

# Certification Infrastructure

## NATIONAL VET & QUALIFICATION FRAMEWORK

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UNICERT S.A.

Authored by: Katerina Lykomitrou & Georgia Griva

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*Stimulating gender-based innovative training methods to promote  
CLOTHING REcycling through Augmented Reality*

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2		

## APPLICABLE DOCUMENTS

ID	Reference	Title
1		
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# 1. PROJECT SUMMARY

The aim of AR4ReClothing project is to provide a solid and yet innovative training methodology that can be exploited by VET trainers adjusted in the societal needs, especially as reflected in the current environmental practices and gender equal approaches and the future needs in the field in order to establish EU circular economy's growth. In particular, a gender-based approach will be provided as part of the training guide [PR1] infused with technology utilization [PR2, PR3] for users' engagement as well as networking and internalization activities facilitated by the project Club, which will serve as a single point of communication among practitioners.

The objectives are to: is to engage textile professionals (manufacturers, converters, designers, stylists, fashion designers, textile industry students, etc.) to raise awareness about the environmental and social benefits of clothing upcycling through innovative training methods that better establish environmental sustainability utilizing the different role of women in eco-friendly activities.

General objective: Raising awareness about the environmental and social benefits of clothing upcycling through innovative training methods that better establish environmental sustainability utilizing the different and yet significant role of women in ecological activities.

Specific objectives:

- Develop and test training material tailored to the real needs of the final beneficiaries in each partner country
- Develop an AR mobile application that promotes clothing upcycling activities utilizing a gender-based methodology
- Develop a solid certification and accreditation system for skills validation and recognition

The specific needs that the AR4ReClothing project aims to address are the following:

- the need for VET trainers and textile professionals (manufacturers, designers, colorists, etc.) to engage in an open dialogue in order to support gender-based training towards buckling down environmental challenges through clothing upcycling activities constitutes a brand new initiative in alignment with EU goals for resource efficiency (Europe 2020 Strategy).
- With women's role being rapidly evolved in the recycling as well as waste management, the need to promote a gender-responsive environmental agenda becomes of utmost importance (Garcés-Sánchez et al., 2019).

The expected project results are:

- An action-based guide for textile experts towards embracing gender-oriented training strategies in order to establish environmental sustainability pinpointing the importance of women's role in the field
- An online platform acting as a complete training package for participants including motivational workflows that enhance learners' performance towards their engagement in the learning process
- An Augmented Reality mobile application functioning as an assessment tool utilizing gamified learning techniques towards the retention of newly acquired knowledge and skills through the promotion of real-life scenarios
- A certification and accreditation scheme for skills validation and recognition



## 2. Introduction

### 2.1 Scope and objectives

Validation of non-formal and informal learning is fundamental to lifelong learning and has been at the center of national and European vocational education and training (VET) policies (CEDEFOP, 2007). Extremely beneficial is the development of strategies to raise students' awareness of educational opportunities available outside the formal education system (CEDEFOP, Re-engaging through identification and recognition of skills).

#### Needs

Despite the fact that the EU has taken numerous measures to increase skill recognition transparency, such as the establishment of European and National Qualification Frameworks (EQF, NQF), the labor market continues to seek workers with developed expertise and expertise acquisition. However, as a non-formal form of education and learning, VET training may find it challenging to provide official recognition of expertise, which may discourage learners from entering the industry. It is essential to develop a transparent validation, acceptance, and accreditation process that will increase their success in the technology industry. This output aims to compile the criteria used in each partner country to encourage the valorisation of project outcomes in accordance with the EQF and corresponding instruments so as to increase their efficiency attractiveness.

#### Innovation

It is the first opportunity for seasoned organizations, IT firms, environmental clusters, industry experts, and credentialing bodies to pool their resources in order to provide a robust platform for training and competency validation designed to engage industry experts in ongoing training opportunities.

This would have repercussions, with the potential to expand the system to other industries.

-Since the certification regime will incorporate requirements from various National Qualification Frameworks, the current outcome will establish the restructuring of training delivery by sharing of best practices.

-This model will be governed by the rules and processes of the E.A.'s National Accreditation Bodies (European Cooperation for Accreditation). The 'AR4ReClothing BADGES' are a certification that will be accredited by the EU labour market, being established in accordance with a standardized EU-recognized accreditation scheme.

-Industry professionals can receive a legitimate EU-recognized certification for their recently developed expertise and competencies that are consistent with labor market demands. This aspect alone will make them attractive in the real world of jobs and the job market. Furthermore, the fact that the official examinations will be held online provides candidates with access to a fair and open source validation and qualification scheme.

-The project consortium will use the EQAVET methodology in conjunction with a qualification scheme to apply the framework in a VET initiative. This full circle of preparation and certification awarding means that all EU Member States wishing to repeat the process will adopt high quality credential requirements.



## 2.2 Audience of the document

The audience interested to this deliverable is:

- AR4ReClothing project partners
- Textile professionals interested in or already taking initiatives towards environmental sustainability
- VET & Textile experts willing to actively participate in an open dialogue about green methods that establish gender equality
- HEI with Textile/Environmental departments
- Public bodies/authorities
- Training centers/NGOs tackling gender inequalities/taking environmental actions
- AR developers or developers/organizations willing to embrace innovative digital solutions for sustainable training purposes and enhanced learning experiences
- Policy makers
- Digital agencies

## 2.3 Acronyms

AIC	Academic Information Centre
ENQA	European Association for Quality Assurance in Higher Education
ESF	European Social Fund
EQAR	European quality assurance register in higher education
EQF	European qualifications framework
LQF	Latvian qualifications framework
NQF	National Qualifications Framework
NCP	National Coordination Point
VET	Vocational Education and Training
ESQF	Spanish qualifications framework for lifelong learning
INQUAL	National Institute of Qualifications
IVET	Initial Vocational Education and Training
MECU	Marco Español de Cualificaciones [Spanish qualifications framework]
MECES	Marco Español de Cualificaciones para la Educación Superior [qualifications framework for higher education]
QF-EHEA	Qualifications frameworks in the European higher education area
ROQF	Romania Qualifications Framework
HQF	Hellenic Qualifications Framework
NLQF	Dutch Qualifications Framework
PQF	Polish Qualifications Framework
EOPPEP (Greece)	National Organization for the Certification of Qualifications and Vocational Guidance



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EU	European Union
Cedefop	European Centre for the Development of Vocational Training
ECVET	European Credit system for Vocational Education and Training (credit system)
ECTS	European Credit Transfer and accumulation System

## **2.4 Dependencies with other PRs and deliverables**

This deliverable is directly related to the Project Result 1: ReClothing Training Guide: An inclusive handbook for textile professionals.





## 3. Qualifications Frameworks and ECVET in Greece, Romania, Netherlands, Poland, Latvia and Spain

### 3.1 Hellenic Qualifications Framework (HQF)

The National Qualifications Framework (NQF) is established by Law 4763/2020, which is based on Recommendation 2017/C189/03 of the European Parliament and of the Council of 22 May 2017 on the establishment of the European Qualifications Framework (EQF) for Lifelong Learning. According to the recommendation, the EQF aims to improve qualification comparability, transparency, and transferability.

Its primary objective is to develop a tool to improve the readability and comparability of Greek titles/qualifications within the context of enhancing the Greek educational system.

The NQF's objectives are to:

1. provide a common reference framework by which all Greek titles/qualifications can be recorded, classified, and simultaneously compared;
2. provide the basis for mapping Greek titles/qualifications to the European Qualification Framework levels (EQF); and
3. provide the basis for comparing all qualifications awarded in Greece by other national and/or international bodies.

In addition, the NQF, taking into account the specificities and characteristics of the Greek education system, contributes to the objective evaluation of Greek titles/qualifications, making them comparable with those of other European countries, in order to increase and promote the geographical mobility of trainees, students, and workers between Greece and other EU countries. The NQF identifies and correlates the qualifications of individuals, i.e. the knowledge, skills, and competencies acquired through formal education and training, non-formal education, and informal learning. Then, they are grouped into levels based on the learning outcomes.

Architectural structure and descriptive indicators

According to law 4763/2020, the NQF consists of eight levels, which serve as the structure's defining element and as the mechanism for linking the NQF to the EQF. The NQF develops descriptive





indicators and qualification types for each level. The level descriptors describe the learning outcomes required to earn a specific title/qualification.

### Development and operation of the National Qualifications Framework

As a result of applying a particular methodology based on learning outcomes, the dynamic nature of the NQF's development and operation procedures is established. The NQF may be augmented through the classification of new titles/qualifications and revised in accordance with national and European needs and priorities.

### Cross-reference of NQF and EQF levels

The National Coordinating Body for the EQF is EOPPEP. It is also responsible for coordinating the process of the NQF's continuous reference to its European equivalent. The purpose of the process is to transparently and consistently demonstrate the referencing of the NQF levels and consequently the titles/qualifications of Greece to the corresponding EQF levels.

The development of the Hellenic Qualifications Framework (HQF) began in 2010 and was carried out in accordance with the provisions of laws 3879/2010 and 4115/2013, as amended and in effect. During the planning of the HQF, both the current needs of the country and pertinent European and international developments were considered. Under the supervision of the Ministry of Education, working groups were established to draft the "Qualification Types" of the formal educational system and the initial vocational training system and to recommend their allocation to the eight HQF levels. The Ministry of Education is the responsible authority for coordinating and overseeing the HQF. The National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP) was established in 2011 for the following purposes:

- ✓ Construct and implement the HQF
- ✓ Connect the HQF to EQF
- ✓ Implement the HQF and the procedures for validating learning outcomes and
- ✓ Assure quality in lifelong learning.

The goal of HQF is to develop a coherent and comprehensive classification system for all qualifications obtained through formal, non-formal, and informal learning in Greece in order to:

- ✓ Improve transparency of quality procedures for qualifications and qualifications titles
- ✓ Increase both horizontal and vertical mobility (both within and outside the country) (showing pathways that a person can follow to move from one level to another)
- ✓ Encourage lifelong learning.

HQF and its referencing to the European Qualifications Framework is in accordance with the common European strategy "Europe 2020", which aims at smart, sustainable and inclusive growth.



## Architecture of HQF

The eight-level structure reflects the formal education and initial vocational training system currently in effect in Greece. In terms of knowledge, skills, and competencies, levels are defined. Work on level descriptors for HQF and a qualifications framework for higher education have occurred independently, but the ultimate goal is to have a framework that encompasses all levels and types of qualification. These characteristics define its architecture:

- **Levels:** Eight levels encompass the full spectrum of qualifications, from mandatory education to higher education. Each level is characterized by a collection of knowledge, skills, and competencies that determine the learning outcomes. The learning outcomes represent the qualifications for this level.
- **Learning outcomes:** The qualifications include learning outcomes and are categorized by level. Learning outcomes represent what an individual knows, understands, and is able to do after completing a learning process. They are categorized as knowledge, abilities, and competencies.
- **Descriptors:** descriptors define the learning outcomes that correspond to the qualifications of a specific level. These descriptors are characterized by qualitative and quantitative evaluations of knowledge, skills, and competencies.
- **Qualification Types:** Qualifications are categorized according to qualification types. They represent groups of titles classified at the same level that share common characteristics.

Table 1: Hellenic Qualifications Framework



HELLENIC AND EUROPEAN QUALIFICATIONS FRAMEWORK	VOCATIONAL EDUCATION AND TRAINING	GENERAL EDUCATION	HIGHER EDUCATION
1		PRIMARY SCHOOL CERTIFICATE (APOLYTIRIO DIMOTIKOU)	
2		LOWER SECONDARY SCHOOL CERTIFICATE (APOLYTIRIO GYMNASIOU)	
3	VOCATIONAL TRAINING SCHOOL CERTIFICATE (SEK) VOCATIONAL TRAINING INSTITUTE (IEK) CERTIFICATE		
4	VOCATIONAL SCHOOL (EPAS) CERTIFICATE VOCATIONAL UPPER SECONDARY SCHOOL LEAVING CERTIFICATE (APOLYTIRIO EPAL) VOCATIONAL UPPER SECONDARY SCHOOL CERTIFICATE (PTYCHIO EPAL)	GENERAL UPPER SECONDARY SCHOOL LEAVING CERTIFICATE (APOLYTIRIO GENIKOU LYKEIOU)	

Source: EOPPEP [www.eoppep.gr](http://www.eoppep.gr) , <https://nqf.gov.gr/en/index.php>

### Main elements of VET

State-controlled vocational education and training (VET) in Greece combines school-based and on-the-job instruction (WBL). It is offered at the high school and college levels. Together with the labor ministry, the education ministry bears overall responsibility.

School attendance is mandatory until the age of 15 and completion of lower secondary education programmes (Gymnasio). At the upper secondary level, there are two primary pathways: general education at Geniko Lykeio (GEL) with 70% of learners and VET (30%). Both lead to an equivalent level 4 EQF certificate for high school graduation. At the end of the first year, students are permitted to switch from general to vocational education and vice versa.





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According to the Law 4763/2020, VET is provided at the post-compulsory level in schools of vocational training (ESK) under the supervision of the education ministry and in the vocational schools of Manpower Organisation (Scholes Mathiteias EPAS of OAED) under the supervision of the labor ministry. Both types of schools lead to an EQF level 3 qualification and provide apprenticeship learning in an effort to reduce early school leaving; they promote students' employability and meet the standards for skills training that correspond to labor market demands. These programs include both school-based and on-the-job training.

Three-year vocational programmes at a vocational education school (Epaggelmatiko Lykeio, EPAL) that also lead to a specialisation degree constitute the primary VET route for upper secondary students. They have more than 25 percent of work-based learning. EPAL graduates are eligible to take national examinations for college admission. The Ministerial Decree 1501/21-4-21 bolsters the permeability of VET and its equivalence with general education. The quotas for EPAL graduates in higher education programmes have increased: from 5% to 10% to 20% for the School of Pedagogical and Technological Education (ASPETE) (EQF 6). EPAL programs are also available to adults and employed students under the age of 18 with a secondary education. Graduates of general upper secondary education may enroll in the second year of EPAL.

VET is available at the postsecondary level in two formats:

- 1 EPAL schools in collaboration with the Manpower Employment Organisation offer 1-year apprenticeship programs (EQF level 5, WBL 100%) (OAED). These programs are only available to those with a secondary school diploma or equivalent.
- 2 2.5-year VET programmes (WBL > 60%) provided by public and private vocational training institutes (IEK) to high school graduates (WBL > 60%). These programmes only permit learners to obtain an attestation of programme completion; alternatively, they can take VET certification examinations (practical and theoretical) administered by the National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP), which lead to an EQF level 5 certificate. PAL graduates who wish to continue their education in a related field can enroll directly in the second year.

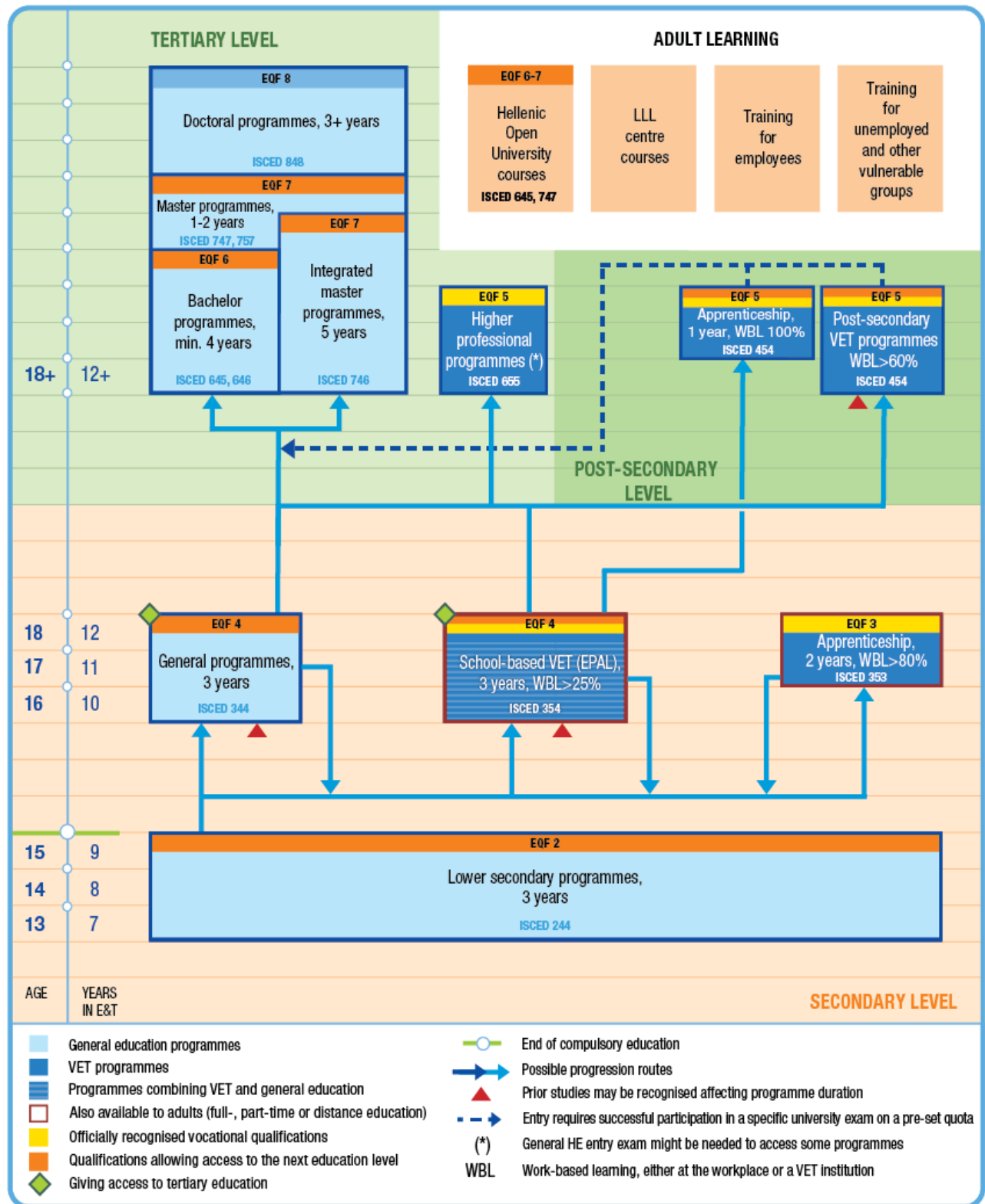
Higher professional schools offer 2- to 4-year higher professional programs under the supervision of the relevant ministry. A general national examination or a program-specific examination determines admission. As with merchant navy academies, dance and theatre schools, the diplomas awarded are considered non-university tertiary level diplomas (EQF level 5).

Adults are offered continuing vocational training in centres for lifelong learning (LLL) operated by regional authorities, municipalities, social partners, chambers of commerce, professional associations, and private entities. EOPPEP is in charge of assuring the quality of non-formal education, accrediting providers, and certifying qualifications at EQF level 5.

Table 2: Vocational education and training system chart



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NB: ISCED-P 2011.  
Source: Cedefop and ReferNet Greece, 2022.





## 3.2 Romania Qualifications Framework (ROQF)

The Ministry of National Education and the National Council of Qualifications and Adult Training have established a nomenclature for the qualifications and titles offered within the Romanian higher education system, in accordance with the provisions of Law 288/2004 and the developments specific to the National Framework of Higher Education Qualifications.

The objective is twofold:

- ✓ to regulate the qualifications and titles awarded to higher education graduates who have entered the higher education system since 2005;
- ✓ to ensure an appropriate wording of the study papers issued in higher education (Diploma Supplement), and the transparency required by the Bologna Process.

In the area of technical and vocational education and training (TVET), the National Qualifications Framework has been developed through a revision of TVET qualifications and curriculum.

The objectives are:

- ✓ the recognition of qualifications awarded in a particular context, in other learning or work contexts
- ✓ revision of TVET qualifications based on reference levels and competence descriptors
- ✓ improving the quality and efficiency of TVET; improving the relevance of vocational qualifications to the labour market and to learners
- ✓ better involvement of social partners in the process of qualifications description and updating
- ✓ developing the conditions for the implementation of the European credit transfer and accumulation system (ECVET) in accordance with the Recommendation of the European Parliament and the Council of 18 June 2009.

### **Main elements of VET**

Upper secondary and postsecondary levels offer initial vocational education and training (VET).

The first two years of upper secondary education are compulsory for all learners. Enrolment, including VET (grade 9), requires grades from national exams in mathematics and the Romanian language, a lower secondary diploma, and a final mark transcript for all subjects. Some VET schools also have entry exams. To enrol in tertiary education, all upper secondary graduates need to pass baccalaureate exams.

Initial VET is under the responsibility of the Ministry of Education and Research. The National Centre for Technical and Vocational Education and Training Development (CNDIPT) coordinates the creation of training standards for qualifications, validated by sectoral committees (coordinated by the National Authority for Qualifications, NAQ) and approved by the ministry. Social partners participate in the committees and support VET implementation. Continuing VET is under the responsibility of the Ministry of Labour and Social Protection.

Initial VET



At upper secondary level there are:

- (a) 3-year school-based VET programmes (ISCED-P 352), providing graduates with a professional qualification at EQF level 3 (such as cook). Programmes are offered by 'professional schools', cooperating with employers who provide compulsory in-company training for learners as part of work-based learning (WBL). WBL is also offered in schools, at an average of 50% per programme. Learners who interrupted their studies after completing lower secondary education may enrol in programmes up to age 26, free of charge. Since 2017/18, a dual form of VET is available, provided at the request of companies that participate in training provision. The share of learners in dual VET is 4.4% of the total VET population at upper secondary level. The programmes open access to the labour market. Graduates can also enrol in the third year of EQF level 4 technological programmes;
- (b) 4-year technological programmes (ISCED-P 354) offering graduates an upper secondary school leaving diploma and the EQF level 4 'technician' qualification in services, natural resources, environmental protection and technical study fields (such as technician in gastronomy). The programmes are provided by technological high schools and sometimes by colleges. The WBL share is 25%. After completing compulsory education, learners may opt out and enrol in a short VET programme (ISCED-P 352) offering a professional qualification only;
- (c) short VET programmes (ISCED-P 352), providing learners who completed two years of a technological programme (completed grade 10) with a professional qualification at EQF level 3 (such as cook) via 720 hours of work-based learning. The programmes are coordinated by VET schools and are provided mainly by employers. Young and adult early leavers from education and training can also access these programmes after completing a 'second chance' programme;
- (d) 4-year vocational programmes (ISCED-P 354, EQF level 4), providing graduates with a professional qualification in the military, theology, sports, arts and pedagogy as well as with an upper secondary school leaving diploma. These programmes are provided by colleges and the share of WBL is up to 15%.

Post-secondary VET provides 1- to 3-year higher VET programmes (ISCED-P 453), leading to a professional qualification at EQF level 5 (such as optician); these are organised by technological schools or colleges/universities. They provide secondary school graduates with an opportunity to advance in their qualifications.

#### Continuing VET

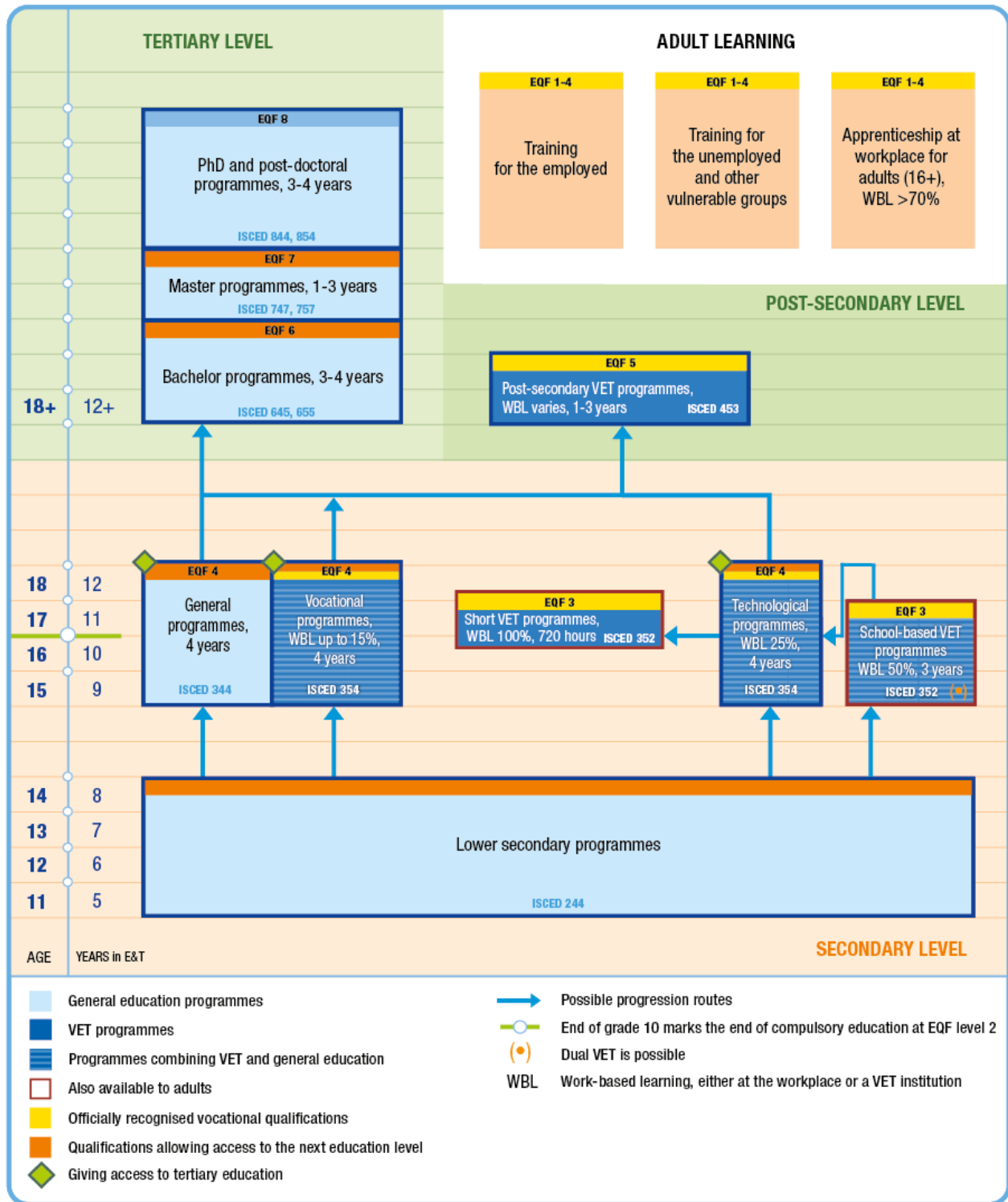
Adult vocational training is offered by authorised private and public providers.

1 to 3-year continuing 'apprenticeship at workplace' programmes have been managed by the public employment service since 2005. They offer adults (16+) without prior VET experience the chance to acquire a professional qualification at EQF levels 1 to 4, leading to a nationally recognised qualification certificate of the same value as in initial VET. Theory and practical training (WBL at least 70%) are provided mainly by companies, in cooperation with authorised professional training providers.

Table 3: Vocational education and training system chart



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NB: ISCED-P 2011.

Source: Cedefop and ReferNet Romania, 2022.







### 3.3 Dutch Qualifications Framework (NLQF)

The Ministry of Education, Culture and Science of the Netherlands commissioned the development of the Dutch Qualifications Framework (NLQF) which was constructed in close cooperation with experts and stakeholders in the field of education and training. The National Coordination Point NLQF (NCP) is an independent body which is responsible for the development and implementation of the NLQF.

The Dutch Qualifications Framework (NLQF) is a way of describing Dutch qualification levels. It is a systematic organisation of all existing qualification levels in The Netherlands, from Level 1 basic education to the Master's degree at level 7 and a Doctorate's degree at level 8. Qualifications are classified in NLQF levels and are given a level indication.

The NLQF aims to facilitate students and labour market mobility by providing an insight into the levels of qualifications recorded by the National Coordination Point NLQF in the NCP register. The NLQF provides transparency in that it facilitates a comparison of qualification levels nationally and internationally, for example for labour market mobility.

#### NLQF levels

The Dutch National Qualifications Framework (NLQF) [Nederlands kwalificatieraamwerk] consists of eight levels and one entry level. Click on 'description' below for the descriptions of each level.

The levels are based on descriptions of what someone knows and is able to do after completion of a learning process, regardless of where and, to an extent, in what timeframe this took place. These descriptions of the levels of knowledge, skills, autonomy and responsibility are referred to as learning outcomes. Higher general secondary education (Havo), for example, is classified at NLQF Level 4 and Master programmes at NLQF Level 7.

- (a) Entry Level Basic Education 1 (for adults)
- (b) NLQF Level 1 Basic Education 2 (for adults); pre-vocational secondary education - basic vocational pathway (vmbo bb); VET level 1 (MBO1)
- (c) NLQF Level 2 Basic Education 3 (for adults); pre-vocational secondary education - advanced vocational pathway (vmbo kb); pre-vocational secondary education - combined theoretical pathway (vmbo gl); pre-vocational secondary education - theoretical pathway (vmbo tl; VET level 2 (MBO2)
- (d) NLQF Level 3 VET level 3 (MBO 3)
- (e) NLQF Level 4 VET level 4 (MBO 4); Higher general secondary education (Havo); higher general secondary education for adults (Vavo-Havo)
- (f) NLQF Level 4+ Pre-university educations (Vwo); pre-university education for adults (Vavo-vwo)
- (g) NLQF Level 5 Associate Degree
- (h) NLQF Level 6 Bachelor Degree
- (i) NLQF Level 7 Master Degree
- (j) NLQF Level 8 Doctorate; Designer; Medical specialist

The classification of formal qualifications into one of the levels of the NLQF and referencing to the EQF took place under the responsibility of the Ministry of Education Culture and Science. In 2011 the NLQF



and the referencing to the EQF was sent to the Dutch Parliament. The referencing to EQF by the EQF Advisory group of the European Commission was approved in January 2012.

## **Main elements of VET**

Study results and advice from school determine the type of secondary education that learners follow leaving primary education at age 12. In 2020/21, in the third year of secondary education, 52% of students followed lower secondary pre-vocational programmes (VMBO). VMBO is the main route to upper secondary vocational education and training (VET).

Apart from lower secondary pre-VET programmes, there are also general programmes that prepare students for higher education: integrated lower and upper secondary education (HAVO) and pre-university education (VWO).

Some 48% of students in the third year of secondary education took part in one of these programmes in 2020/21. The trend is that each year relatively more students attend integrated lower and upper secondary education (HAVO) and pre-university education (VWO), and relatively less students follow pre-vocational programmes (VMBO).

Labour-oriented practical training (praktijk-onderwijs) is available for learners not capable of entering pre-vocational education.

### **Upper secondary VET**

Learners aged 16 or above can enter upper secondary VET (MBO). Most publicly funded VET is provided by large multi-sectoral regional training centres (ROCs). Sector-specific schools and agricultural training centres also provide VET programmes. Three structural elements determine provision of MBO programmes, with differentiation according to:

- (a) level: upper secondary vocational education has four levels leading to qualifications at EQF levels 1 to 4. Student admission to a level depends on the diploma obtained in prior education. Admission to level 1 programmes is limited to learners without a prior qualification at lower secondary level. It is possible to progress within upper secondary VET; the highest level (leading to EQF 4) gives access to higher professional bachelor programmes offered by universities of applied sciences. In 2020/21, 58% of VET students were enrolled in level 4 programmes;
- (b) area of study: upper secondary VET programmes are available in four areas (sectors): green/agriculture, technology, economics and care/welfare;
- (c) learning pathway: upper secondary VET offers two equivalent pathways: a school-based (BOL) and a dual (BBL). In the school-based pathway, work placements in companies make up 20% to 59% of study time. In the dual pathway (apprenticeship), students combine work-based learning (at least 60% of study time) with school-based instruction; this often involves learning at work 4 days a week and 1 day at school.

### **Post-secondary VET**

Specialised programmes (ISCED 453/EQF level 4) are open to graduates of MBO programmes (ISCED 353/EQF level 3, ISCED354/EQF level 4). Their duration is 1 year.



### Higher professional education

Higher professional bachelor programmes (HBO) are open to all EQF level 4 graduates. About 40% of all MBO level 4 (middle management VET programmes) graduates in the school-based pathway enter HBO programmes. In the 10-year period before 2020, the percentage of VET alumni that directly continues to HBO programmes, has been slightly declining. On completion, a HBO diploma gives access to a professional master degree programme, an option not yet extensively used.

Two-year associate degree programmes (short-cycle higher education, EQF level 5) are open to all EQF level 4 graduates. Their graduates can continue to HBO programmes; the remaining study load is subject to exemptions granted by each programme.

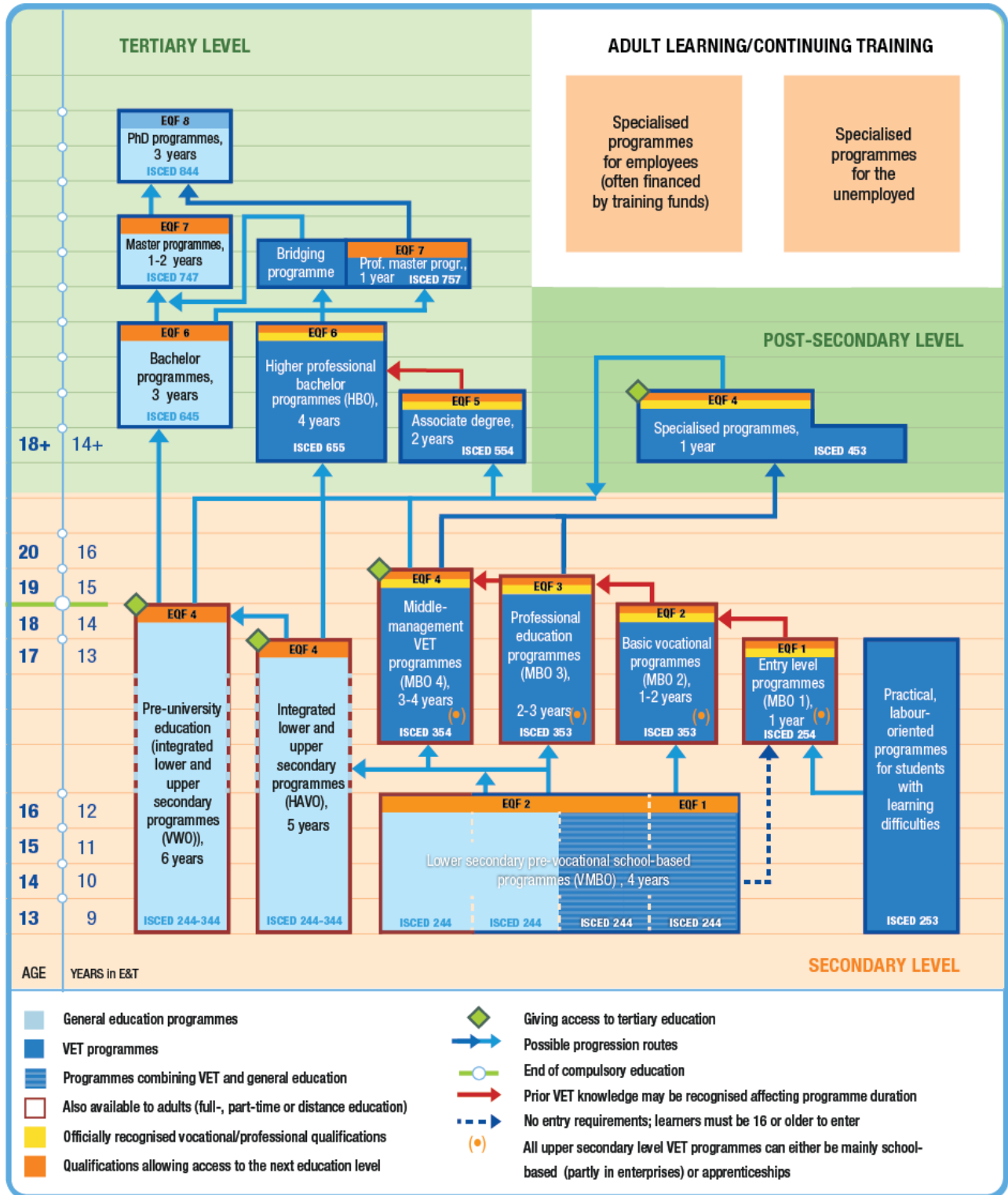
### Continuing VET

There is no institutional framework for continuing VET (CVET): provision is market-driven with many suppliers. Dual VET (the BBL pathway) can also function as CVET for adults. Social partners stimulate CVET through sectoral training and development funds. They help employees progress in their careers, sometimes even in other sectors, offer special arrangements for older workers, and support the development of effective human resource management policies at sector level. Most funds also support projects that help young people find employment or take initiatives to sustain or expand apprenticeship places.

Table 4: Vocational education and training system chart



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NB: ISCED-P 2011.

Source: Cedefop and ReferNet Netherlands, 2022.





### **3.4 Polish Qualifications Framework (PQF)**

Between July 2010 and June 2015, the Educational Research Institute in Warsaw carried out a project “The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning”, supported by the ESF. The project designed the Polish Qualification Framework (PQF) (Polska Rama Kwalifikacji) and produced a so-called reference report, referencing the levels of the PQF to the levels of the European Qualifications Framework (EQF). The reference report was approved by the Polish and EU authorities in the middle of 2013. The work on the Integrated Qualifications Register (Zintegrowany Rejestr Kwalifikacji) led to the development of system-level arrangements for the quality assurance of qualifications, validation, and to cooperation with selected sectors with a view to establishing sectoral qualifications frameworks and testing selected elements of the integrated national qualifications system on a pilot basis. Also, a campaign was conducted to raise awareness of the measures taken to integrate the national qualifications system. In March 2015, the Government endorsed the main principles for the Act on the Integrated Qualifications System (Ustawa o Zintegrowanym Systemie Kwalifikacji) which was passed on 22 December 2015. The Act provides for the integration of the Polish qualifications system by establishing two instruments:

- (a) the 8-level PQF and
- (b) the Integrated Qualifications Register (IQR).

Most of the provisions of the Act on the Integrated Qualifications System came into force on 15 April 2016. With regard to the education system, its key provisions (Article 8) assign the PQF levels to individual qualifications awarded within the education system, including school education. This enables the awarding institutions to provide information on the relevant levels of the PQF on school certificates and diplomas, and on other documents conferring qualifications. For further details, see the Integrated Qualifications System website.

The work on the PQF is part of wider-scale activities related to the planning and implementation of the Lifelong Learning (LLL) policy. In order to ensure better coordination, an Intersectoral Task Force for Lifelong Learning, including the NQF, was established in February 2010 by the relevant Regulation of the Prime Minister. A Steering Committee for the NQF, chaired by the Minister of Science and Higher Education, was established as part of the Task Force. Its members include representatives of the Minister of National Education, the Minister of Economy, the Minister of Family, Labour and Social Policy, the Minister of Development, the Minister of Foreign Affairs, the Minister of Culture and National Heritage, the Minister of Health, the Minister of National Defence, the Minister of Interior and Administration and the Minister of Infrastructure. The tasks of the Committee include initiating changes necessary to implement the PQF and monitoring their effectiveness.

#### **Main elements of VET**

Vocational education and training (VET) has three governance levels: national (ministries), regional (school superintendents, mainly in pedagogical supervision) and county (governing schools). The



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Ministry of Education and Science is in charge of secondary and higher VET, supported by other ministries responsible for particular occupations. Social partners advise policy-makers on necessary changes in VET. The ministry is supported by the consultative body, the Vocational School Directors Council, established in 2018.

Since September 2017, the Polish education system has been undergoing substantial restructuring, to be finalised in the 2022/23 school year. VET is provided mainly in school-based upper secondary and post-secondary programmes. Upper secondary programmes combine general and vocational education. Learners can acquire vocational qualifications in:

- (a) 3-year first stage sectoral programmes (branżowe szkoły I stopnia, ISCED 353) leading to a vocational qualification diploma for a single-qualification occupation (after passing State vocational examinations). Graduates can enrol in the second year of general upper secondary programmes for adults or in a second stage sectoral programme;
- (b) 2-year second stage sectoral programmes (branżowe szkoły II stopnia, ISCED 354), launched in the 2020/21 school year. These further develop the vocational qualifications attained in first stage sectoral programmes. General education is provided in full-time day or evening classes, or extramurally. Graduates can acquire an upper secondary school leaving certificate (matura) providing access to tertiary education;
- (c) 5-year vocational upper secondary programmes (technika, ISCED 354) leading to a vocational qualification diploma for occupations consisting of two qualifications after passing State vocational examinations. Graduates can acquire an upper secondary school leaving certificate (matura) giving access to tertiary education;
- (d) 3-year special job training programmes (szkoły specjalne przysposabiające do pracy, ISCED 243) for special education needs (SEN) learners leading to a job training certificate;
- (e) work preparation classes for SEN learners aged 15 and above already in primary school (oddziały przysposabiające do pracy).

At the post-secondary non-tertiary level, vocational qualifications are acquired in 1- to 2.5- year school-based programmes (szkoły policealne, ISCED 453).

College programmes of social work (kolegium pracowników służb społecznych, ISCED 554) are part of tertiary education. They combine school-based learning and in-company training leading to a diploma at EQF level 5. Learners should hold a matura certificate.

Work-based learning (WBL) is compulsory for all VET-oriented programmes. It takes place in school workshops, continuing education centres, vocational training centres or can be organised partially or fully by an employer, including apprenticeships. A distinctive form is on-the-job-training (traineeship) lasting 4 to 12 weeks, depending on the occupation; this is compulsory for vocational upper secondary, post-secondary and second stage sectoral programmes.

Adult learning, continuing and out-of-school VET are available in continuing education centres, practical training centres, further training and professional development centres, and initial VET schools, offering:

- ✓ vocational qualification courses based on curricula for a qualification in a given occupation; learners can take the State vocational examination and obtain a vocational qualification certificate;
- ✓ vocational skills courses based on the VET core curriculum, including learning outcomes for a qualification or common learning outcomes for all occupations;
- ✓ minimum 30-hour general skills courses based on the general education curriculum;



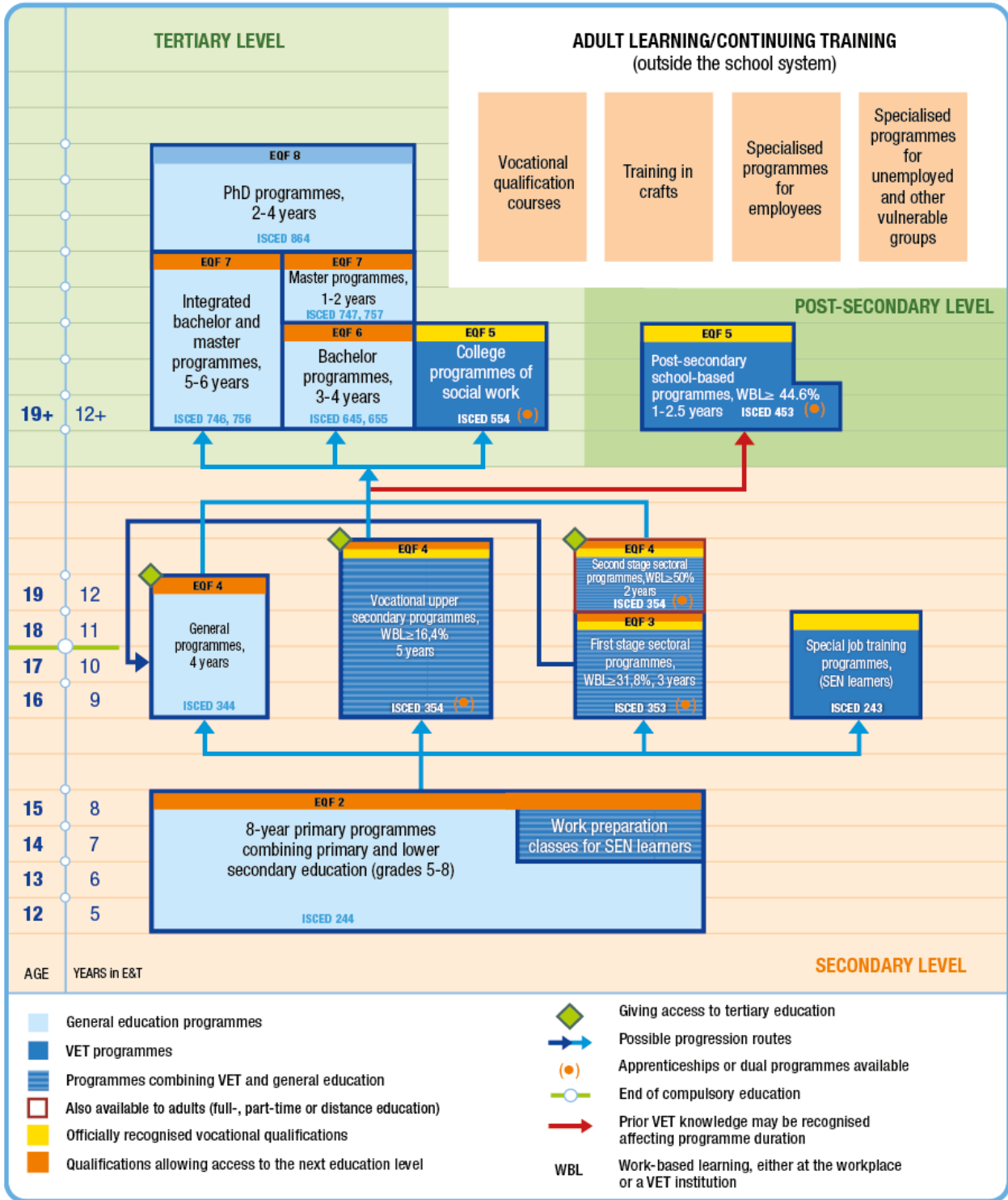
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- ✓ theoretical courses for juvenile employees;
- ✓ as of 2016, curriculum-based qualifications attained in courses offered by training companies and other non-formal education institutions can be included in the Integrated qualifications register.

Table 5: Vocational education and training system chart



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NB: ISCED-P 2011.

Source: Cedefop and ReferNet Poland, 2022.





## 3.5 Latvia Qualifications Framework (LQF)

In Latvia the referencing of education system to European Qualifications Framework and the European Higher Education Area Qualification Framework started in 2009.

The whole process was divided into two phases:

- ✓ Phase I, 2009-2011: referencing of the existing Latvian education system to European Qualifications Framework (EQF) and European Higher Education Area (EHEA) Qualifications Framework.
- ✓ Phase II, 2013-2015: review of the self-assessment report, on the basis of the new Vocational Education Law, Higher Education Law and the results of European Structural Funds' project "Development of sectoral qualifications system and increasing the efficiency and quality of vocational education" (2010-2013).

One of the most important aims of qualifications framework was setting a united scale of levels for all qualifications - a scale, which is comparable with the qualifications of other countries via EQF. It expands the inhabitants' opportunities for mobility not only between countries, but, which is more important, between various institutions and education levels. It is facilitated by a process taking place parallel to the qualifications framework – recognition of knowledge and skills acquired outside formal education, which is based upon a simple principle – all knowledge and skills are valuable, irrespective of the way and form of their acquisition.

In 2008, Ministry of Education and Science delegated the Academic Information Centre to perform the functions of the National Coordination Point for referencing the national qualifications framework to EQF. The main tasks of NCP were: to refer existing qualification levels in national qualification system to EQF levels stated in the Recommendation of the European Parliament and of the Council on the establishment of the EQF for lifelong learning; to prepare Latvian self-assessment report concerning the referencing of Latvia's education system to EQF for lifelong learning; to arrange discussions and consultation process among stakeholders about the referencing of Latvian education system to EQF for lifelong learning by ensuring access to necessary information for all participants.

In 2009, Ministry of Education and Science established the working group for referencing the Latvia's education system to EQF, which was chaired by the deputy state secretary on policy issues of the ministry, inviting to the working group all stakeholders – education agencies, education quality assurance agencies, representatives of employers' and employees' organizations, students etc. The education level descriptors for general basic and secondary education, vocational basic and secondary education, as well as for vocational education were elaborated. And at higher education level the working group established the education level descriptors for all Bologna cycle qualifications.

When arranging consultation process in Latvia, according to present laws and regulations comparison between EQF levels and Latvian education system was prepared. Also, amendments to the Cabinet of Ministers Regulations of 2 December 2008 No. 990 "Regulations on the classification of Latvian education" were drafted and approved in October 2010. To the table included in these Regulations outlining the Latvian education stages and the respective programmes a new column was added,



referencing education programmes to the appropriate EQF level. (See the scheme of the Latvian education system with EQF/LQF levels) All education institutions awarding education documents in Latvia are able to use these Regulations to precisely indicate the relevant EQF level. The inclusion of reference to EQF levels in all education documents in Latvia were introduced during the Phase II of referencing.

In 2016, National Coordination Point has developed Latvian Qualifications Database. Latvian Qualifications Database is a unique information system containing summary of data about qualifications referenced to the Latvian Qualifications Framework and the European Qualifications Framework. Within the context of this Database qualification is understood as a certificate acquired within formal education including information on the awarded degree and/or professional qualification.

The Latvian Qualifications Database is linked to the portal Learning Opportunities and Qualifications – EQF/PLOTEUS – hosted by the European Commission. The EQF/PLOTEUS portal offers opportunity to compare qualification systems and qualifications of various European countries.

## **Main elements of VET**

Vocational education and training (VET) in Latvia is offered at three levels: lower secondary (part of the national 'basic' education; integrated primary and lower secondary); upper secondary (secondary); and tertiary (professional higher) education. It includes practical training (50% to 65% of curricula) at schools and enterprises. In 2015, an apprenticeship scheme (called 'work-based learning' nationally) was introduced with alternating study periods at school and in an enterprise. The scheme is available for all VET programmes at EQF levels 2 to 4. To acquire a VET qualification at these levels, all VET learners take a State qualification exam at the end of the programme.

Basic VET programmes (one to three years, ISCED 254) lead to qualifications at EQF level 2 and involve around 1% of the VET population (2018/19 data). Learners must be at least 15 years old to enrol. Those without completed basic education are admitted to 3-year programmes (ISCED 254) that include a compulsory basic general education course.

At upper secondary level, VET enrolls 42% of all learners in:

- (a) 3-year programmes (ISCED 353) leading to a qualification at EQF level 3 and involving 2% of VET learners. To enrol in higher education, graduates should attend an additional 1-year follow-up programme;
- (b) 4-year programmes (ISCED 354) leading to a secondary VET qualification at EQF level 4 and involving 67% of VET learners. Graduation from the programme requires both the VET qualification and success in four State exams in general subjects, giving access to higher education;
- (c) 1 to 2-year programmes (ISCED 351 and 453) leading to a qualification at EQF levels 3 and 4. These programmes are designed for 17 to 29 year-olds with or without completed upper secondary education. They involve 30% of VET learners and focus on vocational skills, so they are shorter.



Professional higher education programmes are provided at two levels:

- (a) first-level college (short cycle) programmes (two to three years; ISCED 554, EQF 5) targeted mainly at the labour market, though graduates can continue their studies in second-level professional higher education;
- (b) second-level higher education programmes (two to six years) (ISCED 655, 656, 657, 756 and 757, EQF 6 and 7) leading to a professional qualification and either professional bachelor or master degree or a professional higher education diploma.

Formal continuing VET (CVET) programmes enable adults with education/work experience to obtain a State-recognised professional qualification in 480 to 1 280 hours, depending on the field of study. Shorter professional development programmes (at least 160 hours) enable learners to acquire or upgrade their professional knowledge and skills regardless of their age, education and professional background but do not lead to a qualification.

Craftsmanship (not part of apprenticeships) exists on a small scale, separate from the rest of the education system.

The Ministry of Education and Science is the main body responsible for the VET legal framework, governance, funding and content. Social dialogue and strategic cooperation are arranged through the national Tripartite Sub-Council for Cooperation in Vocational Education and Employment. Twelve sectoral expert councils ensure that VET provision is in line with labour market needs; they participate in developing sectoral qualifications frameworks, occupational standards, qualifications requirements, education and training programmes and quality assessment procedures. Since 2015, collegial advisory bodies, including representatives from employers, local governments and the supervising ministry – conventions – have been established at each VET school contributing to strategic development and cooperation with the labour market.

Table 6: Latvian qualifications framework (LQF)



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LQF levels	Qualification types	EQF levels
8	<p>Doctor diploma (<i>doktora diploms</i>)</p> <p>Professional Doctor diploma in arts (<i>profesionālā doktora diploms mākslās</i>)</p>	8
7	<p>Master diploma (<i>maģistra diploms</i>)</p> <p>Professional Master diploma (<i>profesionālā maģistra diploms</i>)</p> <p>Diploma of professional higher education and Diploma of higher professional qualification (<i>profesionālās augstākās izglītības diploms and augstākās profesionālās kvalifikācijas diploms</i>)</p>	7
6	<p>Bachelor diploma (<i>bakalaura diploms</i>)</p> <p>Professional Bachelor diploma (<i>profesionālā bakalaura diploms</i>)</p> <p>Diploma of professional higher education and Diploma of higher professional qualification (<i>profesionālās augstākās izglītības diploms and augstākās profesionālās kvalifikācijas diploms</i>)</p>	6
5	<p>Diploma of first level professional higher education (<i>pirmā līmeņa profesionālās augstākās izglītības diploms</i>)</p>	5
4	<p>Certificate of general secondary education (<i>atestāts par vispārējo vidējo izglītību</i>)</p> <p>Diploma of vocational secondary education (<i>diploms par profesionālo vidējo izglītību</i>)</p> <p>Certificate of professional qualification (at secondary education level) (<i>profesionālās kvalifikācijas apliecība (vidējās izglītības pakāpē)</i>)</p>	4
3	<p>Certificate of vocational education (<i>atestāts par arodizglītību</i>)</p> <p>Certificate of professional qualification (at vocational education level) (<i>profesionālās kvalifikācijas apliecība (arodizglītības pakāpē)</i>)</p>	3
2	<p>Certificate of general basic education (9 years) (<i>apliecība par vispārējo pamatizglītību</i>)</p> <p>Certificate of vocational basic education (<i>apliecība par profesionālo pamatizglītību</i>)</p> <p>Certificate of professional qualification (at basic education level) (<i>profesionālās kvalifikācijas apliecība (pamatizglītības pakāpē)</i>)</p>	2
1	<p>Certificate of general basic education (<i>apliecība par vispārējo pamatizglītību</i>) (special education programmes for learners with (severe) mental development disorders or several severe development disorders)</p>	1



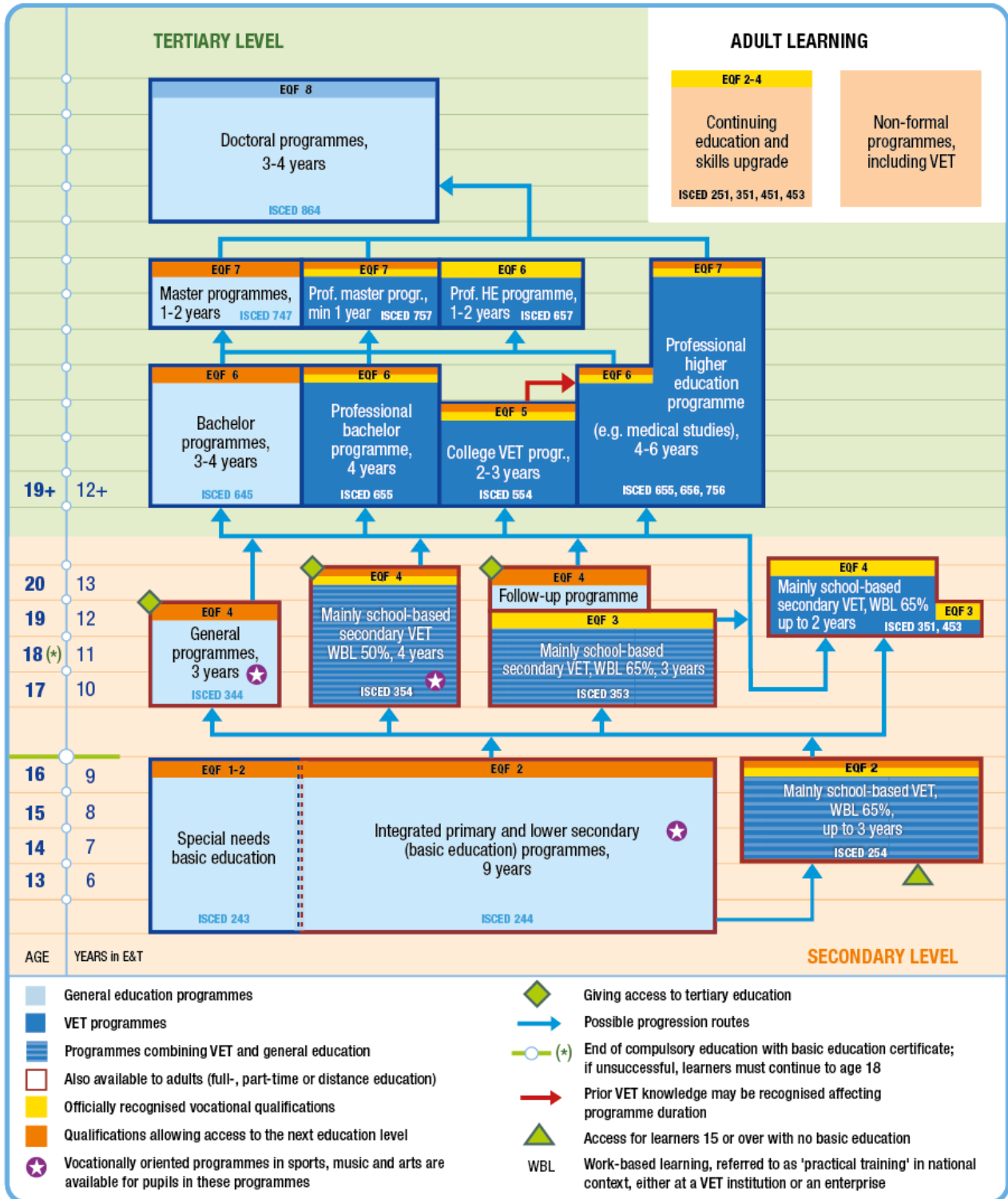
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Source: Regulation of the Cabinet of Ministers Regulations No 322: Regulations on the education classification of Latvia. <https://likumi.lv/ta/id/291524-noteikumi-par-latvijas-izglitiba-klasifikaciju>

Table 7: Vocational education and training system chart



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NB: ISCED-P 2011.  
Source: Cedefop and ReferNet Latvia, 2022.



## 3.6 Spanish Qualifications Framework (SQF)

Royal Decree 1027/2011 establishes the Spanish Qualifications Framework for Higher Education, and Royal Decree 272/2022 defines the Spanish Qualifications Framework for Lifelong Learning (MECU). Both share the objectives of informing society, promoting international mobility and recognition throughout the European Higher Education Area.

MECU covers the qualifications of compulsory education, up to the higher level of professional training, artistic education, sports education and university education. In this way, the Spanish Qualifications Framework for Lifelong Learning (MECU) completes the general framework of qualifications in Spanish, incorporating programmes not yet developed at the time of publication of Royal Decree 1027/2011.

The Spanish Qualifications Framework (MECU) is a national qualifications framework (degrees, diplomas and certificates) that includes lifelong learning. It is a structure that organises qualifications according to levels and comprises from the most basic to the most complex learning. It therefore covers general and adult education, vocational education and training, and higher education.

It includes:

- (a) qualifications obtained outside the education system through in-service training, work activity, collaboration with non-governmental organisations, etc.;
- (b) qualifications obtained in the education system.

The proposed framework has eight levels and the level descriptors, defined in terms of knowledge, skills and competences, and are inspired by the level descriptors of the European Qualifications Framework for Lifelong Learning, but adapted to the national context.

The MECU aims to correlate and coordinate the different subsystems of education and training and include the qualifications obtained in compulsory, post-secondary and higher education, as well as integrate the validation of non-formal and informal learning.

Among the main goals of the MECU the following may be highlighted:

- ✓ to make qualifications more understandable by describing them in terms of learning outcomes;
- ✓ to improve citizens' information on national qualifications, as well as facilitate and promote mobility;
- ✓ to support lifelong learning and correlate initial vocational training and vocational training for employment, as well as improve access and participation in this type of training, especially of people with some kind of disability;
- ✓ to facilitate the identification, validation and recognition of all types of learning outcomes, including those related to non-formal and informal learning;
- ✓ to facilitate transition and progression between the different training subsystems;
- ✓ to develop procedures for the recognition of non-formal learning;
- ✓ to reduce early school leaving.

### Structure of the Spanish Qualifications Framework: levels and learning outcomes



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The eight levels of the framework cover all types of qualifications in Spain. Level descriptors are defined in terms of knowledge, skills and competences.

The four upper levels are compatible with the levels of the Spanish Qualifications Framework for Higher Education (MECES), based on the Dublin descriptors.

The establishment of learning outcomes constitutes an essential part of the development and implementation of the MECU and the MECES. The term 'learning outcome' represents a considerable change in the education and training system in Spain. The level of implementation of learning outcomes varies depending on the training subsystem, vocational training being the one where they are currently most developed.

### **Development and implementation of the Spanish Qualifications Framework**

A Royal Decree that will establish the foundations for its implementation is currently under preparation. In such project, it is recommended the establishment of a committee including social actors, ministries, trade unions and the most representative employers' associations, as well as experts in vocational qualifications of different sectors. This committee would be in charge of deciding on the assignment of qualifications to the MECU levels, which should be based on three criteria:

- ✓ comparability between the descriptors of the qualifications, defined as learning outcomes, and the MECU level descriptors;
- ✓ implementation of a common quality assurance system in higher education and vocational training;
- ✓ public consultation with the bodies and organisations involved in the design of qualifications in their respective sectors.

In addition, the intention is to assign formal education qualifications to the MECU levels. The assignment of qualifications related to the validation of non-formal and informal learning is expected to be more complicated.

### **Main elements of VET**

Initial vocational education and training (VET) is the responsibility of the education authorities. Continuing training is the responsibility of education and employment authorities, sharing the same consultation bodies but having their own respective governance and objectives.

Employment authorities are responsible for training programmes addressing companies' and worker's (employed and unemployed) skills needs, employment-training schemes and the regulation of apprenticeships contracts.

The General Council for Vocational Training is the national government advisory body on VET policy; it comprises representatives of national and regional public authorities, employer organisations and trade unions. Stakeholders collaborate in the design of occupational standards in all sectors of the economy and are involved in VET qualifications design.

Initial VET offers upper secondary (basic and intermediate) and higher VET qualifications as part of the education system. Programmes last 2 years (2 000 hours) and include work-based learning in a company and at a VET school:





- (a) basic programmes (ISCED 353) are available in the last year of compulsory education, to learners aged 15 or 16. They allow students at risk of leaving education without qualifications to develop their basic skills, prepare for an occupation (such as agro-gardening) and obtain a basic VET qualification. Students may move on to upper secondary VET and, in some cases, also attain the compulsory secondary qualification opening up the general education path;
- (b) intermediate programmes can begin at age 16, after compulsory education. These lead to technician qualifications at ISCED 354 (such as cookery and gastronomy). Access to higher VET in the same field of study is possible, via an admission procedure;
- (c) at tertiary level, higher programmes (ISCED 554) lead to an advanced technician qualification (such as logistics coordinator). Graduates can progress to bachelor programmes through an admission procedure.

Graduates from intermediate and higher VET programmes can take on specialisation courses in the same field of studies to broaden occupation-specific skills and acquire digital skills in line with the emerging needs of the economy.

In dual VET delivery (apprenticeship contracts or other alternance schemes) programme duration may be up to 3 years with a minimum of 33% of training spent at the company.

Specific training programmes in arts and design and in sports are offered (4% of the VET population in 2019/20).

Adults can enrol in the same IVET programmes as young people (basic, intermediate and higher VET). Minors over 16 and adults in adult education may enrol in programmes delivered by authorised VET providers to acquire a professional certificate corresponding to an occupational profile (certificados de profesionalidad); programmes may be combined with an apprenticeship contract (only for learners aged 16 to 25). No access requirements apply for entering level 1 professional certificate programmes (ISCED 254) and learners can move on to the next level in the same field. Level 2 (ISCED 351) and level 3 (ISCED 453) programmes are accessible to those having completed, respectively, compulsory and upper secondary, or equivalent level studies. Duration varies according to the learning outcomes at each level (from 180 to 1 110 hours); access to the next level is possible in the same professional field. All three levels comprise a compulsory on-the-job training module, of variable duration.

The Spanish VET system is modular, allowing recognition and transfer of (units of) competences gained in one VET programme to another, shortening its duration. Units of competences may also be acquired through validation of prior learning. Training is offered by accredited public and private institutions.

Non-formal VET includes a wide range of courses, designed for different needs and skill profiles, allowing upskilling or reskilling. It may be financed through public funds (mainly from company and worker contributions to social security). Publicly funded programmes (specialties) not linked to the national catalogue of occupational standards (Catálogo Nacional de Cualificaciones Profesionales, CNCP) are included in a catalogue of training specialties of the State public employment service and providers have to be registered as such.

Table 8: Spanish qualifications framework for higher education (MECES) and draft Spanish qualifications framework for lifelong learning (MECU) levels



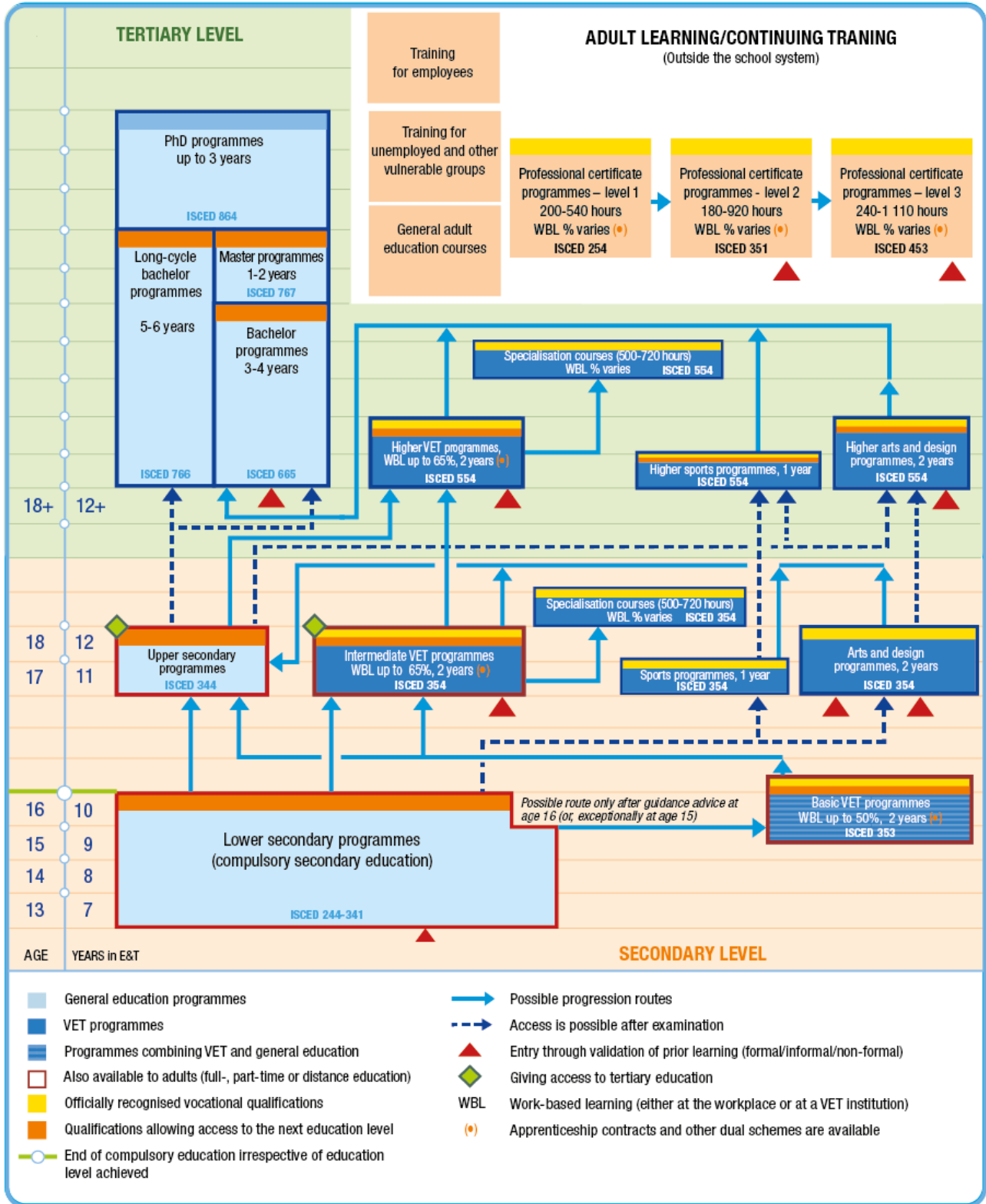
Draft MECU levels	MECES levels	Higher education qualifications	QF-EHEA
8	4	<i>Doctoral degree (Doctorado)</i>	Third cycle
7	3	<i>Master degree (Master)</i>	Second cycle
6	2	<i>Bachelor degree (Grado)</i>	First cycle
5	1	<i>Advanced technician (Técnico superior)</i>	Short cycle
4			
3			
2			
1			

Source: Ministry of Education, Culture and Sport (2014). Verification of compatibility of MECES (the Spanish qualifications framework for higher education) with the framework for qualifications of the European higher education area (FQ-EHEA). <http://www.aneca.es/Sala-de-prensa/Noticias/2014/Informe-sobre-la-Autocertificacion-del-Marco-Espanol-para-las-Cualificaciones-de-la-Educacion-Superior> MECES Acronym

Table 9: Vocational education and training system chart



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NB: ISCED-P 2011. The Spanish education system is not referenced to EQF levels.  
Source: Cedefop and ReferNet Spain, 2022.



## 4. Textile Courses

### 4.1 European programme

Since 2018, 21 partners representing textile, clothing, leather, and footwear (TCLF) industries, universities, VET providers, and accreditation bodies from nine countries (Belgium, Bulgaria, France, Greece, Italy, Poland, Portugal, Romania, and Spain) have been implementing the 'Skills4Smart TCLF Industries 2030' project.

By developing new qualifications (textile technologist, 3D CAD pattern maker, 3D CAD footwear developer, leather technologist, and the so-called transversal qualifications: supply chain analyst, sustainability technician, digital marketing professional, processes and production timeline analyst), as well as developing the TCLF skills strategy, the project has modernized and made the European TCLF sectors more competitive.

According to the project research, the new qualifications take into account industry transformations brought about by new technologies and digitalisation in fashion. Transversal qualifications also include competencies in production sustainability, e-commerce, supply chain adequacy in the context of globalization, and climate challenges.

For each qualification, massive open online courses (MOOCs) were developed that are appropriate for training in the context of COVID-19. A total of 213 lessons and 51 sets of exercises and assessments were adapted for online delivery in 10 languages, utilizing a wide range of e-learning content combined with suggested work-based activities, which will improve and consolidate the desired learning outcomes. The MOOCs are at EQF level 5 and are aimed at both new VET learners and employees looking to upskill/reskill.

<https://s4tclfblueprint.eu/>

### 4.2 Hellenic Textile Courses

There are primarily private schools in Greece that offer textile and clothing courses. PANSiK fashion school offers one-, two-, and three-year programs, in addition to intensive courses. There are three fundamental pillars of fashion studies: fashion creation and construction, fashion styling, and fashion promotion and communication.

Through seminars, students at the Romina Karamanea Fashion School learn the fundamentals of textile processing and use their hands and sewing machines to create textures and three-dimensional surfaces inspired by organic shapes found in nature. Charm Pack is a seminar-based school where participants can learn to sew garments, bags, and embroidery, among other things. As a seminar, Ascardamykti KDBM offers two cycles of courses. The natural yarn dyeing course is designed for knitters and weavers who wish to learn natural techniques for dyeing yarn. The textile design course is designed for clothing



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designers, decorators, cocoon designers, and non-specialists interested in learning traditional and contemporary textile design techniques.

Master of Textile Engineering from University of West Attica, Athens, is another option. It is a two-year master's degree program in the field of textile engineering and remains a unique program offering advanced education in Textile Engineering that incorporates the most recent advancements in the textile industry as well as modern teaching methods.

Public employment Service/DIPA has the specialty "Fabric - Clothing," in which the worker is a skilled craftsman who performs tasks related to the design and manufacture of ready-made garments using computers and CAD systems and attends courses for technical knowledge.

The Department of Creative Design and Clothing (DSE-Kilkis) is part of the International University of Greece's School of Design Sciences. It provides academic knowledge and skills at the undergraduate level in the field of creative design in Clothing, based on the model of comparable undergraduate level study programs in Europe.

To summarize, in Greece, we have private schools that offer certification through seminars such as:

- PANSiK
- Romina Karamanea Fashion School
- Ascardamykti KDBM

And public institutions such as:

- Public employment Service/DIPA
- University of West Attica
- International University of Greece

<https://studyinggreece.edu.gr/why-greece/education-in-greece/heis/public/uniwa/>

<https://www.pansik.gr/en/fashion-courses>

<https://www.rkfashionschool.com/epikoinonia>

<https://charm-pack.gr/seminaria-roychon/>

<https://www.askardamykti.com/textiles-design>

<https://www.dypa.gov.gr/yfasmatos-endyshs>

<https://www.ihu.gr/tmimata/dimiourgikou-sxediasmou-endysis>

### **4.3 Romania Textile Courses**

Romania offers a bachelor's degree from the "George Enescu" National University of Arts, Department Textile Arts - Textile Design. The goal of this study program is to train competent specialists in the artistic dimension of contemporary textiles, as well as in the design of textile objects and print collections in response to specific trends and requests based on historical perspectives and the evolution of design principles.

The Department of Textiles, Leather, and Industrial Management at the University of Oradea's Faculty of Energy Engineering and Industrial Management offers bachelor's and master's degrees. A bachelor's degree in knitting and garment technology (TTC) and a master's degree in quality management and consumer protection in textiles – leatherworks.



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Bachelor's Degree in Industrial Design is available at Gheorghe Asachi Technical University of Iasi. Students/future engineers in the Industrial Design program are prepared for careers in the fashion and textile industries. The goal of this program is to prepare engineers with the abilities, skills, and attitudes necessary to solve problems related to products, processes, and services, such as design, development, and management of integrated systems (people, materials, equipment, and information specific to clothing and textile industry).

To sum up, in Romania we have:

- "George Enescu" National University of Arts,
- University of Oradea
- Gheorghe Asachi Technical University of Iasi

<https://www.arteiasi.ro/en/faculty-of-visual-arts-and-design-2/undergraduate-programs/textile-arts-textile-design/>

<https://www.arteiasi.ro/en/faculty-of-visual-arts-and-design-2/undergraduate-programs/>

<https://textile.webhost.uoradea.ro/en/>

<https://www.bachelorstudies.com/Bachelors-Degree-in-Industrial-Design/Romania/TUIASI/>

## **4.4 Dutch Textile Courses**

In Holland, there is a wide variety of coursework available for students interested in pursuing bachelor's and master's degrees in the field of textiles and clothing.

Saxion University of Applied Sciences offers a BSc program in Fashion and Textile Technologies.

The AMFI-Amsterdam Fashion Institute (Amsterdam University of Applied Sciences) bachelor's degree program in Fashion and Textile Technologies provides a solid foundation for students' careers in the Dutch or international fashion industries. The students can focus on developing branding, design, business, and development skills, or a combination of these areas.

ArtEZ (Arnhem, Enschede, and Zwolle) is the Netherlands' largest art university, offering a comprehensive range of preparatory courses, Bachelor's and Master's programs in fashion and design. The Royal Academy of Art in The Hague (KABK) Textile and Fashion department has a distinct profile. Students will be taught how to recognize and develop their own authentic talent, as well as their personal perspective on textile, fashion, and the spirit of the times.

The department Fashion with Textiles Design at Amsterdam Fashion Academy offers a bachelor's degree. Fashion design is becoming a more competitive field in today's industrial and commercial climate. This is a cutting-edge, innovative course that prepares students for careers in the fashion design industry.

To summarize, the choices available in Holland are as follows:

- Saxion University of Applied Sciences
- Amsterdam University of Applied Sciences
- AMFI-Amsterdam Fashion Institute
- ArtEZ
- Hogeschool van Amsterdam



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- Amsterdam Fashion Academy
- Royal Academy of Art, the Hague
- Gerrit Rietveld Academie

<https://www.hotcoursesabroad.com/study/training-degrees/netherlands/fashion-courses/loc/131/cgory/f4-3/sin/ct/programs.html>

[https://www.studyinholland.co.uk/course/study\\_in\\_enschede/saxion\\_university\\_of\\_applied\\_sciences\\_enschede/textile\\_engineering\\_management.html](https://www.studyinholland.co.uk/course/study_in_enschede/saxion_university_of_applied_sciences_enschede/textile_engineering_management.html)

<https://search.geebeeworld.com/search/Netherlands-All-Textile>

<https://www.educations.com/search/textiles-netherlands/c2884-d1009>

<https://www.bachelorsportal.com/study-options/268451972/fashion-textiles-and-luxury-goods-netherlands.html>

## 4.5 Polish Textile Courses

The Faculty of Material Technologies and Textile Design at the Technical University of Lodz offers a Bachelor's and Master's Programme. Students gain knowledge of the history and theory of art and design, as well as creative activity and, depending on the specialization chosen, material techniques, technologies, and solutions used in industry. It educates field specialists with high potential for innovation. The curriculum teaches students how to design and engineer textiles for medical, sports, and transportation applications using cutting-edge material technologies. Students also learn how to create specialized textile applications for a wide range of human activities.

Viamoda Industrial - University of Design Technology and Management is a new international fashion and design school on the Polish education market. Students can find work in apparel and textile companies, fashion retail companies, professional media, marketing, and consulting firms, and institutions related to the fashion industry.

To summarize some of the options in Poland:

- Master Art and design with specific unit Faculty of Material Technologies and Textile Design from University of Technology
- Bachelor's and Master's in Textile Engineering - Clothing Science and Technology from Lodz University of Technology
- Textile Engineering from Lodz University of Technology
- Textile Institute
- Viamoda Industrial - University of Design Technology and Management

<http://programy.p.lodz.pl/>

<https://www.bachelorstudies.com/Bachelor/Fashion-Design/Poland/>



## 4.6 Latvia Textile Courses

The Department of Clothing and Textile Technologies of the Institute of Technology and Design of Textile Materials of the Faculty of Materials Science and Applied Chemistry, Riga Technical University, implements the study program "Textile and Clothing Technology" (RTU). The study program was created on the basis of the engineering study program "Textile and Clothing Technology," with specialization options expanded based on market demand.

A master's degree in Creative Pattern Cutting and Fashion Design from Riga's Banku Augstskola School of Business and Finance. The program is designed to meet the employability needs of the fashion industry, as well as to introduce practices relevant to fashion design that are currently used in the apparel industry at all levels of the market, from high street to luxury brands.

In Latvia, students can earn both bachelor's and master's degrees in textiles and clothing. Some examples are:

- Bachelor of Clothing and Textile Technology from the Riga Technical University;
- Master of Fashion Retail and Luxury Management from the Riga School of Business and Finance. The student obtains a comprehensive understanding of the retail industry, gaining the knowledge and management skills necessary for a rewarding career in this sector.
- Bachelor and master's degrees in Textile art from the Art Academy of Latvia.

<https://www.bachelorsportal.com/studies/194166/clothing-and-textile-technology.html>

<https://international.rtu.lv/riga-technical-university-rtu/bachelors-studies/clothing-and-textile-technology-bachelors/>

<https://studyqa.com/latvia/fashion-textiles-and-luxury-goods>

## 4.7 Spanish Textile Courses

The International Master of Science in Textile Engineering is a two-year master's degree program offered by Ghent University's Faculty of Engineering and Architecture that educates the next generation of textile engineers.

IED - Istituto Europeo di Design Barcelona's Master in Design for Sustainable Fashion Technology prepares professionals to lead design and production processes aimed at fashion technology, such as applying soft textile surfaces, paying special attention to digital design, creating prototypes, interacting and working with new materials.

GBSB Global Business School's Master in Fashion and Luxury Business Management program is designed for students interested in business, management, and the fashion and luxury goods industries. The Fashion and Luxury Business programme from EU Business School prepares students for brand projection by focusing on business management skills and consumer attitudes toward luxury products, with an emphasis on design and creativity.

TBS Education MSc Fashion & Luxury Marketing is internationally oriented and highly specialized in the Fashion & Luxury sectors. While building and developing participants' careers, the program will provide students with relevant insights to operate in the rich, challenging context of luxury industries.

Terrassa School of Industrial, Aerospace, and Audiovisual Engineering (ESEIAAT) offers a Master's degree in Textile Design and Technology. The master's degree in Textile Design and Technology is





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intended to contribute to the technical and scientific training of professionals and to prepare them for employment in a wide range of textile-related industries, from spinning and fabric production to the design of innovative products and functional finishes.

Students in Spain can pursue a degree in textile from:

- Master in Design for Sustainable Fashion Technology, IED – Istituto Europeo di Design Barcelona
- International Master of Science in Textile Engineering, Ghent University - Faculty of Engineering and Architecture
- Fashion and Luxury Business, Barcelona - Munich Campus
- Fashion & Luxury Marketing (Barcelona), TBS Education -
- Fashion and Luxury Business Management, GBSB Global Business School
- Fashion Styling and Communication - IED Madrid, School of Fashion
- Fiber design and textile processes, Poli Design by Politecnico di Milano
- Textile Engineering, Polytechnic University of Valencia
- Textile Design and Technology, Terrassa School of Industrial, Aerospace and Audiovisual Engineering (ESEIAAT)

<https://www.masterstudies.com/Masters-Degree/Textiles/Spain/>

<https://www.mastersportal.com/study-options/268828804/fashion-textiles-and-luxury-goods-spain.html>

<https://www.upc.edu/en/masters/textile-design-and-technology>



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- XXVIII. <https://www.mastersportal.com/study-options/268828804/fashion-textiles-and-luxury-goods-spain.html>
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