



INTELLECTUAL OUTPUT 3

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

LEADING PARTNER:	<i>VILNIUS JERUZALEM LABOUR MARKET TRAINING CENTRE, LITHUANIA</i>
CONTRIBUTING PARTNERS:	<p><i>ESSENIA UETP – UNIVERSITY AND ENTERPRISE TRAINING PARTNERSHIP S.R.L., ITALY</i></p> <p><i>FUNDACIÓN LABORAL DEL METAL, SPAIN</i></p> <p><i>ESPROMINHO, PORTUGAL</i></p> <p><i>KARALIUS MINDAUGAS VOCATIONAL TRAINING CENTRE, LITHUANIA</i></p> <p><i>KLAIPEDA E. GALVANAUSKAS VOCATIONAL TRAINING CENTER, LITHUANIA</i></p> <p><i>QUALIFICATIONS AND VOCATIONAL EDUCATION AND TRAINING DEVELOPMENT CENTRE, LITHUANIA</i></p>

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Klaipėdos Ernesto Galvanausko
profesinio mokymo centras



Fundación Laboral
del Metal



KVALIFIKACIJŲ IR PROFESINIO
MOKYMO PLĖTROS CENTRAS



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.
- **Correspondance 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:

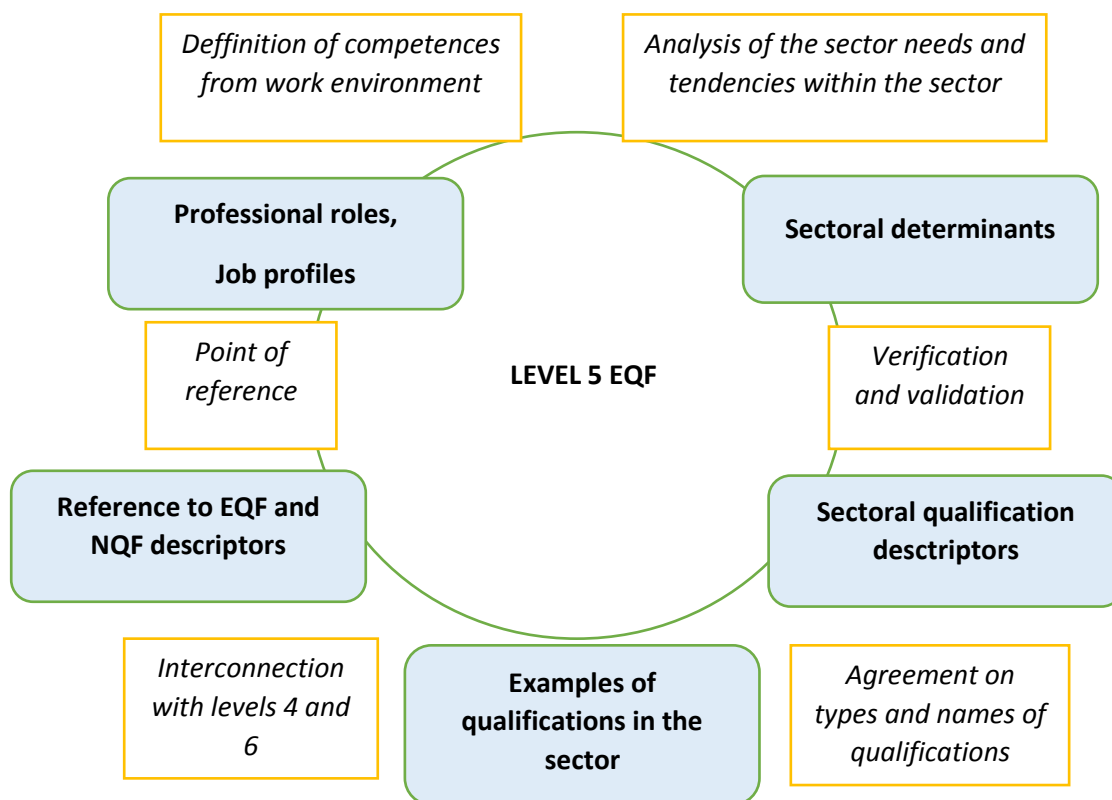


Table No. 1. Steps for the development of sectoral descriptions:

No.	Content	Methods
1	Background Analysis of main national regulations main international standards and regulations Social and economic context study	Comparative analysis, Analysis
2	Analysis of work procecess 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 Interviu, 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 <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - 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 IV. 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 routes 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.	Parameters of the Descriptors	Content	Feedback
1.	Short description of sector	<p>Engineering industry</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>Welding sector</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"> - Performing welding work at the highest international level - Documentation filling - Managing a certain working bar (brigade, workshop) - Practical training of apprentices 	

		<p>Part 2: Coordinator of welding quality:</p> <ul style="list-style-type: none"> - Organization coordination and production of fusion welding works of steel, aluminium, copper and alloys - Assembling and installation works - Instructing - Supervision, quality control of work in the engineering and metalworking factories, construction, machinery, energy, agriculture, servicing and other sectors of the economy 	
3	Typical occupations for the sector	<ul style="list-style-type: none"> - Welding Inspector (project proposal) - Welder - Welding, Cutting and Surface Treatment by Laser Operator - Welding Master - Welding Quality Coordinator 	
4	Occupational knowledge	<ul style="list-style-type: none"> - To apply the knowledge of welding works technology (materials, products, methods, standards); - To apply engineering knowledge about welding drawings; - To apply the knowledge about sequence of performance of work, productivity of labour and equipment. - To perform welding work at the highest international level 	
5	Occupational skills	<ul style="list-style-type: none"> - 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 read welding drawings; - To prepare welding procedure specifications; 	

		<ul style="list-style-type: none"> - To select welding equipment, materials and technologies. - To instruct lower qualification workers. - To perform various types of welding work at the highest international level 	
6	Other occupational competence	<ul style="list-style-type: none"> - 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; 	
7	Sector specific -tools -equipment -materials	<p>Tools: grinding, drilling, sharpening, NDT tools, penetrants, pressure testing tools etc. tools.</p> <p>Equipment: different arc welding machines, robotic welding, semi automatical welding machines, milling, drilling, turning, cutting machines, plasma cutting and welding machines etc.</p> <p>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</p> <p>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	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</i>

	level VI)		<i>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	
14	Suggested training programmes under the description	<ul style="list-style-type: none"> - 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) - 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) - 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) - Welding Master, formal education (project proposal). Suggested length of training – from 10 weeks (in the form of continuous vocational education to 1 	<i>These requirements may differ from one country to another due to national legal regulations and how every country relates EQF to NQF.</i>

		year in the form of initial vocational education) - Welding Quality Coordinator, informal education. Length – 3 weeks.	
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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

Date: 23/4/18

CONSTRUCTION SECTOR

No.	Parameters of the Descriptors	Content	Feedback
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 2050'¹ 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. Recent trends of development of construction sector which will effect this sector the most include:</p> <ul style="list-style-type: none"> • Environmental sustainability (sustainable construction) 	

¹

COM(2011) 885/2.

		<ul style="list-style-type: none"> 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. 	
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.</p> <p>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>	
3	Typical occupations for the sector	<p><i>Lower-level manager in construction site (master)</i></p> <p><i>For example:</i></p> <p><i>(High level) professional in bricklaying, lower-level manager in bricklaying or Bricklaying Master);</i></p> <p>Professional in Concrete works (Concrete works master)</p>	<p>Medium or High level in Construction and Building Rehabilitation Companies; Work Management Technician; Work</p>

		<p>(High level) professional in buildings insulation (Buildings insulation master</p> <p>(High level) professional in Roofer</p>	<p>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"> • Specific knowledge such as technology of construction, tools and equipment used on building site and how they are functioning, • Deep knowledge of methods and tools for measurement and representation of land and construction details and of working drawings (printed and in e-form). • Know technology of construction, materials, tools and equipment and its characteristics used on site for production; • know how to apply regulations, norms and standards on national as well as EU levels relevant to the functions performed on site; • 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. • Specific knowledge about quality requirements for the construction site and work process. 	

		<ul style="list-style-type: none"> To know basic elements of training of apprentices in a form of work based learning. 	
5	Occupational skills	<p>Level 5 professional in construction competence:</p> <ul style="list-style-type: none"> Managing work flow in construction site (materials, tools, resources); 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, control construction projects, manage quality control, surveying, marking and measurement, manage production on site (labour, equipment, material) including timetables, cost and return control systems, managing work health and safety issues organising non-formal and support informal learning on site for apprentices; Evaluation of the training needs Mentor less experienced employees Manage the safety and quality issues 	
6	Other occupational competence	<p><i>Other important occupational competence:</i></p> <ul style="list-style-type: none"> Ability to perform professional tasks under variable conditions (to act in unforeseen situations); Risk management; Effective communication; Preparation of construction site documentation Evaluation of the impact of various actions and risks; Management of the flow of information 	<ul style="list-style-type: none"> - Continuous training - Emotional balance, - Organization, coordination - Communication skills; - Linguistic skills - Critical thinking. - Negotiation

		<ul style="list-style-type: none"> • Problem solving • Managing small teams 	<ul style="list-style-type: none"> - Emotional intelligence - Cognitive flexibility - ICT skills
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).	Do we have to address this?
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 then 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.	I did not understand.

FINAL CONCLUSION:

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

X 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

Date: 18/5/18

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> <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.</p>	
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"> ➤ Basics of clothing construction and modelling. ➤ 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). ➤ Principles and process of organising and assessing work. Understanding of the workplace and the employee's responsibilities, for example, time- 	

		<p>keeping, appearance, customer care, health and safety and etc.</p> <ul style="list-style-type: none"> ➤ Procedures and skills for training lower staff. ➤ Operations and criteria of quality assurance. ➤ Principles and regulations of safety at work. 	
5	Occupational skills (gebėjimai)	<ul style="list-style-type: none"> ➤ 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). ➤ Evaluation and self-evaluation skills. ➤ Quality assurance skills (quality assurance skills are the ones characterizing the profiles at level 5). ➤ 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. ➤ If necessary, should be able to implement sectoral innovations / latest trends, improvement of working methods and technologies, work place health and safety. <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"> ➤ 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. ➤ Autonomy in organizing and carrying out the work is strictly linked to 	

		<p>responsibility, a competence that level 5 qualifications should develop.</p> <ul style="list-style-type: none"> ➤ Positive attitude to learning. ➤ Flexible approaches to solving problems. ➤ Adaptability and positive attitude to change. ➤ Confidence to set goals, reflect and learn from experience. 	
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	
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FINAL CONCLUSION:

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

☐ We accept the level V description... [title] ... as of suitable quality with the condition that the corrections are made following our feedback.

Partner: Essenia UETP srl - Giovanna Palumbo; Francesca Sauro

Date: 10/05/2018

1. TITLE OF THE CERTIFICATE (ES)

**Certificado de Profesionalidad de nivel 3 en
FMEC0208 DISEÑO DE CALDERERÍA Y ESTRUCTURAS METÁLICAS**

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

**Professional Certificate Level 3 in
FMEC0208 DESIGN OF METAL FABRICATION AND METAL STRUCTURES
(This translation has no legal status)**

3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to design and prepare technical documentation on metal fabrication products and metal structures, based on prior designs and basic engineering instructions, while complying with regulations and following quality, safety and environmental protection criteria. This general competence is divided into the following **skills units** (UC):

- Design metal fabrication products (UC1145_3).
- Design metal structure products (UC1146_3).
- Make calculations and testing plans in metal fabrication and metal structures (UC1147_3).
- Prepare the technical documentation of metal construction products (UC1148_3).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Metal fabrication products design (MF1145_3).
- Metal structure products design (MF1146_3).
- Calculus for metal fabrication and metal structures (MF1147_3).
- Technical documentation for metallic construction products (MF1148_3).
- Practical training at the workplace in Design of metal fabrication and metal structures (MP0127)

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Prepare plans for disassembly and assembly of metal fabrication products and/or metal structures using the 2D design and modelling software, based on technical documentation and complying with standards governing quality and prevention of occupational and environmental risks.
- Decide on the materials needed for the manufacture of metal fabrication products and/or metal structures, based on technical documentation, and complying with standards on quality and occupational and environmental prevention.
- Prepare the technical documentation for the manufacture of metal fabrication products and/or metal structures, complying with standards governing quality and occupational and environmental prevention.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work in the specific area of industrial design applied to the technical development of projects for metal fabrication and metal structures. The main subsectors in which the holder may work are: manufacture of structural metal products, construction of large deposits, thick metal fabrication, structures associated with construction of machinery, construction of bodywork, trailers and dumper trucks, naval construction and repair, construction and repair of railway material, construction of bicycles and motorcycles and constructions of other transport material. The most pertinent occupations and positions are:

- Design draughtsman for metal fabrication and metal structures.
- CAD technician for metal fabrication and metal structures.
- Technical designer for metal fabrication and metal structures.
- Design draughtsman.
- Technical industrial designer.
- Metal fabrication technician.

5. OFFICIAL BASIS OF THE CERTIFICATE	
<p>Name and status of the national/regional authority providing accreditation/recognition of the certificate</p> <p>The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.</p>	
<p>Level of the certificate</p> <p>The Professional Certificate Level 3 of the National Repertoire of Professional Certificates corresponds to level 4 of the International Standard Classification of Education (ISCED-P 2011).</p> <p>The European Qualification Framework (EQF) level:</p>	
<p>Grading scale/Pass requirements</p> <p>The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.</p> <p>The grading system is as follows:</p> <ul style="list-style-type: none"> - FAIL: 0 to 4.9 - PASS-SATISFACTORY: 5 to 6.9 - PASS-GOOD: 7 to 8.9 - PASS-EXCELLENT: 9 to 10 	
<p>Access to next level of education/training</p> <p>This Professional Certificate Level 3 gives access to Professional Certificate Level 3 within the same professional area and family.</p> <p>For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.</p>	
<p>Legal basis</p> <p>Royal Decree 684/2011 of 13 May, establishing twelve professional certificates in the professional family Metal working, which are included in the National Repertoire of Professional Certificates. (Appendix V, Code: FMEC0208)</p>	

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE		
<p>This certificate may be acquired by:</p> <ol style="list-style-type: none"> 1. Training: Completion with a pass grade of the face-to-face or online training programme. 2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate. 3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate. <p>The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:</p>		
Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	97	620
Practical training at the workplace	3	40
Total duration of training leading to the certificate		660

Entry/access requirements:

- *Bachiller* Diploma (upper secondary education); or
- Professional Certificate Level 2 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

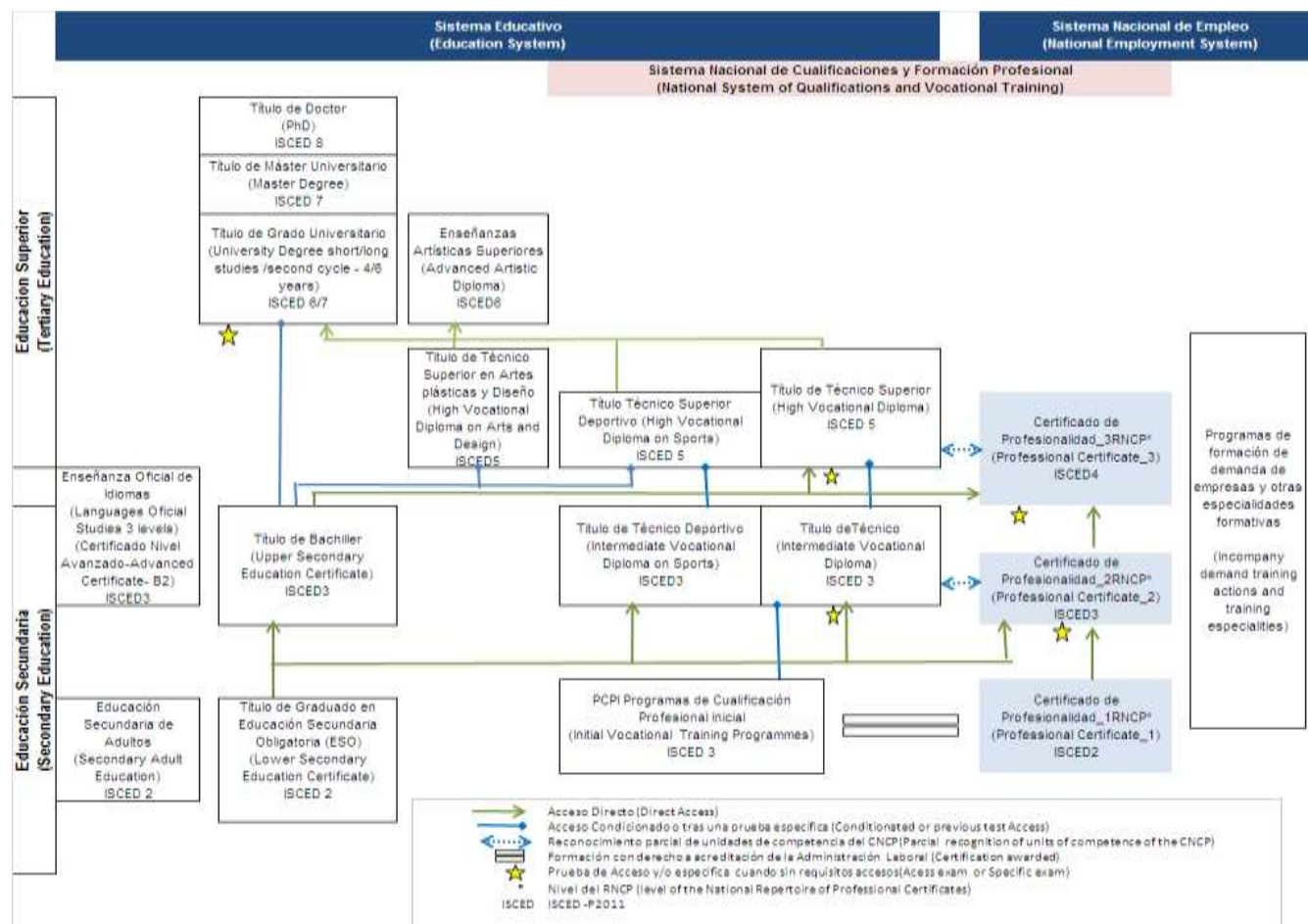
Additional information: Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: www.sepe.es

National Europass Centre: www.oapee.es

(*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain



Programme: Specialized Technician for textile sector – clothing – Fashion Industry

Title of the Course: Specialized Technician in: Process, Product, Textile Planning and Design, Clothing, Fashion Sector

Training delivered by: ITS Higher Technical Institutes- Institutes for Applied Technologies (ITS Istituti Tecnici Superiori - Scuole Per Tecnologie Applicate)

Area: New Technologies for the 'Made in Italy'

Field: Fashion Industry

Professional Profile: Specialized Technician in: Process, Product, communication and marketing for the textile sector, clothing and fashion.

Career Opportunities: All the professional profiles of Textile Fashion Industry

Entry Requirements to access the course: Secondary Education Graduation (From any sector and kind of School)

Duration: 2 years, 1800 hours, of which minimum 640 of on-the job training activities (traineeships)

Final Certification: Degree of Specialized Technician V level EQF including Europass Certification

Description of the course:

The Specialized Technician in textile planning and design is able to conciliate aesthetic taste, intuition and creativity with the technical, functional and economic requirements of the product and knows how to place his/her creative-design and planning capacity within an organized complex of resources and competences, for design of high quality goods, both from the aesthetic and productive point of view.

The Specialized Technician responsible for the product knows the types of yarns suitable for the construction of various fabrics, the types of fabric discerned by kind and use, their characteristics and performance, their adaptability and yield with regards to models and colors. He/She knows the production processes and is able to manage a project (timetable, activities, resources); he/she is able to: plan the creation of a collection according to the type of good produced by the company; design new types of fabric and modify/develop existing items. He/She is able to set up a specimen and select it, develop coloring tissues and determine the appropriate type of finish. He/She is able to coordinate the selection of fabrics for the presentation of the collection. He/She knows how to grasp the needs of the market and evaluate fashion trends by adapting them to the company target. The Specialized Technician responsible for the product is able to interact with the managers of all the production departments of the company, upstream and downstream of the design office, and in particular with the quality control manager, to check for any critical issue.

The Specialized Technician in a sewing company is responsible for the choice of fabrics, collaborates with the styling office for the definition of the collection, with the model maker and/or the knitter for the realization of the prototypes, taking care of the model/fabric combination of model/yarn and the choice of any accessory, with suppliers for the study of exclusive items and with the marketing department to incorporate the needs of the market and declinate them in coherence with the identity and image of the company.

PROFESSIONAL COMPETENCES

Technical and professional skills typical of the field of specialization:

- Select and use raw materials and intermediate and final products of the production chain.
- Organize and manage technological and organizational processes of production chains.
- Contextualize the company structure and organization in the economic and market context.
- Use and manage of the main marketing techniques and tools.

Technical-professional skills related to: specific technological applications, required by the productive or service sector(s) and on-the job training activities

- Design products and textile/clothing components, also with of dedicated softwares
- Manage and control the technological processes of production of the textile/clothing supply chain also in relation to quality standards
- Manage and optimize the issues related to the ennobling of semi-finished and finished products to achieve the expected quality results
- Intervening in strategic planning, operational planning and management control processes
- Make choices related to activities/resources to be outsourced
- Use the company information system
- Use marketing tools in the definition of the structure of the collection and in the definition of communication and marketing strategies
- Have command of the specific technical vocabulary of the sector also in English

OTHER COMPETENCES

- Safety and Security in the work environment
- Sustainable Development - General aspects of sustainability
- Team work
- Evaluation of products and processes

Superior Professional Technical Course in Construction and Rehabilitation

Description

The present Professional Higher Technical Course (CTeSP) constitutes a training offer of a professional nature, taught in the scope of polytechnic higher education, with a duration of 4 academic semesters, corresponding to 120 ECTS.

The CTeSP is organized according to the components of general and scientific, technical and work training (internship), each student obtaining, at the end of the course, the Professional Higher Diploma, level 5 of the European Qualifications Framework for Lifelong Learning.

With a view to continuing their studies, graduates may benefit from the allocation of credentials.

Professional Profile

The Superior Professional Technical Course in Construction and Rehabilitation, aims to train professionals able to plan, coordinate and supervise new construction and rehabilitation works of small, medium or large construction industry companies.

The professionals will also be able to interpret projects and technical documents inherent in construction activities, as well as understand and evaluate pathologies and coordinate corrective actions of rehabilitation and maintenance of buildings.

Career Opportunities

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.

Study Programme

1 st Year	Period	ECTs
Computer Technical Design	1st Semester	5
Fundamentals of Mathematics	1st Semester	5
ICT	1st Semester	5
Construction Materials	1st Semester	5
Planning and Organization of Work	1st Semester	5
Quality and Environment in Construction	1st Semester	5
Human Behavior in Organizations	2nd Semester	5
Inspection and Control of Work	2nd Semester	5
Technical English	2nd Semester	5
Organization and Management of Companies	2nd Semester	5
Safety, Hygiene and Health at Work - Construction Industry	2nd Semester	5
Construction Technologies	2nd Semester	5
2nd Year		
Shipyards and Work Equipment	1st Semester	5
Energy Management and Efficiency	1st Semester	5
Management and Direction of Work	1st Semester	5
Technical Installations in Buildings	1st Semester	5
Maintenance and Rehabilitation of Buildings	1st Semester	5
Pathologies in Construction and Rehabilitation	1st Semester	5
Internship	2nd Semester	30

Access Conditions

Holders of a secondary education degree or legally equivalent qualification.

Those who have passed the specially adapted tests to assess the capacity for higher education attendance of those over 23 (D.L. No. 64/2006, of 21 March).

Holders of a diploma of technological specialization, of a diploma of professional superior technician or of a higher education degree.

Continuing Studies – Higher education courses

The training acquired in the CTeSP grants the following credentials in the case of continuing studies:

Degree in Accounting - Proceeding with waiver of entrance exam

Curricular units	Year / Semester	ECTS
Mathematics I	1st Year / 1st Sem	5
Organization and Management of Companies	1st Year / 1st Sem	5
Information and Communication Technologies	1st Year / 1st Sem	5

Degree in Industrial Safety and Maintenance Management

Curricular units	Year / Semester	ECTS
Technical Drawing	1st Year / 2nd Sem	5

Degree in Paralegal

Curricular units	Year / Semester	ECTS
Introduction to Computing	1st Year / 2nd Sem	5

Degree in Information Technology, Web and Multimedia

ESCOLA PROFISSIONAL DO MINHO

Curricular units

Discrete Mathematics

Year / Semester

1st Year / 1st Sem

ECTS

5

Degree in Sport Training

Curricular units

English

Year / Semester

3rd Year / 2nd Sem

ECTS

4