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IO2.A2. Harmonization of national and European qualifications

Consortium of partners

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1. European Framework

Over the past years European Commission has fostered common policies in education and training, particularly in higher education with the Bologna process and VET with the Copenhagen process that have raised public awareness of the importance of quality for modern, relevant, attractive and permeable learning paths.

The Copenhagen Declaration, approved on 2002, agreed on priorities and strategies for the promotion of mutual trust, transparency and recognition of competences and qualifications in order to increase mobility and facilitate access to lifelong learning.

During the last years, the latest EU vet policy and the future of VET spin around these pillars:

- The new Council Recommendation on vocational education and training (VET) for sustainable competitiveness, social fairness and resilience.

This initiative refers to all levels of education and training, including VET. Furthermore, the European Commission announced the development of a European competence framework on climate change and sustainable development.

- The Osnabrück Declaration on vocational education and training as an enabler of recovery and transitions to digital and green economies which has four objectives:
  - Resilience and excellence through quality, inclusive and flexible vocational education and training.
  - Establishing a culture of lifelong learning.
  - Promoting sustainability through vocational educational and training.
  - A European education and training area and an international dimension of vocational education and training.

The declaration was endorsed on 30 November 2020 by the ministers in charge of vocational education and training of the Member States, the EU candidate countries and the EEA-EFTA countries, the European social partners and the European Commission. It is supported by European level VET providers' associations (VET4EU2) and learners representatives.

1.1 European Credit System for Vocational Education and Training

Following these principles, it was launched the European Parliament and the Council launched the "Recommendation on the establishment of a European Credit System for Vocational Education and Training (ECVET)" in 2009. The aim of the proposed ECVET system is to:

- To help transfer and recognise learning that has taken place during a stay abroad (geographical mobility); and
- To support lifelong learning, by allowing people to transfer and accumulate learning outcomes achieved in different contexts and places to build up to, update or upgrade recognised qualifications.

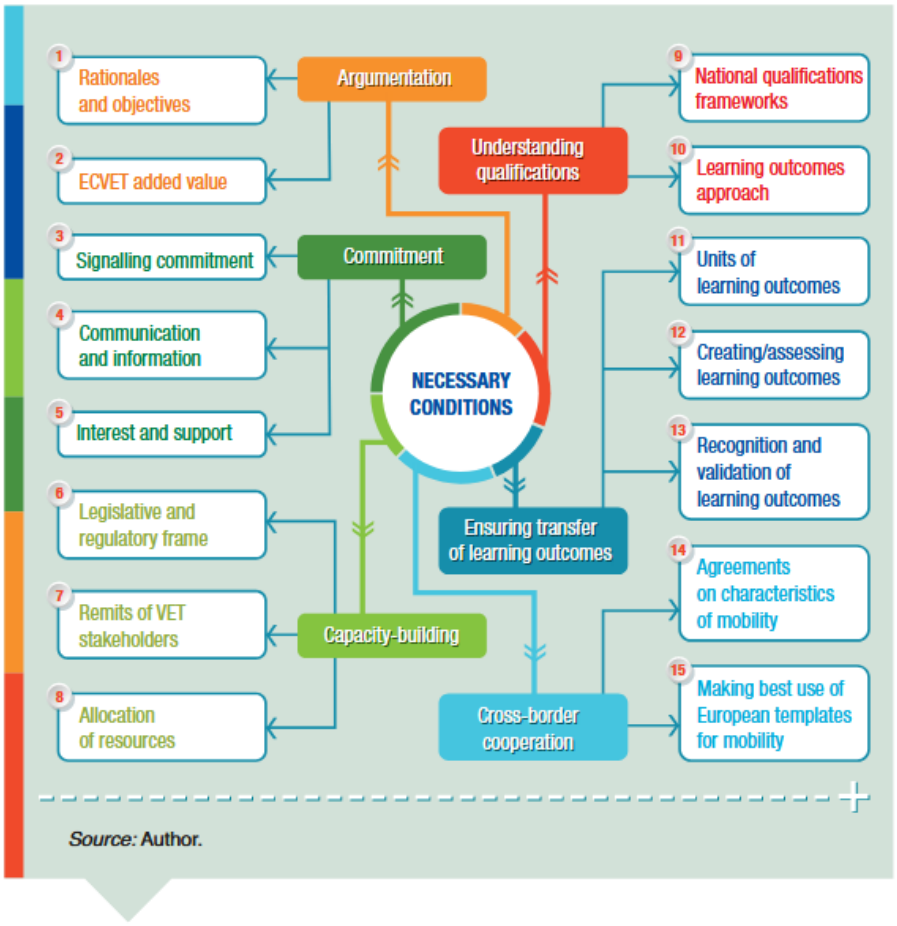
The 2004 Maastricht Communique had referred to "the development and implementation of a European credit transfer system for vocational education and training (ECVET) in order to allow learners to build upon the achievements resulting from their learning pathways when moving between vocational training systems. ECVET will be based on competences and learning outcomes,

taking account of their definition at national or sectoral levels. It will take into account the experience of the ECTS in the field of higher education and the Europass framework".[1]

As with other European instruments developed in this context (e.g. EQF, EQAVET), the introduction of ECVET is based on voluntary decisions by the Member States and on mutual exchange, monitoring and peer learning processes.

Thus, ECVET should be applied in accordance with national legislation. In this way, the ECVET recommendation invited all European countries to create the necessary conditions and adopt measures to make it possible.

Figure 1. Necessary conditions for ECVET implementation



Source: Cedefop (2012): Necessary conditions for ECVET implementation. Luxembourg: Publications Office of the European Union.

The table 1 shows the level of implementation of ECVET at 2015, last monitoring report on ECVET develop by the European Centre for the Development of Vocational Training, CEDEFOP.

[1] Maastricht Communiqué on the future priorities of enhanced European cooperation in vocational training and education, 14 December 2004. http://www.cedefop.europa.eu/files/communique_maastricht_priorities_vet.pdf

Country	Direction of ECVET development	Do the answers apply to CVET?
Countries with a credit system in IVET that allows accumulating and/or transferring learning outcomes of individuals		
Belgium-French Community	The system is ECVET-compatible.	No
Denmark	Some ECVET technical components are tested	Yes
Estonia	The system is ECVET-compatible.	Yes
Finland	The system is ECVET-compatible.	Yes
France	The system is ECVET-compatible.	Yes
Iceland	The system is ECVET-compatible.	No
Ireland	It may be possible to map elements of the well-established credit system to ECVET principles.	Yes
Luxembourg	The system is ECVET-compatible.	Yes
Malta	The system is ECVET-compatible.	Yes
Romania	Some ECVET technical components are tested.	No
Slovenia	The system is ECVET-compatible.	No
Spain	The system is ECVET-compatible.	No
Sweden	The system is ECVET-compatible.	No
UK-England	The system is ECVET-compatible.	Yes
UK-Northern Ireland	The system is ECVET-compatible.	Yes
UK-Scotland	The system is ECVET-compatible.	Yes
UK-Wales	The system is ECVET-compatible.	Yes
Countries where credits are used in some qualifications		
Austria	Some ECVET technical components are tested.	Yes
Bulgaria	A credit system compatible with ECVET is being developed.	Yes
Croatia	A credit system compatible with ECVET is being developed.	Yes
Czech Republic	A credit system compatible with ECVET is being developed.	No
Italy	Some ECVET technical components are tested.	Yes
Lithuania	Some ECVET technical components are tested.	Yes
Norway	Some ECVET technical components are tested.	Yes
Countries with no credit system		
Belgium-Flemish Community	Any initiative on ECVET implementation at system level is on hold.	Yes
Cyprus	A credit system compatible with ECVET is being developed.	No
Germany (*)	Some ECVET technical components are tested.	Yes
Greece	Any initiative on ECVET implementation at system level is on hold.	Yes
Hungary	Any initiative on ECVET implementation at system level is on hold.	Yes
Latvia	Some ECVET technical components are tested.	Yes
Liechtenstein	Any initiative on ECVET implementation at system level is on hold.	Yes
Netherlands	Some ECVET technical components are tested.	No
Poland	Some ECVET technical components are tested.	No
Portugal	Some ECVET technical components are tested.	Yes
Slovakia	Any initiative on ECVET implementation at system level is on hold.	Yes
Switzerland	Any initiative on ECVET implementation at system level is on hold.	Yes

Table 1. . Credit systems for transfer and accumulation of learning outcomes and ECVET development in 2015.

In Germany, there is no initiative related to ECVET at system level; however, technical components have been tested both in IVET and CVET at provider level.

European countries could be classified in three different categories, as it is shown in table 1. Thus, as conclusion it is possible to declare that not all countries are ready to ECVET implementation at the same level and there is still work for a complete integration, mainly with those countries without a credit system. In this way the monitoring report highlights that “the key challenge remains with ECVET points. The need for ECVET points as a precondition for ECVET and applicability requires further reflection”.

By the moment and to be operational and effective, the credit system has been underpinned by the following ECVET principles and technical components:

1. Qualifications should be described in units of Learning Outcomes (LO), a central concept of ECVET principles, with associated points (ECVET points).
2. There should be a process for units of LO to be assessed, validated and recognized, and for their transfer and accumulation;
3. ECVET partnerships are supported by complementary documents, such as memorandum of understanding (MoU), or learning agreements (LA).

1.2 European Qualifications Framework

To complement the objective of the ECVET system, the European Commission launched a common reference framework, the European Qualification Framework (EQF), whose purpose is to make qualifications more readable and understandable across different countries and systems. Covering qualifications at all levels and in all sub-systems of education and training, the EQF provides a comprehensive overview over qualifications in the 39 European countries currently involved in its implementation.

The core of the EQF is its eight reference levels defined in terms of learning outcomes, that express what individuals know, understand and are able to do at the end of a learning process. Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications, described in terms of knowledge, skills and competences

Table 2. Descriptors defining levels in the European Qualifications Framework (EQF)

LEVEL	KNOWLEDGE IN THE CONTEXT OF EQF, KNOWLEDGE IS DESCRIBED AS THEORETICAL AND/OR FACTUAL.	SKILLS IN THE CONTEXT OF EQF, SKILLS ARE DESCRIBED AS COGNITIVE (INVOLVING THE USE OF LOGICAL, INTUITIVE AND CREATIVE THINKING) AND PRACTICAL (INVOLVING MANUAL DEXTERITY AND THE USE OF METHODS, MATERIALS, TOOLS AND INSTRUMENTS).	RESPONSIBILITY AND AUTONOMY IN THE CONTEXT OF THE EQF RESPONSIBILITY AND AUTONOMY IS DESCRIBED AS THE ABILITY OF THE LEARNER TO APPLY KNOWLEDGE AND SKILLS AUTONOMOUSLY AND WITH RESPONSIBILITY
LEVEL 1	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
LEVEL 2	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy
LEVEL 3	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems
LEVEL 4	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the

			evaluation and improvement of work or study activities
LEVEL 5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others
LEVEL 6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups
LEVEL 7	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
LEVEL 8	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

Source: EQF Recommendation

Countries has to develop or adapt their national qualifications frameworks (NQFs) to implement the EQF. CEDEFOP monitors the developments and progress in each European country. The last analysis published In 2018 shows that “most European countries have completed the (initial) conceptual and technical development of their frameworks. The majority of them have formally adopted their NQFs, most recently in Luxembourg, Austria, Poland, Slovenia, Italy and Finland. Of the EU countries, only Spain have yet to finalize developments and/or adoption”.

In addition, four areas have been defined as areas of limited impact where it will be necessary to foster future works:

1. The limited visibility and use of NQFs by labour market actors.
2. The articulation between institutions and education and training subsystems.
3. Institutional reform to achieve more integrated qualification systems in some countries.
4. Little evidence of the effect of qualification frameworks on mobility of learners and workers.

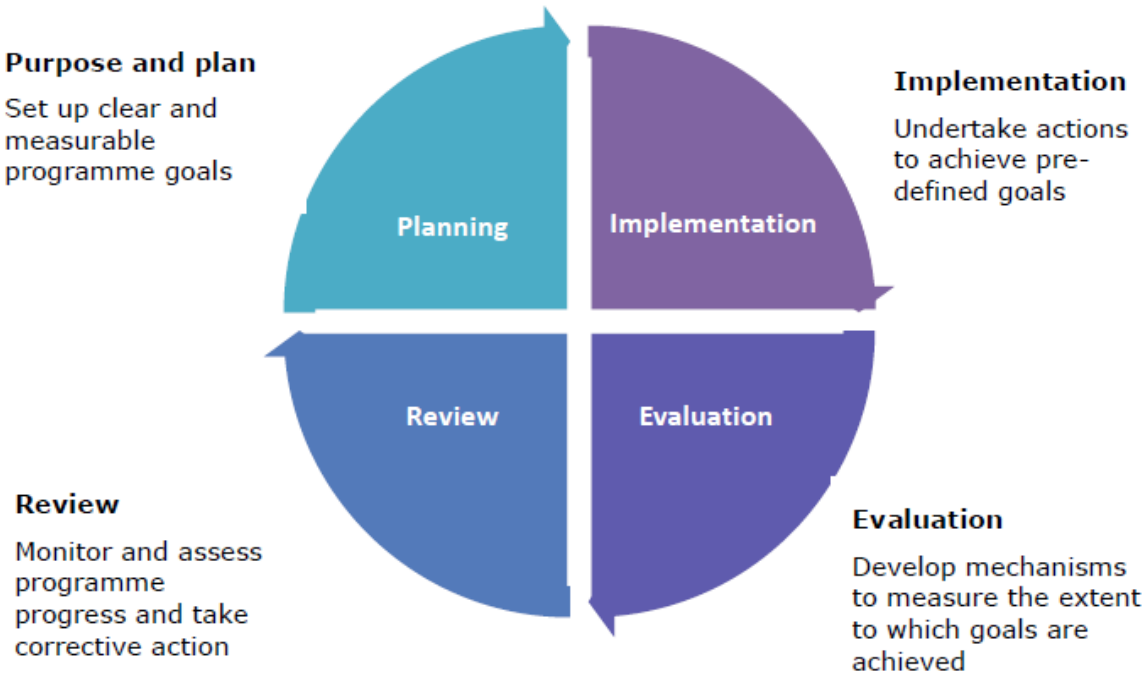
1.3 European Quality Assurance Reference Framework

Parallel to the European Credit System for VET and within the EQF, it has been developed the European Quality Assurance Reference Framework (EQAVET), based on the 2009 Recommendation, as a voluntary system to be used by public authorities and other bodies involved in quality assurance.

The objective of EQAVET is to promote and monitor the continuous improvement of their VET systems on the basis of commonly agreed references, and offers VET providers a straightforward way to monitor and improve the quality of their provision. EQAVET is based on the four-stage cycle of planning, implementation, evaluation and review which is at the heart of many other quality assurance approaches.

The Commission launched the EQAVET Work Programme 2016-2017. The Work Programme has been devised on the basis of its members' experiences of developing their national approaches to the implementation of the Recommendation on the establishment of the EQAVET Framework. It also builds on the experience of implementing the EQAVET Work Programme 2013-2015 and EQAVET Work Programme 2010-2012.

Figure 2. EQAVET cycle



Source: EQAVET website

2. National Framework

The current state of consortium partners frameworks related to ECVET and NQF is analyzed below.

2.1. National Framework – Qualifications System in Spain

Introduction to the Spanish education system and professional training

In Spain, within the scope of vocational training can be distinguished between the initial, whose management corresponds to the educational administration, and training for employment, whose management is ascribed to labor administration, although both are supported by a single determination of the professional qualifications and competence units that integrate them. However, not all FPE (Formación Professional para el Empleo= Vocational Training for Employment) focuses on certificates of professionalism, since the FPE addressed to employed persons does not have as much connection with these certificates.

National Catalogue of Professional Qualifications (CNCP)

The National Catalog of Professional Qualifications (CNCP) is the instrument of the National System of Qualifications and Vocational Training (SNCFP) that orders the professional qualifications susceptible of recognition and accreditation, identified in the productive system, in function of the appropriate competences for the professional exercise.

It is applicable to the entire national territory and allows adapting the different training offers to the needs of the labor market making their accreditations to the business factories transparent.

The CNCP, thus, includes the most significant professional qualifications of the Spanish productive system. It includes the content of the professional training associated with each qualification, with a structure of training modules articulated in a Modular Catalog of Vocational Training (CMFP).

The National Institute of Qualifications (INCUAL) is responsible for defining, preparing and keeping updated the CNCP and the corresponding CMFP.

NQF - European Framework and links with the Spanish one

The correlation of the Spanish model with the EQF is made from the Spanish Qualifications Framework (MECU) or National Qualification Framework (NQF), which covers all levels, from level 1 of basic education to 8 of university doctorate.

The MECU is therefore the product of the sum of the National Catalogue of Professional Qualifications (CNCP) and the Spanish Framework of Qualifications for Higher Education (MECES).

These specifications are superimposed on level 3 of the CNCP, which would correspond to level 1 of the MECES and level 5 of the EQF, establishing as higher education the corresponding to the title of Higher Vocational Training Technician (see table).

For the effective correlation between the national framework and the European qualifications framework, references must be established in the different domains of responsibility, coordination, legal, administrative, methodological and quality assurance.

2.1.1. European Qualification Framework and link with the Spanish Qualification Framework

Table 3. Spanish Qualification Framework

EQF	MECU	CNCP		MECES	
	Level	Level	Acreditation	Level	Certification

Level 1	Level 1	Level 1	Operator	-		
Level 2	Level 2					
Level 3	Level 3	Level 2	Medium Technician			
Level 4	Level 4					
Level 5	Level 5	Level 3	Higher Technician	Level 1	Higher Technician	Higher Professional Training Technician
						Superior Technician of Plastic Arts and Design
						Superior Sports Technician
Level 6	Level 6	Level 4	Degree	Level 2	Degree	Graduate Title
						Graduate Degree in Artistic and Higher Education
Level 7	Level 7	Level 5	Master	Level 3	Master	University Master's Degree
						Master's Degree in Artistic Teaching
						Graduate Degree of 300 ECTS with 60 ECTS of Master's Degree
Level 8	Level 8	no defined	Doctor	Level 4	Doctor	Doctor Degree

Table 4. Description of the Spanish Qualification Framework

EQF – learning outcomes			Spanish Qualification Framework (MECU)			
Skills	**Responsibility and autonomy**	**Level**	**Knowledge**	**Skills**	**Responsibility and autonomy**	**Educational/Vocational Qualification**
Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context	**1**	Competence in a small set of relatively simple work activities corresponding to standardised processes, with limited theoretical knowledge and practical skills to be applied.			Operator
Basic cognitive and practical skills required to use relevant information to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy	**2**				
A range of cognitive and practical skills required to accomplish	Take responsibility for completion of tasks in work	**3**	Competence in a set of well-defined professional activities with the ability to use one's own instruments and techniques, which mainly concerns a work of			Medium Technician

tasks and solve problems by selecting and applying basic methods, tools, materials and information	or study; adapt own behaviour to circumstances in solving problems		execution that can be autonomous within the limits of these techniques. It requires knowledge of the technical and scientific foundations of the activity and the ability to understand and apply the process.	
A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities	**4**		

A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others	**5**	have demonstrated to possess specialized knowledge in a professional or study area, with critical understanding for the integration and transfer of knowledge, as well as for the development of creativity, personal initiative, and an entrepreneurial spirit	be able to communicate their knowledge, ideas, skills and activities in professional contexts to their peers, supervisors, clients and people under their responsibility. apply and integrate their artistic, technological or sports knowledge in the definition and development of work procedures, in the artistic or labour field, autonomously and with responsibility for coordinating and supervising technical work.	possess the learning strategies necessary to advance in their training autonomously, with the maturity to innovate in their application and progress in learning and training at higher levels. possess the ability to analyse the information necessary to evaluate and respond to anticipated and unforeseen situations, through the search for well-founded, creative and	The Higher Technician level is constituted in level 1 of higher education and includes higher-level vocational training courses, higher-level professional training in plastic arts and design, and higher-level sports education aimed at obtaining by the student of a specialized training that qualifies for the qualified performance of various professions

					innovative solutions within a field of study or professional.	
A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups	**6**	have acquired advanced knowledge and demonstrated an understanding of the theoretical and practical aspects and methodology of work in their field of study to a depth which reaches the leading edge of knowledge;	be able, by means of arguments or procedures developed and supported by themselves, to apply their knowledge, understanding and problem-solving skills in complex or professional and specialised areas of work requiring the use of creative and innovative ideas. be able to cope with complex situations or those requiring the development of new solutions both in the academic and in the work or professional	have the ability to collect and interpret data and information on which to base their conclusions, including, where necessary and relevant, reflection on social, scientific or ethical issues in their field of study. know how to communicate knowledge, methodologies, ideas, problems and solutions in their field of	The Bachelor's level is level 2 of the MECES, which includes those qualifications whose purpose is to provide students with general training in one or more disciplines, aimed at preparing them for the exercise of activities of a professional nature.

				environment within their field of study. be able to identify their own training needs in their field of study and work or professional environment and to organise their own learning with a high degree of autonomy in all types of contexts (structured or not).	study to all types of audiences (specialised or not) in a clear and precise manner.	
Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional	**7**	have acquired advanced knowledge and demonstrated, in a scientific and technological research or highly specialised context, a detailed and well-founded understanding of the	be able to apply and integrate their knowledge, understanding, scientific rationale and problem-solving skills in new and loosely defined environments, including multidisciplinary contexts in both research and highly specialised	know how to evaluate and select the appropriate scientific theory and the precise methodology of their fields of study in order to formulate judgements on the basis of incomplete or	The Master's level is constituted at level 3 of the MECES, which includes those qualifications whose purpose is the acquisition by the student of advanced training, of a specialised or multidisciplinary nature, oriented towards academic or professional specialisation, or to promote initiation in research tasks.

from different fields	knowledge and practice and/or for reviewing the strategic performance of teams		theoretical and practical aspects and methodology of work in one or more fields of study. have developed sufficient autonomy to participate in research projects and scientific or technological collaborations within their subject area, in interdisciplinary contexts and, where appropriate, with a high knowledge transfer component.	professional contexts. be able to predict and control the evolution of complex situations through the development of new and innovative working methodologies adapted to the specific scientific/research, technological or professional field, generally multidisciplinary, in which their activity is carried out. be able to take responsibility for their own professional development and specialisation in one or more fields of study.	limited information, including, where necessary and relevant, a reflection on the social or ethical responsibility linked to the solution proposed in each case. know how to transmit in a clear and unambiguous way to a specialised or non-specialised public, results from scientific and technological research or from the field of the most advanced innovation, as well as the most relevant	

					foundations on which they are based.	
The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research	**8**	have acquired advanced knowledge at the frontier of knowledge and demonstrated, in the context of internationally recognised scientific research, a thorough, detailed and well-founded understanding of the theoretical and practical aspects and scientific methodology in one or more fields of research.	have made an original and significant contribution to scientific research in their field of knowledge and that this contribution has been recognised as such by the international scientific community. have demonstrated that they are capable of designing a research project with which to carry out a critical analysis and evaluation of imprecise situations in which to apply their contributions and their working	have shown that they are capable of carrying out their research activity with social responsibility and scientific integrity. have shown that they are capable of participating in international scientific discussions in their field of knowledge and of disseminating the results of their research activity to all kinds of audiences.	The level of Doctor is constituted at level 4 of the MECES, which includes those qualifications whose purpose is the advanced training of the student in research techniques.

				knowledge and methodology in order to synthesise new and complex ideas that produce a deeper understanding of the research context in which they are working. have developed sufficient autonomy to initiate, manage and lead innovative research teams and projects and national or international scientific collaborations, within their subject area, in multidisciplinary contexts and, where appropriate, with a high component	have demonstrated within their specific scientific context that they are capable of making advances in cultural, social or technological aspects, as well as of promoting innovation in all areas in a knowledge-based society.	

				of knowledge transfer.		

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2.2. National Framework – Qualifications System in Germany

Introduction to the German education system and professional training

The federal German education system is a historically grown structure of education offers for people of all ages, from early childhood education in the elementary sector to the field of adult education in the sense of lifelong learning. The formal education system is divided into school based general education, vocational education and training, including initial vocational education and training and the further training opportunities building on it, higher education and continuing education.

In the Federal Republic of Germany, the vocational education and training system is of central importance. The middle qualification segment of vocational education and training is exceptionally strong and makes a major contribution to the skilled training of large parts of the working population. The generation of higher qualifications in Germany is the responsibility not only of academic education but also of vocational training. This contributes significantly to the strength of the German innovation system.

Training in the dual system, i.e. training in companies and in the Berufsschule (part-time vocational school), has a leading role. This form of training is complemented by a range of school based forms of vocational training.

In Germany, access to many occupational fields is achieved through dual vocational education and training where other countries require education at a higher education institution. This means that the share of higher education graduates in the workforce is lower in Germany compared to other European countries. For that reason, further training qualifications such as Meister (master craftsman) and Techniker (technician) are comparatively more important. Individuals with these further training qualifications – like academics – are regarded as highly qualified workers and make up 10 per cent of the overall working population. Basic and further vocational education and training are closely interlinked and build upon each other.

The German vocational education and training system has divided into three major sectors each with their own institutional structures: the dual system of in-company and school-based training as the largest sector in quantitative terms, the vocational school system, and the transitional sector between general education schools and regular vocational education and training, in which different types of vocational preparation competences are taught rather than a full vocational qualification.

NQF - European Framework and links with the German one (DQR)

The DQR is an instrument for the alignment of qualifications in the German educational system. Its aims are to facilitate orientation in the German educational system and to assist with the comparability of German qualifications in Europe. In order to make it more transparent which competences are acquired in the German educational system, the DQR defines eight levels which can be aligned to the eight levels of the European Qualifications Framework (EQF). The EQF

serves as a translation instrument which helps to make national qualifications more comprehensible across Europe.

The DQR has been developed and implemented under the aegis of the Federal Ministry of Education and Research and the Standing Conference of the Ministers of Education and Cultural Affairs, with the involvement of other stakeholders. The development of the DQR always has been a widely supported initiative in which the social partners and business organisations in particular have played a fundamental role. The competent authorities in each case are responsible in principle for the allocation of qualifications to the DQR. In the field of formal learning these are the regulatory bodies. These allocations must, however, be notified to the National Coordination Point (NCP), which monitors the process and considers the overall architecture of the DQR.

Table 5. Level correspondence established between the DQR and EQF

EQF	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
DQR	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8

Table 6. The national qualification framework in Germany

DQR levels	Qualifications	EQF levels
8	Doctoral studies	8
7	Master, strategic IT professional (certified)* *Strategischer IT Professional (Geprüfter)*	7
6	Bachelor, commercial specialist (certified) (*Fachkaufmann (Geprüfter)*), business management specialist (certified) (*Fachwirt (Geprüfter)),* master craftsman (certified), *(Meister (Geprüfter)),* operative IT professional (certified)] * (*Operativer IT Professional (Geprüfter)),* Fachschule (State-certified…), *Fachschule* (*(Staatlich Geprüfter…)*)	6

5	IT specialist (certified) (*IT-Spezialist (Zertifizierter)*), service technician (certified)* (*Service-techniker (Geprüfter))*	5
4	Dual VET (three-year and three-and-a-half-year training courses), full-time vocational school (assistant occupations) (*Berufsfachschule*), full vocational qualification (full-time vocational school) (*Berufsfachschule*)	4
3	Dual VET (two-year training courses), full-time vocational school (general education school leaving certificate obtained on completion of grade 10 at *Realschule* or, under certain circumstances, at other lower secondary school types) (*Berufsfachschule*) *(Mittlerer Schulabschluss)*	3
2	Vocational training preparation (*Berufsausbildungsvorbereitung*), employment agency measures (*Maßnahmen der Arbeitsagentur*), year of pre-vocational training (Berufsvorbereitungsjahr), introductory training for young people (*Einstiegsqualifizierung*), full-time vocational school (*Berufsfachschule*), basic vocational training, (*Berufliche Grundbildung*)	2
1	Vocational training preparation (*Berufsausbildungsvorbereitung*), employment agency measures (vocational preparation schemes) (*Maßnahmen der Arbeitsagentur (Berufsvorbereitende Bildungsmaßnahmen*), year of pre-vocational training (*Berufsvorbereitungsjahr*)	1

(*) The *Arbeitskreis* DQR agreed that additional further vocational training qualifications should be allocated in accordance with the procedures described in the DQR manual. *Source*: BMBF and KMK, 2013.

Structural comparison of the DQR and EQF

The DQR has eight levels, which can be assigned to those of the EQF. The DQR levels are structured differently from the EQF, and a greater number of categories were used for the characterization. As a rule, an EQF level has the following structure:

Table 7. Structure of the EQF levels

Each of the eight levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications			
	Knowledge	**Skills**	**Responsibility and autonomy**

	In the European Qualifications Framework, knowledge is described as theoretical and/or factual.	In the European Qualifications Framework, skills are described as cognitive (using logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments);	In the European Qualifications Framework, competence is described in terms of responsibility and autonomy.

Source: European Commission 2008

And the DQR level is structured as follows:

Table 8. Structure of the DQR levels

Level Indicator			
Structure of requirements			
Professional competence		**Personal competence**	
Knowledge	**Skills**	**Social competence**	**Autonomy**
Depth and breadth	Instrumental and systemic skills, judgement	Team/leadership skills, involvement and communication	Autonomous responsibility/ responsibility, reflectiveness and learning competence

Source: DQR document 2011

Comparing these two tables we can say that, simplifying the content, both are different in:

The DQR has four (instead of three) “pillars” (knowledge – skills – social competence – autonomy) to describe the desired learning outcomes German education system. It thus makes it clear that a holistic understanding of competence is of key importance in the German education system. Unlike the EQF, each level is preceded by a short text that summarises the structure of requirements of the relevant level (“level indicator”).

The concept of ‘competence’ plays a key role in the DQR. It does not – as in the EQF – exist alongside knowledge and skills, but forms the umbrella for all learning outcomes being considered. It describes the ability and readiness to use knowledge, skills and personal, social and/or methodological abilities in work or study situations and in professional and personal development. Knowledge and skills are therefore represented as aspects of professional competence.

Knowledge and skills are therefore represented as aspects of professional competence.

2.3. National Framework – Qualifications System in Italy

Introduction to the Italian education system and professional training

Young people finish lower secondary education at age 14. At this stage, learners sit a state exam to acquire a certificate (EQF level 1) which grants admission to the upper secondary level where young people have the opportunity to choose between general education or VET.

At upper secondary level, young people may opt for:

- five-year programmes which include the two last years of compulsory education and three years (under the right/duty of education and training) in:
  - High Schools
  - Technical Schools
  - Vocational Schools
- vocational education and training programmes organised by the regions
- an apprenticeship-type scheme

at post-secondary level, the Italian system features higher technical training and short programmes or courses. VET courses also exist at post-higher education level.

Tertiary education is divided into higher education programmes at the university and higher education programmes at non-university institutions:

- Universities
- Higher artistic and musical programmes

Italian Qualifications Framework (QTI)

As for higher education, the Italian Qualifications Framework (Quadro dei Titoli Italiani - QTI) groups together information on qualifications released by Italian higher education institutions, both universities and institutions of the Higher education for the fine arts, music and dance (Alta formazione artistica, musicale e coreutica – AFAM). Moreover, the QTI also includes reference legislation for the higher education sector and specific descriptions on regulated professions.

The Framework is organized according to the three main higher education levels as defined through the Bologna Process and it shows the qualifications released for each cycle as well as the relative ECTS credits and learning outcomes (Dublin descriptors).

QNQ - European Framework and links with the Italian one

The National Qualifications Framework (Quadro Nazionale delle Qualifiche – QNQ) is the tool that describes all qualifications released within the national system for the certification of competences. The QNQ refers national qualifications to the European Qualification Framework (EQF) in order to coordinate the national system and qualifications to the ones of the other countries. To this end, the QNQ aims at coordinating all the different public systems that make up the whole lifelong learning offer and that release qualifications.

European Qualification Framework and link with the Italian Qualification Framework

Table 9. Italian Qualification Framework

EQF	NQF		QTI	
	Level	Certification	Level	Certification
Level 1	Level 1	Lower secondary school-leaving diploma		
Level 2	Level 2	Compulsory education certificate		
Level 3	Level 3	Professional operator certificate		
Level 4	Level 4	Professional technician diploma Upper secondary education diploma high schools (licei) Upper secondary education diploma - technical Institutes Upper secondary education diploma - Vocational school Higher technical specialisation certificate		
Level 5	Level 5	Higher technical education diploma		
Level 6	Level 6	Bachelor degree First level academic diploma	1st Cycle	Bachelor Degree First Level academic diploma
Level 7	Level 7	Master degree Second level academic diploma First level university master Academic specialisation diploma Higher specialisation diploma or master	2nd Cycle	Master degree Second level academic diploma

Level 8	Level 8	Research doctorate Academic diploma for research training Specialisation diploma Second level university master Academic specialisation diploma Higher specialisation diploma or master	3rd Cycle	Research doctorate

Table 10. Description of the Italian Qualification Framework

EQF – learning outcomes			Italian Qualification Framework (QFQ)			
Skills	**Responsibility and autonomy**	**Level**	**Knowledge**	**Skills**	**Responsibility and autonomy**	**Educational/Vocational Qualification**
Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context	**1**	Basic general knowledge	Basic skills required to carry out simple tasks		Lower secondary school-leaving
Basic cognitive and practical skills required to use relevant information to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy	**2**	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools		Certificate of basic skills acquired as a result of the fulfillment of the education obligation
A range of cognitive and practical skills required to accomplish tasks and solve	Take responsibility for completion of tasks in work or study; adapt own behaviour	**3**	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and	Take responsibility for completion of tasks in work or study; adapt own behaviour to	Operator

problems by selecting and applying basic methods, tools, materials and information	to circumstances in solving problems			applying basic methods, tools, materials and information	circumstances in solving problems	
A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities	**4**	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities	Techinician
A comprehensive range of	Exercise management and supervision	**5**	Comprehensive, specialised, factual and	A comprehensive range of cognitive and practical skills	Exercise management and supervision in	Higher Technician

cognitive and practical skills required to develop creative solutions to abstract problems	in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others		theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	required to develop creative solutions to abstract problems	contexts of work or study activities where there is unpredictable change review and develop performance of self and others.	
A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups	**6**	have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;	can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study;	can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences; have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social,	First level of bachelor degree or first level academic diploma. 1st Cycle of QTI: Title: Doctor

				have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.	scientific or ethical issues;	
Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams	**7**	have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with the first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;	can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study; have the learning skills to allow them to continue to study in a manner that may be largely selfdirected or autonomous.	have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments;	Master Degree or second level of academic diploma 2nd Cycle of QTI: Title: Magistral Doctor

					can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;	
The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts	**8**	have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;	have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity; have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of	are capable of critical analysis, evaluation and synthesis of new and complex ideas; can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise;	Achieved by Research doctorate or academic diploma for research training: 3rd cycle of QTI: Title: Phd, Research doctor

	including research			work, some of which merits national or international refereed publication;	can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.	

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3. Comparison of National Qualification Frameworks from Spain, Germany and Italy with European Qualification Framework

The EQF consists of 8 levels and serves as a translation tool between different NQFs. This framework helps to improve the transparency, comparability and transferability of qualifications and allows the comparison of qualifications from different countries and institutions. We compared the NQFs of Spain, Germany and Italy with EQF.

First, we compared the Spanish NQF and the EQF. In Spain, the National Catalog of Professional Qualifications (CNCP) is the instrument of the National System of Professional Qualifications and Training (SNCFP) that organizes the professional qualifications that can be recognized and accredited in Spain. It is applicable to the whole national territory and allows the adaptation of the different training offers to the needs of the labor market. The correlation of the Spanish model with the EQF comes from the Spanish Qualifications Framework (MECU), which covers all levels, from level 1 of basic education to level 8, so the MECU is the product of the sum of the CNCP and the Spanish Qualifications Framework for Higher Education (MECES). MECES starts at level 1, which corresponds to the CNCP level 3 and level 5 of the MECU and EQF. MECU provides the same learning outcomes for levels 1-2 and 3-4, while the EQF proposes different learning outcomes for these levels. Levels 5 to 8 of MECES are more comparable to the EQF.

Secondly, we found that the German educational system (DQR) defines eight levels which can be aligned to the eight levels of the European Qualifications Framework (EQF). The DQR has eight levels which are the same as the European Qualification Frameworks. However, the difference lies in the structure of the descriptors for the learning outcomes relevant to qualifications. The DQR distinguish two categories: professional competences (knowledge and skills); as well as personal competences (social competences and autonomy), whereas EQF refers to knowledge, skills and responsibility and autonomy.

Finally, we found that the Italian NQF is identical to the EQF. It consists of 8 levels with learning outcomes: Knowledge, Skills, Responsibility and Autonomy. The educational/vocational qualification is also the same as the European one.

We can conclude that Germany and Italy have identical or very similar NQFs compared to the EQF. The Spanish EQF differs most from the EQF as it includes a different framework model specific to Spain and special attention is needed when comparing the Spanish NQF with the EQF. A detailed comparison of the addressed countries NQF with EQF is presented in the tables below.

Correlation between the National Qualification Systems and European Qualification System at relevant categories at all levels

EQF Level 1				
Category	**EQF**	**DE NQF level 1**	**IT NQF level 1**	**ESP NQF**
Educational/Vocational Qualification	2nd cycle of basic education.	Vocational training preparation (vocational preparation scheme, prevocational training year)	Lower secondary school-leaving diploma	Operator

EQF Level 2				
Category	**EQF**	**DE NQF level 2**	**IT NQF level 2**	**ESP NQF**
Educational/Vocational Qualification	3rd cycle of basic education obtained in regular education or through dual certification pathways.	Lower secondary school leaving certificate – General education, 9 years Vocational training preparation (vocational preparation scheme, prevocational training year,	Compulsory education certificate	Operator

		introductory training) Basic vocational training – Full-time vocational school		

EQF Level 3				
Category	**EQF**	**DE NQF level 3**	**IT NQF level 3**	**ESP NQF**
Educational/Vocational Qualification	Secondary education aimed at pursuing higher level studies.	Intermediate secondary school leaving certificate – General education, 10 years Intermediate secondary school leaving certificate – Full-time vocational school Dual VET (two-year training courses)	Professional operator certificate	Medium Technician

EQF Level 4				
Category	**EQF**	**DE NQF level 4**	**IT NQF level 4**	**ESP NQF**
Educational/Vocational Qualification	Secondary Education obtained through dual certification pathways or Secondary Education aimed at pursuing higher level studies plus professional internship - minimum of 6 months.	Upper secondary general education school leaving certificate – General higher education entrance qualification Higher education entrance qualification for university of applied sciences Dual VET (three-year and three-and-a-half-year training courses) Full-time vocational school (vocational education and training governed	Upper secondary education diploma Upper secondary education diploma – technical schools Upper secondary education diploma – vocational schools Higher technical specialisation certificate	Medium Technician

		by federal State law) Full-time vocational school (vocational education and training governed by federal law in healthcare and elderly care) Full-time vocational school (fully qualifying vocational education and training pursuant to the Vocational Training Act or Crafts and trades regulation Code) Retraining qualification pursuant to the Vocational Training Act (level 4)		

EQF Level 5				
Category	**EQF**	**DE NQF level 5**	**IT NQF level 5**	**ESP NQF**
Educational/Vocational Qualification	Non-tertiary post-secondary level qualification with credits for continuing higher education studies.	IT specialist (certified) Service technician (certified) Advanced vocational training pursuant to § 54 of the Vocational Training Act Other advanced vocational training pursuant to the Vocational Training Act or Crafts and Trades Regulation Code (level 5)	Higher technical education diploma	The Higher Technician level is constituted in level 1 of higher education and includes higher-level vocational training courses, higher-level professional training in plastic arts and design, and higher-level sports education aimed at obtaining by the student of a specialized training that qualifies for the qualified performance of various professions.

EQF Level 6				
Category	**EQF**	**DE NQF level 6**	**IT NQF level 6**	**ESP NQF**
Educational/Vocational Qualification	Graduation.	Bachelor degrees and equivalent higher education qualifications Specialist commercial clerk (certified) Business management specialist (certified) Master craftsman (certified) Operative professional (IT) (certified) Trade and technical school (advanced vocational training governed by federal State law) Advanced vocational training pursuant to § 54 of the Vocational Training Act (level 6) Other advanced vocational training pursuant to the Vocational Training Act or Crafts and Trades Regulation Code (level 6)	Bachelor degree First level academic diploma	The Bachelor's level is level 2 of the MECES, which includes those qualifications whose purpose is to provide students with general training in one or more disciplines, aimed at preparing them for the exercise of activities of a professional nature.

EQF Level 7				
Category	**EQF**	**DE NQF level 7**	**IT NQF level 7**	**ESP NQF**
Educational/Vocational Qualification	Master's degree.	Master degrees and equivalent higher education qualifications Strategic professional (IT) (certified) Other advanced vocational training pursuant to the Vocational Training Act or Crafts and Trades Regulation Code (level 7)	Master degree Second level academic diploma First level university master Academic specialisation diploma Higher specialisation diploma or master	The Master's level is constituted at level 3 of the MECES, which includes those qualifications whose purpose is the acquisition by the student of advanced training, of a specialised or multidisciplinary nature, oriented towards academic or professional specialisation, or to promote initiation in research tasks.

EQF Level 8				
Category	**EQF**	**DE NQF level 8**	**IT NQF level 8**	**ESP NQF**
Educational/Vocational Qualification	Doctorate.	Doctorate and equivalent arts degrees	Research doctorate Academic diploma for research training Specialisation diploma Second level university master Academic specialisation diploma Higher specialisation diploma or master	The level of Doctor is constituted at level 4 of the MECES, which includes those qualifications whose purpose is the advanced training of the student in research techniques.

4. The GANYMED training

GANYMED training course is based on Geragogy concept which is a scientific discipline that deals with education in old age and for aging. It is concerned with the design of learning and educational processes and social participation of the elderly. It considers the different educational biographies and learning challenges that aging entails (Bubolz-Lutz et al., 2010).

Therefore, older adults +70 are the main target groups of the project. They no longer need to learn for a degree or for career advancement; instead, they have intrinsic motivation to learn what they genuinely enjoy. Regarding learning, a great deal changes at the motivational level. Learning in old age involves changes in cognitive, sensory as well as motivational aspects

Learning does not only take place in school. In Geragogy, there is a distinction between 3 forms of learning (Stiel, Presentation at University of Education Karlsruhe, 2020).

1) Formal learning is goal-oriented, takes place in an institution, and is based on a curriculum. It includes an examination and certification at the end.

2) Non-formal learning is purposeful and is not necessarily connected to a certification. In this case, a person learns with another motivational background: e.g., the person is committed to becoming a technical ambassador for the elderly.

3) Informal learning is an unconscious form of learning, e.g., when the grandchild comes over and shows his/her grandparents a new function on the smartphone.

In old age, formal learning becomes less relevant. In contrast, educational opportunities that take place in the area of non-formal and informal learning are given greater weight. In Geragogy, an additional distinction has become useful (see Bubolz-Lutz et al., 2010): (1) Learning from one another, (2) learning with one another, and (3) learning about one

another. (Kiegelmann Presentation at DGGG, 2020) adds a fourth form, namely learning for one another.

Non-formal and Informal learning validation in GANYMED

The European Union supports actions to give visibility and value to skills acquired through non-formal or informal learning. Validation of skills allows people to be able to use the full range of their skills for their careers and further learning. Skills developed through non-formal and informal learning can be a great advantage to people. But how to make these skills visible and valued?

A skills validation process allows individuals to identify, document, assess and certify their skills. Such a process may result in receiving a partial or complete qualification. This can increase their chances in the labour market and open up new professional opportunities. It can also give better access to further education and training and exemptions from certain parts of the training module or degree course. Validation increases social inclusion and can empower people by giving visibility to their skills.

With this regard, the European Commission launched European guidelines for validating non-formal and Informal learning that can applies to GANYMED.

- Thus, the fundamental principles underpinning validation are:
- Validation must be voluntary.
- The privacy of individuals should be respected.
- Equal access and fair treatment should be guaranteed.
- Stakeholders should be involved in establishing systems for validation.
- Systems should contain mechanisms for guidance and counselling of individuals.
- Systems should be underpinned by quality assurance.
- The process, procedures and criteria for validation must be fair, transparent and underpinned by quality assurance.
- Systems should respect the legitimate interests of stakeholders and seek balanced participation.
- The process of validation must be impartial and avoid conflicts of interest.
- The professional competences of those who carry out assessments must be assured.

Some of the tools that are available for this purpose are:

Europass for Education and Training

Europass offers a set of free online tools and information on lifelong learning and career development in Europe. Europass is a valuable resource for education and training providers, as well as for students and graduates.

Europass is a multilingual tool that will enable your students or prospective students to document all their skills, qualifications and experience in one place. Europass users can create a personal profile, in a secure online tool, to identify their goals and keep track of all of their learning and achievements.

Students can also use the profile during their studies to keep a record of their projects, achievements and progress. Prospective students can share their profile, CVs and other documents via Europass to clearly communicate their skills, qualifications and experience to you.

Micro-credentials

A micro-credential is a record of the learning outcomes that a learner has acquired following a small volume of learning. The Council Recommendation on VET calls on the European Commission to 'explore the concept and use of micro-credentials'.

Micro-credentials allow for targeted, flexible acquisition of skills to meet new and emerging needs in society and the labour market, while not replacing traditional qualifications. Micro- credentials can be designed and delivered by a variety of providers in diverse formal, non-formal and informal learning settings.

In December 2021, a Commission proposal for a Council Recommendation on micro-credentials for life-long learning and employability outlined a common definition and formatį for describing micro-credentials, as well as a set of principles for designing and issuing them. These building blocks can be used by providers of micro-credentials across the EU, including continuing VET providers, to support the trust, quality and uptake of micro-credentials.

Formal learning validation in GANYMED

GANYMED also aim to reach other target groups apart from older adults such as social workers, teachers or even young people and adults willing to help their relatives. GANYMED partners consider that a formal recoginition of skills would help these target groups.

As previously explained, the European Parliament and the Council launched the "Recommendation on the establishment of a European Credit System for Vocational Education and Training (ECVET)" in 2009 to support lifelong learning, by allowing people to transfer and accumulate learning outcomes achieved in different contexts and places to build up to, update or upgrade recognised qualifications.

Moreover, the European Commission launched a common reference framework, the European Qualification Framework (EQF), whose purpose is to make qualifications more readable and understandable across different countries and systems. Covering qualifications at all levels and in all sub-systems of education and training, the EQF provides a comprehensive overview over qualifications in the 39 European countries currently involved in its implementation.

The core of the EQF is its eight reference levels defined in terms of learning outcomes, that express what individuals know, understand and are able to do at the end of a learning process. Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications, described in terms of knowledge, skills and competences

Therefore, we consider EQF level 4 the most suitable for the GANYMED training:

Table 11. Description of the EQF level 3

LEVEL	KNOWLEDGE IN THE CONTEXT OF EQF, KNOWLEDGE IS DESCRIBED AS THEORETICAL AND/OR FACTUAL.	SKILLS IN THE CONTEXT OF EQF, SKILLS ARE DESCRIBED AS COGNITIVE (INVOLVING THE USE OF LOGICAL, INTUITIVE AND CREATIVE THINKING) AND PRACTICAL (INVOLVING MANUAL DEXTERITY AND THE USE OF METHODS, MATERIALS, TOOLS AND INSTRUMENTS).	RESPONSIBILITY AND AUTONOMY IN THE CONTEXT OF THE EQF RESPONSIBILITY AND AUTONOMY IS DESCRIBED AS THE ABILITY OF THE LEARNER TO APPLY KNOWLEDGE AND SKILLS AUTONOMOUSLY AND WITH RESPONSIBILITY
LEVEL 3	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems

Based on the Educational Philosophy it is possible to conclude that in accordance with the different NQFs it could be set that GANYMED corresponds with the EQF level 3.

Table 12. National Qualitification Frameworks for EQF level 3

EQF Level 3				
Category	**EQF**	**DE NQF level 3**	**IT NQF level 3**	**ESP NQF**
Educational/Vocational Qualification	Secondary education aimed at pursuing higher level studies.	Intermediate secondary school leaving certificate – General education, 10 years Intermediate secondary school leaving certificate – Full-time vocational school Dual VET (two-year training courses)	Professional operator certificate	Medium Technician

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