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A.4.3: Elaboration of an action plan for the integration of EV skills requirements into ESCO classification system and national qualification frameworks.

Deliverable 4.3

19/12/2024



Project details

Project acronym: EVTECH
 Project name: Electric Vehicles' maintenance and safety skills for car technicians
 Project code: KA220-VET-000089375

Document Information

Document ID name: EVTECH_WP4_A4.3_2024-12-19
 Document title: A.4.3: Elaboration of an action plan for the integration of EV skills requirements into ESCO classification system and national qualification frameworks.
 Output Type: Report
 Date of Delivery: 19/12/2024
 Activity type: Report
 Activity leader: CKZ
 Dissemination level: Public

Document History

Versions	Date	Changes	Type of change	Delivered by
Version 1.0	14/12/2024	Initial Document	--	CKZ
Version 2.0	17/12/2024	Adding information	--	EXCELIA
Version 3.0	19/12/2024	Final document	--	CKZ

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Executive Summary

This document outlines the implementation strategy for integrating EVTECH qualifications into national education systems across Poland, Greece, Denmark, Spain, and Belgium, as well as their incorporation into the European ESCO framework.

The action plan begins with an introduction that provides the context, objectives, and scope of implementing EVTECH qualifications. It highlights the importance of aligning educational standards with industry needs to improve workforce skills across participating countries.

Section 2 details the education systems in each of the five target countries:

- **Poland:** Analyzes the structure of the Polish education system and addresses how EVTECH qualifications can be integrated effectively.
- **Greece:** Examines Greece's educational framework and describes its potential pathways for adopting EVTECH qualifications.
- **Denmark:** Reviews Denmark's well-developed education system and discusses its capacity to incorporate EVTECH programs.
- **Spain:** Provides an overview of Spain's education system and identifies opportunities for embedding EVTECH qualifications.
- **Belgium:** Assesses Belgium's education system with a focus on key strategies for successful implementation.

Section 3 shifts focus on the ESCO (European Skills, Competencies, Qualifications and Occupations) system. It explains the relevance of the ESCO framework in harmonizing qualifications across Europe and discusses specific approaches for integrating EVTECH standards into this system, ensuring cross-border recognition and alignment with labor market needs.

The document concludes with references supporting the analysis and strategy presented.

This action plan serves as a foundational roadmap for stakeholders aiming to enhance skill development and ensure the seamless adoption of EVTECH qualifications within national and European educational frameworks.



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1. INTRODUCTION OF THE ACTION PLAN

An action plan for the integration of EV skills requirements into ESCO classification system and national qualification frameworks document contains the following areas:

- ✓ **Information about implementation EVTECH qualifications into the national education systems** - contains graphical information about the education systems in Poland, Greece, Denmark, Spain and Belgium, as well as short instructions on how to implement the EVTECH qualifications for electric cars into individual education systems.
- ✓ **Information about implementation EVTECH qualifications into the ESCO system** - contains short information about the ESCO system, as well as information on how to implement EVTECH qualifications from the area of electric cars into the pan-European ESCO system.



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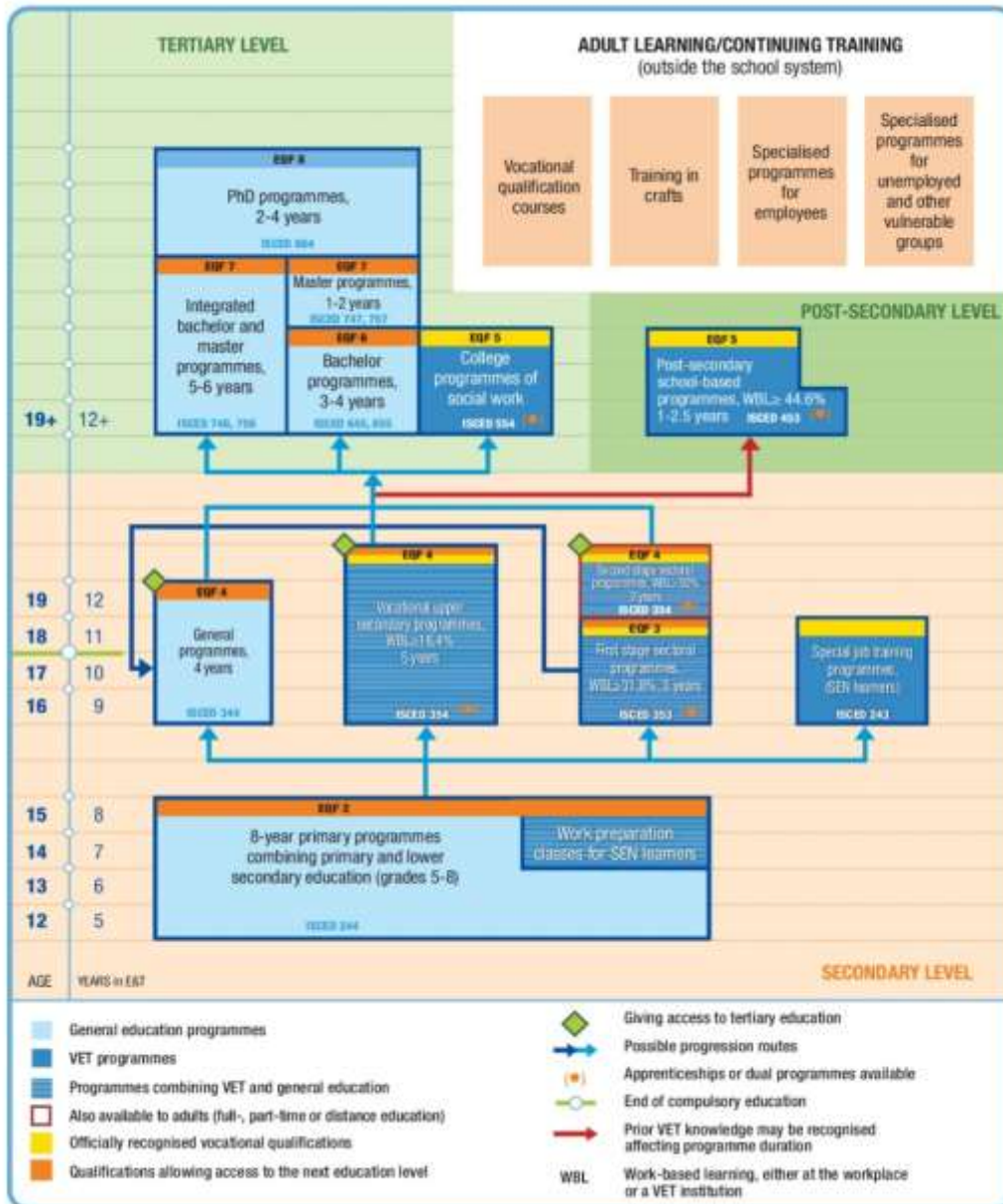


2. INFORMATION ABOUT IMPLEMENTATION EVTECH QUALIFICATIONS INTO THE NATIONAL EDUCATION SYSTEMS

In this part of the report we will focus on presenting the educational systems in the countries of the EVTECH project partners, as well as instructions on how to implement the EVTECH qualification in the area of maintenance and safe operation of electric cars.

2.1.1 EDUCATION SYSTEM IN POLAND

Vocational education and training system chart: Poland



NB: ISCED-P 2011.
 Source: Cedefop, & Educational Research Institute (IBE). (2023). Vocational education and training in Europe – Poland: system description.
 In Cedefop, & ReferNet. (2024). Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions [Database].
www.cedefop.europa.eu/en/tools/vet-in-europe/systems/poland-u3

Picture 1: Polish education system¹

¹ „Polish education system”, CEDEFOP, December 14, 2024, <https://www.cedefop.europa.eu/en/tools/vet-in-europe/systems/poland-u3>

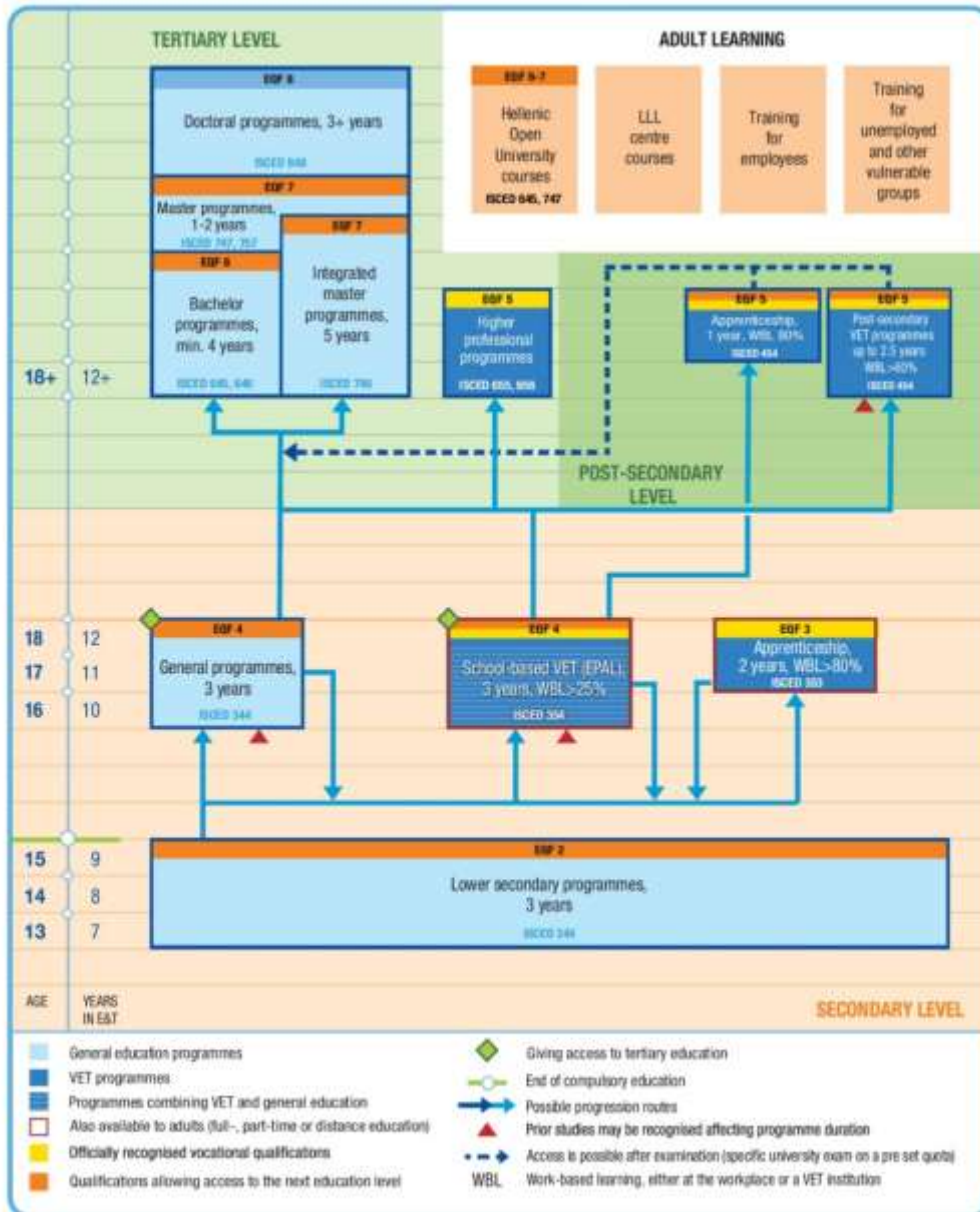
2.1.2. IMPLEMENTATION EVTECH QUALIFICATIONS INTO THE POLISH EDUCATION SYSTEM

As of September 1, 2024, a new profession has been introduced in the Polish education system: **Electromobility Technician**. This profession has two separate professional qualifications, from which students studying in this profession will pass exams confirming professional qualifications (EPKZ) in the state examination system. A mandatory core curriculum has been defined for the profession. There are two professional qualifications within this profession: **MOT.02. Service, diagnosis and repair of mechatronic systems of motor vehicles**. **MOT.07. Organization and conduct of the service and repair process of zero-emission and low-emission vehicles**. The online course developed as part of the EVTECH project largely fits into the core curriculum specified for the MOT.07 qualification. However, the core curriculum for this qualification covers a wider range of program content. Therefore, the EVTECH Course can be used as a tool supporting education within the indicated qualification. It will be excellent support for teachers teaching in this area and a very good tool for self-education carried out by students or other people who want to prepare as best as possible for the exam confirming professional qualifications from the MOT.07 qualification. In this case, after passing the exam, the student will receive a state certificate issued by the District Examination Board. This task can also be carried out as part of the Vocational Qualification Courses (KKZ). Another way to use the materials developed within EVTECH may be to prepare interested people to carry out professional tasks in the area of electromobility as part of the Vocational Skills Course (KUZ). This preparation can be carried out by vocational schools or other educational institutions operating in the field of vocational education. In this case, the training program is determined by the training unit. The scope of the training may include only selected areas of the core curriculum included in the scope of the MOT.07 qualification. For this form of improvement, the EVTECH course can fully meet the educational needs of course participants and the training unit. At the end of the KUZ, the training unit issues a certificate to the training participant confirming the acquired skills, which is recognized by employers. The EVTECH course can also find a very wide application in vocational education within the current profession of Automotive Technician. Students studying in this profession implement the core curriculum of vocational education in the first four years of study. In the last year (fifth), vocational subjects are focused on acquiring additional skills that go beyond the core curriculum of the profession. The school conducting the education decides itself what additional vocational skills it wants to equip its students with. In this case, the EVTECH course can be the basic teaching tool for carrying out this task. The student will receive the results of education in this area on the school leaving certificate. The school may also issue a separate certificate confirming the acquisition of skills in the field of electromobility.



2.2.1. EDUCATION SYSTEM IN GREECE

Vocational education and training system chart: Greece



NB: ISCED-P 2011.
 Source: Cedefop, & National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP). (2023). Vocational education and training in Europe – Greece: system description. In Cedefop, & ReferNet. (2024). Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions [Database]. www.cedefop.europa.eu/en/tools/vet-in-europe/systems/greece-u3

Picture 2: Greek education system²

² „Greek education system”, CEDEFOP, December 14, 2024, <https://www.cedefop.europa.eu/pl/tools/vet-in-europe/systems/greece-u3>

2.2.2. IMPLEMENTATION EVTECH QUALIFICATIONS INTO THE GREEK EDUCATION SYSTEM

EOPPEP, the National Organisation for the Certification of Qualifications and Vocational Guidance, is a comprehensive statutory body dedicated to enhancing the quality, efficiency, and reliability of lifelong learning services in Greece.

Operating under the supervision of the Minister of Education, Research, and Religious Affairs, EOPPEP is based in Athens. It was formed through the merger of three national organizations, all previously overseen by the same Ministry: the National Centre for the Accreditation of Lifelong Learning Providers (EKEPIS), the National Organisation for the Certification of Qualifications (EOPP), and the National Centre for Vocational Guidance (EKEP).

The recently established National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP) addresses the critical need for a comprehensive and interconnected policy framework for the development of lifelong learning and qualification certification in Greece. It connects with the open market and meets the needs of citizens, a key priority in EU policy³.

The EVTECH Open Educational Resources (OERs) can be implemented into the Greek educational system as part of an already accredited educational profile, based on their specifications, that of the “vehicle mechatronics technicians”. An Institution that provides training for this specific specialty can integrate the EVTECH curriculum into its certified training program and, thus, give its trainees the opportunity to acquire the title of “EV mecnatronics technician.”⁴ According to the training programs for “vehicle mechatronics technicians” already existing in Greece, the graduates of the Vocational Training Institutes (Institouta Epaghelmatikis Katartisis - IEK) that are trained for this professional profile have the following characteristics:

- Definition of specialty

The "Vehicle mechatronics technician", having knowledge of Mechanical Engineering, Electrical Engineering, Electronics and Information Technology, works in the field of maintenance (planned or not), inspection, diagnosis, repair of components, mechanisms and systems of vehicles (cars and motorcycles) according to the specified instructions of the manufacturer.

³ “Qualification Framework,” Qualification Framework, accessed December 17, 2024, <https://www.eoppep.gr/index.php/en/qualifications-certification-en>.

⁴ Minedu, accessed December 17, 2024,

https://gsvetlly.minedu.gov.gr/publications/docs2023/Οδηγός_Κατάρτισης_Τεχνικός_μηχανοτρονικής_οχημάτων.pdf.



They follow and adhere to the prescribed safety instructions for themselves and the environment. The workplace may be self-contained or part of an integrated vehicle service unit.

- Responsibilities/Duties

The “vehicle mechatronics technicians” exercise (indicatively and not restrictively) the following responsibilities/duties:

- Maintenance work (scheduled or unscheduled),
- Inspections, checks and adjustment of components, mechanisms and equipment,
- Repairs and replacement of components, mechanisms and systems,
- Connection and activation of the appropriate and necessary devices, installment of the necessary and appropriate equipment to diagnose fault(s),
- Maintenance and programming of vehicle mechatronic systems,
- Workload and cost estimates,
- Arrangement for the supply of the appropriate and necessary materials and supplies,
- Control of the quantity and suitability of materials and components,
- Assurance of the prescribed safety and security measures for workplace protection,
- Tools, devices and machinery operation and maintenance with due care and attention

manufacturing industries

- Registration requirements

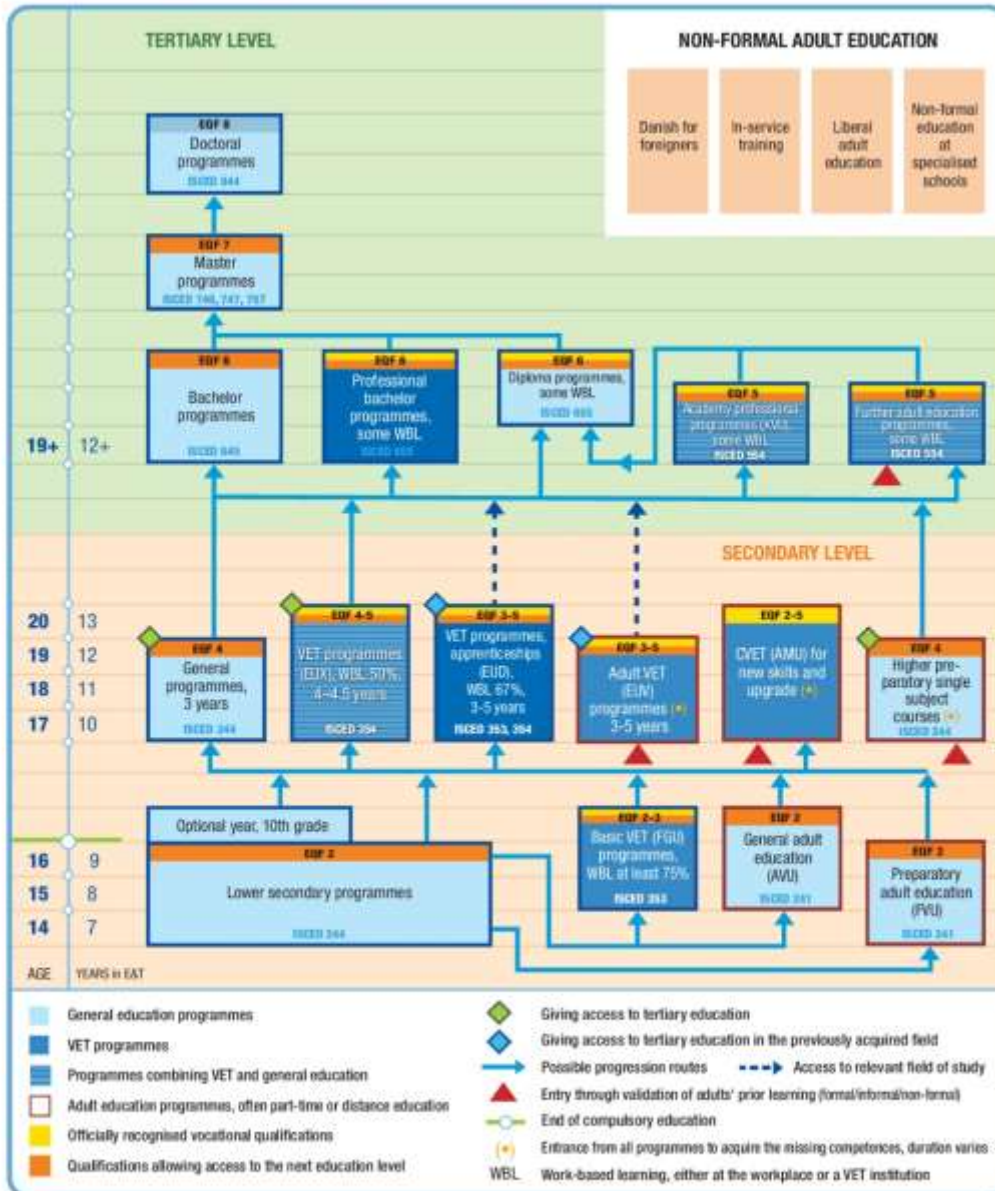
A prerequisite for registration is that the interested parties must hold a secondary school certificate, as follows:

General Lyceum (GEL), Vocational Lyceum (EPAL), Technical Vocational Lyceum (TEL), Single Polytechnic Lyceum (EPL), Technical Vocational School (TEE) of the 2nd cycle of studies, as well as the equivalent to the above-mentioned titles.

The general conditions for enrolment in IEKs are regulated in the applicable legislation. 'Regulation on the Operation of Vocational Training Institutes (VET Institutes)'.

2.3.1. EDUCATION SYSTEM IN DENMARK

Vocational education and training system chart: Denmark



NB: ISCED-P 2011.
Source: Cedefop, & University College Copenhagen (UCC). (2023). Vocational education and training in Europe – Denmark: system description. In Cedefop, & ReferNet. (2024). Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions [Database]. www.cedefop.europa.eu/en/tools/vet-in-europe/systems/denmark-u3

Picture 3: Danish education system⁵

⁵ „Danish education system”, CEDEFOP, December 14, 2024, <https://www.cedefop.europa.eu/en/tools/vet-in-europe/systems/denmark-u3>

2.3.2. IMPLEMENTATION EVTECH QUALIFICATIONS INTO THE DANISH EDUCATION SYSTEM

It is the professional committees that 100% decide which competences must be achieved to become a skilled worker in Denmark. The professional committees consist of an equal representation of employer organisations and employee organisations (trade unions). In the case of passenger car mechanics, the professional committee is Metal Industry Training Committee (MI).

MI is the metal industry's professional committee and continuing education committee under Dansk Metal, DI and TEKNIQ Arbejdsgiverne - Industri & Installation. MI is responsible for the development and maintenance of a wide range of vocational and continuing education programmes. MI is organised in a number of subcommittees called development groups, <https://iu.dk/udvalg/iu-udvalg/iu-udvalg/metalindustriens-uddannelsesudvalg-mi/> .

UG3 Mechanic area The development group develops and maintains vocational and continuing education in the mechanic field.

<https://iu.dk/udvalg/iu-udvalg/iu-udvalg/metalindustriens-uddannelsesudvalg-mi/ug3-mekanikeromradet/>

Responsible person: Morten Møldrup, Training consultant, E-mail: mom@iu.dk .

Learning content in the Danish vocational education programs:

The competence objectives in Danish vocational education are determined by the Vocational Committees. Each of the 101 vocational education programs in Denmark is associated with a Vocational Committee.

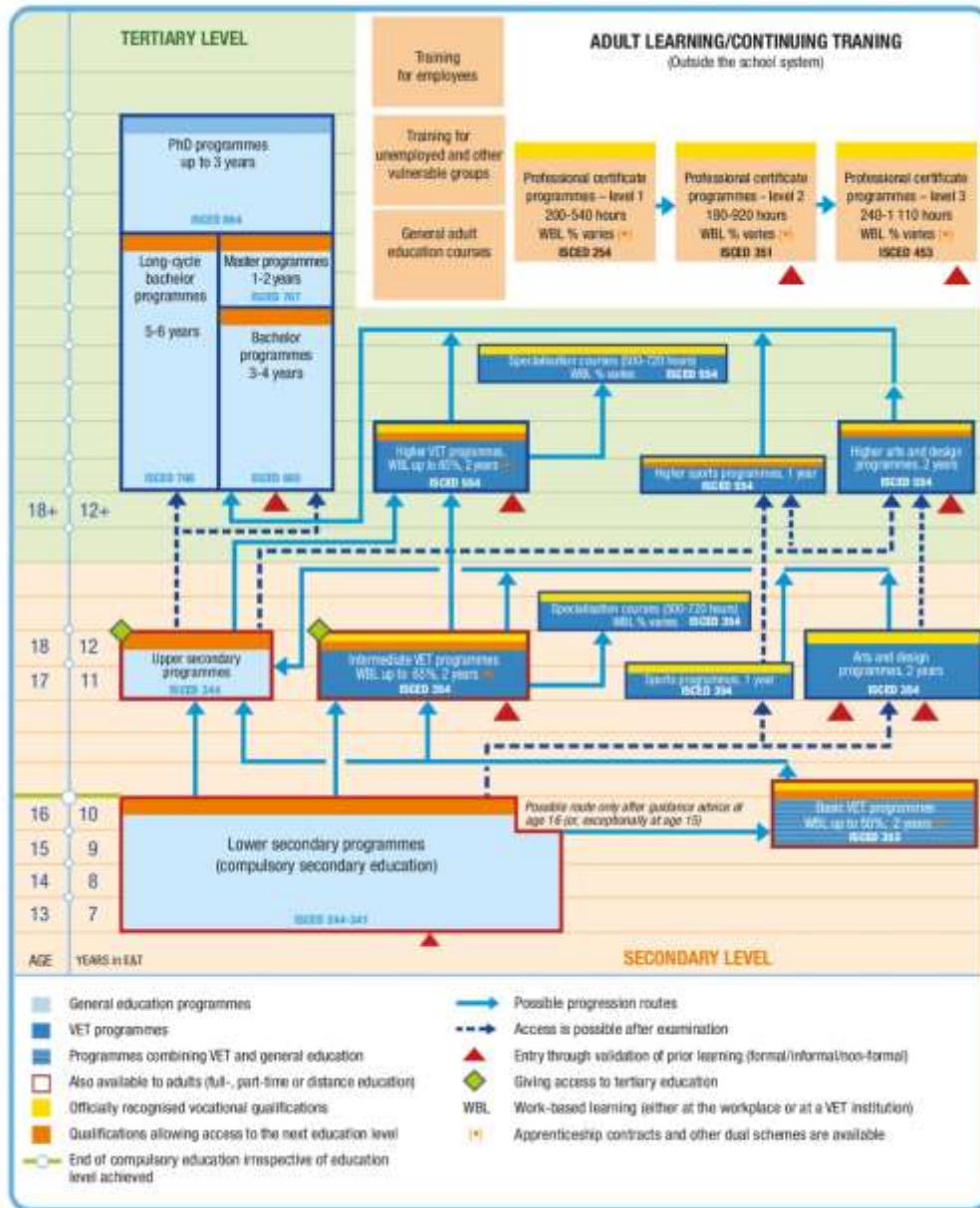
The Vocational Committees are represented by the partners in the Danish labor market - the employers' associations and trade unions - and their members. This means that the programs are directly linked to the skills needs of the industry.

The competence goals are translated by the Ministry of Education into Education Orders. Subsequently, these decrees are transformed into Training Regulations by the Vocational Committees. Finally, the Training Regulations are turned into Local Education Plans by the Vocational Schools.

In other words, it is ultimately the Vocational Committees that determine the learning content of the Danish vocational education programs.

2.4.1. EDUCATION SYSTEM IN SPAIN

Vocational education and training system chart: Spain



NB: ISCED-P 2011. The Spanish education system is not referenced to EQF levels.
 Source: Cedefop, & State Foundation for Training in Employment (Fundae), (2023). Vocational education and training in Europe – Spain: system description. In Cedefop, & ReferNet. (2024). Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions [Database]. www.cedefop.europa.eu/en/tools/vet-in-europe/systems/spain-u3

Picture 4: Spanish education system⁶

⁶ „Spanish education system”, CEDEFOP, December 14, 2024, <https://www.cedefop.europa.eu/en/tools/vet-in-europe/systems/spain-u3>

2.4.2. IMPLEMENTATION EVTECH QUALIFICATIONS INTO THE SPANISH EDUCATION SYSTEM

Education authorities are responsible for formal vocational training (VET) programs and qualifications. Labor authorities are responsible for VET in the framework of active labor market policies. They share the same consultation bodies but maintain their own governance systems and objectives.

Organic Law 3/2022 establishes a single, modular and flexible offer of formal vocational training, structured in training itineraries, from “micro-training” to full qualifications. Its gradual implementation is foreseen from 2023- 2024.

The General Council for Vocational Training is the consultative body of the public administrations in the field of VET policy. It is composed of representatives of state and regional administrations, employers' organizations and trade unions. Stakeholders collaborate in the design of vocational qualifications in all sectors of the economy and participate in the design of VET qualifications.

VET offers basic, intermediate and higher VET qualifications as part of the education system. The programs last two years (two thousand hours) and include work-based learning in a company and in a VET centre. Specifically:

- basic cycles (ISCED 353) can be started in the last year of compulsory education. They allow students at risk of dropping out of school to develop basic skills, prepare for an occupation (such as agro gardening) and obtain a basic VET qualification. Students can go on to upper secondary VET and obtain the compulsory secondary education diploma, which opens the pathway to general education.
- intermediate cycles lead to technical qualifications at ISCED 354 level (such as cookery and gastronomy). Through an admission procedure, it is possible to access higher vocational training in the same field of study.
- at the tertiary level, higher level cycles (ISCED 554) lead to a higher technical qualification (e.g. logistics coordinator).

Graduates can enter bachelor's degree programs through an admission procedure. Graduates of intermediate and higher cycles can take short specialization courses in the same field of study to acquire specific digital and professional skills in line with the emerging needs of the economy.

All IVET programs allow students to participate in a real work environment. The 2022 Law introduced two regimes (general regime and intensive regime) that include social security contributions for apprentices and a paid contractual relationship if on-the-job training exceeds 35% of the program duration (intensive regime).

There are specific programs in plastic arts and design and in sports (4 % of VET students in 2021-2022).

Adults can take the same VET programs as young people or access a vocational training program leading to a vocational certificate corresponding to an occupational profile, organized in three levels. Students can move from one level to another in the same field of study. Level 2 and 3 programs require

completion, respectively, of compulsory secondary education or upper secondary education, or equivalent. The duration varies depending on the learning outcomes.

All three levels include work-based learning and can be followed in dual mode. Adults can also obtain recognition of their skills through a validation process.

Only authorized public and private VET providers can offer programs leading to formal vocational qualifications.

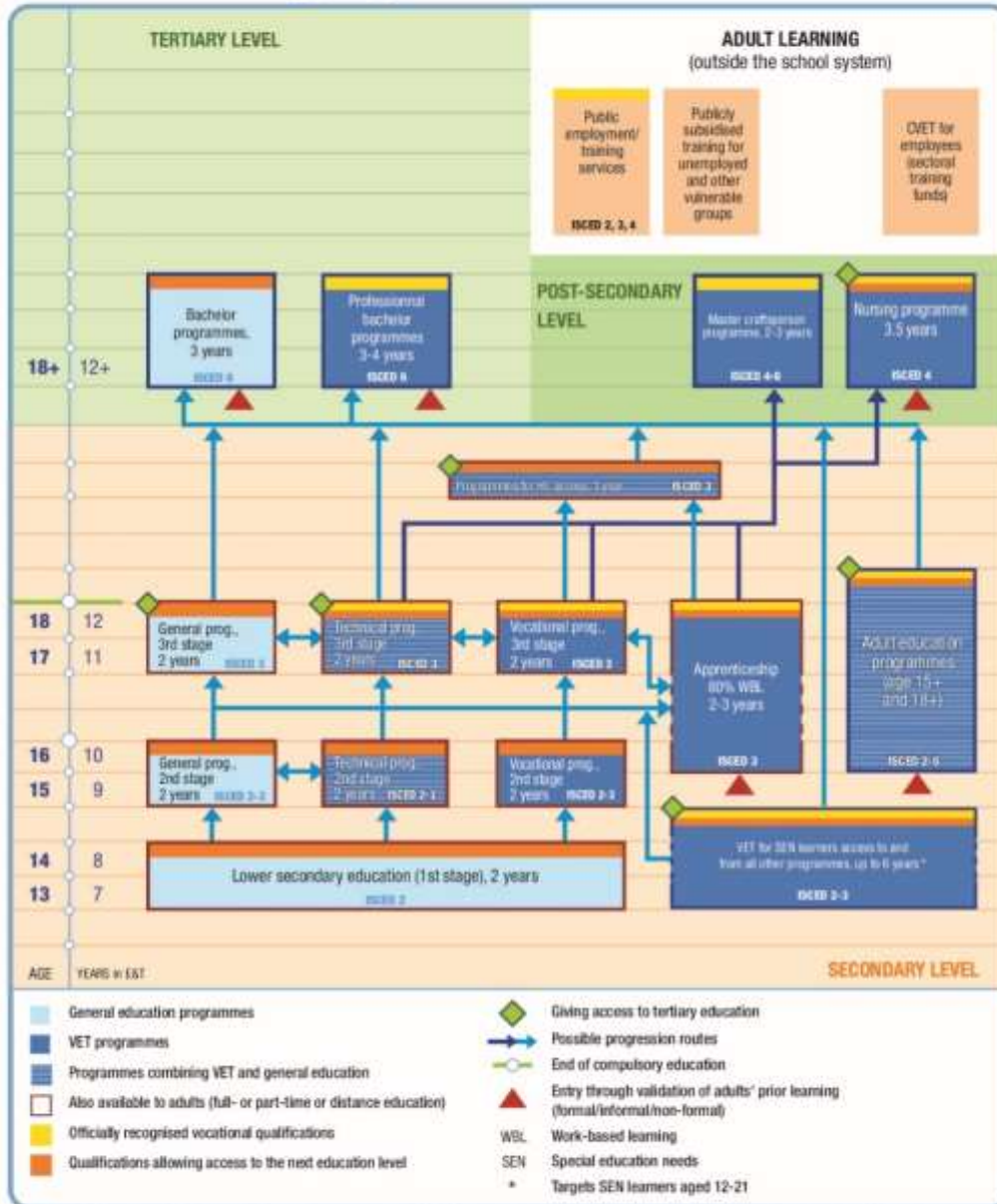
Non-formal VET includes a wide range of courses, designed for different needs and professional profiles, allowing for skills upgrading or retraining.

It can be financed through public funds, mainly from the social security contributions of companies and workers. Publicly funded programs (Specialties) not linked to the National Catalogue of Professional Qualifications (CNCP) are included in a catalogue of training specialties of the State Public Employment Service; providers of such programs must register as such.



2.5.1. EDUCATION SYSTEM IN BELGIUM

VET in the Belgian (BE-de) education and training system



NB: ISCED-P 2011 and EQF referencing has not yet been done. ISCED-2011 one digit code used in the chart is estimated by the Ministry of Education of the German-speaking Community.

Please cite as: Cedefop, ReferNet Belgium (2022). VET in the Belgian (BE-de) education and training system. In: Cedefop, ReferNet (2022). Vocational education and training in Europe [database]. www.cedefop.europa.eu/en/tools/vet-in-europe

Picture 5: Belgian education system⁷

⁷ „Belgian education system”, CEDEFOP, December 14, 2024, <https://www.cedefop.europa.eu/en/tools/vet-in-europe/systems/belgium-u3>

2.5.2. IMPLEMENTATION EVTECH QUALIFICATIONS INTO THE BELGIAN EDUCATION SYSTEM

The SFMQ (Service Formation et Management de la Qualité, or in English, the Training and Quality Management Service) is an organisation in Belgium that focuses on the integration of training qualifications within the education system. Their role primarily involves ensuring that the qualifications awarded through various educational and training programs meet the required quality standards and align with the evolving needs of the labor market. They focus on quality assurance, certification, curriculum development, and the promotion of lifelong learning to ensure that qualifications are relevant, recognized, and accessible to all learners.

In Belgium, the training pathway for becoming a vehicle mechatronics technician typically begins with secondary technical education (TSO), where students undergo a 4–6-year program focused on automotive mechanics and mechatronics, combining practical workshop training with theoretical knowledge. Following this, students can pursue higher education through bachelor's programs in automotive engineering or mechatronics (offered by institutions like universities of Applied Sciences). These programs, which last around three years, provide a deeper understanding of both mechanical and electronic vehicle systems. Additionally, apprenticeships with automotive companies offer valuable hands-on experience. Upon completion, students typically receive certifications or diplomas recognised nationally and across the EU, equipping them to work as qualified technicians in the automotive sector.

3. INFORMATION ABOUT IMPLEMENTATION EVTECH QUALIFICATIONS INTO THE ESCO SYSTEM

3.1. ESCO SYSTEM

ESCO⁸ (European Skills, Competences, Qualifications and Occupations) is the European multilingual classification of Skills, Competences and Occupations.

ESCO works as a dictionary, describing, identifying and classifying professional occupations and skills relevant for the EU labour market and education and training. Those concepts and the relationships between them can be understood by electronic systems, which allows different online platforms to use ESCO for services like matching jobseekers to jobs on the basis of their skills, suggesting trainings to people who want to reskill or upskill etc.

ESCO provides descriptions of 3,039 occupations and 13,939 skills linked to these occupations, translated into 28 languages (all official EU languages plus Icelandic, Norwegian, Ukrainian, and Arabic).

The aim of ESCO is to support job mobility across Europe and therefore a more integrated and efficient labour market, by offering a “common language” on occupations and skills that can be used by different stakeholders on employment and education and training topics.

ESCO is a European Commission project, run by Directorate General Employment, Social Affairs and Inclusion (DG EMPL). It is available in an online portal and can be consulted free of charge. Its first full version (ESCO v1) was published on the 28th of July 2017. The latest version of the classification can be [downloaded](#) or retrieved through the [ESCO API](#).

3.2. IMPLEMENTATION EVTECH QUALIFICATIONS INTO THE ESCO SYSTEM

The procedure for implementing vocational training qualifications into the ESCO (European Skills, Competences, Qualifications and Occupations) system involves several steps. ESCO is the European Commission's initiative aimed at mapping and linking skills, competences, qualifications, and occupations to help improve transparency, accessibility, and mobility within the European labour market.

The implementation of vocational training qualifications into the ESCO system involves reviewing existing qualifications and aligning them with ESCO's framework. This includes defining the relevant skills and competences, linking them to ESCO's taxonomy, and mapping them to specific occupations.

⁸ „ESCO system description”, ESCO, December 14, 2024, <https://esco.ec.europa.eu/en/about-esco/what-esco>



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The EVTECH partnership recognised the skills and competences needed for the occupational profile of an “EV mechatronics technician” and contacted ESCO to suggest the establishment of the profile. The ANNEX concludes the information provided to ESCO in detail.



4. REFERENCES

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