. Some qualifications are more related to employment and carrier development, others to higher education. It is very important to find the right starting point and to create the preconditions for the transparent, internationally recognized and easy comparable qualifications at this level. Level 5 qualifications can provide access to and advancement in the labour market, these qualifications can also serve a double function being entry qualifications for both the labour market and higher education (with the possibility for credit transfer). EQF level 5 qualifications could be designed to up-skill individuals already in employment and provide them with advanced technical and/or management skills.

Comparative study on developments of EQF level 5 qualifications in Europe provides basic information about how national qualifications frameworks are related to EQF level 5 and assigned in different sectors, how diverse types of qualifications (VET, higher education and from outside the formal system) are allocated to EQF level 5, what criteria are used and how these criteria are understood in different countries. Report analyses linkages between Higher education and VET systems, preconditions for the development of qualifications at EQF level 5 using qualification descriptors. This study will also cover another important aspect – how stakeholders are involved and how they see need for qualifications at level 5. To provide inventories of qualifications awarded by sectors at national or rarely at European level, the main objective is to make them visible and understandable nationally as well as internationally.

The comparative study uses EQF level 5 policy developments, scientific articles, results of previous studies and findings. It includes review of European policy and strategic documents concerning sectoral qualification frameworks and qualifications, analyses of reforms and developments in EU countries regarding EQF level 5 qualifications. The results will be analysed and used for further developments of the project.

## Acronyms

*List of abbreviations and acronyms commonly used within the document:*

CEDEFOP: European Centre for the Development of Vocational Training

CVET: Continuous Vocational Education and Training

ECVET: European Credit System for Vocational Education and Training

ECTS: European Credit Transfer system

EHEA: European Higher Education Area

EQF: European Qualification Framework

EU: European Union

HVET: Higher Vocational Education and Training

IVET: Initial Vocational Education and Training

NQF: National Qualifications Framework

SQF: Sectoral Qualification Framework

SCHE: Short Cycle Higher Education

VET: Vocational Education and Training

## Background and Methodology

Traditionally, education and training systems have separate and distinct sub-systems (general, vocational and academic/higher education) and these sub-systems are usually related to one another in a strict hierarchy of primary, secondary and tertiary education. It appears that VET and HE systems are approaching each other, overcoming borderlines between VET and HE qualifications.

Currently in Europe EQF level 5 qualifications offer various access and progression routes – depending on the type and purpose of a qualification. Some qualifications are more related to employment and carrier development, others to higher education. Almost all European Countries face challenges and need to develop tools facilitating recognition of qualifications at EQF level 5. Level 5 area is to be considered as a zone of overlap and bridging different systems, traveling from VET to HE.

Such qualifications developments are the priority in whole European Union. Level 5 qualifications can provide access to and advancement in the labour market, these qualifications can also serve a double function being entry qualifications for both the labour market and higher education (with the possibility for credit transfer). EQF level 5 qualifications could be designed to up-skill individuals already in employment and provide them with advanced technical and/or management skills.

Every type of qualifications is connected to the stakeholders, learners, VET or HE or secondary education providers and the needs for flexibility and other requirements.

CEDEFOP working paper on EQF level 5 developments<sup>1</sup> examines the qualifications at level 5 of the EQF. Aim of the study a better understanding of the roles and functions of qualifications referred to EQF level 5, for further learning as well as for employment, strengthen the understanding of the way in which the learning outcomes approach is applied in qualifications frameworks across Europe – using level 5 as a reference point.

The report shows the huge diversity of the short cycle<sup>2</sup> (higher) education provision in the 15 countries covered in the study. Report consists from country analysis in fifteen countries that presented their EQF referencing reports to the EQF Advisory Group by June 2012 and in-depth analysis of six case studies. Analysis is based on desk research, interviews /site visits with umbrella organisations, Ministries, providers, employers, employees/ graduates, students.

Study shows that EQF Level 5 qualifications operate across the different subsystems as they have been identified in the report: general education, Vocational Education and Training and higher education. In some countries level 5 qualifications are only linked to VET (Higher Vocational and Education Training), in others only to higher education and in others to both HVET and HE. EQF level 5 (and the relevant NQF levels) has been used as a platform for the development of new qualifications. In one country (UK) the level 5 qualifications are linked to the three subsystems: general education, HVET and HE. In 2 countries level 5 qualifications are qualifications from outside formal education and training. In BE FL we have both: level 5 qualifications from inside formal education (the so called educational qualifications) and level 5 qualifications from outside formal education (the so called vocational qualifications). This is exemplified by the Czech republic, Estonia, Latvia, Lithuania, Malta and the UK. These new qualifications might be initial vocational qualifications, as in Estonia. In other cases, as currently being discussed in the Czech republic, these qualifications may be academically oriented. Lithuania currently has no qualifications linked to this level, although there had been qualifications of this level awarded in vocational colleges until 2004. The demand for qualifications at this level has now been documented and both the VET and the higher education sector are considering responses: initial VET schools are seeking to revise part of the qualifications they provide and to upgrade them to level 5. Colleges of higher vocational education are seeking to introduce short study cycle programmes and to link these qualifications to level 5.

In reality EQF level 5 has potential to include all types of qualifications:

- Short cycle higher education (HE providers);
- Higher VET (VET providers);
- Professional Diplomas (Business Academies, Private Providers...)
- Certificates and small courses (professional and vocational bodies, national and internationally, training providers)<sup>3</sup>.

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<sup>1</sup> CEDEFOP 'Qualifications at level 5: progressing in a career or to higher education, 2014.

<sup>2</sup> ISCED 5: Short-cycle tertiary education –programmes at ISCED level 5, or short-cycle tertiary education often designed to provide participants with professional knowledge, skills and competences. Typically, they are practically based, occupationally-specific and prepare students to enter the labour marker. (UNESCO classification of education: <http://uis.unesco.org/en/glossary-term/isced-5-short-cycle-tertiary-education>).

<sup>3</sup> H. Dalle, 2016, European Level 5 area: a tandem for VET and HE.

## Developments in Higher education and Vocational training on EQF level 5

CEDEFOP study on EQF level 5 developments have demonstrated, that qualifications in this level operate across VET, higher and even general education, with a heterogeneous range of qualifications awarded by a wide range of VET and higher education institutions. Different types of institutions have been authorized to award level 5 qualifications:

- Higher education institutions
- Centres for adult education
- A VET college
- A college for further education
- Schools for post-secondary vocational education
- Other providers, including private providers
- Mixt type

Vocational education and training (VET) can play a central role in preparing young people for work, developing the skills of adults and responding to the labour-market needs of the economy. VET adapts to the labour market rather for immediate employment of their graduates, while HE role should focus rather on long term employability which means both cooperation with and shaping of the world of work. Despite this role, VET has been oddly neglected and marginalised in policy discussions, often overshadowed by the increasing emphasis on general academic education and the role of schools in preparing students for university education.

Due to the threefold mission of education, research and service to society in combination with the academic freedom, higher education sector has advanced developments with regard to EQF level 5 developments. As it is shown in 1 table, during recent years were have been agreements between European countries that led to the development of HE short cycle studies related to EQF level 5:

*Table no. 1. European policy agreements regarding EQF level 5*

<b>Title</b>	<b>Agreements</b>
<b><i>Bergen Communiqué:</i></b>	We adopt the overarching framework for qualifications in the EHEA, comprising three cycles (including, within national contexts, the possibility of intermediate qualifications), generic descriptors for each cycle based on learning outcomes and competences, and credit ranges in the first and second cycles.
<b><i>Leuven Communiqué</i></b>	Within national contexts, intermediate qualifications within the first cycle can be a means of widening access to higher education.
<b><i>Bucharest Communiqué</i></b>	We will explore how the QF-EHEA could take account of short cycle qualifications (EQF level 5) and encourage countries to use the QF-EHEA for referencing these qualifications in national contexts where they exist.
<b><i>Yerevan Communiqué</i></b>	(Commitments): to include short cycle qualifications in the overarching framework of qualifications for the European Higher Education Area (QF-EHEA), based on the Dublin descriptors for short cycle qualifications and quality assured according to the ESG, so as to make provision for the recognition of short cycle qualifications in their own systems, also where these do not comprise such qualifications.

At the moment HE operates within the Bologna process and tools (degree system, ECTS), VET operates within the Copenhagen process and own instrument (EQAVET, Europass, ECVET). Both systems offer education programmes at EQF level 5 but their providers operate in quite different European contexts. HE providers have more institutional autonomy, academic freedom and accountability, on the other hand in VET the educational process and its outcome are strongly driven by social partners.

The mentioned Yerevan Ministerial Conference (May, 2015) accepted the recommendation to include EQF level 5, organized as Short Cycle Higher Education to be a part of the EHEA. That makes permeability between the two systems becomes very relevant. The opportunities created for learners' new educational/ learning Journeys across systems and levels, especially in times of economic crisis and unemployment, to promote their professional capacity, as well personal development are even more important.

The learning pathways leading to EQF level 5 qualifications can be school-based, work-based or dual, part-time as well as full-time. Currently different modes of acquisition are operating in different European countries:

- Full-time school/college based programmes including short work placements or substantial work placements;
- Part-time school/college based programmes including short work placements or substantial work placements;
- Dual programmes; periods of employment/work combined with school/college based programmes;
- Validation of non-formal learning and informal learning;
- Long work placement combined with periods of schooling/mandatory courses.

One important development since 2005 is that short cycle programs have gained prominence in many countries and the EQF, adopted in 2008, includes a level 5, which is normally the level to which short cycle qualifications, whether in higher education or VET, are referenced<sup>4</sup>. While some qualifications referenced against EQF level 5 are not higher education qualifications, many are, and it is worth noting that there are also qualifications at first and second degree level (EQF levels 6 and 7) that are not considered higher education qualifications in the systems to which they belong. It therefore seems incongruent that the QF-EHEA does not acknowledge the widespread existence of short cycle degrees in national systems.

It is also worth underlining that national education systems may include levels other than those included in the overarching frameworks as long as national frameworks are self-certified and referenced against the QF-EHEA and the EQF. For example, while the EQF comprises 8 levels, the number of levels in national frameworks currently ranges from 7 to 12. Therefore, including short cycle qualifications in the QF-EHEA will in no way oblige countries to include such qualifications in their national frameworks but it would give explicit recognition to the fact that many national frameworks do include short cycle qualifications.

Regardless of whether the short cycle qualifications are included in the overarching framework of qualifications of the EHEA, the qualifications framework should provide for clear articulation pathways connecting the short cycle qualifications to the first cycle (bachelor) qualifications. Public authorities should encourage higher education institutions in cooperation with the other providers of short cycle study programs to develop those articulation pathways.

Dublin descriptors (developed by the “joint quality initiative as part of the Bologna process”) still are used in the Framework for Qualifications of EHEA compared to the descriptors as used in the EQF level 5:

*Table No. 2*

<b>HE short cycle (within the first cycle)</b>	<b>EQF level 5</b>
The full set of “Dublin descriptors” Qualifications that signify completion of the higher education short cycle (within the first cycle) are awarded to students who:	The learning outcomes relevant to level 5 are:
- have demonstrated knowledge and understanding in a field of study that builds upon general secondary education and is typically at a level supported by advanced textbooks; such knowledge provides an underpinning for a field of work or vocation, personal development, and further studies to complete the first cycle;	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge;
- can apply their knowledge and understanding in occupational contexts; - have the ability to identify and use data to formulate responses to well-defined concrete and abstract problems;	Comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems;

<sup>4</sup> CEDEFOP Briefing Note “The hidden potential of level 5 qualifications” (June 2014), available at [http://www.cedefop.europa.eu/EN/Files/9089\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/9089_en.pdf).



<ul style="list-style-type: none"> <li>- can communicate about their understanding, skills and activities, with peers, supervisors and clients;</li> <li>- have the learning skills to undertake further studies with some autonomy.</li> </ul>	<p>Exercise management and supervision in the contexts of work or study activities were there is unpredictable change;</p> <p>Review and develop performance of self and others.</p>
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Developments in VET and HE regarding EQF level 5 can lead towards better recognition and transparency of qualifications, but still some additional preconditions are necessary as well aiming to facilitate articulation/permeability between HE and VET:

- The qualifications are part of the same QF or the same HE sector;
- The qualifications are being awarded by similar institutions (HEIs);
- Use of learning outcomes for describing the qualifications and the study programmes;
- Use of ECTS;
- The study programmes are quality assured in accordance with the ESG standards and guidelines.

### 3. Learning outcomes in EQF level 5: Links with NQFs/EQF

Learning outcomes can be defined as “The set of knowledge, skills and/or competencies and individual has acquired and or is able to demonstrate after completion of a learning process”<sup>5</sup>. Learning outcomes are statements of what a learner is expected to know, understand and/or be able to do at the end of a period of learning. Learning outcomes can be formulated for a number of purposes. In relation to individual courses, units, modules and programmes. They may furthermore be used by national authorities to define entire qualifications – sometimes structured within or linked to qualifications frameworks and systems. International bodies may, finally, use learning outcomes for the purposes of transparency, comparability, credit transfer and recognition.

Following these definitions, it would be very difficult, if not impossible, to have qualification level descriptors not an outcome based. Without some explicit statements about the general outcomes of qualifications, it would be hard to compare different types of qualifications at the same level or to decide how to place new qualifications on EQF level 5 and NQFs.

It is not absolutely essential for the qualifications themselves to be defined in terms of learning outcomes. However, there are many reasons why it is valuable to have the contents of the framework described in at least broad outcome terms. In some sectors different level descriptors already exist that are useful to create descriptors for EQF level 5, but the content of those could be very different.

It is important to be aware of the purposes of level descriptors and their limitations. Level descriptors have two main purposes<sup>6</sup>:

- They make explicit the tacit understandings of providers and stakeholders about the nature of qualification levels and educational progression. The process of developing level descriptors compels those engaged in it to make clear statements about the characteristics and outcomes of qualifications and how qualifications at adjacent level differ from each other. This can often highlight ambiguities and inconsistencies and lead to clearer and better-grounded understandings.

- They provide a means of making comparison across different types of qualification. This is important in the development of progression routes and vital in the implementation of credit transfer systems. There is more than one dimension of ‘level’. Some qualifications are more concerned with developments of knowledge; others with skills or personal and professional competences. The use of broadly defined level descriptors provides the basis for agreeing that qualifications belong at the same level notwithstanding different relative emphases of knowledge, skills etc. It is generally the case in existing frameworks that qualifications do not have to meet all aspects of a level descriptor to be considered to meet the level requirements.

The learning outcomes are very differently described for the specific qualifications studied. First of all, there is a difference in the scope what is described; either full qualifications or separate units/modules of qualifications. Secondly, the concepts and terminology used differs across qualifications and national contexts. There is little evidence that the NQF level descriptors are actually being used to describe the qualifications in terms of learning outcomes. No noticeable differences were found between VET and HE systems descriptions. Descriptions are developed on the basis of a professional /occupational profile.

<sup>5</sup> Defining and writing learning outcomes for vocational education and training - *A European handbook. CEDEFOP, 2016*

<sup>6</sup> CEDEFOP Analysis and overview of NQF level descriptors in European countries. 2013



Table no. 3. Categories/dimensions/domains used for describing the national level linked to EQF level 5

<b>Country</b>	<b>Categories/dimensions/domains used for describing the national level linked to EQF level 5</b>	<b>Categories/dimensions/domains used for describing qualifications linked to EQF level 5</b>
<b>AT</b>	Knowledge, skills, competence	VET standards: professional competences, methodical competence, social and personal competence
<b>BE</b>	Knowledge (explanatory and procedural), skills (quality to work effectively and efficiently on the basis of knowledge), context (where the knowledge and skills are used, relations with others), autonomy and responsibility	Professional qualification profiles: have to be structured by the descriptor elements of the FQF
<b>CZ</b>	Competences (closely linked to work tasks and processes); NKS level descriptors do not explicitly distinguish categories of learning outcomes although they have been developed in close connection to the EQF)	Learning outcomes constituting an individual vocational qualification are present in Qualification and Assessment Standards; they are coded, categorised, and related to the Database of Competences – structured in three elementary categories: Soft Competences; General skills; Vocational knowledge and skills;
<b>DK</b>	Knowledge (Type and complexity, Understanding), Skills (Type, Problem solving, Communication), Competence (Space for action, Cooperation and responsibility, Learning)	VET qualifications and SCHE: Knowledge, skills, competence
<b>EE</b>	Knowledge, skills, competence; sub-framework for professional/occupational qualifications: Knowledge and understanding, skills, Scope of independence and responsibility	Occupational qualification standards: knowledge, competence
<b>FR</b>	Level descriptor does not use separate categories but reflects knowledge, skills and competence	Referential standards (occupational and certification referential standards): practical capacities (i.e. skills), related competences (savoir-faire), associated knowledge (savoirs associés)

The development of comprehensive NQF's – including qualifications at all levels and of all types – in most European countries has shed new light of the potential of EQF level 5 qualifications. By acting as a bridge between education and training institutions and subsystems, these qualifications support permeability (vertically and horizontally), allowing learners to move more easily between different types of education (such as academic and vocational) and between different levels (such as VET and higher education), as they decide. The study also shows that EQF level 5 is increasingly being used as a platform for developing new types of qualifications, whether initial (IVET) or continuing vocational education and training (CVET) qualifications or short-cycle higher education (SCHE) qualifications.

Table No. 4. Some examples of level descriptions of EQF level 5 in Europe<sup>7</sup>

<b>Country</b>	<b>Descriptors of qualifications for EQF level 5</b>		
<b>Austria</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Competence</b>
	<p>He/she has: Extensive theoretical knowledge in his/her field of work or study (...) to deal independently with tasks and challenges, including in unpredictable situations; Awareness of what effects using this knowledge has on the field of work or study; In depth company-related business and legal knowledge for taking on managerial tasks and/or heading a company; Knowledge needed to exercise a high-level profession.</p>	<p>In his/her field of work or study he/she is able to: Independently cope with tasks including in unpredictable contexts; Assess the implications of such tasks and draw conclusions here for how to proceed subsequently; Analyse challenging and multi-layered problems using logical, abstract and networked thinking and solve these autonomously while complying with the respective applicable norms, regulations and rules; Use his/her own creative contributions to solve problems; Understand connections between ecological, economic and social mechanisms, establish interconnections and use the knowledge gained here in common and also unpredictable situations; Form an opinion on new facts and circumstances, explain his/her own viewpoint and present this using the standard specialist terminology in a way which is suitable for the target audience and the particular situation; Independently research information from different sources and disciplines, gather the essential content, critically assess, select and present this in manner suitable for the target audience.</p>	<p>In his/her field of work or study he/she is able to: Independently coordinate and manage projects; Act independently and flexibly in different situations, including unpredictable ones; reflect on his/her own behaviour and draw conclusions on how to act in the future; Critically and responsibly deal with the actions of other people, give feedback and contribute to the development of their potential.</p>
<b>Belgium (French-speaking)</b>	<b>Knowledge / Skills</b>		<b>Context / autonomy / responsibility</b>
	<p>Specialised knowledge, skills, behavioural skills of a specific field of work or study enabling to analyse, complete, articulate information based on the knowledge/methods/practices of its specialty to re-organise and build adapted solutions in the context of solving abstract problems, whose indices are not obvious and whose possible solutions are multiple.</p>		<p>Acting with an extended degree of initiative in characteristic situations of a field of work or study in which the changes are unpredictable, with full responsibility for own work.</p>
<b>Estonia</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Scope of responsibility and autonomy activity</b>
	<p>Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge</p>	<p>A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems</p>	<p>Exercise management and supervision in contexts of work or study activities where there is unpredictable change. Review and develop performance of self and others.</p>

<sup>7</sup> Analysis and overview of NQF level descriptors in Europe, CEDEFOP, 2013.

<i>Germany</i>	<i>Professional competence</i>		<i>Personal competence</i>	
	Knowledge	Skills	Social competence	Autonomy
	Be in possession of integrated professional knowledge within a field of study or integrated occupational knowledge within a field of activity. This also includes deeper, theoretical professional knowledge. Be familiar with the scope and limitations of the field of study or field of occupational activity.	Be in possession of an extremely broad spectrum of specialised, cognitive and practical skills. Plan work processes across work areas and evaluate such processes according to comprehensive consideration to alternative courses of action and reciprocal effects with neighbouring areas. Provide comprehensive transfers of methods and solutions.	Plan and structure work processes in a cooperative manner, including within heterogeneous groups, instruct others and provide well-founded learning guidance. Present complex facts and circumstances extending across professional areas in the targeted manner to the appropriate recipients of such information. Act in an anticipatory manner in considering the interests and requirements of recipients.	Reflect on and assess own learning objectives and learning objectives set externally, undertake self-directed pursuit of and assume responsibility for such objectives, draw consequences for work processes within the team.
<i>Ireland</i>	<i>Knowledge</i>	<i>Know-how and skill range</i>	<i>Competence</i>	
	Knowledge breadth: Broad range of knowledge	Range: Demonstrate a broad range of specialised skills and tools.	Context: Act in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs, identify and apply skill and knowledge to a wide variety of contexts. Role: Exercise some initiative and independence in carrying out defined activities; join and function within multiple, complex and heterogeneous groups.	
	Knowledge kind: Some theoretical concepts and abstract thinking, with significant depth in some areas.	Selectivity: Formulate responses to well-defined abstract problems.	Learning to learn: Learn to take responsibility for own learning within a managed environment. Insight: assume full responsibility for consistency of self-understanding and behaviour.	
<i>UK</i>	<i>Summary</i>	<i>Knowledge and understanding</i>	<i>Application and action</i>	<i>Autonomy and accountability</i>
	Achievement at level 5 reflects the ability to identify and use relevant understanding, methods and skills to address broadly-defined, complex problems. It includes taking responsibility for planning and developing courses of action	Use practical, theoretical or technological understanding to find ways forward in broadly-defined, complex contexts. Analyse, interpret and evaluate relevant information, concepts and ideas.	Address broadly-defined, complex problems. Determine, adapt and use appropriate methods and skills. Use relevant research or development to inform actions.	Take responsibility for planning and developing courses of action, including where relevant responsibility for the work of others. Exercise autonomy and judgement within broad parameters.

	as well as exercising autonomy and judgement within broad parameters. It also reflects understanding of different perspectives, approaches or schools of thought and the reasoning behind them.	Be aware of the nature and scope of the area of study or work. Understand different perspectives, approaches or schools of thought and the reasoning behind them.	Evaluate actions, methods and results.	
<b>Scotland</b>	<b><i>Knowledge and understanding</i></b>	<b><i>Practice; applied knowledge, skills and understanding</i></b>	<b><i>Generic cognitive skills</i></b>	
	Demonstrate and/or work with: Basic knowledge A range of simple facts, ideas and theories in, about, and associated with, a subject, discipline, sector. Knowledge and understanding of basic processes, materials and terminology.	Relate knowledge and ideas to personal and/or practical contexts. Use range of skills associated with the subject, discipline, sector to complete some routine and non-routine tasks; Plan and organise both familiar and unfamiliar tasks. Select appropriate tools and materials and use them safely and effectively. Adjust tools where necessary following safe practices.	Use a process to deal with a problem, situation or issue that is straightforward. Operate in a familiar context, but where there is a need to take account of/or use additional information of different kinds, some of which will be theoretical or hypothetical.	
	<b><i>Communications, ICT and numeracy</i></b>	<b><i>Autonomy, accountability and working with others</i></b>		
	Use a range of routine skills, for example: Produce and respond to detailed written and oral communication in familiar contexts. Use standard ICT applications to process, obtain and combine information. Use a range of numerical and graphical data in routine contexts that may have some non-routine elements.	Work alone or with others on tasks with minimum directive supervision. Agree goals and responsibilities for self and/or work team. Take a lead responsibility for some tasks. Show an awareness of own and/or others' roles, responsibilities and requirements in carrying out work and contribute to the evaluation and improvement of practices and processes.		

Analyses of NQF level descriptors shows that there is a big variety in terms of describing qualifications, some countries stick directly to the concepts provided by EQF, using knowledge, skills and competence, other countries use more detailed classification of knowledge, skills types and some additional parameters for making some specific competence (such as communication, working with others, ICT, accountability etc.) more visible.

It is obvious, that descriptors used for the qualifications at EQF level 5 differ from country to country, are very broad and hardly could sufficiently represent all sectors equally and in full range. General NQFs need to include a diversity of qualifications from different education and training subsystems. Balancing the need for broad coverage with attention to specificity and detail is challenging. Countries have largely solved this by writing their descriptors in a general and neutral language, avoiding too specific references to particular sectors or institutional types.

A number of countries, for example Germany, have decided that this general/neutral approach is insufficient and have introduced alternative sets of formulations tailored to the needs of particular sectors and qualifications.

## 4. Case Analyses: Comparison of EQF level 5 developments in partner countries

### 4.1. Features of National Qualification Frameworks and relations to the EQF

From the information provided by DesQuaDes project partners (see Annex 1) it is clear that all countries have developed National Qualification Frameworks undertaking all qualifications provided in basic, secondary, vocational and higher education and are organised in 8 levels, with compliance to EQF framework. The developments of NQF are quite recent and achieved through negotiations involving main stakeholders. Nether the less, the experiences of country developments on NQF looks like quite long and complicated processes.

In Italy, the link between the European Framework EQF and constituting national certification system is strengthened through the Legislative Decree no. 13/2013. It states that only qualifications that refers to EQF can become a part of the National Qualifications Repertory.

Therefore, the guidelines established by Europe to promote transparency between the Education systems and support the mobility of people and recognition of their skills, is incorporated in the Italian strategy for the construction of the certification and lifelong education system. With the Agreement of January 2015 on the “definition of an operating framework for the national recognition of the regional qualifiers and related skills (...)”, the national courts cross again with the referencing process, when the second phase is going to start. The qualifications issued by the Regions are an aggregate of different objects, with difficulties to refer to a small number of types; therefore, the technical choice made in the first phase of referencing, or to reference the types of qualifications to the EQF directly without passing by the institution of a National Framework, does not appear sustainable. Besides Italy’s choice does not fit with any of the other countries that have already started or completed the referencing process.

In Portugal NQF covers basic, secondary and higher education, vocational training and the processes of recognition, validation and certification of competences whether obtained by non-formal or informal means. The NQF thus enables the skills acquired to be compared regardless of how they were acquired (in formal, informal or non-formal contexts) using methodology based on learning outcomes characterizing each level of qualification. Concepts of “knowledge, skills and attitudes” domains for the definition of learning outcomes for each level of qualification.

The description of performance-based qualifications enables individuals and employers to have a clearer perception of the relative value of qualifications, which contributes to the better functioning of the labor market. On the other hand, transnational mobility is facilitated by the comparability of qualifications which is ensured by the NQF and facilitated through the relationship with the EQF.

Spain has currently a draft of a NQF for lifelong learning (*Marco Español de Cualificaciones*, MECU), based on learning outcomes. It will link and coordinate different education and training subsystems. The framework will include qualifications obtained in compulsory education, in post-secondary and higher education and will integrate validation of non-formal and informal learning processes.

The draft Royal decree on the introduction of MECU has now been prepared following delay due to restructuring of the government. It defines levels and level descriptors as the basis for referencing the MECU to the EQF levels. It has been supervised and positively reported by the national advisory bodies<sup>8</sup>. NQF is a pending subject to be approved by the country parliament.

Developments take into account experiences with the national catalogue of professional qualifications, established by the Law on Qualifications and Professional Training in 2002. Of special attention, and lively discussion, are levels 3 and 4 of the NQF, where formal vocational qualifications/titles, regulated by the Ministry of Education and professional qualifications/certificates under the remit of Ministry of Labour would be assigned. They are different in scope of learning they acquire, but can be linked to the same level of the catalogue.

The framework will include qualifications obtained in compulsory education, in post-secondary and higher education and will integrate validation of non-formal and informal learning processes. Of special attention, and lively discussion, are levels 3 and 4 of the NQF, where formal vocational qualifications/titles, regulated by the Ministry of Education and professional qualifications/certificates under the remit of Ministry of Labour would be assigned. They are different in scope of learning they acquire, but can be linked to the same level of the catalogue. The higher four levels of MECU will be linked to the qualifications framework for higher education (*Marco Español de Cualificaciones para la Educación Superior*, MECES), which has been put in place separately.<sup>9</sup>

<sup>8</sup> Spanish qualifications framework. State-of- play. October 2012 [internal].

<sup>9</sup> <http://www.boe.es/boe/dias/2011/08/03/pdfs/BOE-A-2011-13317.pdf> [accessed 5.12.2012].



Lithuania has an eight-level Lithuanian qualification framework (LTQF) covering all officially recognized qualifications in primary, secondary, VET and HE have formally adopted through a government resolution in 2010 by government of the Republic of Lithuania. LTQF has now entered an early operational stage. The framework is based on complete (full) qualifications. However, according to the 2011 referencing report to the EQF, the medium and long term strategy is to introduce units of qualifications defined as the combinations of the competences needed for executing certain tasks. It is foreseen to offer the potential for referencing the qualifications units to certain levels of the NQF in the future.

Table No 5. Main Features of National Qualification Frameworks

Country /partner	NQF developments, approval by law, year of approval	No of Levels in NQF/ Compliance with EQF	Parameters of descriptors
<b>Italy (Partner: Essenia Uetp)</b>	Framework operates from 2014. On December 20th 2012, the State-Regions Conference approved the "First Italian Referencing Report to the European Qualifications Framework EQF", presented to the Advisory Group (European coordination table for EQF) in the following May and then officially transmitted to the European Commission in 2014.	8 levels linked to the European Qualifications Framework.	Level descriptors related to EQF and characterised by knowledge, skills and competences.
<b>Lithuania (KGVTC, KMVTC, JVTC, QVDC)</b>	LTQF was formally adopted through a government resolution at 2010. The Framework is based on eight learning outcomes levels and covers all officially recognised qualifications (primary and secondary general education, vocational education and training and higher education). LTQF has now entered and operational stage, but is to be considered still under development <sup>1</sup> .	8 levels linked to EQF.	Level descriptors in LTQF are based on two parameters: Characteristics of activities (complexity, autonomy, variability of activity) and types of competences (functional, cognitive, general (or key competences).
<b>Portugal (Esprominho)</b>	Portugal has approved national Qualification framework since 2010.	8 levels compliant with EQF.	Description of the NQF level V qualifications are closely related to EQF and characterised by  <i>Knowledge, skills and competence</i>
<b>Spain (Fundacion Laboral del Metal)</b>	Spain has currently a draft of a NQF for lifelong learning ( <i>Marco Español de Cualificaciones, MECU</i> ), based on learning outcomes. It will link and coordinate different education and training sub-systems. The draft Royal decree on the introduction of MECU has now been prepared following delay due to restructuring of the government.	8 levels as the basis for referencing the MECU to the EQF levels.	All qualifications based on learning outcomes and described using: a) Knowledge b) Skills and abilities c) Competences

It is obvious that countries have a lot of similarities in national qualification frameworks, first of all they are developed in such a manner that are in full compliance with EQF: they all have the same number of levels (8), are based on learning outcomes and these learning outcomes are most commonly expressed in terms of knowledge, skills and competence.

All qualifications frameworks are learning outcomes-based. In qualifications frameworks, qualifications are developed using learning outcomes, and the set of hierarchical levels they consists of are described with a set of level descriptors. These descriptors are also formulated using the same learning outcomes language, yet they are divided into different domains, again based on specific contextual decisions.

All countries except Spain had fully adopted NQF into legal basis in Spain this is still under development. Spain has currently a draft of a NQF for lifelong learning (*Marco Español de Cualificaciones*, MECU), based on learning outcomes. It will link and coordinate different education and training subsystems. The framework will include qualifications obtained in compulsory education, in post-secondary and higher education and will integrate validation of non-formal and informal learning processes. The draft Royal decree on the introduction of MECU has now been prepared following delay due to restructuring of the government. Developments take into account experiences with the national catalogue of professional qualifications, established by the Law on Qualifications and Professional Training in 2002.

Also, slight difference can be observed between countries in terms of how knowledge, skills and competence are classified. Italy uses EQF level descriptors as a basis for referencing its formal qualifications to the EQF levels<sup>10</sup>, Portugal use EQF level descriptors directly, but have attitudes instead of competences (Annex 1). Spain describes qualifications in terms of knowledge (possessing and understanding knowledge, skills and abilities (apply knowledge) and competence (described as autonomy and responsibility (learning ability and attitudes)<sup>11</sup>. Lithuania makes a distinction between functional competencies (ability to apply skills, knowledge and key skills and abilities), cognitive competences, general competencies (key skills and abilities)<sup>12</sup>.

#### 4.2. Descriptors for EQF level 5 in partner countries

Knowledge described in partner countries for of NQF/EQF level 5 qualifications are expressed in a very similar way as comprehensive, specialized, theoretical or general and awareness of the limits of knowledge is also emphasized. This allows to make a precondition, that countries followed direction of EQF descriptors while describing this level in particular.

Table No 6. Knowledge describing EQF/NQF level 5

Countries/ description	Knowledge
<b>IT</b>	<u>Comprehensive, specialised</u> , factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge
<b>LT</b>	<u>Exhaustive knowledge</u> of the activity field with general knowledge while resolving different specialized activity tasks in several different activity areas
<b>PT</b>	<u>Comprehensive, specialized</u> , factual and theoretical knowledge in a given area of studies or work and awareness of the limits of that knowledge.
<b>ES</b>	<u>Specialized knowledge</u> in an area of study or professional, With critical understanding for the transfer of knowledge, its Integration and innovation.

As it is seen from the table below, skills have a bigger difference in ability descriptors between countries, this could be the case of wider range of qualifications actually prescribed to NQF level 5.

In Lithuania autonomy and ability to work independently is emphasized, while Portugal provides very brief description of skills. In Spain most broad characteristics of abilities to analyse and communicate, problem solving is accentuated, Italy indicates ability to manage and review and develop performance (table).

<sup>10</sup> CEDEFOP (working paper) Analysis and overview of NQF level descriptors in European countries, 2013.

<sup>11</sup> *Spanish qualifications framework. State-of-play*. October 2012 [internal]

<sup>12</sup> Lauzackas, R. Tutlys, V., Spudyte, I (2009), Evolution and competence concept in Lithuania: from VET reform to development of NQS. Journal of European industrial training, Vol. 33, pp. 800-816.



Still it is obvious that ability to apply specialized knowledge at high level, and work in complex contexts is important for this level.

*Table. skills describing EQF/NQF level 5*

<i>Countries/ description</i>	<i>Skills (abilities)</i>
<b>IT</b>	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.
<b>LT</b>	He or she carries out activity independently, activity is supervised limiting only to the evaluation of results. Activity tasks are set out by oneself of a higher qualification who often provides to the performer of the activity possibilities to select ways and tools to resolve these tasks. He or she manages activity of the workers of a lower qualification, plans and distributes activity tasks, supervises activity performance, consults and checks performance quality.
<b>PT</b>	A comprehensive range of cognitive and practical skills necessary to design creative solutions for abstract problems.
<b>ES</b>	<u>Application and integration of knowledge and technologies</u> Advanced or specialized in the definition and development of processes Predictable and unpredictable work. (3) <u>Management and supervision of techniques</u> , results of work and Fulfillment of objectives developed by oneself and others. - Communicate in a variety of languages (4) <u>Communication of knowledge</u> , skills, feelings and Activities in predictable and unpredictable contexts. (5) <u>Adequate use of technological resources</u> in a field of work or study - Ability to analyze (6) <u>Analysis of the consequences of the actions</u> themselves and those of the In predictable and unpredictable contexts. (7) <u>Analysis of varied and comprehensive information</u> needed to assess and Response to problems within a field of study or professional. (8) <u>Research and application of creative</u> and innovative solutions in Problem solving in a field of study or professional.

Examining how competencies are described a lot of differences can be seen between the descriptions of Lithuania and Spain, while Italy and Portugal describe competences in a very EQF related way. Interesting aspect of prevention of occupational hazards, the safety of oneself and other people, as well as the quality of work and environmental protection of the environment for this level of qualifications can be noticed in descriptors developed in Spain.

*Table No 7. Competences describing EQF/NQF level 5*

<i>Countries/ description</i>	<i>Competences</i>
<b>IT</b>	Exercise management and supervision in contexts of work or study activities where there is unpredictable change. Review and develop performance of self and others.
<b>LT</b>	Technological and organizational requirements of activity and its environment is constantly changing, changes are often unpredictable and may be related with new activity fields.
<b>PT</b>	To manage and supervise in study or work contexts that are subject to unpredictable changes. To review and develop their own performance and the performance of others.

<b>ES</b>	<p>- Learning ability (9) <b>Self-management of training</b> in a field of study or professional In order to progress in training at higher or higher levels. Improve the application of new knowledge.</p> <p>- Attitudes (10) <b>Autonomy and responsibility</b> for carrying out foreseeable activities and Not foreseeable in a professional field, and with responsibility for the <b>Supervision</b> of the activities of dependents.</p> <p>(11) <b>Responsibility and autonomy</b> for the implementation and monitoring of The prevention of occupational hazards, the safety of people, the quality of work and environmental protection of the environment in which develops the professional activity.</p>
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### ***4.3. Diversity of Qualifications referenced to EQF/NQF level 5 in partner countries***

Level 5 qualifications status differs across countries. Some have no qualifications linked to the equivalent level 5 of the EQF, others have recently introduced level 5 type qualifications, or are planning to do so. Generally in Europe the profile of level 5 qualifications is quite wide and encompasses big variety of independent (full) qualifications as well as qualifications considered only part of HE, most level 5 qualifications are clearly linked to occupations or professions. Scope of level 5 qualifications:

- Level 5 qualifications are only considered as an intermediate step towards a (mostly professionally oriented) bachelor degree;
- Level 5 qualifications are independent qualifications with primarily a labour market relevance;
- Level 5 qualifications are independent qualifications but provide clearly articulated entry and progression opportunities into a (professionally oriented) bachelor programme (the focus of the level 5 provision is mainly on transition and a stepping stone to HE for non-traditional students);
- Level 5 qualifications have a double function: progressing in professional career and progressing in higher education<sup>13</sup>.

The origin of level 5 qualifications is also quite wide, as it is shown in CEDEFOP study on level 5 qualifications: some of the are a new qualification introduced in the wake of the introduction of the NQF, other countries introduce an adaptation/redesign of existing sub-degree programme or existing VET programmes, or just re-naming of existing programmes. The length of the study/training programmes varies from 90 – 120–150 ECTS. The varied use of EQF level 5 in Europe and the variety of qualifications linked to EQF level 5 suggest that this level has the potential to play a very significant role in bridging subsystems in the transferability of qualifications and the promotion of lifelong learning.

The name of the degree or qualification or certificate awarded: the CEDEFOP report has identified 31 qualifications types, most common are:

- Associate degree
- Academy Profession Degree
- Vocational qualification/degree
- Occupational qualification
- Advanced certificate
- Advanced Higher
- Higher certificate
- Brevet de technicien supérieur
- Diplôme universitaire de technologie
- Craftsman diploma
- Undergraduate certificate
- VET higher diploma
- Foundation degree
- Higher national diploma
- Higher national certificate
- Master Craftsman's Exam/Diploma
- Advanced Technician's Diploma

<sup>13</sup> CEDEFOP 'Qualifications at level 5: progressing in a career or to higher education, 2014.

Main role and functions of these qualifications can be divided into main three groups: qualification types that are primarily oriented towards the labour market (such as Vocational qualification/degree), qualification types that are primarily oriented to access in HE (Advanced Higher, Undergraduate certificate), largest group consists from qualifications having a clear hybrid character (Advanced Technician's Diploma, Master Craftsman's Exam/Diploma).

Project partner countries differ while describing qualifications of EQF level 5. The types of level 5 qualifications in Italy refer to the higher technical diploma. The corresponding trainings are:

- Courses held as part of Higher Technical Institutes (Istituti Tecnici Superiori - ITS);
- Higher Technical Education and Training (Istruzione e Formazione Tecnica Superiore - IFTS). The Higher Technical Education and Training system is made up of:
  - Courses organized by Higher Technical Institutes (ITS);
  - Higher Technical Education and Training pathways (IFTS).

Higher Technical Institutes (ITS), established on the basis of Regional Territorial Plans, are specific types of participative foundations. The organizational standard states that founders of these institutes are: an upper secondary school, both technical or vocational, state or fully recognized; a training centre accredited by the Region for the purpose of higher training; an enterprise operating in the same production area as the higher technical school; a university department or another organization operating in the field of scientific and technological research; a local institution (municipality, province, mountain community, etc.).

Higher Technical Institutes (ITS) can be attended by young people and adults holding a Diploma di istruzione secondaria superiore (Upper secondary education diploma). ITS courses last 4 semesters for a total of 1800/2000 hours. At the end of ITS courses, a Diploma di tecnico superiore (Higher technical education diploma) is issued. These qualifications, awarded by the Ministry of Education, concern different technological areas (see relevant table) identified to meet the needs of the public and private labour market, in particular of small and medium-sized enterprises, and areas of high technological innovation and internationalization of market.

In Lithuania qualifications of EQF level 5 are acquired through learning under training programmes intended for individuals who have a professional qualification and experience in professional activity of the prescribed duration, non-degree awarding study programmes (except residency studies) and/or from professional activity experience and through independent learning.

In Portugal Level 5 courses are non-higher post-secondary courses that confer qualification level 5 of Q.N.Q., lasting approximately one year (between 1200 hours and 1560 hours).

Level 5 qualification is obtained by combining a general or vocational secondary education with post-secondary technical training. Portuguese level V qualifications allow:

- to deepen scientific and technological knowledge in a given area of training;
- to develop their skills for professional practice;
- permits to pursue higher education studies;
- to carry out a professional re-qualification.

Spain provides VET Professional Certificates Level III (Ruled by Ministry of Labour) and VET Formal Education Higher Level Technician Diploma (Ruled by Ministry of Education) corresponding to EQF level 5.

### ***4.3. Level 5 qualifications in different sectors of professional activity***

CEDEFOP analysis shows that qualifications are available for all major economic sectors with a strong focus on services in some countries, also agriculture and forestry, material goods production, transport, tourism and business-related services. In countries in which EQF level 5 qualifications have existed for a long time (such as France and Austria) they are more widely accepted by employers than in those in which they have been developed more recently: "As a newly developed qualifications sometimes compete with a range of others, gaining employer trust takes time."<sup>14</sup> Level 5 qualifications are available for a broad range of study areas and study fields reflecting the major economic sectors:

- Information technology
- Media
- Automatization
- New technologies
- Child care and education
- Health care

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<sup>14</sup> CEDEFOP 'Qualifications at level 5: progressing in a career or to higher education, 2014.

- Tourism and hospitality
- Social work
- Business (retail)
- Logistics

Project partner countries provided examples from service, metal industry sectors, which can illustrate how level 5 qualifications correspond to the sector needs. Italy provides level 5 Social Animator qualification in social services and health, sales Manager for ICT services and products (ICT Account Manager) in business services, Hotel Manager in hospitality sector and expert for research and planning in textile field, fashion designer of fashion industry in textile industry.

Table No 7. Examples level 5 qualifications from service sector

Level 5 qualifications in service sector (Portugal case)	Level 5 qualification in service sector (Italy case)
<p><b>Event Organization and Management (PT)</b>  <b>The Event Organizing and Management Technician</b> is the qualified professional capable of:</p> <ul style="list-style-type: none"> <li>- designing and scheduling events,</li> <li>- organizing and planning different types of events,</li> <li>- budgeting events and identifying potential sources of revenue (eg: financing, sponsorship, etc.);</li> </ul> <p>Possesses technical skills necessary for the production of events, survey of the human resources necessary for the production of events (including volunteers), coordination and monitoring of work teams, as well as evaluation and dissemination of results.</p> <p><b>The Event Organizer and Event Technician</b> is also a qualified professional to analyse the market and develop a supply adjusted to the actual or potential demand, as well as interact with stakeholders.</p> <p><b>Hotel Management</b>  The Superior Professional Technical Course in Hospitality and Accommodation Management aims to train professionals able to supervise, coordinate and control the activities of the reception sections and floors that incorporate the accommodation department of the different hotel units, namely reception, concierge, floors, rooms, common areas, linen and laundry services.</p>	<p><b>Social Animator</b> is able to realize interventions of socio-cultural and educational entertainment, activating processes of psycho-physical development of balance and relationship of people and groups / users and stimulating its recreational, cultural, expressive and manual potential.</p> <p>Knowledge in: evolutionary characteristics and dynamics of change of individuals and groups; tools and techniques of analysis and verification of the interventions: testing, analysis tables, reports, etc.; common principles and practical aspects of current legislation on safety work safety: rules and patterns of behaviour (general and specific).</p> <p>Units of competence</p> <ul style="list-style-type: none"> <li>- Dissemination of information on socio-cultural activities;</li> <li>- Management and coordination of entertainment activities;</li> <li>- Verification and documentation of the results and deviations;</li> <li>- Research, study and update of animation features</li> </ul> <p>Professional skills:</p> <ul style="list-style-type: none"> <li>stimulating socialization and empowerment skills in order to hinder social and emotional isolation;</li> <li>translate needs, manifestos and not, of individuals and groups in exchanges and mutual comparison;</li> <li>identify and encourage opportunities for interaction and social integration;</li> <li>encounter the level of participation and involvement of the users identifying further areas of intervention.</li> </ul>
<p><b>Thermal and Wellness</b>  The Superior Professional in Thermals and Wellness aims to train professionals that are competent to manage and monitor massage techniques, thermal treatments and SPA, intervening in the promotion of good practices and healthy life styles that aim to optimize the well-being according to the characteristics and specificities of each individual.</p>	

*Example of level 5 qualification from metal industry sector (case from Spain)*

FMEC0109 METALLIC CONSTRUCTIONS PRODUCTION
FMEC0209 INDUSTRY PIPING DESIGN <b>Competences</b> Define processes for layout, machining and casting for metallic constructions (UC1151_3). Define processes for joining and assembly of metallic constructions (UC1152_3). Program automated systems for metallic constructions (UC153_3). Supervise production of metal working (UC0592_3). <b>Knowledge</b> Processes of machining and casting for metal constructions Processes of joining and assembly for metal constructions (MF1152_3). Programming automated systems for metal constructions (MF1153_3). Supervision and control of processes on metal working (MF0592_3). Practical training at the workplace in Metallic constructions production (MP0180)

As it is clear from examples provided, general NQF level 5 descriptors are very general compared to the specific descriptions in selected sectors. Described in terms of skills, knowledges, competences and abilities these qualifications can be understood internationally by users and employers and therefore can be recognised. Future work lies at the crossroads of transparency and quality. Overall relevance of international qualifications requires that they are trusted by potential users. This can only be achieved by systematically creating an overview of what exists and emerges, and by systematically addressing the need for accountability and openness regarding the process leading to a particular qualification.

Level descriptors are sometimes criticized for being too broad and generic to be applicable to a specific qualification from a specific sector, level descriptors only provide guidance with regard to the levels. As it is stated in UNESCO guide for level-setting and recognition of learning outcomes<sup>15</sup>, therefore, level descriptors should not be seen as sufficient precise instruments in themselves to enable learner achievement to be located at specific levels within the framework. Instead level descriptors should provide sufficient information to arrive collectively at rational decisions about how particular clusters of learning achievement can be compared with other similar clusters within the framework.

#### **4.4. Using learning outcomes in descriptors for qualifications and training programmes**

Learning outcomes are increasingly being used in global context 'as a dynamic tool for modernisation and reform' (CEDEFOP, 2009). Learning outcomes can be defined as statements of what a learner knows, understands and is able to do after the completion of learning or as knowledge, skills and aspects of competence that a learner is expected to know and be able to do<sup>16</sup>.

The learning outcomes are very differently described for the specific qualifications studied. First of all, there is a difference in the scope what is described, this could be either full qualifications or separate units/modules of qualifications. Secondly, the concepts and terminology used differs across qualifications and national contexts. There is little evidence that the NQF level descriptors are actually being used to describe the qualifications in terms of learning outcomes. No noticeable differences were found between VET and HE systems descriptions. Descriptions are developed on the basis of a professional /occupational profile.

From a review of cases from partner countries it is evident that learning outcomes are understood to be statements that describe mainly three major domains: knowledge (learning to know), skills (learning to do) and competences (learning to be).

These three domains are in themselves contested concepts, and interpretations vary across contexts. In cases provided by project partner countries it is obvious, that learning outcomes based training/study programmes are oriented towards actual function in a working place:

<sup>15</sup> Keevy, J. Chakroun B., Level-setting and recognition of learning outcomes. The use of level descriptors in the twenty-first century. UNESCO, 2015.

<sup>16</sup> The Shift to Learning Outcomes. Luxembourg, CEDEFOP, 2009.



### ***Example of level 5 qualification in Portugal: Hotel Management***

- Define strategic positioning of the accommodation department, as well as products and services in the hotel unit, taking into account its relations with other departments and new market trends
- Elaborate the organization chart of the accommodation department, as well as the workflow and communication of the different sectors
- Define and control service rules of different sectors, as well as procedures regarding reservation, arrival, reception, stay and departure of guests, cleaning and storage of public areas, rooms and laundry / clothing and inventory and maintenance of equipment / utensils
- Develop and implement management tools relating to the control of reservations, guest accounts, costs, billing, sales using specific computer software
- Define and implement management policies of the housing department based on different customer profiles
- Analyze and evaluate financial and commercial results, through statistical analysis and follow-up reporting
- Negotiate with suppliers and outsourcing companies, aiming at the minimization of costs and quality control of the products and / or services purchased
- Implement corrective management measures to optimize resources and increase revenue
- Ensure the security of customer services, identifying risk situations and acting in compliance
- Define commercial objectives taking into account marketing and sales strategies, with the objective of defining the positioning of the hotel unit and the policy of communication with the customer
- Deal with customer complaints and suggestions

### ***Example of level 5 qualification in Spain: FMEC0109 METALLIC CONSTRUCTIONS PRODUCTION***

- Prepare processes of layout, machining, casting, joining and assembly for the manufacture of metal construction products under conditions of quality and profitability.
- Prepare joining procedures that are approved for metallic constructions.
- Program and handle automated machining, cutting and/or welding equipment, according to a given manufacturing process.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

The challenge is attempting to draw on the complementary nature of learning outcomes, influenced by the lifelong learning discourse, and competences, influenced by the competency-based approach, is fixed in the formulation of learning outcomes provided in examples. Depending on the specificity of sector needs and functions in working place, some learning outcomes need to focus more on knowledge, understanding, skills and the ability to do, while other set of learning outcomes need to focus more on the competencies. In such context applied competence can be used as a useful concept that explicitly focuses on the application of knowledge and skills in specific contexts. Some competencies in the examples provided can be seen as core competencies or key competencies or 'transferable skills'.

The way the study intensity/volume or duration of the course leading to the level 5 qualification is expressed is largely dependent on the sub-system the qualification is related to ECTS points hours years/months. Entrance requirements also may vary from country to country. The mode of delivery can be school-based, work-based and dual (combination of both).

<i>Examples</i>	<i>Portugal</i>	<i>Spain</i>	<i>Lithuania</i>
<b>Duration of training programmes</b>	2 year	1,5 years	1,5 years, volume in vocational training credits: 90
<b>Entrance requirements</b>	<p>Holders of a secondary education course or legally equivalent qualification.</p> <p>Holders of a diploma of technological specialization, of a diploma of professional superior technician or of a degree of higher education, who wish their professional requalification.</p> <p>Those who have passed the appropriate tests to assess the ability to attend higher education of those over 23 years of age for the course in question.</p>	<p>Secondary studies (Bachiller) or Professional Certificate Level II (same qualification family and area) or Professional Certificate Level III</p>	<p>Secondary education certificate</p> <p>Vocational training programme intended for the holders of vocational qualification at levels 3 or 4 and having practical experience in the related field of at least 3 years.</p>
<b>Training/study programme providers</b>	Higher Education Institution	Certified VET centers ruled by Ministry of Labour Educational VET Centers ruled by Ministry of Education	VET institutions

In addition, a distinction can be made between full-time and part-time education programmes. The mode of delivery depends on the sub-system the qualification belongs to: predominantly, the HE governed qualifications are 'school-based' including a considerable work-based part. For the VET governed qualifications at the EQF level 5, the focus is more on gaining practical experience while learning. Professional qualifications, often procedures for validation of prior experience general education systems are generally school-based qualifications in the formal HE sub-system are often more uniformly described in terms of mode of delivery and volume of the programme. When relating the learning outcome descriptions and the mode of delivery, it can be observed that when there is more emphasis on generic, transversal competences, the mode of delivery tends to be more school-based. On the other hand, focus on technical/occupational skills translates into a more work-based mode of delivery.

## Concluding remarks

The study demonstrates that EQF level 5 qualifications play an important role; in particular, they help achieve a range of policy objectives and respond to several challenges countries are currently facing. Level 5 qualifications allow people to acquire advanced technical and/or management competences, improving their job prospects and helping them change or progress in their careers.

Level 5 qualifications have their double function – combining labour market orientation with progression opportunities to/within higher education – makes them attractive to learners, also they demonstrate the importance of vocationally- and professionally-oriented qualifications in tertiary, higher education and training.

It is obvious that qualifications at level 5 contribute to lifelong learning by being attractive and accessible to adult and non-traditional learners, as in some countries, access to programmes and qualifications at level 5 can be acquired through validation of work experience and non-formal and informal learning.

The study demonstrates that progression can take place in many directions, vertically as well as horizontally by acting as a bridge between education and training institutions and subsystems.

Exploring the different types and purposes of qualifications at EQF level 5 in European countries helped to identify differences and challenges between countries. One of the main challenges for future developments is to promote the participation of all relevant stakeholders including higher education and vocational education and training institutions, social partners, sectors, and experts in to the developments of sectoral qualification descriptors.



Development of clear qualification descriptors will assure that these objectives will be met and that qualifications will be based on clear learners and employers needs and provide better carrier opportunities and access to the labour market as well as transition towards higher education. Internationally comparable and transparent qualifications descriptors will provide information for professionals who will use them while creating a CVET or Higher education programmes based on learning outcomes, formulate qualifications and occupational standards in sectors, for employers interested in continuous training and competency upgrade of staff and for the learners aiming for international mobility and lifelong learning.

## Annex No. 1.

### *Case studies for international comparison of level 5 qualifications in partner countries*

	<b><i>Questions for international comparison of EQF level 5 qualifications:</i></b>
	Do your country has a national Qualification framework compliant with EQF?
	How this level is described in national qualification framework?
	What level of national qualification framework corresponds to EQF level 5?
	What type of qualifications are referenced to level 5 of the EQF in your country? What are the key purposes and functions of qualifications assigned to EQF level 5?
	Please provide example of qualifications linked to level 5 of the EQF in related sectors:
	Please provide example of <i>qualifications descriptions</i> at level 5 of the EQF in related sectors:
	Please provide an example of training/study programme at level V of the EQF in related sectors in your country: Main parameters of the programme Entrance requirements Training/study programme providers
	Do qualifications in vocational education and training are based (described) on learning outcomes? Example
	Additional information, recent developments/reforms regarding sectoral qualification frameworks, national qualification framework and qualification descriptors worth to be mentioned.

**Case study (Italy): Essenia Uetp**

No.	<b>Please provide answers below:</b>
1.	<p>Yes, the Italian qualification framework consists of 8 levels of qualifications that are linked to the European Qualifications Framework.</p> <p>On December 20th 2012, the State-Regions Conference approved the “First Italian Referencing Report to the European Qualifications Framework EQF”, presented to the Advisory Group (European coordination table for EQF) in the following May and then officially transmitted to the European Commission in 2014. In this way Italy joins the growing number of countries that have implemented the EQF Recommendation.</p>
2.	<p>The types of level 5 qualifications in Italy refer to the higher technical diploma. The corresponding trainings are:</p> <ul style="list-style-type: none"> <li>- Courses held as part of Higher Technical Institutes (Istituti Tecnici Superiori - ITS);</li> <li>- Higher Technical Education and Training (Istruzione e Formazione Tecnica Superiore - IFTS).</li> </ul> <p>The level 5 refers to the following learning outcomes that are divided into:</p> <ul style="list-style-type: none"> <li>- KNOWLEDGE Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge</li> <li>- SKILLS A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems</li> <li>- COMPETENCE Exercise management and supervision in contexts of work or study activities where there is unpredictable change. Review and develop performance of self and others.</li> </ul> <p>In Higher Technical Education and Training (IFTS) recognition of input training credits is provided, as a result of an evaluation and validation process as well as formal learning, including competences acquired in different experiential contexts such as workplace, social and private life. The input training credit can be granted to those who have already benefited from other training or carried out specific professional experience and can provide access to training also to those who have not obtained high school degree.</p> <p>The Decree of the President of Council Ministers of January 25th, 2008 entitled “Guidelines for the reorganization of the educational and higher technical training system and the establishment of the Technical Colleges” provides both for IFTS and ITS that:</p> <ul style="list-style-type: none"> <li>a) respond to the achievement, at national level, of homogeneous quality levels and usability of skills acquired as a result of the training course, also within the European Union;</li> <li>b) curricula of courses refer to common linguistic, scientific and technological, legal and economic, organizational, communication and interpersonal skills, at different levels, as well as technical and professional skills related to the specific higher technical role, declined in relation to European Union indicators related titles and qualifications.</li> </ul> <p>For ITS qualifications, related to the six technological areas under the Prime Minister’s Decree in 2008, articulated in various sectors, the Ministerial Decree of September 7, 2011 provides that “the skills in response of ITS courses are referred to national figures and refer to the Framework European qualifications for lifelong learning EQF” and include: - language, communication, social, scientific and technological, legal and organizational, managerial and economic skills, common to all the national figures; - specific technical and professional skills for each national figure.</p>
3.	<p>Level 5 of Italian national framework corresponds to level 5 of EQF</p>
4.	<p>The Higher Technical Education and Training system is made up of:</p> <ul style="list-style-type: none"> <li>-Courses organized by Higher Technical Institutes (ITS);</li> <li>-Higher Technical Education and Training pathways (IFTS).</li> </ul> <p>Higher Technical Institutes (ITS), established on the basis of Regional Territorial Plans, are specific types of participative foundations. The organizational standard states that founders of these institutes are: an upper secondary school, both technical or vocational, state or fully recognized; a training centre accredited by the Region for the purpose of higher training; an enterprise operating in the same production area as the higher technical school; a university department or another organization operating in the field of scientific and technological research; a local institution (municipality, province, mountain community, etc.).</p>

Higher Technical Institutes (ITS) can be attended by young people and adults holding a Diploma di istruzione secondaria superiore (Upper secondary education diploma). ITS courses last 4 semesters for a total of 1800/2000 hours. At the end of ITS courses, a Diploma di tecnico superiore (Higher technical education diploma) is issued. These qualifications, awarded by the Ministry of Education, concern different technological areas (see relevant table) identified to meet the needs of the public and private labour market, in particular of small and medium-sized enterprises, and areas of high technological innovation and internationalization of market.

Technological areas	Specializations
Energy efficiency	1.1 Energy production and supply 1.2 Highly-efficient and energy-saving processes and plants
Sustainable mobility	2.1 Mobility of persons and goods 2.2 Production and maintenance of transportations and infrastructures 2.3 Management of info-mobility and logistic infrastructures
New technologies for life	3.1 Industrial and environmental biotechnologies 3.2 Production of biomedical and diagnostic devices
New technologies for "Made in Italy"	4.1 Food System 4.2 House system 4.3 Mechanic system 4.4 Fashion system 4.5 Services to enterprises
Innovative technologies for cultural heritage and activities - Tourism	5.1 Fruition and optimization of the cultural heritage 5.2 Preservation, enhancement and security of cultural buildings and sites
Information and Communication Technologies	6.1 Methods and technologies for software system development 6.2 Organization and fruition on information and knowledge 6.3 Communication architectures and infrastructures

They can also be attended by people who: have completed the four-year courses obtaining a professional degree; have received an admission to the fifth year of a course of high school education; without a diploma, have had a certification of competences acquired in previous education, training and work.

IFTS courses last 2 semesters, for a maximum of 800/1000 hours. At the end of an IFTS course, a Certificato di specializzazione tecnica superiore (Higher technical specialization certificate) is awarded by Regions. The specialization fields include: Agriculture, Industry and Manufacturing (manufacturing products, ICT, construction), Tourism, Transportation, Public Services and private services of public interest, insurance and financial Services.

Both types of curricula - IFTS and ITS - are made up of units (Unità capitalizzabili, UC); this structure is consistent with the Learning Outcomes (LOs) approach.

	<p>The differences between IFTS and ITS courses are summarized as follows:</p>		
		<p>IFTS courses</p>	<p>ITS courses</p>
<p>Training partners involved</p>		<p>Secondary education school Training Centre University Enterprise</p>	<p>Secondary education school of the Province where the foundation is based Training centre accredited by the Region Enterprise Scientific Department Local institution</p>
<p>Admission requirements</p>		<p>Diploma di istruzione secondaria superiore (Upper secondary education diploma) or admission test for the assessment of competencies</p>	<p>Diploma di Istruzione secondaria superiore (Upper secondary education diploma)</p>
<p>Economic Fields / Technological Areas</p>		<p>Agriculture, Industry and Manufacturing/ Tourism/ Transportation/Public services and private services of public social interest /Insurance and financial services</p>	<p>Energy efficiency, sustainable mobility, new technologies for life, new technologies for “Made in Italy”, innovative technologies for cultural heritage and activities, information and communication technologies.</p>
<p>Length of courses/ specializations</p>		<p>2 semesters (800/1000 hours)</p>	<p>4 semesters (1800/2000 hours); possibility of 6-semester courses</p>
<p>Certificate awarded</p>		<p>Certificato di specializzazione tecnica superiore (Higher technical specialization certificate)</p>	<p>Diploma di tecnico superiore (Higher technical education diploma)</p>
<p>5.</p>	<p><b>SOCIAL SERVICES AND HEALTH:</b> Social Animator <b>BUSINESS SERVICES:</b> Sales Manager for ICT services and products (ICT Account Manager) <b>HOSPITALITY:</b> Hotel Manager <b>TEXTILE FIELD:</b> Expert for research and planning in textile field, fashion designer of fashion industry</p>		
<p>6.</p>	<p>Qualifications in education and vocational training are described according to learning outcomes. The socio-educational animator works in promoting social participation and development of the potential of people, groups and local communities, aimed at develop prevention of discomforts, facilitates insertion, participation and social gathering with the aim of stimulating the expression, communication and participation of individuals or groups, so helping to improve their quality of life. Under the various health and social and socio-cultural services in the region, he helps designs and manages educational, recreational and cultural activities, in direct contact with children, teenagers, elderly and disabled people and with problems of different nature. The activities take place within a wider socio-educational process designed as a team with other social workers as professional educators, psychologists, cultural mediators, social workers. Through theatre, play, crafts, music and dance, the animator develops community life activities, whether occasional or permanent, with preventive, educational and social integration. It promotes recovery and development of personal potential, inclusion and social participation of individuals, defining social animation, educational, recreational and cultural interventions according to the identified needs.</p>		
<p>7.</p>	<p>The animation techniques are acquired through a course of Higher Technical Education and Training (IFTS) or similar initiative of one year. The course is divided into a first theoretical level for basic knowledge of the pedagogical, sociological, anthropological, legal and economic subjects and in a second practical level aimed at testing methods and techniques of social animation. During the course, the socio-educational animator can choose a specialization address, based on the type of activity he would like to do (with children, adolescents, the elderly, the disabled, drug addicts, etc.). After the course, he may decide to continue to the achievement of the Bachelor Degree in Pedagogical Sciences, for which he can get a number of Credits from IFTS course.</p>		

8.	<p>TRAINING AREA: social and health services</p> <p>Social Animator is able to realize interventions of socio-cultural and educational entertainment, activating processes of psycho-physical development of balance and relationship of people and groups / users and stimulating its recreational, cultural, expressive and manual potential.</p> <p>UNIT OF COMPETENCE: Social Animation</p> <p>INDICATORS:</p> <ul style="list-style-type: none"> <li>- Dissemination of information on socio-cultural activities;</li> <li>- Management and coordination of entertainment activities;</li> <li>- Verification and documentation of the results and deviations;</li> <li>- Research, study and update of animation features.</li> </ul> <p>SKILLS: stimulating socialization and empowerment skills in order to hinder social and emotional isolation; translate needs, manifestos and not of individuals and groups in exchanges and mutual comparison; identify and encourage opportunities for interaction and social integration; encounter the level of participation and involvement of the users identifying further areas of intervention.</p> <p>KNOWLEDGE: evolutionary characteristics and dynamics of change of individuals and groups; tools and techniques of analysis and verification of the interventions: testing, analysis tables, reports, etc.; common principles and practical aspects of current legislation on safety work safety: rules and patterns of behaviour (general and specific).</p>
9.	<p>The link between the European Framework EQF and constituting national certification system is strengthened through the Legislative Decree no. 13/2013. It states that only qualifications that refers to EQF can become a part of the National Qualifications Repertory. Therefore, the guidelines established by Europe to promote transparency between the Education systems and support the mobility of people and recognition of their skills, is incorporated in the Italian strategy for the construction of the certification and lifelong education system. With the Agreement of January 2015 on the “definition of an operating framework for the national recognition of the regional qualifiers and related skills (...)”, the national courts cross again with the referencing process, when the second phase is going to start. The qualifications issued by the Regions are an aggregate of different objects, with difficulties to refer to a small number of types; therefore the technical choice made in the first phase of referencing, or to reference the types of qualifications to the EQF directly without passing by the institution of a National Framework, does not appear sustainable. Besides Italy’s choice does not fit with any of the other countries that have already started or completed the referencing process. Therefore, qualifications are made transparent for the international recognition through referencing to the European Framework, while building the reference operational framework for ensuring the recognition of qualifications issued by the Regions and Autonomous Provinces throughout the country. In addition, the methodology that is shared for the progressive correlation of regional qualifiers, allows taking a step forward in the direction of kicking off the new phase of referencing and the same operating panel is hinged to the minimum requirements for the construction of a National Framework of Qualifications.</p> <p>Italy is thus moving in line with other countries towards the establishment of such a national framework of qualifications divided by levels and defined in line with descriptors. This integrates with ongoing activities for the correlation of regional qualifiers and the definition of a framework, which is set to be the basis of the forming national repertoire.</p> <p>The evolution of the Italian qualifications is illustrated below:</p> <p>2012</p> <ul style="list-style-type: none"> <li>• Agreement State - Regions (December 2012) for the adoption of the Referencing Report</li> </ul> <p>2013</p> <ul style="list-style-type: none"> <li>• LEGISLATIVE DECREE January 16, 2013, n. 13:</li> <li>• establishment of the National Register of education, training and professional qualifications;</li> <li>• definition of the minimum standards of the national skills certification system service (process, certification, system)</li> </ul> <p>2015</p> <ul style="list-style-type: none"> <li>• DECREE June 30, 2015: definition of a Operational Framework for recognition at a national level of regional qualifiers and related skills</li> </ul> <p>2016</p> <ul style="list-style-type: none"> <li>• Development of an operative national framework for regional qualifications (06/30/2016)</li> <li>• Development of the National Qualifications Framework level descriptors (06/30/2016)</li> </ul> <p>2017</p> <ul style="list-style-type: none"> <li>• Approval of the National Qualifications Framework level descriptors</li> <li>• Definition of procedures for the inclusion of qualifications in the National Framework of Qualifications</li> <li>• Starting the referencing process to the National Framework of Qualifications</li> </ul>

**ESPROMINHO**

<b>No.</b>	<b>Please provide answers below:</b>
1.	<p>Portugal has national Qualification framework compliant with EQF that consists in 8 levels. The EQF levels were implemented in 2010.</p> <p>The options taken regarding the design and structuring of the NQF were thought to respond in a clear and objective manner to identified premises:</p> <p>The scope: the NQF covers basic, secondary and higher education, vocational training and the processes of recognition, validation and certification of competences whether obtained by non-formal or informal means;</p> <p>The structuring of 8 levels of qualification that cover all the qualifications currently produced in our education and training system;</p> <p>The adoption of the methodology based on learning outcomes to characterize each level of qualification. The NQF thus enables the skills acquired to be compared regardless of how they were acquired (in formal, informal or non-formal contexts). The description of performance-based qualifications enables individuals and employers to have a clearer perception of the relative value of qualifications, which contributes to the better functioning of the labor market. On the other hand, transnational mobility is facilitated by the comparability of qualifications which is ensured by the NQF and facilitated through the relationship with the EQF;</p> <p>The adoption of the “knowledge, skills and attitudes” domains for the definition of learning outcomes for each level of qualification;</p> <p>Adoption of the learning outcomes descriptors in the EQF to describe levels of qualification.</p>
2.	<p>Description of the NQF level V qualifications:</p> <p><i>Knowledge</i> Comprehensive, specialized, factual and theoretical knowledge in a given area of studies or work and awareness of the limits of that knowledge.</p> <p><i>Skills</i> A comprehensive range of cognitive and practical skills necessary to design creative solutions for abstract problems.</p> <p><i>Competence</i> To manage and supervise in study or work contexts that are subject to unpredictable changes. To review and develop their own performance and the performance of others.</p>
3.	<p>The NQF level V qualifications correspond to EQF level V.</p>
4.	<p>Level V qualifications allow:</p> <ul style="list-style-type: none"> <li>- to deepen scientific and technological knowledge in a given area of training;</li> <li>- to develop their skills for professional practice;</li> <li>- permits to pursue higher education studies;</li> <li>- to carry out a professional re-qualification.</li> </ul> <p>Level 5 courses are non-higher post-secondary courses that confer qualification level 5 of Q.N.Q., lasting approximately one year (between 1200 hours and 1560 hours).</p> <p>Level 5 qualification is obtained by combining a general or vocational secondary education with post-secondary technical training.</p> <p>This training is characterized by:</p> <ul style="list-style-type: none"> <li>- corresponding to a high-level technical training;</li> <li>- including knowledge and skills that belong to a higher level;</li> <li>- not requiring, in general, the mastery of the scientific bases of the different areas concerned;</li> <li>- making it possible to assume, in a generally autonomous or independent manner the responsibility for design, administration or management.</li> </ul> <p>Training plan The Training Plan integrates:</p> <ul style="list-style-type: none"> <li>- a general and scientific training component;</li> <li>- a component of technological training;</li> <li>- work-related training.</li> </ul>



	<p>The general and scientific training component aims to:</p> <ul style="list-style-type: none"> <li>- develop appropriate attitudes and behaviours for professionals with a high level of professional qualification;</li> <li>- develop adaptability to the world of work and enterprise;</li> <li>- to improve the knowledge of the fields of scientific nature that underlie the technologies of the training area.</li> </ul> <p>Workload:</p> <ul style="list-style-type: none"> <li>- corresponds to 15 per cent of the number of hours determined for all components of general and scientific and technological training.</li> </ul> <p>The technological training component integrates:</p> <ul style="list-style-type: none"> <li>- practical activities related to technological fields;</li> <li>- problem solving in the scope of professional practice.</li> </ul> <p>Workload:</p> <ul style="list-style-type: none"> <li>- corresponds to 85 per cent of the number of hours determined for all components of general and scientific and technological training.</li> </ul> <p>The training component in work context aims to:</p> <ul style="list-style-type: none"> <li>- apply knowledge and acquired knowledge to the practical activities of their professional profile;</li> <li>- perform activities under guidance, using techniques, equipment and materials that are integrated in the processes of production of goods or services.</li> </ul> <p>Workload:</p> <ul style="list-style-type: none"> <li>- shall not be less than 360 hours nor more than 720 hours.</li> </ul> <p>This training is developed in partnership, established between the training institution and companies, other employers, business or socio-professional associations among others, and can adopt different modalities, namely internships.</p>
5.	<p>Example 1: Event Organization and Management Example 2: Hotel Management Example 3: Thermal and Wellness</p>
6.	<p><i>(Could not find formal descriptors, but maybe these adapt to them.)</i></p> <p><b>Example 1: Event Organization and Management</b></p> <p>The Event Organizing and Management Technician is the qualified professional capable of designing and scheduling events, organizing and planning different types of events, budgeting events and identifying potential sources of revenue (eg: financing, sponsorship, etc.); Technical skills necessary for the production of events, survey of the human resources necessary for the production of events (including volunteers), coordination and monitoring of work teams, as well as evaluation and dissemination of results. The Event Organizer and Event Technician is also a qualified professional to analyze the market and develop a supply adjusted to the actual or potential demand, as well as interact with stakeholders.</p> <p><b>Example 2: Hotel Management</b></p> <p>The Superior Professional Technical Course in Hospitality and Accommodation Management aims to train professionals able to supervise, coordinate and control the activities of the reception sections and floors that incorporate the accommodation department of the different hotel units, namely reception, concierge, floors, rooms, common areas, linen and laundry services.</p> <p><b>Example 3: Thermal and Wellness</b></p> <p>The Superior Professional in Thermals and Wellness aims to train professionals that are competent to manage and monitor massage techniques, thermal treatments and SPA, intervening in the promotion of good practices and healthy life styles that aim to optimize the well-being according to the characteristics and specificities of each individual.</p>



7. **Example 1: Event Organization and Management**

*Curricular units*

*1<sup>st</sup> year*

English  
Portuguese Language  
Fundamentals of Management  
Fundamentals of Tourism  
Information Technologies  
Budget Management  
Event Marketing  
English for Tourism and Events  
Projects and Incentives in Events  
Tourism and Consumer Law

*2<sup>nd</sup> year*

Tourist Animation  
Event Planning  
Market Research 6  
Event Logistics 6  
Protocol and Public Relations 6  
Internship

*Entrance Requirements*

Holders of a Level 4 vocational secondary education course.  
 Holders of the 12th full year, or legally equivalent qualification.  
 Holders of a diploma of technological specialization  
 Holders of a higher education degree who wish to be retrained.

*Training/study programme providers*

Higher Education Institution

**Example 2: Hotel Management**

*Curricular units*

*1<sup>st</sup> year*

Information and Communication Technologies  
English language  
Principles of Organization and Management  
Anthropology in Hospitality  
Introduction to Hospitality  
Business etiquette and protocol  
Applied Quantitative Methods  
Applied English Language  
Legislation, Ethics and Accessibility in Housing  
Reception Management  
Floor Service Management  
People and Team Management

*2<sup>nd</sup> year*

Spanish language  
Sales techniques  
Software Practice and Customer Management  
Accommodation Hygiene and Security  
Budget Management in Hospitality  
Restaurant and Room Service  
Internship

*Entrance Requirements*

Holders of a secondary education course or legally equivalent qualification  
 Holders of a diploma of technological specialization, of a diploma of professional superior technician or of a degree of higher education, who wish their professional requalification

	<p>Those who have passed the appropriate tests to assess the ability to attend higher education of those over 23 years of age for the course in question</p> <p><i>Training/study programme providers</i> Higher Education Institution</p> <p><b>Example 3: Thermal and Wellness</b></p> <p><i>Curricular units</i> <i>1<sup>st</sup> year</i> English Language Communicate in Portuguese – Mother Language and Literature Psychology Biology and Biochemistry – Anatomical-physiological bases Health – Introduction to thermalism Health – Quality of life and well being Legislation and regulations applied to hot springs Nutrition and Food Safety and hygiene at work Management of Human and Technical Resources in Spa</p> <p><i>2<sup>nd</sup> year</i> Notions of hydrology and crenotherapy Hydrology and Hydrological Techniques Hydrologic therapy Complementary techniques and therapies General pathology Internship</p> <p><i>Entrance Requirements</i> Holders of a secondary education course or legally equivalent qualification Holders of a diploma of technological specialization, of a diploma of professional superior technician or of a degree of higher education, who wish their professional requalification Those who have passed the appropriate tests to assess the ability to attend higher education of those over 23 years of age for the course in question</p> <p><i>Training/study programme providers</i> Higher Education Institution</p>
8.	<p><b>Example 1: Event Organization and Management</b></p> <p>Organize and plan various types of events; Prepare budgets and analyze budget deviations; Develop and implement the eight event-specific marketing-mix policies; Communicate and promote events effectively and efficiently; Interpret and manage the information received and produced, using appropriate computer applications; Apply the protocol rules specific to each event typology; Identify and develop funding and sponsorship partnerships; To develop actions of tourist animation; Identify and adjust main and complementary products and services to demand; Determine the optimal price for events and complementary products / services; Generate demand for events through innovation; Create, develop and consolidate the image and positioning of events; Develop service packages for events, namely, transportation, accommodation, catering and ticketing; Identify and apply appropriate tools to interpersonal, intra and inter-organizational relationships.</p>

***Example 2: Hotel Management***

Define strategic positioning of the accommodation department, as well as products and services in the hotel unit, taking into account its relations with other departments and new market trends  
Elaborate the organization chart of the accommodation department, as well as the workflow and communication of the different sectors.

Define and control service rules of different sectors, as well as procedures regarding reservation, arrival, reception, stay and departure of guests, cleaning and storage of public areas, rooms and laundry / clothing and inventory and maintenance of equipment / utensils.

Develop and implement management tools relating to the control of reservations, guest accounts, costs, billing, sales using specific computer software.

Define and implement management policies of the housing department based on different customer profiles.

Analyze and evaluate financial and commercial results, through statistical analysis and follow-up reporting.

Negotiate with suppliers and outsourcing companies, aiming at the minimization of costs and quality control of the products and / or services purchased.

Implement corrective management measures to optimize resources and increase revenue.

Ensure the security of customer services, identifying risk situations and acting in compliance.

Define commercial objectives taking into account marketing and sales strategies, with the objective of defining the positioning of the hotel unit and the policy of communication with the customer.

Deal with customer complaints and suggestions.

***Example 3: Thermal and Wellness***

Design programs of thermalism and wellness according to the characteristics and specificities of the age group.

Manage hot treatments, healthy lifestyles, and eating behaviors with the person being treated.

Evaluate and forward the aquista, providing necessary assistance, taking into account the signs and symptoms of the individual in face of the treatments.

Coordinate multidisciplinary teams motivating them to fulfill a holistic intervention.

Implement good practices respecting the norms of use, maintenance and conservation of equipment and materials, as well as their plans for maintenance and sanitation of balneotherapy and SPA's.

Monitor the records of welfare activities and the programming of developed dynamics, making the necessary adjustments in order to ensure the quality of services.

Systematize data related to the evaluation of customer satisfaction, acting in a way to promote the continuous improvement of services.

### Case study (Lithuania): KGVTC, KMVTC

No.	Comments
	<p>Yes. The Lithuanian qualifications framework consists of 8 qualifications levels that are linked to EQF. LTQF was formally adopted through a government resolution at 2010. The Framework is based on eight learning outcomes levels and covers all officially recognised qualifications (primary and secondary general education, vocational education and training and higher education). Level descriptors in LTQF are based on two parameters: Characteristics of activities (complexity, autonomy, variability of activity) and types of competences (functional, cognitive, general (or key competences)).</p> <p>LTQF has now entered and operational stage, but is to be considered still under development.</p>
2.	<p>Description of the qualifications level V of NQF</p> <p>Qualification is intended for activity marked by complex coordination of activity tasks in different activity areas. Activity includes evaluation of worker's competences and their training. Activity requires to match exhaustive knowledge of the activity field with general knowledge while resolving different specialized activity tasks in several different activity areas. A worker carries out activity independently, activity is supervised limiting only to the evaluation of results. Activity tasks are set out by a worker of a higher qualification who often provides to the performer of the activity possibilities to select ways and tools to resolve these tasks. A worker manages activity of the workers of a lower qualification, plans and distributes activity tasks, supervises activity performance, consults and checks performance quality. Technological and organizational requirements of activity and its environment is constantly changing, changes are often unpredictable and may be related with new activity fields.</p>
3.	level 5 of LNQF corresponds to EQF level 5
4.	Qualifications of level 5 are acquired through learning under training programmes intended for individuals who have a professional qualification and experience in professional activity of the prescribed duration, non-degree awarding study programmes (except residency studies) and/or from professional activity experience and through independent learning.
5.	<p>Metal sector: Welder master Construction sector: Thermal insulator master Service sector: Hospitality services manager</p>
6.	Under development still
7.	<p>Service sector: Training programme for Hospitality Services Manager Modular vocational training programme, duration 1,5 year, volume in vocational training credits: 90 Entrance requirements: Secondary education certificate Vocational training programme intended for the holders of vocational qualification at levels 3 or 4 and having practical experience in the related field of at least 3 years.</p> <p>Provider: Vocational training center</p>
8.	<p>Yes. Modular training programme uses learning outcomes to describe outcomes of the training programmes Example: After successful completion of the programme learner will be able to: Assess the needs of hospitality services and to carry out survey about guest needs for cultural, leisure or sport activities; and potential clients; to prepare scenarios of various cultural, leisure or festive events.</p>

**Case study (Spain) Fundación Laboral del Metal**

No.	<i>Please provide answers below:</i>
1.	<p>Spain has currently a draft of a NQF for lifelong learning (<i>Marco Español de Cualificaciones</i>, MECU), based on learning outcomes. It will link and coordinate different education and training subsystems. The framework will include qualifications obtained in compulsory education, in post-secondary and higher education and will integrate validation of non-formal and informal learning processes. The draft Royal decree on the introduction of MECU has now been prepared following delay due to restructuring of the government. It defines levels and level descriptors as the basis for referencing the MECU to the EQF levels. It has been supervised and positively reported by the national advisory bodies <sup>2</sup>. NQF is a pending subject to be approved by the country parliament. The higher four levels of MECU will be linked to the qualifications framework for higher education (<i>Marco Español de Cualificaciones para la Educación Superior</i>, MECES), which has been put in place separately.<sup>3</sup></p> <p>Developments take into account experiences with the national catalogue of professional qualifications, established by the Law on Qualifications and Professional Training in 2002. Of special attention, and lively discussion, are levels 3 and 4 of the NQF, where formal vocational qualifications/titles, regulated by the Ministry of Education and professional qualifications/certificates under the remit of Ministry of Labour would be assigned. They are different in scope of learning they acquire, but can be linked to the same level of the catalogue.</p>
2.	<p>NQF Level 5, in the draft document is described as:</p> <p><b>A) Knowledge.</b></p> <ul style="list-style-type: none"> <li>- Possessing and understanding knowledge</li> <li>(1) <u>Specialized knowledge</u> in an area of study or professional, With critical understanding for the transfer of knowledge, its Integration and innovation.</li> </ul> <p><b>B. Skills or abilities.</b></p> <ul style="list-style-type: none"> <li>- Apply knowledge</li> <li>(2) <u>Application and integration of knowledge</u> and technologies Advanced or specialized in the definition and development of processes Predictable and unpredictable work.</li> <li>(3) <u>Management and supervision of techniques</u>, results of work and Fulfillment of objectives developed by oneself and others.</li> <li>- Communicate in a variety of languages</li> <li>(4) <u>Communication of knowledge</u>, skills, feelings and Activities in predictable and unpredictable contexts.</li> <li>(5) <u>Adequate use of technological</u> resources in a field of work or study.</li> <li>- Ability to analyze</li> <li>(6) <u>Analysis of the consequences of the actions</u> themselves and those of the In predictable and unpredictable contexts.</li> <li>(7) <u>Analysis of varied and comprehensive information</u> needed to assess and Response to problems within a field of study or professional.</li> <li>(8) <u>Research and application of creative</u> and innovative solutions in Problem solving in a field of study or professional.</li> </ul> <p><b>C. Competences</b></p> <ul style="list-style-type: none"> <li>- Learning ability</li> <li>(9) <u>Self-management of training</u> in a field of study or professional In order to progress in training at higher or higher levels. Improve the application of new knowledge.</li> </ul>

<sup>18</sup> Spanish qualifications framework. State-of-play. October 2012 [internal].

<sup>19</sup> <http://www.boe.es/boe/dias/2011/08/03/pdfs/BOE-A-2011-13317.pdf> [accessed 5.12.2012].

	<p><b>- Attitudes</b>          (10) <u>Autonomy and responsibility</u> for carrying out foreseeable activities and Not foreseeable in a professional field, and with responsibility for the <u>Supervision</u> of the activities of dependents.          (11) <u>Responsibility and autonomy</u> for the implementation and monitoring of The prevention of occupational hazards, the safety of people, the Quality of work and environmental protection of the environment in which Develops the professional activity.</p>																																												
3.	<p>The correspondence of EQF with the different levels of Spain educational system would be:</p> <table border="1"> <thead> <tr> <th>NQF Pending Legal Regulation</th> <th>EQF</th> <th>Professional Certificates (Ruled by Ministry of Labour) National Qualifications Catalogue</th> <th>VET Formal Education (Ruled by Ministry of Education)</th> <th>MECES (European Qualification Framework for Higher Education)</th> </tr> </thead> <tbody> <tr> <td>Nivel 1</td> <td>Nivel 1</td> <td rowspan="2">Nivel 1</td> <td rowspan="2">Operario</td> <td></td> </tr> <tr> <td>Nivel 2</td> <td>Nivel 2</td> <td></td> </tr> <tr> <td>Nivel 3</td> <td>Nivel 3</td> <td rowspan="2">Nivel 2</td> <td rowspan="2">Middle Level Technician</td> <td></td> </tr> <tr> <td>Nivel 4</td> <td>Nivel 4</td> <td></td> </tr> <tr> <td>Nivel 5</td> <td>Nivel 5</td> <td>Nivel 3</td> <td>Higher Level Technician</td> <td></td> </tr> <tr> <td>Nivel 6</td> <td>Nivel 6</td> <td>Nivel 4</td> <td></td> <td>Bachelor</td> </tr> <tr> <td>Nivel 7</td> <td>Nivel 7</td> <td>Nivel 5</td> <td></td> <td>Master</td> </tr> <tr> <td>Nivel 8</td> <td>Nivel 8</td> <td>Not Apply</td> <td></td> <td>PhD</td> </tr> </tbody> </table> <p>Note: For the moment the reference information is not official although there are drafts and presentations from relevant stakeholders in this process where this information is posed as draft and probable structure that will be adopted.</p>				NQF Pending Legal Regulation	EQF	Professional Certificates (Ruled by Ministry of Labour) National Qualifications Catalogue	VET Formal Education (Ruled by Ministry of Education)	MECES (European Qualification Framework for Higher Education)	Nivel 1	Nivel 1	Nivel 1	Operario		Nivel 2	Nivel 2		Nivel 3	Nivel 3	Nivel 2	Middle Level Technician		Nivel 4	Nivel 4		Nivel 5	Nivel 5	Nivel 3	Higher Level Technician		Nivel 6	Nivel 6	Nivel 4		Bachelor	Nivel 7	Nivel 7	Nivel 5		Master	Nivel 8	Nivel 8	Not Apply		PhD
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5.	<p>FMEC0109 METALLIC CONSTRUCTIONS PRODUCTION          FMEC0209 INDUSTRY PIPING DESIGN</p>																																												
6.	<p><b>Competences</b>          Define processes for layout, machining and casting for metallic constructions (UC1151_3).          Define processes for joining and assembly of metallic constructions (UC1152_3).          Program automated systems for metallic constructions (UC153_3).          Supervise production of metal working (UC0592_3).</p> <p><b>Knowledge</b>          Processes of machining and casting for metal constructions          Processes of joining and assembly for metal constructions (MF1152_3).          Programming automated systems for metal constructions (MF1153_3).          Supervision and control of processes on metal working (MF0592_3).          Practical training at the workplace in Metallic constructions production (MP0180)</p>																																												



7.	<p><b>Main parameters of the programme for FMEC0109 METALLIC CONSTRUCTIONS PRODUCTION</b></p> <p>Training Modules mirror the learning outcomes designed for this qualification.</p> <ul style="list-style-type: none"> <li>- Machining and casting for metal constructions.</li> <li>- Joining and assembly for metal constructions (MF1152_3).</li> <li>- Programming automated systems for metal constructions (MF1153_3).</li> <li>- Supervision and control of processes on metal working (MF0592_3).</li> <li>- Practical training at the workplace in Metallic constructions production (MP0180).</li> </ul> <p><b>Entrance requirements.</b></p> <ul style="list-style-type: none"> <li>- Secondary studies (Bachiller) or</li> <li>- Professional Certificate Level II (same qualification family and area) or</li> <li>- Professional Certificate Level III</li> </ul> <p><b>Training/study programme providers</b></p> <p>Accreditate VET centers ruled by Ministry of Labour              Educational VET Centers ruled by Ministry of Education</p>
8.	<p>Yes.</p> <p>Learning Outcomes of <i>FMEC0109 METALLIC CONSTRUCTIONS PRODUCTION</i></p> <ul style="list-style-type: none"> <li>- Prepare processes of layout, machining, casting, joining and assembly for the manufacture of metal construction products under conditions of quality and profitability.</li> <li>- Prepare joining procedures that are approved for metallic constructions.</li> <li>- Program and handle automated machining, cutting and/or welding equipment, according to a given manufacturing process.</li> <li>- Take part in the company's working processes, following the rules and instructions established at the workplace.</li> </ul>
9.	<p>NQF draft published and is pending for final discussions and approval by the National Parliament of Spain (since 2014).</p> <p>In relation to Sectoral Qualifications Frameworks:</p> <p>The SQF's, in the format they exist currently in Spain, were born as consequence of negotiations between Business Association and Labour Union of a certain sector in a form of collective agreements. They are created to address the need of having professional categories homogeneously defined along the sector in order to guarantee homogeneous salaries as well.</p> <p>In relation to SQF, there is no SQF to date referred to NQF. This will be a sensitive issue that will be dealt at collective agreement and will take years at least at the private company realm. The reason of these issues resides in the fact that to link SQF's to NQF could imply to reassess workers professional level which could eventually lead to salaries rise at large. Moreover SQF's in general are described in "Professional Categories" NOT in Qualifications. These Professional Categories are pretty much related to Job positions than related to "competences". As NQF has been recently published in a draft form and just now educational system and non-formal learning ( VET ruled by Ministry of Labour) has been adapted to it, few initiatives, if any, have been carrying out to relate SQF to NQF.</p>

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DESQUADES

PROFESSIONAL QUALIFICATION LEVEL 5



## **INTELECTUAL OUTPUT 2**

# **ROUND TABLE REPORT ON DEVELOPMENTS OF EQF LEVEL 5 QUALIFICATIONS IN PARTNER COUNTRIES**

## Introduction

This document is a second report within the Erasmus+ project *Development of Sectoral Qualification Descriptors for EQF level 5* aiming to provide basic elements and recommendations for development of sectoral qualification descriptors oriented towards increasing transparency and recognition of skills and qualifications, facilitating learning, employability and mobility.

Results of the Project Intellectual Outputs 1 and 2 will be used to prepare methodology for the development of Internationally comparable qualification descriptors at EQF level 5 in selected sectors. Internationally comparable qualification descriptors could be used as a platform for developing new qualifications, allowing learners to move more easily between different types of education (such as higher education and vocational) and between different levels (such as VET and higher education) at home institutions as well as internationally. Data for Project intellectual outcome 2 comes from the results of Roundtable discussions with different types of stakeholders organised in four partner countries.

Project “Desquades” takes into account the diversity of national systems and aims to improve tools for facilitates the translation and comparison of qualifications between countries. For this, reference to the EQF is a main tool which enables qualifications systems with their implicit levels or/and national and sectoral qualifications frameworks to relate to each other is very important. EQF allows each country reference its national qualifications (in terms of diplomas, certificates or awards) to the eight EQF levels via national qualifications frameworks or the implicit levels in the national qualifications systems. For Roundtable discussions reference to EQF level 5 descriptors of knowledge, cognitive and practical skills and competence are very important. In EQF level 5 knowledge are described as follows:

### **Knowledge:**

• *Comprehensive, specialized, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge;*

### **Cognitive and practical skills:**

• *A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems;*

### **Competence is described in terms of responsibility and autonomy.**

*Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others.*

These descriptors serve as a good reference point, but the variety of qualifications linked to EQF level 5 and varied use of EQF level 5 in Europe suggest that these descriptors are too narrow to present full potential of this level and to present full range of knowledge, skills and competencies existing. Roundtable discussions organised within project „Desquides“ aim to define in more comprehensive way main features of level 5 qualifications in partner countries, and so increase transferability of qualifications and the promotion of lifelong learning. The roundtable discussion served for several purposes: helped to identify the needs of main stakeholders and different groups of interest (representatives of employers, VET training and Higher education institutions, learners and broader public) and allowing to discuss broader possible benefits from EQF level 5 potential for learners, employees and labour market providing advanced VET skills and competences.

Roundtable discussions were organised as a focus events to closely explore specific issues identified elsewhere or to identify new issues of level 5 qualifications, not addressed before, and therefore can be used to explore solutions, define actions, develop strategies.

This report of results of Roundtable discussions is intended to provide an overview of opinions expressed at an events held in 4 countries in 4 different sectors on qualifications at level 5 and possibility to exploit better the potential of this level.

### ***Aims and structure for Roundtable discussions***

The aim of round table discussion was to discuss need for and potential of EQF level 5 qualifications from the perspective of main existing and possible stakeholders. Also:

- Identify the function of qualifications at level 5;
- Find out what are the areas of occupational activity of the sector at level 5;
- Specify the type of qualifications functioning in the labour market at level 5;
- Identify “missing” or possible qualifications (if any).

Roundtable discussions supposed help to identify what could be possible interest of employers on development of new (or revision of existing) level 5 qualifications from the perspective of main stakeholders. Also round tables provided an opportunity for participants to share and explore perceptions, experiences and concerns surrounding the development of EQF level 5.

The round table discussions were organized during August and October 2017.

- General agenda of the discussions is presented in the table:

<b>Agenda for Roundtable discussion</b>	
<b>Introduction</b>	Presentation of the Erasmus+ Programme and KA2 action project “Desquades” : aims and activities, partnership and results to be achieved.
<b>Open Discussion</b>	Type of EQF level 5 qualifications in sectors, role and functions of these qualifications. The EQF level 5 in
<b>Questions for Roundtable discussions</b>	
What could be possible interest of employers on development of new (or revision of existing) level 5 qualifications from the perspective of main stakeholders?	
What could be if any sector specific approaches defining learning outcomes: <i>Knowledge;</i> <i>Skills;</i> <i>Competence.</i> What is scope and level of key competences (Such as autonomy, responsibility, quality assurance, entrepreneurship)?	
Do these qualifications contribute to the promotion of lifelong learning:	<ul style="list-style-type: none"> <li>-improving understanding of learning routes and qualifications and how they relate to each other;</li> <li>-improving access to education and training opportunities;</li> <li>-creating incentives for participation in education and training;</li> <li>- making progression routes easier and clearer;</li> <li>-increasing and improving credit transfer between qualifications;</li> <li>- ensuring that education and training providers meet certain quality standards;</li> <li>-securing international recognition for national qualifications.</li> </ul>
How level 5 correlates with level 4 and level 6 qualifications? What could be learning pathways leading to qualification at level 5 in sectors?	
<b>Summary and conclusions</b>	

### ***Types of participants of Roundtables***

Approximately 150 participants (employers, training/study providers, learners, representatives of employees’ associations) participated in events organised in four countries. 5 seminars have been organised in Lithuania and 1 in Spain, Portugal and Italy.

Table below shows the range of the different interest groups represented:

	<i>Spain</i>	<i>Italy</i>	<i>Portugal</i>	<i>LT</i>
<i>Types of stakeholders</i>				
Representatives from vocational education and training	√	√	√	√
Representatives from higher education institutions			√	

VET teachers and trainers	√	√		√
Representatives of employers from selected sectors;			√	√
Skilled employees from the sectors		√		√
Representatives of relevant professional bodies	√	√	√	√
Researchers		√		
State agencies, responsible bodies, including those responsible for qualifications, vocational training development		√	√	√

## OUTCOMES OF THE ROUNDTABLE DISCUSSIONS

### *I. EQF level 5 qualifications across countries*

Most EQF level 5 qualifications are clearly linked to occupations/professions. They are not only considered an intermediate step towards a bachelor degree, but also as independent qualifications with distinct professional profiles and labour market relevance providing advanced VET skills and competences, potentially responding quickly to new labour market demands. Many EQF level 5 qualifications are designed to upskill people already in employment and provide them with advanced technical and/or management skills. Learners enrolled in programmes leading to an EQF 5 qualification could be very different background from various groups as regards their education, age and/or work experience. Many EQF level 5 qualifications are designed to upskill people already in employment and provide them with advanced technical and/or management skills.

There is big diversity and complexity in types of level 5 qualifications based on learning outcomes across countries and these qualifications play a significant role in the labour market and for further learning. In the area of level 5 Higher VET and Short Cycle HE important types of qualifications, involving VET providers and HE institutions can be found at initial and continuing vocational education and training, general education, or entirely outside the formal education and training system. Typical level 5 qualification is provided by and are not limited to short-cycle higher education programmes.

*Different types of qualifications can be found in DESQUADES partner countries at this level:*

- Higher level VET technician
- Highest level of professional worker (specialist) in construction or metal industry
- Higher level professional qualifications (polytechnics)
- Higher VET Certificate

Round table discussions have been organized in order to find out what could be the potential benefit from EQF level 5. From the discussions it could be concluded, that level 5 qualification could be regard as an independent qualifications with various professional profiles and labour market relevance providing advanced VET skills and competences, potentially responding quickly to new labour market demands.

*In the Portuguese case, the level 5 qualification courses are still fulfilling operational objectives:*

– to enable young people who complete secondary education to progress to a higher level of professional qualifications, through polytechnics (technologically privileged and highly vocational when it comes to work and business world), to the detriment of universities;

– to encourage young people to refine their scientific and professional competences by deepening the knowledge and skills acquired in Level 4 professional courses and opening the way to higher education qualifications, correcting the impartiality of the assessment by national examinations, which are based on general curricula insensitive to all the diversity of training courses that young people can attend until they reach admission to higher education.

### *Role of level 5 qualifications*

The importance of level 5 qualifications is growing in all partner countries for several reasons. First, they are developed as response to increased needs for advanced technical and/or management skills in a rapidly changing labour market and ageing workforce. Second, the data show that EQF level 5 qualifications are especially attractive to students with vocational education and training (VET) backgrounds and those

already in employment. They contribute to lifelong learning by being accessible and attractive for adults and non-traditional learners. Third, they are seen as valuable and relevant by employers, as most include some form of work-based learning.

EQF level 5 is often considered as the zone of overlap between vocational and higher education, although all levels of the EQF (i.e. also levels 6 to 8) are supposed to be open to qualifications acquired outside the higher education context. In this role of zone of overlap, level 5 can provide a missing link between different levels and types of education. It is clear, though, that today level 5 is underdeveloped and that its adoption would require more awareness and financing. Current close collaboration between key stakeholders will hopefully improve this situation.

In Lithuania developments of level 5 are strongly linked to the needs of learners and the labour market. It is necessary to provide opportunities to acquire higher level qualification for those who are already in the labour market. Therefore, higher level studies with a vocational focus and workplace learning represent a very valuable way to address the concerns of high unemployment and the shortage of higher level skills required in a labour market.

There is a need to better understand the dynamics that need to be established between students, job market and schools to build level 5 courses that fulfil everyone's needs and that the government must be involved in the process and organization of these dynamics.

A committee has been organized to further analyse and communicate conclusions to other stakeholders aiming to develop the implementation of Level 5 qualifications in society.

Level 5 qualifications are a way to achieve society's goals, but their recognition in the professional and educational context is still weak. There is a need to implement more and better level V qualifications basically because of two very important reasons. The first reason is that it is a means to an end. In Portugal Level 5 qualification, in many cases represents the first step in acquiring a higher education for those that had never felt that need before. The second reason is to improve the professional skills of those that wish to enter the job market or to improve those that need to update their professional skills to better respond to the job market needs.

In the Portuguese case, the level 5 qualification courses are still fulfilling operational objectives:

- to enable young people who complete secondary education to progress to a higher level of professional qualifications, through polytechnics (technologically privileged and highly vocational when it comes to work and business world), to the detriment of universities;
- to encourage young people to refine their scientific and professional competences by deepening the knowledge and skills acquired in Level 4 professional courses and opening the way to higher education qualifications, correcting the impartiality of the assessment by national examinations, which are based on general curricula insensitive to all the diversity of training courses that young people can attend until they reach admission to higher education.

Level 5 offers a pathway to higher education that relieves students of access exams.

It relates to the deepening the knowledge and skills acquired in Level 4 or Level 3, higher level of technical and management skills, progress in career and further education (at university level).

The variety of qualifications linked to EQF level 5 suggest that this level has the potential to play a very significant role in bridging subsystems in the transferability of qualifications and the promotion of lifelong learning. EQF level 5 can provide the opportunity to strengthen the connection between higher education and VET and adult education, as well as for widening access to higher education. However, EQF level 5 could also represent a second choice for students who do not have access to traditional academic routes or who have failed in it and so could appear to be at a dead end.

### ***Involvement of social partners into qualification developments in sector***

How social partners are involved into development of qualification differ from country to country. However, participants of roundtables agreed on the importance of the dialogue among the actors involved in the development of the qualifications, especially new types of qualifications corresponding the needs of learners and the labour market.

In Spain, they are not involved directly. This work is done at very high level in the central government with national representatives of Ministry of Education, Ministry of Labour, Labour Unions and Trade Unions. In theory all these national representations take into account the needs and reality of all companies, workers and public policies distributed in all country.

In Italy, the ITS are the main organizations authorized at providing level V qualifications. They are regulated and disciplined by the Ministry of Education in their organizational structure, in concert with

the Ministry of Labor. The training offer is planned by the single Italian Regions. The regulation disciplining ITS is a Ministerial decree of 2015; it establishes that once a year a conference of services must be held; this is currently at its early stage of implementation. In this conference all the actors of the economic and social partnership are involved. All the training offer of ITS is organized taking in account systematically and periodically the contributions coming from the economic and social partnership. Furthermore, the structure of the ITS itself includes these actors.

The Regional Catalogues of Qualifications are built by the Regions through mechanisms of consultation at local level that are organized by each Region autonomously according to their own dynamics. When the definition of new qualifications is needed, the Region consults and confronts the economic and social partnership, actively involving them.

Periodically, the Regions create lists of experts from sectorial fields and held courses at training experts as “Technician supporting identification and transparency of Competences” and “Technician for planning and carrying out evaluation activities”. Thus, in perspective, an increasingly active and operative involvement of local actors from the economical and entrepreneurial sectors linked to the qualifications is expected.

This involvement will contribute to map of the development of the productive fields in the specific sectors in determinate areas, enhancing the links between the world of education and the world of work.

*As case of Portugal shows, all stakeholders have they individual need from level 5:*

– learners/students – are those that have the dilemma about whether or not the investment in higher education is worth it.

– government departments – discussed the qualification needs in different sectors to better respond to employment and economic needs.

– providers of education and training – discussed the policies that may be necessary to promote more higher education.

– representatives of employers and workers discussed the necessity of qualifying workers.

In Spain stakeholders are not involved directly, as this work is done at very high level in the central government with national representatives of Ministry of Education, Ministry of Labour, Labour Unions and Trade Unions. In theory all these national representations take into account the needs and reality of all companies, workers and public policies distributed in all country.

As Lithuania lacks level 5 qualifications, discussions with employers, however, have revealed a need for such qualifications, especially for master craftsmen technicians and supervisors. Policy-makers are currently setting up legal conditions for introduction of level 5 qualifications.

### ***Correlation with EQF levels 4 and 6***

It is obvious, that level 5 is very strongly interrelated level 4 and level 6 and in some cases even dependant on these levels.

In case of Italy, the level 5 represents an interstitial level between school and university. Given the above, professional profiles at level 4 operate in the “production”: the Operator does his job with a degree of problem solving that allows him to distribute and organize its work as well other’s work, on the basis of the activities do to. He has a deep comprehension of the phenomena and so he can be operative, organize and supervise the carrying out of the activities. The level 5 makes it clear that the approach of the levels in qualitative: the level 5 could be considered as parallel to the level 4; it is a technical and specialized professional figure that has a responsibility also on the quality of what it is realized, and so it has the capacity to evaluate products and processes realized.

*In Portugal* Level 5 offers a pathway to higher education that relieves students of access exams. When students finish a level 5 qualification, they may enter a level 6 course directly, in which some credits acquired during level 5 course will transition to the level 6 course, relieving them of the need to repeat some subjects.

In Lithuania Level 5 is under development, but still it often could be seen as insufficient, having a lower status – less than the Bachelor. In fact level 5 qualifications should be regarded as something different – having they own quality. So, it will in most cases compared with level 6 (by students, parents, influencers, politicians...) as insufficient for higher education diploma. From social partners view, level 5 qualifications could be trusted as quality mark for highest skilled specialists.

### ***How in general qualifications at level 5 contribute to the promotion of lifelong learning?***

Qualifications at level 5 contribute to the promotion of lifelong learners being an interstitial level between the productive and managerial ones and a bridge from the world of vocational education and the world of work.



## ***What could be if any sectoral approaches (defining learning outcomes in terms of Knowledge, Skills, Competence)***

Discussion showed that Level 5 is still not well known in the labour market. Competences and responsibilities are often the same on level 4 and level 5 for jobs and positions in sectors.

The implementation process of a developing a level 5 programme (HVET and SCHE) takes rather a long time and that makes it difficult to react on changes in the labour market.

There is no link between Sectoral Qualification (SQF) and EQF in Spain so far. SQF's in general are described in "Professional Categories" NOT in Qualifications. These Professional Categories are pretty much related to Job positions than related to "competences".

Each professional category of SQF however is defined by collective agreements between labour and trade unions, linked to an official qualification described in NQF (which in Spain is already related to EQF but still not approved by the national parliament). The Qualifications of NQF in Spain are described in competences and skills with training modules associated to each competence.

From the discussion it was clear that, definitely, the logical and strategic syntax in defining the learning outcomes of a qualification is set to encompass the traits of some types of knowledge and create a real learning terminology. The transition from a disciplinary approach to a skill approach is not only technical, but it is also a matter of cultural change, and of the way of thinking at learning outcomes.

In Italy, there is a speed difference also with regard to the different productive sectors. An element that could act as accelerator of this process is the creation of a 'National Board of Qualifications', that will be available when the relative Decree will be adopted. The standardized process of references and a definite physiognomy specifying in qualitative terms the 8 different levels, will support a lot the description of the learning outcomes declined in knowledge, competences and skills.

### ***Importance of key competencies at level 5***

One of the tasks during discussions was to broader scope of general knowledge, competencies and skills that are considered important to EQF level 5 not related to any specific occupation or sector. Considering this as important aspect of development of new qualifications and assessing non-formally acquired skills it was important to find out what skills, knowledge and behaviour that lead to successful performance at level 5 are most important? The discussions outlined that at level 5 competencies more or less important for all sector can be grouped into 3 clusters: management related or organisational competencies, personal skills and behaviour and social skills.

In case of Italy the level 5 professional figures are characterized by the competences as autonomy, responsibility, capacity of evaluation of the work from the qualitative point of view, it's a kind of internal evaluator of the production services. Also, the profiles at level 5 should have good communication skills, since these professionals have the opportunity to contribute to the improvement of the internal quality within the working environment in which they act. Is for this reason that level 5 places side by side to level 4 (that has an executive role) and is also a support for level 6 professionals, that have a management role. In fact, the level 6 is the one dealing with the overall management and so its competences involve roles of high responsibility of all the phases of the productive and managerial process. Level 6 qualifications represent the following step of the level 4, while level 5 – as said – is placed in an interstitial position between the two.

**Main key competences mentioned during roundtable discussions refer to independence or autonomy of work, responsibility and entrepreneurship and such an important aspects as quality assurance.**

### **KEY FINDINGS**

Knowledge, skills and competence at level 5 in different sectors

#### **Key competencies for level 5**

Basically these competencies were mentioned as important for this level:

<b><i>Organisational</i></b>	<b><i>Personal</i></b>	<b><i>Social</i></b>
Leadership and Management and distribution of tasks	Flexibility (ability to adapt to new situations)	Communication with customers and upper management
Planning materials, tools, equipment and resources	Autonomy	Ability to work in an international context

Management of risk and problem solving	Critical and self-critical abilities	Negotiation competence
Management and distribution of tasks	Entrepreneurship, imitative-ness	Conflict management
Quality control	Capacity to applying knowledge and imbedding innovations	Customer orientation
Project management	Learning to learn	Ability to work in team
Training of lower qualification subordinates	Quality orientation	

The list of key competencies mentioned in the discussions helps to define better what level 5 actually means in an organisation, that management related task can be entrusted for the professional at this level and even the relationship with the levels 4 and 6.

In Italy all the participants involved agreed on the extreme importance of key competences at level 5. Quality assurance competence is the one characterizing the profiles at level 5. Autonomy is identified as a crucial one, defining the further step from qualifications at level 4 and so characterizing the profile at level 5. Autonomy in organizing and carrying out the work is strictly linked to responsibility, a competence that level 5 qualifications should develop.

The capacity of coordinating a team, the capacity of doing the job responsibly and interacting with the other professional profiles of the sector, knowing their roles and their peculiarities have been considered very important too. Key competences all stakeholders highlighted that at level 5 should be held and improved are the digital ones: they are essential to carry out the daily work and communicate with colleagues and beneficiaries of the services, as well as to plan and organize social animation initiatives. The debate highlighted the need of including among the key competences of level 5 profiles in the Social Sector (Social Animator), the knowledge of one or more foreign languages. Nowadays, in facts, is constantly increasing the number of migrants and people coming from other Countries (including not accompanied minors) that are beneficiaries of social services initiatives, and being able to communicate with them is essential.

To adequately interact with individuals of different background and understand their needs, intercultural competences should be also developed at level 5. Last but not least, from the discussion held it was clear that entrepreneurial competences are relevant both to organize the daily work both to foster the capacity of taking initiative and foster self-employability.

***What could be further developments in sectors or in general related to the level 5 qualifications in your country:***

The European Level 5 qualifications domain is a relatively new concept for Europe, giving an excellent opportunity to link the sectors for Vocational Education and Training (VET) and Higher Education (HE) to each other. Then it is about looking at qualifications at level 5 of the European Qualifications Framework for Lifelong Learning (EQF) and using them for cooperation between the involved institutions, as their providers.

This can lead to more flexible learning paths for students and employees ('adult learners'), making them possible at all times in their lives. Particularly by using also at level 5 programmes and qualifications beyond the formal public-financed system – such as business education, in-company training and vocational courses – effective procedures for recognizing skills acquired earlier and elsewhere as 'recognition of prior learning', can be put in place. It is useful to have further discussions and to share experiences and good practices in the years to come.

Experiences and good practices of adult learners in formal and non-formal programmes on level 5 (offered by institutions that are selected by companies) must be used for developing in the next years new and creative arrangements, to have more flexible work-based learning pathways starting from level 4. This can help to raise the status of Higher VET at level 5, if adult learners want to get a qualification at a higher level. It can also represent a choice for youngsters for a more attractive HVET programme, next to a study in Higher Education.

## ***II. Main features of level 5 in VET (indicated)***

Work-based learning and apprenticeships Higher level studies with a vocational focus and workplace learning represent a very valuable way to address the concerns of high unemployment of young people and the shortage of higher level skills required by SMEs, since most of these qualifications are designed with input from employers. Apprenticeships at higher education level, in particular, could help overcome the problems above, since they allow students to acquire a recognised professional qualification at higher level while building up practical skills in real work environments. Universities have strong experience in providing professional training in many fields and could support SMEs and apprentices. A solution therefore could be to create stronger networks of HEIs and SMEs and other stakeholders involved in apprenticeships.

Work-Based Learning (WBL) and degree apprenticeships represent two of the most effective channels to connect VET, HE and the employment sector. These systems are being increasingly applied in some countries, such as France and the UK. It is worth to spend a word on the development of an innovative form of combination of degree and apprenticeship, the so-called degree apprenticeship, which is constantly growing in demand between trainers and employers.

### ***EQF level 5 in service sector (textile)***

- EQF level 5 in Social Sector: The professional profile of the Social Animator – Analysis of the characteristics and peculiarities of the profile, its knowledge, competences and skills. Aim of the discussion – sharing of reflections and experiences from the point of view of the participants, analysis of the need of new qualifications at EQF level 5 and the involvement of the stakeholders in the process. Sharing ideas and proposals.

### ***Participants of discussion***

- 6 representatives from Kaunas region private and public limited liability textile companies (“Liteksas”, “LTP”, “Introstyle”, “Kauno Baltija”, “Scapa Baltic”)
- 5 representatives from Kaunas region VET and HE institutions (Karalius Mindaugas VTC, Kauno buitinių paslaugų ir verslo mokykla, St. Ignatius Loyola College)
- 3 representatives from Karalius Mindaugas VTC administration

14 participants overall

Filling in the assessment table provided

- What knowledge and skills are important for “highly qualified staff” in your industry in respect to provided list of professional activity areas? Which professional activity areas are the most important?

Regarding the demand of “highly qualified staff”.

- Currently “highly qualified staff” are being trained in companies with the help of other experienced staff or by sending staff to individual/random trainings to acquire specific competences.
- Employers have expressed interest in cooperation with VET institutions preparing “highly qualified staff” for textile industry. As very important aspects flexible learning schedule and ability to combine work with learning at the same time has been mentioned.
- The observations of the participants of discussion allows to assume the demand for employees with EQF level 5 qualification.

Regarding specific competences and skills of “highly qualified staff”

- Overall “highly qualified staff” must have experience in the professional field and must possess general competencies.
  - The skills “highly qualified staff” is missing at the moment:
    - Field specific skills – lack of construction skills and high quality sewing skills. However, talking about possible curriculum the participants of discussion stressed the need of training modules designed to broaden understanding of the industry and acquire more general industry related knowledge instead of going deeper into very specific field or competence.
      - General skills – responsibility, leadership, training of others, communicability, planning, organization, process management, stress management.
    - The most important skills to be developed while preparing “highly qualified staff” in terms of professional activity areas are: quality assurance, occupational safety assurance, improvement of working methods and technologies, management of lower qualification staff, risks and unexpected problems management.

### ***EQF level 5 in metal sector (Welding)***

General part of the discussion aiming at identify what functions do professionals at EQF level 5 perform and what could be examples of their job task descriptions? How do we know that this is level 5 professional, that shows that competences are higher than EQF level 4 but lower than EQF level 6?

The growing internationalization of products and services value chains has triggered an increasing number of international (sectoral) qualifications industry-based training and certifications, based on standards developed by international companies or sectoral organizations, like the welding sector.

Specific part of the discussion trying to identify what skills and competences are important in specific sector (metal industry, construction, service sector or health care sector).

*Discussion let to identify key areas EQF level 5 qualification welder. These are: welding processes, welding materials, production processes, visual evaluation and control of welding joints.*

*Also, it was agreed that the most important competence for EQF level 5 qualification welder are:*

- Demonstrate mastery in Combining welding equipment;
- Perform welding processes in accordance with welding procedural descriptions;
- Prepare welding materials for welding;
- Measure main welding parameters;
- Distribution of tasks;
- Training of lower qualification welders and evaluate competences of welders;
- Adopting new working methods;
- Employing spoilage preventative measures;
- Act properly in critical situations;
- Estimate the innovations of the processes and comprehensive technology;
- Organise general welding safety measures.

Table presents the essential knowledge and skills of highly skilled workers of welding sector. Discussion also allowed to agree that competences of EQF level 5 qualification in this sector could be divided in two groups: to professional welder competences and organisational/managerial competences.

<i>Areas of competence / level of competence</i>	<i>Knowledge / information</i>	<i>Skills (ability to perform)</i>	<i>Demonstrate mastery</i>	<i>Not relevant</i>
1. Welding processes;			√	
1.1.Stainless steel welding in various dimensional positions (PA, PB, PF, PG)			√	
1.2. Automated welding (orbit MIG, TIG welding)		√		
1.3. Laser welding		√		
2. Identify need and calculate welding materials		√		
3. Organise and control production processes		√		
4. Provide visual evaluation and control of welding joints		√		
5. Manage work of subordinate welders		√		
6. Train other employees and assess their competences		√		
7. Constantly improve working methods and technologies		√		

8. Assure quality of work			√	
9. Perform risk management and act in		√		
10. Implementation of sectoral innovations and trends of technological processes		√		
11. Ensuring safety at work			√	
12. Rational use of the resources		√		

### ***EQF level 5 in construction***

#### ***Discussion: who is 5 level (highly qualified specialist) in construction sector***

- What functions they perform?
- What could be an example of qualification profile?
- How the assessment and the evaluation of qualification could be performed
- *Are employers willing to perform certification for these specialists?*
- How new qualifications or new aspects of related qualifications can be defined? (for example transfer of technologies, time management and so on).

### ***Level 5 qualification in construction***

A most important work in the frame of construction projects is to link the phases of planning and execution. Employees in charge with this work do not have to be able to execute planning themselves, but they must understand principles and forms of planning and be able to transform the results of planning into detailed, short termed work plans and into a practical work organisation on site. They also have to be able to conduct and to supervise the work, to dispose labour, equipment and material in the frame of the overall planning, and to take responsibility for the fitting of results with tender specifications, quality norms and deadlines. Last but not least, they must be able to take over responsibility for health and safety as well as for environmental issues. For this work knowledge, skills and competence on level five are required!

<i>Areas of competence/level of competence</i>	<i>Knowledge/information</i>	<i>Skills (ability to perform)</i>	<i>Expertise</i>	<i>Mastery (high level of professional skills)</i>
Tools, equipment	√			
Construction materials	√			
Rules, regulations, documentation	√			
Work organisation procedures	√			
Basic and new construction technologies and work process				√
Overlapping /interrelated technologies				√
Team work / Organisation of work flow			√	
Communicate with client and construction engineers/project managers			√	
Planning work of oneself and the others			√	
Training of lower qualification workers			√	
Ability to train apprentices			√	
Ensure safety and health at work			√	
Rational use of the resources	√		√	
Responsibility for overall quality				



Round table discussion indicated that for level 5 professional in construction has to have knowledge in technology of construction, materials, tools and equipment used on site for production and how it functions, also have to know how to apply instruments and tools of measurement and to read working drawings for construction projects. Other important aspect is knowledge in regulations, norms and standards on national as well as EU levels relevant to the functions performed on site, also safety and health at work regulations, environment issues and be able to control how these regulations are respected in working place.

Level 5 in construction professional also knows how to apply methodology and procedures of planning, transformation of planning into production, control construction projects, quality control, surveying, marking and measurement, management of production on site (labour, equipment, material) including timetables, cost and return control systems, how to organise non-formal and support informal learning on site.

Also this level professional is involved in all stages of construction project management processes: taking part in planning (materials, tools, resources), organising and executing (taking care of the main work flow and distribution of tasks as well as monitoring and assessing of results and overall quality.

## KEY FINDINGS

Knowledge, skills and competence at level 5

Knows in comprehensive manner technology of construction, in particular tools and equipment used on site for production: their functioning, modes of use and features of performance as well as the boundaries of capability and applicability, how to operate equipment for application on site; knows methods and tools for measurement and representation of land and construction details and of working drawings; knows in principle about statics in construction, knows budget software.

### **Material**

Knows in comprehensive manner material used on site for production, its characteristics, modes of use and behaviour when processed as well as the boundaries of capability and applicability, how materials are delivered and stored on site; how hazardous material has to be handled.

### *Rules, norms, regulation*

Knows in comprehensive manner standards, rules, norms and legal duties on national as well as EU levels relevant for production on site, applied topography, management of sites and production processes, quality management and vocational training in particular concerning health and safety and environmental issues.

### **Procedures**

Knows in comprehensive manner methodology and procedures of planning, transformation of planning into production, control construction projects, quality control, surveying, marking and measurement, management of production on site (labour, equipment, material) including timetables, cost and return control systems, how to organise non-formal and support informal learning on site.

### **Frame of action, actors, interfaces**

Knows in comprehensive manner responsibilities, roles, competence, rights, duties and way of work of other actors involved in construction projects

This level professional is involved in all stages on management processes: taking part in planning (materials, tools, resources), organising and executing (taking care of the main work flow and distribution of tasks as well as monitoring and assessing of results and overall quality.

One of the tasks during discussions was to broader scope of competences and skills considered important to EQF level 5. Organisational social and personal competences also have been discussed. Considering this as important aspect of development of new qualifications and assessing non formally acquired skills. Such competencies were mentioned as important for this level:

<b>Organisational</b>	<b>Personal</b>	<b>Social</b>
Leadership and Management and distribution of tasks	Flexibility (ability to adapt to new situations)	Communication with customers and upper management
Planning materials, tools, equipment and resources	Autonomy	Ability to work in an international context



Management of risk and problem solving	Critical and self-critical abilities	Negotiation competence
Management and distribution of tasks	Entrepreneurship, imitative-ness	Conflict management
Quality control	Capacity to applying knowledge and imbedding innovations	Customer orientation
Project management	Learning to learn	Ability to work in team
Training of lower qualification subordinates	Quality orientation	

Discussions allow to provide a portrait of EFQ level 5 qualification holder, basically qualification could be divided into three main building blocks: sector or occupation related competence, managerial competence and competence related to the training, teaching, assessing of lower qualification workers. Through this could be regarded as a general tendency, this is not necessary the rule in all sectors, for example such a distribution have not been defined in health sector.

***SECTOR / OCCUPATION RELATED COMPETENCE:***

***Work Process Related Technologies, Innovations;  
Tools, Equipment, Resources;  
Norms, regulations, standards.***

***MANAGEMENT / ORGANISATIONAL COMPETENCE***

***Management and distribution of tasks for subordinates, planning and organisation of work flow;  
Management of risks and problem solving;  
Work safety issues, Quality control.***

***TRAINING / TEACHING / ASSESSING  
OF LESS QUALIFICATION STAFF***

***Training of lower qualification subordinates,  
Work place instructions,  
Evaluation of work of others;  
Training of apprentices;  
Assessing competences of apprentices.***

Round table provided more detailed information about knowledge, cognitive and practical skills and competence then referential EQF descriptors, but all findings correspond to description provided in European Qualification Framework, showing that knowledge are of comprehensive, specialised nature, within *a field of work* or study and an awareness of the boundaries of that knowledge.

**Knowledge:**

- Comprehensive, specialized, factual and theoretical knowledge within *a field of work* or study and an awareness of the boundaries of that knowledge;

***Cognitive and practical skills:***

- A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems;

**Competence is described in terms of *responsibility and autonomy*.**

Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others.

Another observation is that level descriptors can be formulated at different levels of abstraction according to the types of qualifications framework they are used in:  
At the level of a *sectoral* qualifications framework;  
At the level of a *national* qualifications framework;  
At the level of a *regional* qualifications framework;  
Potentially also at a *global* level.

### ***Consult, identify and build consensus***

Qualification descriptors identify the typical achievements and attributes associated with whole qualifications. Descriptors must be reasonably concise, and expressed in language that is accessible by all who will use them. The general terms need to be referenced in a manner that conveys the level of difficulty and complexity associated with tasks and functions performed at a workplace.

There is a need for a link between the European Standards and Guidelines for Higher Education and standards for the quality assurance in the world of work, controlled by other non-state organizations (national and international).

There is a need for a European Qualifications Framework for non-formal learning, with descriptors based on standards that are used by 'the world of work', like ISO and NEN – and with a 'conversion table' of this EQF-NF with the EQF for LLL.

The roundtable discussion served for several purposes: helped to identify the needs of main stakeholders and different groups of interest (representatives of employers, VET training and Higher education institutions, learners and broader public) and allowing to discuss broader possible benefits from EQF level 5 potential for learners, employees and labour market providing advanced VET skills and competences.

DESQUADES

PROFESSIONAL QUALIFICATION LEVEL 5



## **INTELECTUAL OUTPUT 3**

### **DEVELOPMENT OF QUALIFICATION DESCRIPTORS AT EQF LEVEL 5 IN THREE SECTORS BASED ON PREPARED METHODOLOGY**

## METHODOLOGY OF DEVELOPMENT OF SECTOR SPECIFIC QUALIFICATION DESCRIPTORS FOR SQF LEVEL V

Commonly understood, level descriptor is a statement, using learning outcomes, that describes learning achievement at a particular level of a qualifications framework and that provides a broad indication of the types of learning that are appropriate to a qualification at that level. Development of level descriptors using learning outcomes describing EQF level V of learning achievements across different types of learning in different sectors can be applied internationally.

### I. THE MAIN PRINCIPLES FOR THE DEVELOPMENT OF SECTORAL QUALIFICATION DESCRIPTION FOR SQF LEVEL V:

- Involvement of stakeholders:** One of the key determinants for the development of level V descriptors is including a representative group of all important sectoral stakeholders into discussion about main characteristics of level V qualifications within sectors. A wide range of stakeholders should be involved, representing different entities functioning in the sector – companies, industry chambers and organisations, representatives of higher education and professional bodies, as well as regulatory authorities. Developing of descriptors is initiated by discussions on the competences and standards in a given sector, enabling industry representatives to exchange information and reach consensus on contested issues. Industry stakeholders are therefore both the creators as well as the recipients of the solutions developed for the sectoral framework
- Correspondence to the needs of labour market:** The description should demonstrate tangible benefits for the labour market and encourage investing into gaining level V qualification. Only then will it fulfil its potential for strengthening transparency and trust in the sector, as well as serve its clients, employees and the market as a whole.
- Focus on learning outcomes:** Description of the sectoral level qualification level V should be focused on reaching clear learning outcomes and lead to gaining competences useful for the learners and the sector.
- Correspondence to EQF descriptors:** Descriptions should be designed to facilitate the system of existing qualifications, their eventual redesign and the development of future competence-based sectoral qualifications. Description should reference to existing qualification standards and specific qualifications in the sector, especially if they include competences described in the language of learning outcomes. It is wise to foresee the career development and individual learning paths.

Scheme No 1: Components for the development of sectoral descriptors:

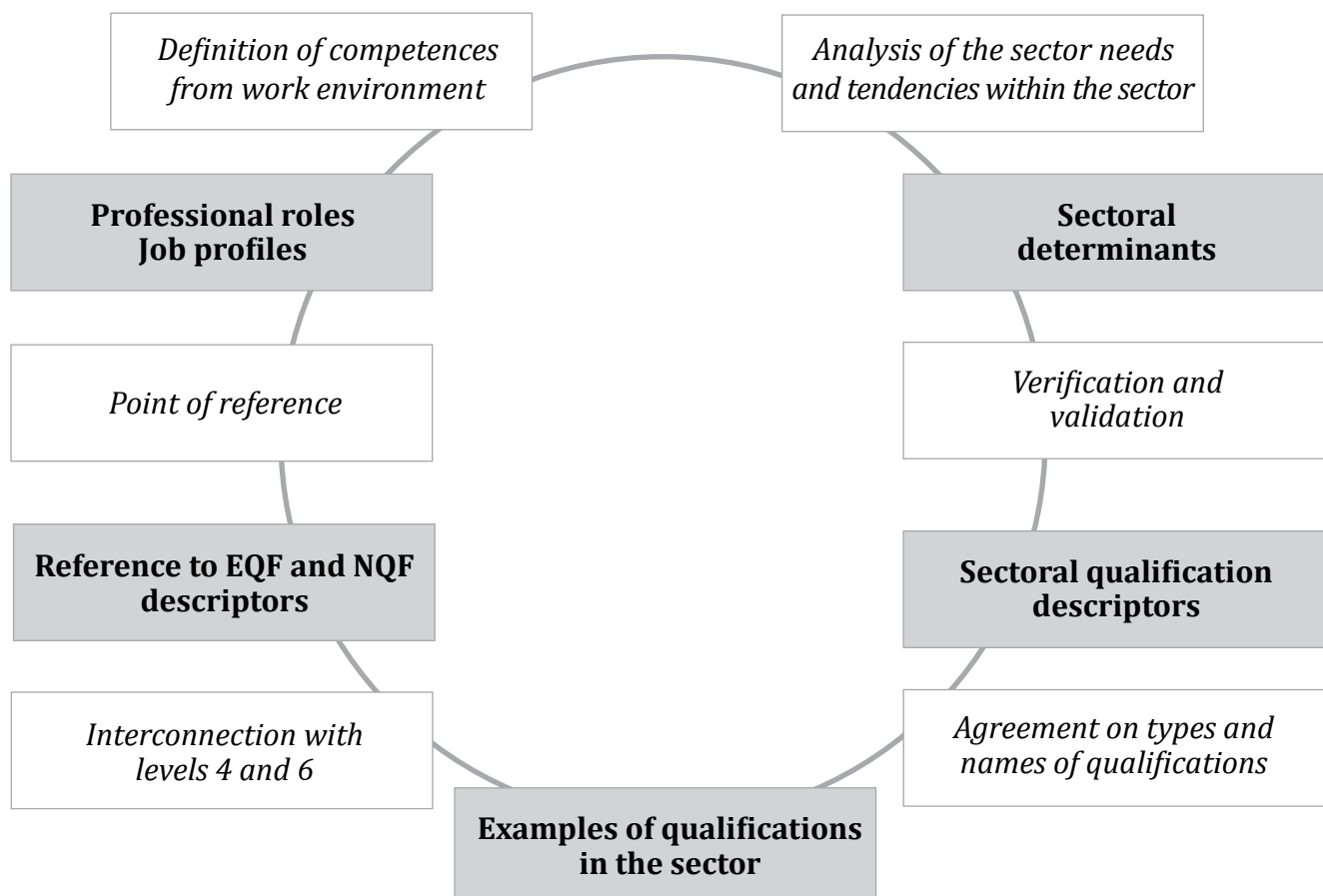


Table No. 1. Steps for the development of sectoral descriptions:

<b>No.</b>	<b>Content</b>	<b>Methods</b>
1.	Background Analysis of main national regulations, main international standards and regulations Social and economic context study	Comparative analysis, Analysis
2.	Analysis of work process for level V in Sector	Expert analysis, Working groups Formulating questions which lead to clarity
3.	Identification of professional roles (groups of competencies, qualifications and specialisations)	Job analysis Job Interview, qualitative questionnaire
4.	Elaboration of a job profile	Discussions with main stakeholders Formulating questions which lead to clarity
5.	Definition of typical occupations	Discussions with main stakeholders Formulating questions which lead to clarity
6.	Elaboration of Sectoral Qualification descriptors in sectors (Defining learning outcomes for the level V in sectors)	Expert working groups Formulating questions which lead to clarity
7.	Considering and agreement the types and names of qualifications (for example “master”, “specialist”)	Expert working groups Discussions with main stakeholders in the sector Formulating questions which lead to clarity
8.	Modalities for accessing the profession/ occupation  - Work experience for entering level V - Competences for entering level V - Possibility to access level V from level VI, VI and VIII - Paths for accessing level V from level I, II, III, IV	Expert working groups Formulating questions which lead to clarity
9.	Relations with IV and VI level qualifications  For example: - Length of training programmes - Process of verification of knowledge	Expert working groups Formulating questions which lead to clarity
10.	Verification and validation by Sectoral/ national/international Authorities	External assessment  Recognition and validation
11.	Quality provision/renewal	Application of sectoral qualification Testing procedures, descriptors and feedback

## **II. PROCESS OF THE DEVELOPMENT OF COMPETENCES FOR EQF LEVEL V:**

Sector-specific descriptions of knowledge, skills and competence are the basis of the qualification descriptions. They should reflect the demands of work in the specific industry. To define knowledge, skills and competence in a sector-specific manner it is necessary to find the main reference point common for many countries and therefore available to use it internationally. In this case this reference point was European Qualification framework.

The process of identifying sets of key competences for the most important areas of the specific sector is a critical part of the methodology of developing sectoral level descriptors, since they form the basis of the determinants distinguishing specific sectoral qualifications.

The integral descriptive categories used and aspects of major importance for completeness of the description of knowledge, skills and social competences at a given level of advancement also have to be analysed. Such analysis considers general job roles at this level in the sector; key activities/actions (action verbs) appropriate for a given level of responsibility, independence, cooperation and management, creativity, assessment, self-development, etc.,

The worker has to possess:

- - knowledge about equipment and materials, societal and legal framework
- - practical skills that allow to execute work operations
- - competence to be able to act and behave with the appropriate level of responsibility. The higher the qualification level, the bigger the responsibility.

*Table No. 2 Analysis of Sector specific competences:*

General knowledge	<i>Knows and understands: .....</i>
General skills	<i>Is able to do ....</i>
General social competence	<i>Is ready to ....</i>
Occupational area knowledge	<i>Knows and understands: ....</i>
Occupational skills	<i>Is able to do ....</i>
Occupational social competence	<i>Is ready to ....</i>
Tools, equipment and materials used	<i>Knows how to use...</i>
Sector specific rules, norms, regulations	<i>Knows how to apply ...</i>
Profile of a person with a sectoral qualification at level V:	<i>Example of position requiring qualifications at the level: (Independent Specialist)</i>

Sectoral qualification description serve the purpose of making the qualifications of an industry transparent, well-ordered and improved in terms of quality. By using the language of the sector and referencing the described competence requirements to the work environment, it is a friendly tool for recognizing the complexity of level 5 qualifications and for comparing qualifications with one another, building coherent development paths, and creating effective systems for the continuous improvement of employee competences. In this way, it becomes an important and useful link between the world of work and the world of qualifications.

### **III. RELATION WITH EQF LEVELS IV AND VI**

For a clear definition of level V qualifications within sectors It is also necessary to compare and distinguish differences of EQF level V from EQF levels IV and VI. This could be done by comparing typical occupations, types of qualifications awarded, analysing job profiles with a special emphasis on such aspects as skills proficiency, level of responsibility, managerial skills and autonomy.



EQF level V as an intermediate level between VET and higher education systems should be examined in a relation with VET and higher education qualification descriptors. This should help to identify how level V qualifications provide access to employment and career advancement, as well as enabling further learning and progression to higher education.

Main aspects to inspect still are learning outcomes describing level of skills, knowledge competences as well as recognition of qualification and progress routs in terms of lifelong learning.

*Difference between EQF level IV, level V and level VI as provided in European Qualification Framework can be seen in an increasing level of complexity of knowledge and skills as well as emerging managerial competencies, increasing degree of responsibility and autonomy.*

#### **IV. EXAMPLES OF METHODOLOGIES USED IN OTHER PROJECTS:**

1. Level-setting and recognition of learning outcomes. The use of level descriptors in the twenty-first century. J. Keevy and B. Chakroun, 2015
2. Sectoral Qualifications Framework for the Construction Industry in Europe. Project “Developing and Introducing a Sectoral Qualifications Framework for the European Construction Industry (SQF-Con)”. 2009
3. Prototype Joint European Sectoral Qualifications Framework for the Creative and Performing Disciplines, 2012
4. Qualification Frameworks: basic elements, key recommendations and methodology. CIMEA, 2016 (Luca Lantero, Manuele Costone)
5. Sectoral Qualifications Framework: Telecommunications, 2015 <http://www.kwalifikacje.edu.pl/en/sectorial-qf/1053-telecommunications>

## SECTORAL QUALIFICATION DESCRIPTORS WELDING SECTOR

No.	<i>Parameters of the Descriptors</i>	<i>Content</i>	<i>Feedback</i>
1.	Short description of sector	<p><b>Engineering industry</b></p> <p>The engineering industry is one of the most important branches of Lithuania’s business and science, generating around 20 percent of the total added value. Within the general manufacturing, it employs around 20 per cent of all manufacturing workers. In order to stimulate the growth of this sector, not only investment but also innovation is needed.</p> <p>In Lithuania, Engineering industry is currently exporting about 72 percent of all production in Lithuania. Exports of the engineering industry started to grow faster after 2009, and in 2010-2013 the export of the engineering industry increased on average by 9,5% every year. The range of use of Lithuanian engineering industry products in foreign markets varies from the aeronautics and defense sector (NASA, Boeing, US troops) to cars (BMW, Volkswagen, MAN, etc.) and machinery, mechanical equipment and electronics the instrument industry (Hitachi, Siemens, Mitsubishi).</p> <p>According to the European Union data, the Lithuanian Innovation Index since 2006 increased by 2,58%. However, Lithuania is still almost two times behind the European Union average in innovation within the Engineering industry. Innovation provides the foundation for all types of industry. Companies need to invest in innovation in order to improve the indicators of the engineering and other manufacturing sectors.</p> <p><b>Welding sector</b></p> <p>This description is designated to Welding. Welding is an important sector of the Engineering industry. Welding is a process that joins materials, usually metals or thermoplastics, by causing fusion, which is distinct from lower temperature metal-joining techniques such as brazing and soldering, which do not melt the base metal. In addition to melting the base metal, a filler material is typically added to the joint to form a pool of molten material (the weld pool) that cools to form a joint that is usually stronger than the base material. Pressure may also be used in conjunction with heat, or by itself, to produce a weld. Welding also requires a form of shield to protect the filler metals or melted metals from being contaminated or oxidized. Although less common, there are also solid state welding processes such as friction welding in which metal does not melt. Some of the best known welding methods include Oxy-fuel welding, Shielded metal arc welding (SMAW), Gas tungsten arc welding (GTAW), Gas metal arc welding (GMAW), Flux-cored arc welding (FCAW), Submerged arc welding (SAW), Electroslag welding (ESW), Electric resistance welding (ERW).</p>	

		<p>Many different energy sources can be used for welding, including a gas flame, an electric arc, a laser, an electron beam, friction, and ultrasound. While often an industrial process, welding may be performed in many different environments, including in open air, under water, and in outer space. Welding is a hazardous undertaking and precautions are required to avoid burns, electric shock, vision damage, inhalation of poisonous gases and fumes, and exposure to intense ultraviolet radiation.</p>	
2.	Main activities at level V within Sector (job profile)	<p>The activities at level V divides into 2 different sections:</p> <p>Part 1: Welder-practitioner:</p> <ul style="list-style-type: none"> <li>- Performing welding work at the highest international level</li> <li>- Documentation filling</li> <li>- Managing a certain working bar (brigade, workshop)</li> <li>- Practical training of apprentices</li> </ul> <p>Part 2: Coordinator of welding quality:</p> <ul style="list-style-type: none"> <li>- Organization coordination and production of fusion welding works of steel, aluminium, copper and alloys</li> <li>- Assembling and installation works</li> <li>- Instructing</li> <li>- Supervision, quality control of work in the engineering and metalworking factories, construction, machinery, energy, agriculture, servicing and other sectors of the economy</li> </ul>	
3.	Typical occupations for the sector	<ul style="list-style-type: none"> <li>- Welding Inspector (project proposal)</li> <li>- Welder</li> <li>- Welding, Cutting and Surface Treatment by Laser Operator</li> <li>- Welding Master</li> <li>- Welding Quality Coordinator</li> </ul>	
4.	Occupational knowledge	<ul style="list-style-type: none"> <li>- To apply the knowledge of welding works technology (materials, products, methods, standards);</li> <li>- To apply engineering knowledge about welding drawings;</li> <li>- To apply the knowledge about sequence of performance of work, productivity of labour and equipment;</li> <li>- To perform welding work at the highest international level</li> </ul>	
5.	Occupational skills	<ul style="list-style-type: none"> <li>- To supervise compliance with work and fire safety requirements and rules;</li> <li>- To control adherence to works implementation schedule;</li> <li>- To present suggestions concerning supply of materials and equipment;</li> <li>- To produce specific welding works;</li> <li>- To control and test quality of welding works;</li> <li>- To read welding drawings;</li> <li>- To prepare welding procedure specifications;</li> </ul>	

		<ul style="list-style-type: none"> <li>- To select welding equipment, materials and technologies;</li> <li>- To instruct lower qualification workers;</li> <li>- To perform various types of welding work at the highest international level.</li> </ul>	
6.	Other occupational competence	<ul style="list-style-type: none"> <li>- To apply knowledge of work safety and environmental protection;</li> <li>- To apply the knowledge of psychology of interpersonal communication;</li> <li>- To apply the knowledge about information technologies.</li> </ul>	
7.	Sector specific -tools -equipment -materials	<p>Tools: grinding, drilling, sharpening, NDT tools, penetrants, pressure testing tools etc. tools. Equipment: different arc welding machines, robotic welding, semi automatical welding machines, milling, drilling, turning, cutting machines, plasma cutting and welding machines etc. Materials: different kind of steels, aluminium, copper etc. Welding rods, electrodes etc.</p>	
8.	Sector specific rules, norms, regulations	<p>EN ISO 9606; EN ISO 1090; EN ISO 5817; EN ISO 6520; EN ISO 14731; EN ISO 4063; EN ISO 2553; EN ISO 17637; EN ISO 17635; EN ISO 15609; EN ISO 15608 European welding federation guideline No. EWF-652r2-121/SV-0</p>	
9.	Type of qualification awarded	VET (vocational educational training) diploma	
10.	Interrelations with level IV and possibilities to upgrade qualification to level V	A person seeking to acquire this qualification must have at least secondary education, a LTQF level IV welder qualification and have 5 years of professional experience in the engineering industry.	<i>These requirements may differ from one country to another due to national legal regulations and how every country relates EQF to NQF.</i>
11.	Next level of professional development (Interrelations with EQF level VI)	A person can become a Production and technology engineer (level VI) with a specialisation in Welding. Requirements for enrolling on a course – to have secondary school education. No relations to level V in any sector.	<i>These requirements may differ from one country to another due to national legal regulations and how every country relates EQF to NQF.</i>
12.	Suggested length of training	Modular Welding Coordinator-supervisor training program ( length 60 credits) Welding Coordinator-supervisor non formal training program ( length 80 hours)	<i>These requirements may differ from one country to another due to national legal regulations and how every country relates EQF to NQF.</i>
13.	Reliance of the level V description to the education sector (vocational, higher)	Vocational	

<p><b>14.</b></p>	<p>Suggested training programmes under the description</p>	<ul style="list-style-type: none"> <li>- Welding Inspector, formal education (project proposal). Suggested length of training – from 10 weeks (in the form of continuous vocational education to 1 year in the form of initial vocational education)</li> <li>- Welder, formal education (project proposal). Suggested length of training – from 10 weeks (in the form of continuous vocational education to 1 year in the form of initial vocational education)</li> <li>- Welding, Cutting and Surface Treatment by Laser Operator, formal education (project proposal). Suggested length of training – from 10 weeks (in the form of continuous vocational education to 1 year in the form of initial vocational education)</li> <li>- Welding Master, formal education (project proposal). Suggested length of training – from 10 weeks (in the form of continuous vocational education to 1 year in the form of initial vocational education)</li> <li>- Welding Quality Coordinator, informal education. Length – 3 weeks.</li> </ul>	<p><i>These requirements may differ from one country to another due to national legal regulations and how every country relates EQF to NQF.</i></p>
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**FINAL CONCLUSION:**

X We accept the level V description Welding Qualification as of suitable quality.

X We accept the level V description Welding Qualification as of suitable quality with the condition that the corrections are made following our feedback.

Partner Fundación Laboral del Metal

## CONSTRUCTION SECTOR

No.	<i>Parameters of the Descriptors</i>	<i>Content</i>	<i>Feedback</i>
1.	Short description of sector	<p>The construction sector plays role of strategic importance in the European economy in Europe. It delivers the buildings and infrastructure needed by the rest of the economy and society. It generates almost 10% of GDP and provides 20 million jobs, mainly in micro and small enterprises. Construction is also a major consumer of intermediate products (raw materials, chemicals, electrical and electronic equipment, etc.) and related services. Because of its economic importance, the performance of the construction sector can significantly influence the development of the overall economy.</p> <p>The competitiveness of construction companies is therefore an important issue not only for growth and employment in general but also to ensure the sustainability of the sector.</p> <p>Also the construction sector plays an important role in the delivery of the Europe 2020 Strategy on smart, sustainable and inclusive growth. Furthermore, the Commission's Communication on the 'Energy Roadmap 2050'<sup>1</sup> points out that higher energy efficiency in new and existing buildings is key for the transformation of the EU's energy system.</p> <p>However, the construction sector is confronted by a number of structural problems, such as a shortfall of skilled workers in many companies, low attractiveness to young people due to the working conditions, limited capacity for innovation and the phenomenon of undeclared work. More widely, the current situation of this industry can be characterised by three basic elements.</p> <p>Recent trends of development of construction sector which will effect this sector the most include:</p> <ul style="list-style-type: none"> <li>• Environmental sustainability (sustainable construction)</li> <li>• Automation in construction</li> <li>• E - construction (as an electronic alternative to this where records are recorded and kept digitally, throughout the life of a project);</li> <li>• Increased requirements for energy efficiency;</li> <li>• Resource efficiency throughout the whole life cycle.</li> </ul>	
2.	Main activities at level V within Sector (job profile)	<p>The most important work task for the level 5 professional in construction is to link the phases of planning and execution of building project.</p> <p>Employees in charge with this work must understand principles and forms of planning and be able to transform the results of planning into detailed, short termed work plans for subordinates and into a practical work organisation on site. They also have to be able to conduct and to supervise the work, to dispose labour, equipment and material in the frame of the overall planning, and to take responsibility for the fitting of results with tenders specifications, quality norms and deadlines.</p> <p>These professionals have to be able to train, instruct and control work of other subordinates (apprentices) in the work place, also to evaluate their competences and skills as well as give feedback about quality and results of work of apprentices.</p> <p>They also must be able to take over responsibility for health and safety as well as for environmental issues.</p>	

<sup>1</sup> COM(2011) 885/2.



3.	Typical occupations for the sector	<p><i>Lower-level manager in construction site (master)</i>  <i>For example:</i>  <i>(High level) professional in bricklaying, lower-level manager in bricklaying or Bricklaying Master);</i>  Professional in Concrete works (Concrete works master)  <i>(High level) professional in buildings insulation (Buildings insulation master)</i>  <i>(High level) professional in Roofer</i></p>	<p>Medium or High level in Construction and Building Rehabilitation Companies; Work Management Technician; Work Preparation Technician; Construction Designer; Quantity surveyors; Responsible for Shipyard Organization; Coordinator of Maintenance Activities in Real Estate Companies; Technical-Commercial Activities in Building Material Companies; Technical Activities in Construction Specialties Companies.</p>
4.	Occupational knowledge	<p>Level 5 professional in construction is expected to have:</p> <ul style="list-style-type: none"> <li>• Specific knowledge such as technology of construction, tools and equipment used on building site and how they are functioning;</li> <li>• Deep knowledge of methods and tools for measurement and representation of land and construction details and of working drawings (printed and in e-form);</li> <li>• Know technology of construction, materials, tools and equipment and its characteristics used on site for production;</li> <li>• know how to apply regulations, norms and standards on national as well as EU levels relevant to the functions performed on site;</li> <li>• Know how to apply safety and health at work regulations, environment issues and be able to control how these regulations are respected in working place;</li> <li>• Specific knowledge about quality requirements for the construction site and work process.</li> <li>• To know basic elements of training of apprentices in a form of work based learning.</li> </ul>	
5.	Occupational skills	<p>Level 5 professional in construction competence:</p> <ul style="list-style-type: none"> <li>• Managing work flow in construction site (materials, tools, resources);</li> <li>• Application of methodology and procedures of planning and execution of construction site works, taking care of the main work flow and distribution of tasks as well as monitoring and assessing of results and overall quality;</li> <li>• Control construction projects;</li> </ul>	

		<ul style="list-style-type: none"> <li>• Manage quality control, surveying, marking and measurement;</li> <li>• Manage production on site (labour, equipment, material) including timetables, cost and return control systems;</li> <li>• Managing work health and safety issues;</li> <li>• Organising non-formal and support informal learning on site for apprentices;</li> <li>• Evaluation of the training needs;</li> <li>• Mentor less experienced employees;</li> <li>• Manage the safety and quality issues.</li> </ul>	
6.	Other occupational competence	<p><i>Other important occupational competence:</i></p> <ul style="list-style-type: none"> <li>• Ability to perform professional tasks under variable conditions (to act in unforeseen situations);</li> <li>• Risk management;</li> <li>• Effective communication;</li> <li>• Preparation of construction site documentation;</li> <li>• Evaluation of the impact of various actions and risks;</li> <li>• Management of the flow of information;</li> <li>• Problem solving;</li> <li>• Managing small teams.</li> </ul>	<ul style="list-style-type: none"> <li>- Continuous training</li> <li>- Emotional balance</li> <li>- Organization, coordination</li> <li>- Communication skills</li> <li>- Linguistic skills</li> <li>- Critical thinking</li> <li>- Negotiation</li> <li>- Emotional intelligence</li> <li>- Cognitive flexibility</li> <li>- ICT skills</li> </ul>
7.	Sector specific -tools -equipment -materials	Tools and equipment used on construction site, tools for measurement and cutting, construction drawings in various formats (2D, 3D, 4D) budget and management software. Materials used in construction site, they characteristics and behaviour then processed.	
8.	Sector specific rules, norms, regulations	Construction site regulations and norms, such as European advanced codes, the Eurocodes, a set of European standards for the design of buildings and other civil engineering works, is a starting condition for risk reduction and harmonisation in construction.	What about the national norms and regulations?
9.	Type of qualification awarded	Types of qualifications: (Level 5 certificate, vocational educational training diploma)	
10.	Interrelations with level IV and possibilities to upgrade qualification to level V	A person seeking to acquire this qualification must have at least secondary education, a EQF level III qualification and have at least 2 years of professional experience in the construction industry, or level IV qualification and at least 2 years of experience.	Disagree. This prevents many young people from moving to this level.
11.	Next level of professional development (Interrelations with EQF level VI)	Next level of professional development for a high level professional is to become a coordinator of construction works in construction work place or manager of construction works (managing and supervising of lower qualification professionals).	
12.	Suggested length of training	Training programme can vary from one year to year and a half, depending on prior knowledge and experience obtained in the workplace.	This can create more problems in terms of ecvet

13.	Reliance of the level V description to the education sector (vocational, higher)	Level V description in construction is more relevant to vocational training sector than to the higher education. In some countries in the construction industry school-based systems and company-based systems co-exist in the frame of vocational education and training system.	
14.	Suggested training programmes under the description	Modular training programme for level V professionals in different fields of construction. Suggested form of vocational education and training is apprenticeship.	

**FINAL CONCLUSION:**

We accept the level V description Construction Qualification as of suitable quality.

We accept the level V description Construction Qualification as of suitable quality with the condition that the corrections are made following our feedback.

Partner Esprominho

## CLOTHING AND TEXTILE SECTOR

No.	<i>Parameters of the Descriptors</i>	<i>Content</i>	<i>Feedback</i>
1.	Short description of sector	<p>The Lithuanian clothing and textile sector is one of the largest job-creating manufacturing industries in Lithuania, which currently employs about 26 thousand people. Level 4 professional qualification is quite popular in textile sector. It has been identified by employers that there is a need for a higher level employees (qualification level V) to cover the higher level technical roles within the industry and to provide progression routes for those on manufacturing. Due to the rapid changes in the market, and in the face of low cost competition, textile sector is increasingly reliant upon implementing cost effective product development initiatives to enable them to compete within the global market. The need of qualified staff is real.</p> <p>Lithuanian textile and sewing industry production quantity is too large for the local market, and therefore the sector is exporting a lot and working for foreign markets. Textile industry is dominated by several companies that compete successfully not only in the local, but also in foreign markets due to its brand. Foreign direct investments is one of the most important factors that facilitate the achievement of faster technological advances and more efficient dissemination of knowledge and innovation. Attractiveness of investment in Lithuanian textile sector is usually characterized by a favourable geographical location, relatively good workforce quality, good transport infrastructure, government efforts to improve the business environment. Growing foreign direct investments and growing foreign capital shows the industry's ability to increase the competitiveness of domestic enterprises. The possibility to enter EU market has changed the way companies in the sector work.</p>	
2.	Main activities at level V within Sector (job profile)	<p>The qualification is intended for activities with a complex combination of tasks in different fields of activity covering such activities as sewing, modelling and designing. Other activities include coordination and management work, assessment and training of lower-skilled employees. The activity requires a combination of comprehensive knowledge of the field with general knowledge, solving various specialized tasks in several different fields of activity. Also 1-3 years working experience within the sector (work based learning) is necessary.</p> <p>An employee carries out activities independently, whose care is limited to assessing the results. Tasks of the activity are determined by the higher qualification employee, often giving the performer the opportunity to choose the ways and means of solving these problems. The employee manages the activities of lower-skilled employees, plans and divides tasks, supervises the performance of activities, advises and checks the quality of performance.</p>	

		The operational and organizational requirements of the business and its environment are constantly changing, changes are often unpredictable and may involve new areas of activity.	
3.	Typical occupations for the sector	Sewing constructor, seamstress modeller, clothing tailor, women's clothing tailor, men's clothing tailor, blouse tailor, hat tailor, theatrical worker seamstress, custom tailor, fur fabric tailor, textile fabric tailor, textile craftsman, re-sewer, tailor modeller, hat modeller.	
4.	Occupational knowledge	<ul style="list-style-type: none"> <li>➤ Basics of clothing construction and modelling.</li> <li>➤ Sewing (to know and understand how the constructed garment is made, how to combine pieces in to a solid product, technical procedures and equipment needed).</li> <li>➤ Principles and process of organising and assessing work. Understanding of the workplace and the employee's responsibilities, for example, time-keeping, appearance, customer care, health and safety and etc.</li> <li>➤ Procedures and skills for training lower staff.</li> <li>➤ Operations and criteria of quality assurance.</li> <li>➤ Principles and regulations of safety at work.</li> </ul>	
5.	Occupational skills	<ul style="list-style-type: none"> <li>➤ Clothing construction, modelling and sewing skills (clothing design, correction of product model, reproduction of sizes; creation of spreadsheets, design of the product from the sketch, model sketch analysis, changing of the structure base, multiplication of the product, preparation of full product technical documentation).</li> <li>➤ Evaluation and self-evaluation skills.</li> <li>➤ Quality assurance skills (quality assurance skills are the ones characterizing the profiles at level 5).</li> <li>➤ The capacity of coordinating a team, the capacity of doing the job and interacting with the other professional profiles of the sector, knowing their roles and their peculiarities.</li> <li>➤ If necessary, should be able to implement sectoral innovations / latest trends, improvement of working methods and technologies, work place health and safety.</li> </ul> <p>Highly skilled professionals should become more familiar with the primer of the textile sector, also be familiar with the management of textile processes.</p>	
6.	Other occupational competence	<ul style="list-style-type: none"> <li>➤ After gaining level V qualification, employee <u>is ready to</u> work individually, ensuring work safety, working as leader for other team members, demonstrating knowledge within the sector, IT knowledge and self-evaluation.</li> <li>➤ Autonomy in organizing and carrying out the work is strictly linked to responsibility, a competence that level 5 qualifications should develop.</li> <li>➤ Positive attitude to learning.</li> <li>➤ Flexible approaches to solving problems.</li> </ul>	

		<ul style="list-style-type: none"> <li>➤ Adaptability and positive attitude to change.</li> <li>➤ Confidence to set goals, reflect and learn from experience.</li> </ul>	
7.	Sector specific -tools -equipment -materials	IT, special programmes for modelling/construction, MS Office and other necessary to fulfil daily duties. Tools and equipment varies from companies in the sector and vocation training centres, providing the qualification.	
8.	Sector specific rules, norms, regulations	No specific rules, norms or regulations are applied.	
9.	Type of qualification awarded	Level V qualification-vocational training. Position: constructor-modeler, designer-modeler, shift manager or supervisor.	
10.	Interrelations with level IV and possibilities to upgrade qualification to level V	Level V qualification has direct interrelations with level IV, as level IV usually should be completed to proceed higher level of qualification. According to Lithuanian Qualifications Framework V level qualifications provided through programs for persons with professional qualifications and set duration of professional experience, non-degree study programs and (or) the professional experience and independent study.	
11.	Next level of professional development (Interrelations with EQF level VI)	Level VI qualification according to Lithuanian Qualifications Framework. Position: production manager, engineer, work manager, creative director, etc.	
12.	Suggested length of training	Up to one year.	
13.	Reliance of the level V description to the education sector (vocational, higher)	Vocational education.	
14.	Suggested training programmes under the description	Sewing constructor vocational training programme	

**FINAL CONCLUSION:**

X We accept the level V description '*Clothing and textile sector*' as of suitable quality.

X We accept the level V description... [*Clothing and textile sector*] ... as of suitable quality with the condition that the corrections are made following our feedback.

Partner: Essenia UETP srl - Giovanna Palumbo; Francesca Sauro



## EVALUATION OF THE INTELLECTUAL OUTPUT 3:

### *methodology FOR THE DEVELOPMENT OF SECTORAL Qualification Descriptors*

Qualification Descriptors at EQF level 5 in three sectors

<b>No.</b>	<b>PARAMETERS OF THE methodology</b>	<b>ANALYSIS</b>	<b>ASSESSMENT/REMARKS</b>
1.	<b>Overall objectives</b>	<p>The purpose of the development of sectoral qualification descriptors is indicated in the recommendations from the first outcome of the project „Comparative study on developments of EQF level 5 qualifications in Europe“. Overall objective of the methodology is to increase transparency and recognition of skills and qualifications in order to facilitate learning, employability and labour mobility through development of international qualification descriptors in specific sectors.</p> <p>The methodology provides preconditions for the development of internationally compatible platform of new types of qualifications, vocational education or study programmes and joint developments in different sectors. Better understanding and application (nationally and internationally) of EQF level 5 qualifications, allowing learners to move more easily between different types of education (such as academic and vocational) and between different levels (such as VET and higher education) internationally.</p>	<p><i>The overall objective of the Methodology is clear.</i></p> <p><i>Dispute the fact that this Methodology was prepared for the developments of the European Qualification Frameworks Level V qualifications in three sectors, it could be applied and used much broader: for other levels of European Qualification Framework or for other sectors as well.</i></p>
2.	<b>Grounding of the methodology for the development of sectoral qualification descriptors</b>	<p>First of all methodology is grounded on research and study of the developments within European Qualification Framework level 5, analyses of recent European Vocational education and training and Higher education policy developments, strategic papers, official documents, results scientific research and data analyses and comparative study of European countries. For the purpose of the development of Methodology review of European policy and strategic documents concerning sectoral qualification frameworks and qualifications, analyses of reforms and developments in EU countries regarding both vocational education and training and Higher education qualifications has been prepared.</p> <p>Examples of methodologies used in other projects are also examined (such as Prototype Joint European Sectoral Qualifications Framework for the Creative and Performing Disciplines, 2012, Sectoral Qualifications Framework: Telecommunications, 2015).</p>	<p><i>Methodology is well grounded on research and indept study of the developments within European Qualification Framework level 5 across Europe.</i></p>

<p>3.</p>	<p><b>Principles for the development of sectoral qualification descriptors</b></p>	<p>There are 4 main principals mentioned in the methodology:</p> <ul style="list-style-type: none"> <li>• Involvement of stakeholders,</li> <li>• Correspondence to the needs of labour market,</li> <li>• Focus on learning outcomes,</li> <li>• Correspondance to EQF descriptors.</li> </ul> <p>In the methodology, the principles are elaborated to further clarify their application:</p> <p>It is stressed (while presenting importance of involvement of stakeholders) that the developing of descriptors should be grounded on the indept discussions about the competences and qualifications in a given sector, enabling industry representatives to exchange information and reach consensus on contested issues.</p> <p>A broader explication of the principles emphasizes that the development of sectoral inventories should be based on a comprehensive discussion among all stakeholders on the competences and qualifications of a particular sector, allowing industry and education representatives to exchange information and agree on controversial issues. Representatives of all stakeholders should, in particular, agree in detail on the benefits to each of the target groups (employers, workers, learners, education providers, the state) provided by sectoral qualifications descriptions in various fields. It should also be clear to everyone what is the added value of creating sectoral qualification descriptors.</p> <p>The description should demonstrate tangible benefits for the labour market and encourage investing into gaining level V qualification.</p> <p>Description of the sectoral level qualification level V should be focused on reaching clear learning outcomes and lead to gaining competences useful for the learners and the sector.</p> <p>Description should have clear reference to existing qualification standards and specific qualifications in the sector, especially if they include competences described in the language of learning outcomes. It is wise to foresee the career development and individual learning paths.</p>	<p><i>4 principals are chosen appropriately and consistent with the logic of the methodology itself. The importance of the discussion and consensus is mentioned in the Methodology and could be added as a principal as well.</i></p>
<p>4.</p>	<p><b>Components for the development of sectoral descriptors</b></p>	<p>Descriptors consist on these main parameters:</p> <ul style="list-style-type: none"> <li>• Analysis of the sector needs and tendencies within the sector;</li> <li>• Analysis of main national regulations, main international standards and regulations (Social and economic context study);</li> <li>• Analysis of work procecess for level V in the Specific Sector;</li> </ul>	<p><i>The basic parameters are appropriate and well thought out, allowing indept description of the qualifications within the sector and comparison between different countries. Some parameters may differ from one country to another due to national legal regulations and how every country relates EQF to NQF.</i></p>

		<ul style="list-style-type: none"> <li>• Identification of professional roles (groups of competencies, qualifications and specialisations);</li> <li>• Reference to EQF and NQF descriptors;</li> <li>• Elaboration of a job profile based on learning outcomes;</li> <li>• Definition of typical occupations;</li> <li>• Elaboration of Sectoral Qualification descriptors in sectors (Defining learning outcomes for the level V in sectors);</li> <li>• Modalities for accessing the profession/occupation;</li> <li>• Work experience for entering level V;</li> <li>• Competences for entering level V and Paths for accessing level V from level I, II, III, IV, as well as relations with IV and VI level qualifications</li> <li>• Verification and validation by Sectoral/national/international Authorities</li> <li>• Quality provision/renewal</li> </ul> <p>All content of the qualification sector is oriented towards the possibility to apply qualification profiles at international level, describing them comprehensively for all stakeholders. Therefore, the content used in the methodology can be adapted at international level to describe and analyze other sectoral and other qualifications. The process of identifying sets of key competences for the most important areas of the specific sector is a critical part of the methodology of developing sectoral level descriptors, since they form the basis of the determinants distinguishing specific sectoral qualifications.</p>	
5.	<b>Methods of the development of sectoral descriptors</b>	<p>A large variety of methods is mentioned and can be used in a process of the development such as comparative analysis, expert interview, Job Interview, qualitative questionnaire, Discussions with main stakeholders.</p> <p>Formulating questions which lead to clarity.</p> <p>Main method Expert working groups.</p> <p>Discussions with main stakeholders.</p>	<i>Chosen variety of methods are needed for a comprehensive analysis of sectoral qualifications, and therefore is suitable and well grounded.</i>
6.	<b>Overall evaluation of the Methodology</b>	<p>Methodology is well grounded and prepared for comparison and development of international qualifications. It could be used universally and could be applied and used for other levels of European Qualification Framework or for other sectors as well. The basic parameters are clear and well described, appropriate and well thought out, allowing indept analysis and description of qualifications, occupations within sector.</p> <p>Sector-specific descriptions of knowledge, skills and competence are the basis of the qualification descriptions. They should reflect the demands of work in the specific industry. To define knowledge, skills and competence in a sector-specific manner it is necessary to find the main reference point common for many countries and therefore available to use it internationally. In this case this reference point was European Qualification framework.</p>	

No.	<b>SECTORAL QUALIFICATION DESCRIPTORS</b>	<b>EVALUATION</b>	<b>REMARKS</b>
1.	<b>WELDING</b>	<p>Sectoral Qualification Descriptor for Welding sector is prepared with regard to sector specificity and requirements for occupational activities for welders. It is based on broad discussion about the need of level 5 practitioner in the welding sector with main stakeholders groups.</p> <p>The occupational activities are divided into 2 different sections (quality coordination and high level welding practice). Occupational knowledge (knowledge of welding works technology (materials, products, methods, standards, engineering knowledge about welding drawings, knowledge about sequence of performance of work, productivity of labour and equipment), skills (to supervise compliance with work and fire safety requirements and rules, to control adherence to works implementation schedule, to present suggestions concerning supply of materials and equipment, to produce specific welding works, to control and test quality of welding works; to prepare welding procedure specifications, to select welding equipment, materials and technologies and to instruct lower qualification workers) are defined with regard to international practice and variety of occupational jobs that could be performed at EQF level 5 within welding sector. Some other sector specific competences are also emphasised: to apply knowledge of work safety and environmental protection; to apply the knowledge of psychology of interpersonal communication, to apply the knowledge about information technologies.</p> <p>Descriptor is well prepared and can be used by all groups of interests and stakeholders (companies, industry chambers and organisations, representatives of higher education and professional bodies, as well as regulatory authorities).</p>	<p><i>The specificity of the welding jobs determines that welders are regulated by a number of international standards, which are changing rapidly. This should be taken into account in the practical application of the sectoral qualification descriptor.</i></p>
2.	<b>CONSTRUCTION</b>	<p>Descriptor is prepared with regard to construction sector trends and developments and broad discussion with sector representatives. The industry sector of construction is a very important one in the European Union. It provides the infrastructure and buildings which are required by all the other sectors of the economy. Descriptors are prepared with regards to main trends in the construction industry: Environmental sustainability (sustainable construction), Automation in construction, E – construction (as an electronic alternative to this where records are recorded and kept digitally, throughout the life of a project), Increased requirements for energy efficiency, resource efficiency throughout the whole life cycle.</p>	<p><i>It is not internationally agreed that 1-3 years working experience within the sector is necessary or not.</i></p>

		<p>The most important work task for the level 5 professional in construction is to link the phases of planning and execution of building project. Employees in charge with this work must understand principles and forms of planning and be able to transform the results of planning into detailed, short termed work plans for subordinates and into a practical work organisation on site. They also have to be able to conduct and to supervise the work, to dispose labour, equipment and material in the frame of the overall planning, and to take responsibility for the fitting of results with tenders specifications, quality norms and deadlines.</p> <p>Descriptor is comprehensive and can be used internationally for the standardisation of the construction field activities for level 5 EQF practitioners.</p>	
3.	<b>CLOTHING AND TEXTILE SECTOR</b>	<p>The Descriptors are prepared with the main emphasis on qualification which is intended for activities with a complex combination of tasks in different fields of activity covering such activities as sewing, modelling and designing and coordination and management work, assessment and training of lower-skilled employees.</p> <p>The level 5 activity requires a combination of comprehensive knowledge of the field with general knowledge, solving various specialized tasks in several different fields of activity. Also 1-3 years working experience within the sector (work based learning) is necessary.</p> <p>Importance of ability to perform activities independently is also very important for this sector. Descriptors are prepared based on broad discussion with the sector employers and therefor are trustworthy.</p>	<i>It is not internationally agreed that 1-3 years working experience within the sector is necessary or not.</i>
4.	<b>Overall evaluation of the Descriptors</b>	<p>Sectoral qualification descriptors are well prepared and can serve the purpose of making the qualifications of an industry transparent, well-ordered and improved in terms of quality. By using the language of the sector and referencing the described competence requirements to the work environment, it is a friendly tool for recognizing the complexity of level 5 qualifications and for comparing qualifications with one another, building coherent development paths, and creating effective systems for the continuous improvement of employee competences. In this way, it becomes an important and useful link between the world of work and the world of qualifications.</p>	

