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Spotlight on VET

COMPILATION

Vocational education and training systems in Europe

2024

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VET in Austria

Austrian vocational education and training (VET) ranks high, as demonstrated by its differentiated offer and high attractiveness: around 70% of each age cohort follow a VET path at the end of compulsory education. The final year of compulsory education (year 9) and the first of upper secondary education coincide. Most school-based VET comes under the remit of the education ministry. Governance of apprenticeship is shared by the ministries of economy (company-based track) and education (school-based track), the social partners and the *Länder.* There is also a variety of VET programmes at tertiary level and for adults.

Upper secondary level

Alongside general education programmes, learners can choose from various VET options:

- different types of 1- or 2-year pre-VET (*Polytechnische Schule*, PTS, ISCED 341; *berufsbildende mittlere Schule*, BMS, ISCED 351): learners acquire general education and basic vocational skills preparing them for further school-based VET and apprenticeships;
- 3- to 4-year school-based VET (BMS, ISCED 354, EQF 4) combine general education and respective occupational competences and qualifications to perform medium-level jobs. Those who complete an add-on VET course (lasting 2 to 3 years) or take the higher education entrance exam (*Berufsreifeprüfung, BRP*) also obtain general access to higher education studies;
- 5-year school-based VET (*berufsbildende höhere Schule,* BHS, ISCED 354-554, EQF 5) offer high-quality occupation-related training while strengthening learners' general education. They lead to double qualifications for senior positions in business and general access to higher education at the same time (*Reife- und Diplomprüfung*);
- apprenticeships (ISCED 354, EQF 4) last 2 to 4 years and are offered in some 230 occupations to learners having completed compulsory education. They lead to qualifications at medium level. Graduates can progress to qualify as master craftsperson or, with relevant work experience and/or additional exams, access tertiary level training in a related field. By completing the *Berufsreifeprüfung* or an add-on VET course, they can obtain general access to higher education;
- VET programmes in the healthcare sector last 1 to 3 years and are offered at ISCED 351 and 353. Three-year nursing programmes are offered at ISCED 454 and provide access to tertiary-level training in related fields. These programmes expire at the end of 2026 and are currently being replaced by degree programmes at universities of applied sciences (FH).

Tertiary level

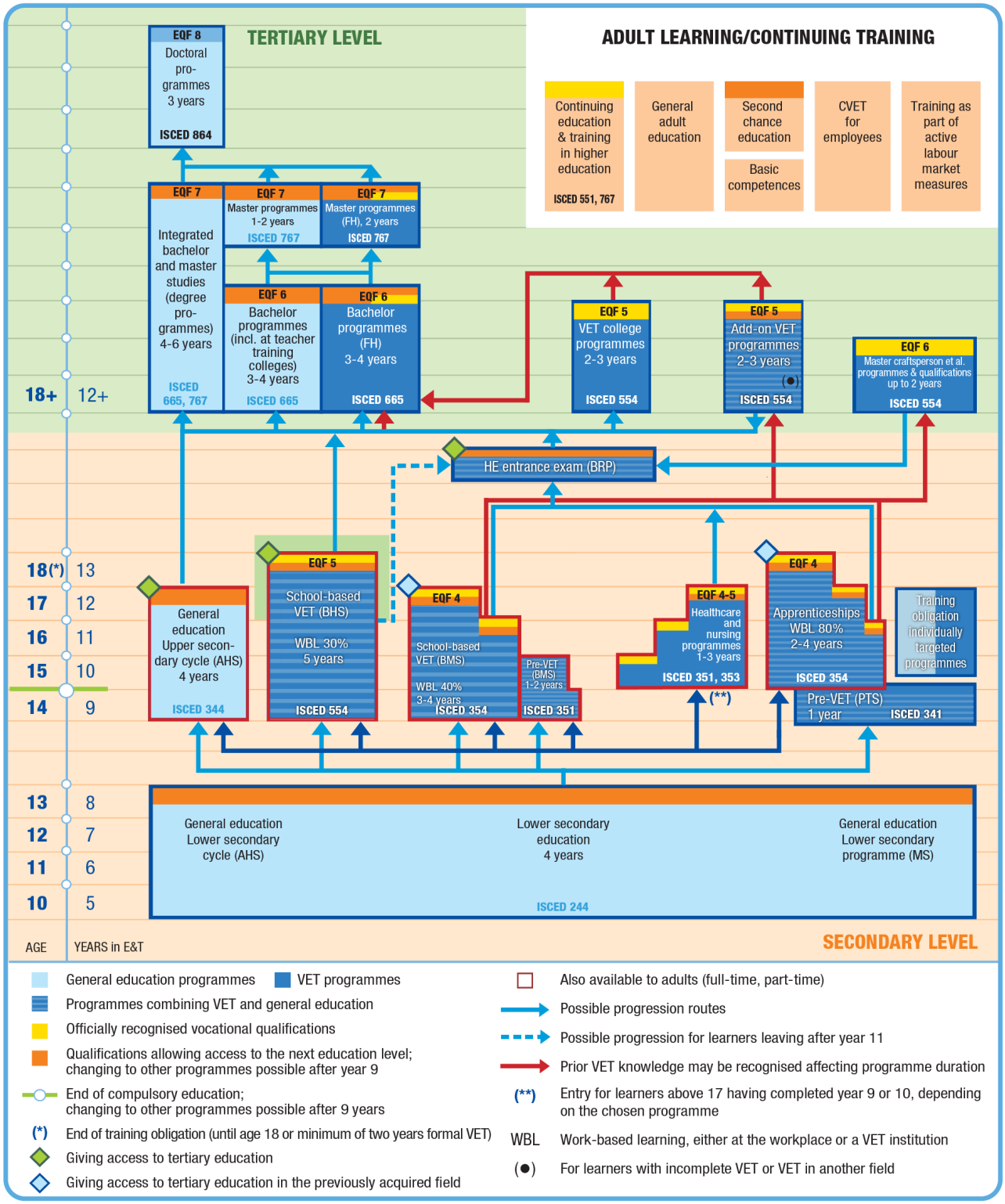
VET programmes (ISCED 554, EQF 5) last 2 to 3 years and provide high level professional training. They are available in various specialist areas and graduates attain the professional qualifications of the corresponding BHS.

Universities of applied sciences (FH) provide practice-oriented bachelor (ISCED 665, EQF 6) and master programmes (ISCED 767, EQF 7) in different fields. Some are based on the dual principle, where theory and practice in enterprises alternate. Many are open to people in employment.

Adult learning/continuing VET

Adults can acquire the same qualifications within formal education and training as those open to the young. A diverse range of institutions offers continuing training and progression opportunities to complement or upgrade people's initial qualifications. These include programmes awarding or preparing for tertiary/ post-secondary vocational qualifications, such as industrial master and master craftsperson certificates, certified accountants, or for law enforcement services. They also provide training within active labour market measures.

VET in Austria's education and training system



NB: ISCED-P 2011.
Source: Cedefop, & ibw Austria - Research & Development in VET. (2023). Vocational education and training in Europe – Austria: system description. In Cedefop, & ReferNet. (2024). *Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions* [Database].
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AUSTRIA

Distinctive features of VET

The broad range of available VET programmes is not only reflected in the various types of training and qualification levels but also in the fields of study, which include business, engineering, tourism, fashion and agriculture. Programmes can be adapted to regional economic contexts and skill needs and allow learners to develop their strengths and talents in the best possible way.

Work-based learning is central to VET, particularly in apprenticeships where learners spend 80% of their training time in a company. School-based VET is also practice-oriented, including learning in workshops, labs, training restaurants and practice firms, complemented by mandatory work placements in companies. Project and diploma assignments as part of the final exam of the 5-year VET programme (EQF 5) are often set by companies or carried out with their collaboration.

Much attention is paid to the acquisition of key competences (including teamwork, digital andentrepreneurial skills). At least one foreign language is mandatory − in some study fields (such as tourism) up to three − and is also used as a working language at several schools. Competence-orientation is a key principle in VET.

The number of apprentices (within the dual VET-track) being trained is driven by company demand. The training is based on a training contract between the company and the apprentice and learners need to follow a respective school-based programme. Early leaving rates from education and training have been comparatively low (8.4% in 2022) and there has been a training obligation since 2017: all young people must participate in mainstream school-based programmes, apprenticeships or other recognised training until the age of 18.

Challenges and policy responses

Despite its wide recognition, VET faces several challenges:

- basic skills: the latest OECD-PISA results reveal that the share of learners with low achievement in reading literacy and maths is comparatively high. Companies tend to point to young apprentices' basic skills gaps. This drives the current government's goal that no young person should leave compulsory education without having achieved basic competence levels in reading, writing and maths;
- value of non-formal training: Austria has a relatively segmented education system; permeability is limited, particularly between non-formal and formal programmes at higher levels. Public perception of formal and non-formal qualifications is not the same. The national qualifications framework (NQF) is expected to provide a new perspective on them, as assignment to NQF levels is based on learning outcomes, irrespective of the institutional context in which they were acquired. Since end of 2019 it has been possible to assign non-formal qualifications to NQF;
- lack of skilled workers: there is a shortage of skilled workers which is mainly attributed to demographic developments and the increased attractiveness of general education. Several measures have been introduced to attract more people to VET, such as the possibility to follow part-time apprenticeship for parents and people with health problems (from 2020).

VET in Belgium (BE-DE)

Citizens can access three different vocational education and training (VET) systems in Belgium: Flemish (BE-FL), French-speaking (BE-FR) and German-speaking (BE-DE).

In the BE-DE system, the German-speaking Community is in charge of education, training, and employment. Formal VET is offered at upper secondary, postsecondary and tertiary levels. Upper secondary VET can be accessed from age 14, lasts 4 years and is offered as school-based programmes (nationally referred to as full-time education); from age 15 onwards it is also offered in the form of dual learning, combining company and school-based learning. These options comprise technical school-based programmes (ISCED 2-3) that lead to an upper secondary education diploma and a VET qualification; and vocational school-based programmes (ISCED 2-3) that are more practice-based and focus on preparing learners for labour market entry. They lead to a VET qualification only, but graduates can follow a 1-year upper secondary programme (nationally referred to as seventh year) providing an upper secondary education diploma and access to tertiary education.

Learners can switch from one pathway to the other or even continue with general education. A further option are the 3-year apprenticeship programmes (ISCED 3) offered by the regional training provider IAWM (*Institut für Aus- und Weiterbildung im Mittelstand und in kleinen und mittleren Unternehmen*) to learners from age 15 onwards, qualifying them as skilled workers. These programmes incorporate 1 day per week of general, occupational, and practical courses at school and 4 days of work-based learning in a company, based on a contract. Apprenticeship programmes are very popular in BE-DE, are highly recognised socially and supported by many stakeholders.

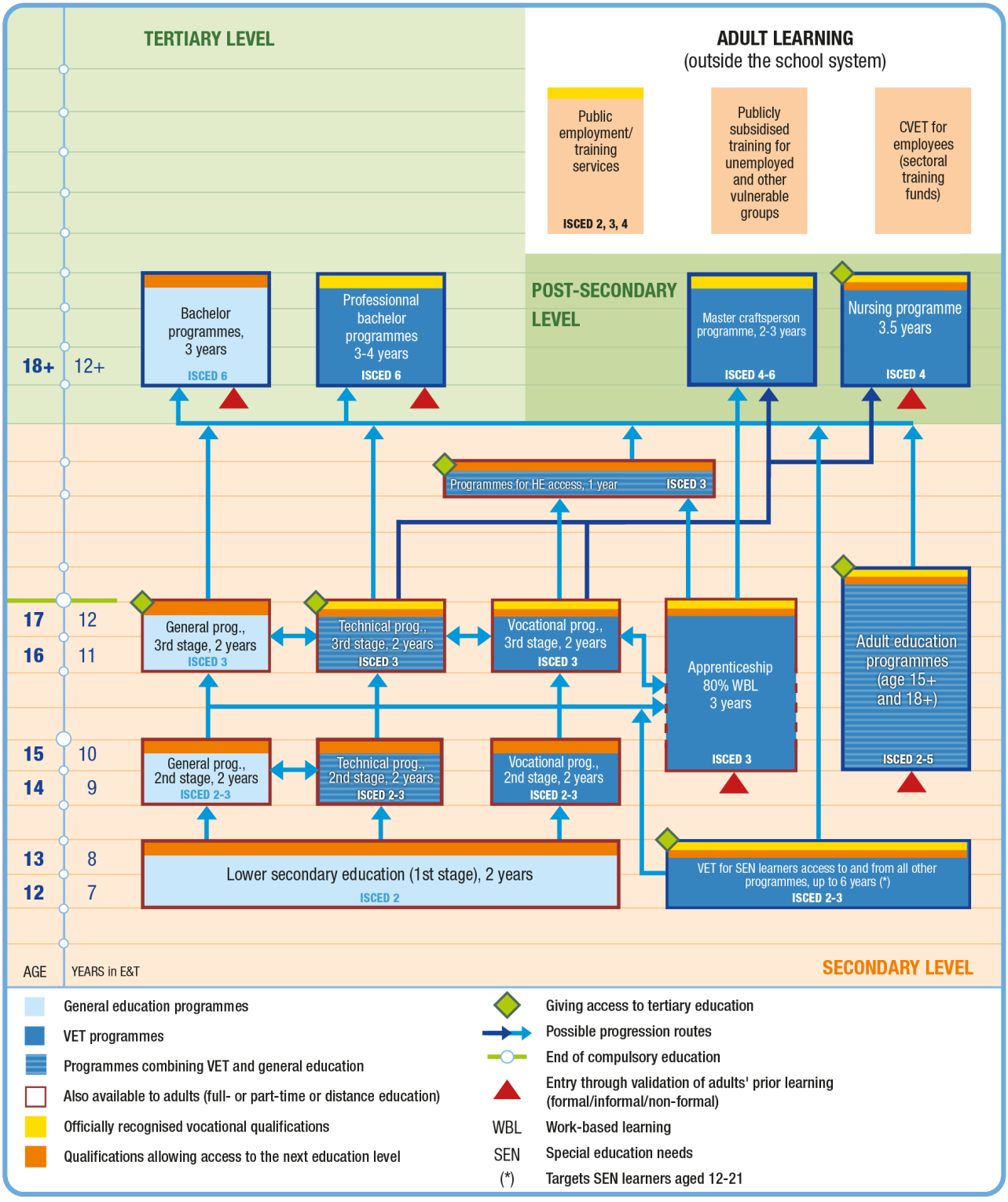
Graduates of upper secondary VET programmes can continue with post-secondary VET programmes. The 3.5-year nursing programme leads to an upper secondary education diploma (ISCED 4), providing access to tertiary education. Upper secondary VET graduates who have acquired a certain level of professional experience can enter the 2- to 3-year Master craftsperson programme (ISCED 4-6), qualifying them to become self-employed professionals and train apprentices themselves.

At tertiary level, learners can access 3- to 4-year professional bachelor programmes (ISCED 6), which are offered in various professional fields such as primary school teacher or accountant. Graduates who want to obtain a master degree, can follow this in a university of another Community, or in one of the neighbouring countries.

VET programmes for learners aged 12 to 21 with specific educational needs (SEN) last up to 6 years and lead to a qualification at ISCED 2 and 3. Individually adapted programmes are in place but those learners who follow the curricular of formal programmes can gain the same certificates as offered by the regular system, including the access right to higher education. Adult education is partially accessible from age 15 (individual modules/courses, e.g. foreign languages) and fully from age 18. Course participants may obtain a recognised diploma, qualification or (VET) certificate at ISCED 2-5.

Adult programmes are offered by the formal education system and by public and private VET providers. The public employment and training service ADG (*Arbeitsamt der Deutschsprachigen Gemeinschaft)* offers vocational training, allowing learners to gain partial or full qualifications, or to be trained in specific subject areas. Such training mainly targets jobseekers and employees and is sometimes provided in cooperation with public or private VET providers.

VET in Belgium's education and training system (BE-DE)



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.

Source: Cedefop, & Bruxelles Formation. (2023). Vocational education and training in Europe – Belgium: system description. In Cedefop, & ReferNet. (2024). *Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions* [Database].
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VET in Belgium (BE-FL)

In the BE-FL system, the Flemish Government is in charge of education, training and employment in Flanders. VET starts at age 14 as school-based programmes (nationally referred to as full-time education); from age 15 onwards it is also offered in the form of dual learning, combining company and school-based learning in a school or training centre. The 4-year upper secondary VET programmes comprise: technical programmes (ISCED 3), which combine technical-theoretical classes and practical lessons and lead to an upper secondary education diploma and a VET qualification; and vocational programmes (ISCED 3), which are more practice-based. These lead to a vocational qualification only and aim at direct employment. After successful completion of an additional year (follow-up vocational programme), an upper secondary education diploma is awarded.

After 2 years of upper secondary VET, learners can switch from one pathway to the other or even continue with general education. A further option is a 2- to 3-year apprenticeship programme (ISCED 2- 3), offered from age 15 onwards. Learners follow general and technical courses at a SYNTRA training centre (1 or 2 days per week) and work-based learning in a company (3 or 4 days per week), which is based on a training contract. Graduates receive a vocational qualification and an upper secondary education diploma.

These upper secondary vocational programmes are currently under reform and a new dual learning track will be fully implemented and accessible from the school year 2025/26 onwards.

Learners with special educational needs (SEN) aged 12 to 21, can follow VET programmes which lead to a qualification at ISCED 2 or 3. Individually adapted programmes are in place but those who are following the regular curricular of formal programmes can gain the same certificates including access to higher education.

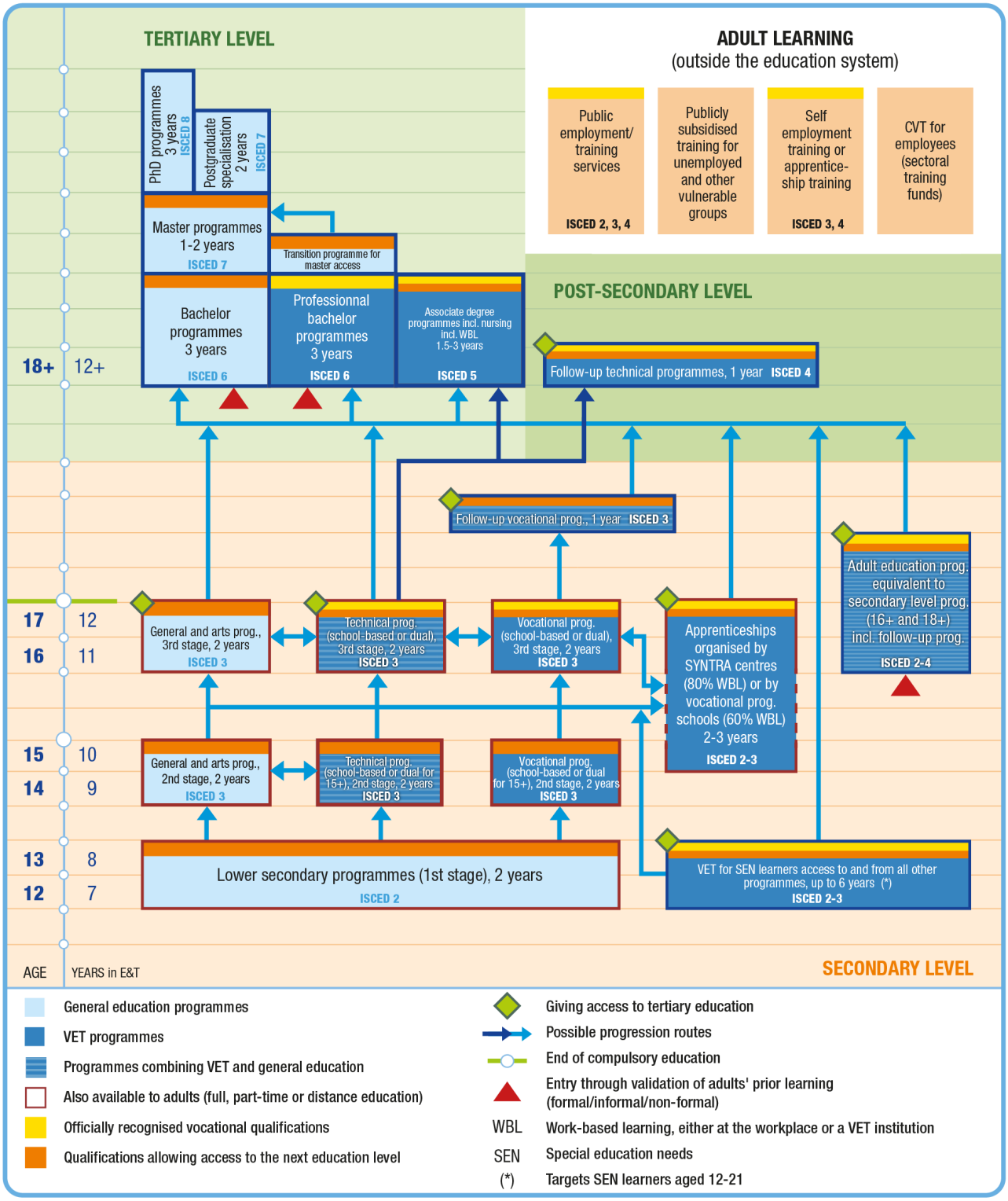
Adults over 18 can choose among a wide range of programmes leading to ISCED 2-4; this is partly also accessible from age 16 onwards. The programmes are offered by the formal adult education system and by public and private VET providers and include entrepreneurial training programmes as well as the possibility to obtain the upper secondary education diploma.

At post-secondary level, 1-year technical follow-up programmes (ISCED 4) are offered to technical programme graduates, providing in-depth knowledge and skills in their professional field, as well as the option to gain the upper secondary education diploma.

At tertiary level, associate degree programmes (ISCED 5) are offered by university colleges, while the nursing programme takes place in schools for full-time secondary education. Programmes are accessible to graduates of all upper secondary VET programmes and last between 1.5 and 2 years, except for the nursing programme, which takes 3 years. Professional bachelor programmes (ISCED 6) last 3 years and graduates can progress to a general 1-to 2-year master degree (ISCED 7) after following a 1-year transition programme. Higher education is accessible to adults as full-time pathway, part-time or as distance learning.

Outside the formal education system, vocational training is offered to jobseekers, employees and entrepreneurs. This leads to partial or full professional qualifications, or relates to specific subject areas, such as entrepreneurship courses. It is offered by the Flemish Agency for Entrepreneurial Training SYNTRA, by private VET providers or by the Flemish public employment service VDAB.

VET in Belgium's education and training system (BE-FL)



NB: ISCED-P 2011. Assignment of programmes to ISCED classification is under revision, so only the first digit in ISCED coding is displayed. EQF levels on qualifications are being discussed.

Source: Cedefop, & Bruxelles Formation. (2023). Vocational education and training in Europe – Belgium: system description. In Cedefop, & ReferNet. (2024). *Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions* [Database].
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VET in Belgium (BE-FR)

In the BE-FR system, the Ministry of the French Community is in charge of formal education, including vocational education (nationally referred to as qualification education), in collaboration with school boards. The Walloon Region is in charge of vocational training and employment system; in Brussels, the COCOF and the Brussels Region respectively oversee these fields.

VET starts at the age of 14 in a school-based form (nationally referred to as full-time education). From age 15 it is offered as dual programmes (nationally referred to as part-time programmes), which take place at school or at a training provider and in a company based on a contract. Upper secondary VET includes 4-year programmes comprising: technical or artistic qualification programmes (ISCED 3) that lead to upper secondary education diplomas, as well as vocational qualifications such as office employee and automation technician; graduates have direct access to tertiary education; and vocational qualification programmes (ISCED 3), which are more practice-based and aim at direct employment. These lead to a VET qualification, such as assistant butcher.

After 2 years of upper secondary VET, learners can switch from one pathway to the other or even continue with general education. A further option is an apprenticeship programme (ISCED 3), accessible to learners aged 15 to 25. These programmes follow the alternation scheme of 1 or 2 days in the training centre and 3 or 4 days in a company based on a contract. These training providers are: IFAPME, the Walloon Institute for dual training and self-employment in small and medium-sized enterprises for Walloon Region; and SFPME, the training service for small and medium-sized enterprises in Brussels.

Graduates can enter the labour market or progress to entrepreneurial programmes or to leading and coordinating training, offered outside the formal education system to adults from age 18 onwards.

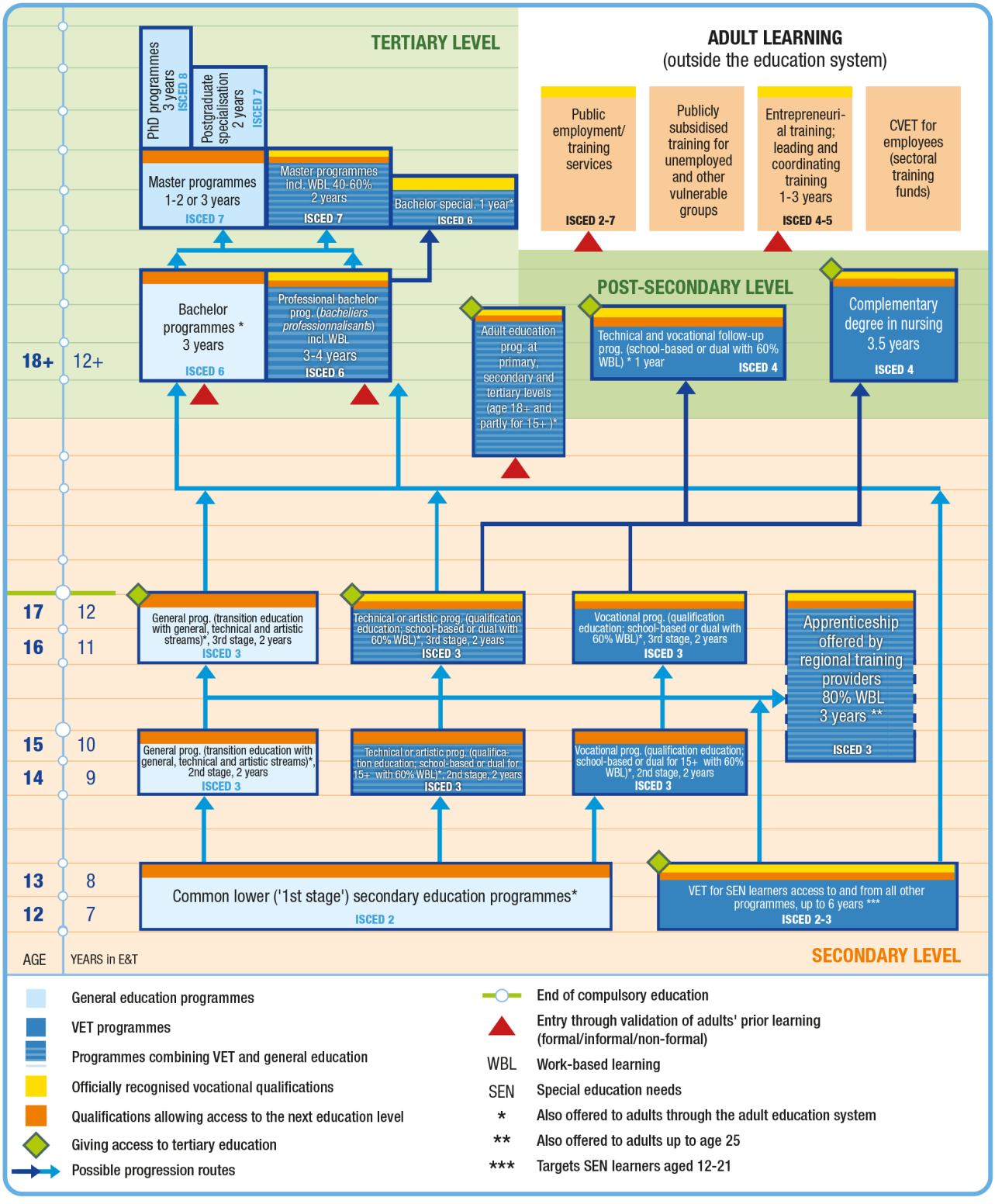
Learners aged 12 to 21 with specific educational needs (SEN) can follow individually adapted programmes but those following the regular curricula of formal programmes can gain the same certificates (ISCED 2-3) including access to higher education.

At post-secondary level, 1-year technical and vocational follow-up programmes (ISCED 4) provide a specialisation in the related professional field as well as access to tertiary education. The 3.5-year nursing programme leads to an upper secondary education diploma (ISCED 4), providing access to tertiary education.

At tertiary level, 3- to 4-year professional bachelor programmes (ISCED 6) are offered and accessible to those holding an upper secondary diploma. Graduates can progress to a 1-year bachelor specialisation programme (ISCED 6) or a 2-year master programme (ISCED 7); they may also directly enter the labour market.

The adult education system offers formal education programmes at ISCED 1-7 and includes the same qualifications as in the ‘regular’ system. It also offers specific qualifications which are only available in this system. Programmes follow a modular approach and courses offer a flexible time schedule. The system is accessible to all adults, irrespective of initial educational career, and so is the main reskilling, upskilling and second-chance mechanism of the formal education system. Regional public employment and/or public vocational training providers organise vocational training, which leads to partial or full qualifications, or relates to specific subject areas, such as language learning. These public services are FOREM (Office Wallon de l’emploi et de la formation) in Wallonia and Bruxelles Formation, in Brussels. Validation of adults’ prior learning (formal/informal/ non-formal) is well developed in BE-FR and offered to jobseekers and workers, as well as to adult and higher education learners.

VET in Belgium's education and training system (BE-FR)



NB: ISCED-P 2011. Assignment of programmes to ISCED classification is under revision, so only the first digit in ISCED coding is displayed.
EQF levels on qualifications are being discussed.

Source: Cedefop, & Bruxelles Formation. (2023). Vocational education and training in Europe – Belgium: system description. In Cedefop, & ReferNet. (2024). *Vocational education and training in Europe: VET in Europe database – detailed VET system descriptions* [Database].
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BELGIUM

Distinctive features of VET

Cooperation agreement between the French Community, the Walloon Region and the French Community Commission (Brussels) about the French-speaking Service for Occupations and Qualifications, 29/10/15. The Belgian VET system has a high number of responsible bodies, split between the three Regions (Flanders, Brussels, and Wallonia) and the three Communities (Flemish, French- and German-speaking), which overlap but do not coincide. Therefore, each community has its own education system and citizens can access three different vocational education and training (VET) systems: Flemish (BE-FL), French-speaking (BEFR) and German-speaking (BE-DE). Brussels is a specific case, as both BE-FR and BE-FL systems coexist. Added to this, the school system is also split into multiple networks (public and subsidised private education), each of which is required to pursue common objectives, including certification, occupational profiles and VET standards, while benefiting from some autonomy in their own organisation. Despite multiple authorities being responsible for education, training and employment, there is a political consensus on specific issues at national level, such as the definition of the compulsory age for education: this starts at age 5 and lasts until age 18.

Though VET is decentralised in Belgium, it is perhaps the most so in the French Community. The Flemish Region and Community are represented by the same parliament and government - and hence the same administration - whereas these bodies are split between the Regions and the Community in BE-FR, leading to a stronger need for collaboration on the ground. This collaboration can be observed in several agreements, for example the French speaking Service for Trades and Qualifications (SFMQ, Service francophone des métiers et qualifications), which is the result of the 2015 cooperation agreement between the French Community, the Walloon Region and the French Community Commission (COCOF, Brussels). The SFMQ brings together actors from employment and vocational education, vocational training and skills validation; its outputs include training profiles that describe the learning outcomes needed to carry out these key activities, as well as to participate in the mapping of qualifications within the national qualifications framework. The system in the German-speaking Community is different, with some regional competences linked to employment.

The plurality of political actors can lead to divergent political priorities and strategies in the country. Policies are formalised in several government strategies and plans drawn up in each Region, dealing with aspects such as language learning, new technologies, sustainable employment, training for young people or matching workforce skills to labour market needs. Though examples of strong cooperation exist within the individual Communities, collaboration between them mostly takes place through informal talks. On selected topics (e.g. the COVID-19 crisis has led to further collaboration in education) or when consensus is needed (such as positions to take at EU level), communication is carried out in a more coordinated way. There are, however, also some common points of reference for the country. The 2023 National reform programme sets a common goal to improve the performance and inclusiveness of the country's education and training systems, and better tackle skills mismatches.

Social partners have strategic importance in the Belgian VET system. Strategy, policies and all measures involving employment and VET are negotiated with social partners, leading to formal sectoral agreements. Social partners are also directly involved in organising programmes of alternating work and education, and continuous vocational training through framework agreements.

Learners leaving the education system without a certificate/diploma of secondary education have the option to enter adult education. This is a parallel, modularised, formal education system that allows adults to obtain academic and professional qualifications at primary and secondary levels in all Communities, including - apart from BE-FL - at tertiary level. The system is central to lifelong learning because it recognises skills acquired from formal, non-formal or informal learning in pursuing a learning path leading to qualifications corresponding to those provided through full-time education.

Challenges and policy responses

Despite different socioeconomic and education contexts, Belgium's VET systems share similar challenges.

The coexistence of three official languages is a key challenge, affecting interregional mobility. Language proficiency is crucial for VET integration, especially for newcomers. To address this, Brussels offers language job vouchers to jobseekers while in Wallonia, Le Forem offers financial aid for language learning (nl, en, de) and opportunities for students to spend up to a year abroad immediately following their upper secondary school diploma. Jobseekers can learn a language (nl, en, de) in intensive modules or immersion, or even at distance learning.

Lifelong learning is a major challenge, due to low participation in adult education and continuing education and training. Various measures were taken at regional and community levels, such as the action plan Setting the sail for learning Flanders (2021), which aims to increase adult participation in (non-)formal learning by 2030. With theGo4Brussels Strategy 2030, the Brussels government and social partners are cooperating to improve the quality and labour market relevance of lifelong learning opportunities. From 2023 an individual learning account is also available in Flanders to stimulate lifelong learning. The Belgian recovery and resilience plan focuses on adult learning, with an emphasis on digital and green transition and integration of disadvantaged groups.

The need for digital transformation in terms of training provision and labour markets was underlined by the COVID-19 crisis. The provision of distance learning faced difficulties due to lack of equipment, and of adequate competences among teachers and learners. The Communities introduced measures to tackle these challenges, such as new training courses to help teachers to adapt to online teaching in BE-FRand provided support through learning platforms (MaClasse and Happi), webinars, pedagogical tutorials and the ‘e-classe’ educational platform dedicated to teachers. In Flanders, support for teachers was provided via KlasCement, a portal offering teaching materials and learning resources. Pedagogical guidance services also supported education institutions to implement new techniques and to ensure the quality of education provision. The Government of Flanders developed Digisprong, an overall plan to digitise education, including digital infrastructure and specific teacher training. In 2022, the Flemish Government adopted a decree regulating structural distance learning in secondary education. These changes are expected to have a long-term impact on teaching methods. Initiatives such as GO4Brussels 2030 and Digital Wallonia aim to prepare for the future of work.

Labour market shortages and skills mismatches have reached a high level in 2022, affecting both low- and high-skilled occupations, with the most significant in healthcare, ICT, professional, technical, and scientific jobs, catering and in those requiring green skills. Different legislative frameworks can cause complications for pupils, students, or employers who are seeking interregional educational mobility. The lack of relevant skills for the green transition is creating economic bottlenecks. Several measures have already been taken in response, such as the Shortages punch offered in Wallonia, which responds quickly to serious shortages encountered by companies; the introduction of a financial incentive paid to learners following training in shortage trades (BE-FR); the adoption of the STEM agenda 2030 (2021), which aims to attract more learners to education and training in science, technology, engineering, mathematics; and the proposal for a high-level strategy in support of the Flemish green skills transition, which was published in 2023.

Youth unemployment remains a major concern, a challenge which has been exacerbated by the COVID-19 crisis. Dual education is often promoted as a measure to reduce inactivity among young people. While dual learning has a long tradition and is popular in BE-DE, there is still a negative perception of dual learning in the other Regions. The Regions and Communities have already taken measures to make dual learning more attractive and a successful choice for learners. In BE-FL, a new dual learning system is being introduced, starting in the 2019/20 school year and to be completed around 2025/26. It replaces the current system of learning and working, which faced many challenges. Different tools and campaigns promote this new method of work-based learning, and the aim is to extend this system into higher and adult education. Additionally, Flanders has introduced incentives to increase learner and enterprise participation in VET. The Walloon recovery plan (2021) includes a major strand focusing on reforming the dual learning system, aiming to make it an excellent and attractive learning pathway. The French community’s Pact for excellence in education, aims to increase the attractiveness of vocational education by making it a path of excellence. Vocational education reform is comprehensive and aims to improve the school management, failure rate, and the educational approach to guidance. The goal is to better support learners, enhance their basic knowledge and skills, and provide them with better trained teachers.

VET in Bulgaria

The Ministry of Education and Science coordinates national policy on vocational education and training (VET). Sports and culture ministries are in charge of VET schools in the respective study fields. The VET Act defines two target groups: school-age learners and adults (16+ not in formal education and training). Young people usually enrol in VET from age 14.

VET programmes for school-age learners have a vocational and a general part; graduates acquire qualifications for both. VET programmes provided by training centres and colleges for adults do not include a general education part and lead to a VET qualification only. VET qualifications can also be acquired through validation of prior learning by passing an exam, as with regular VET learners.

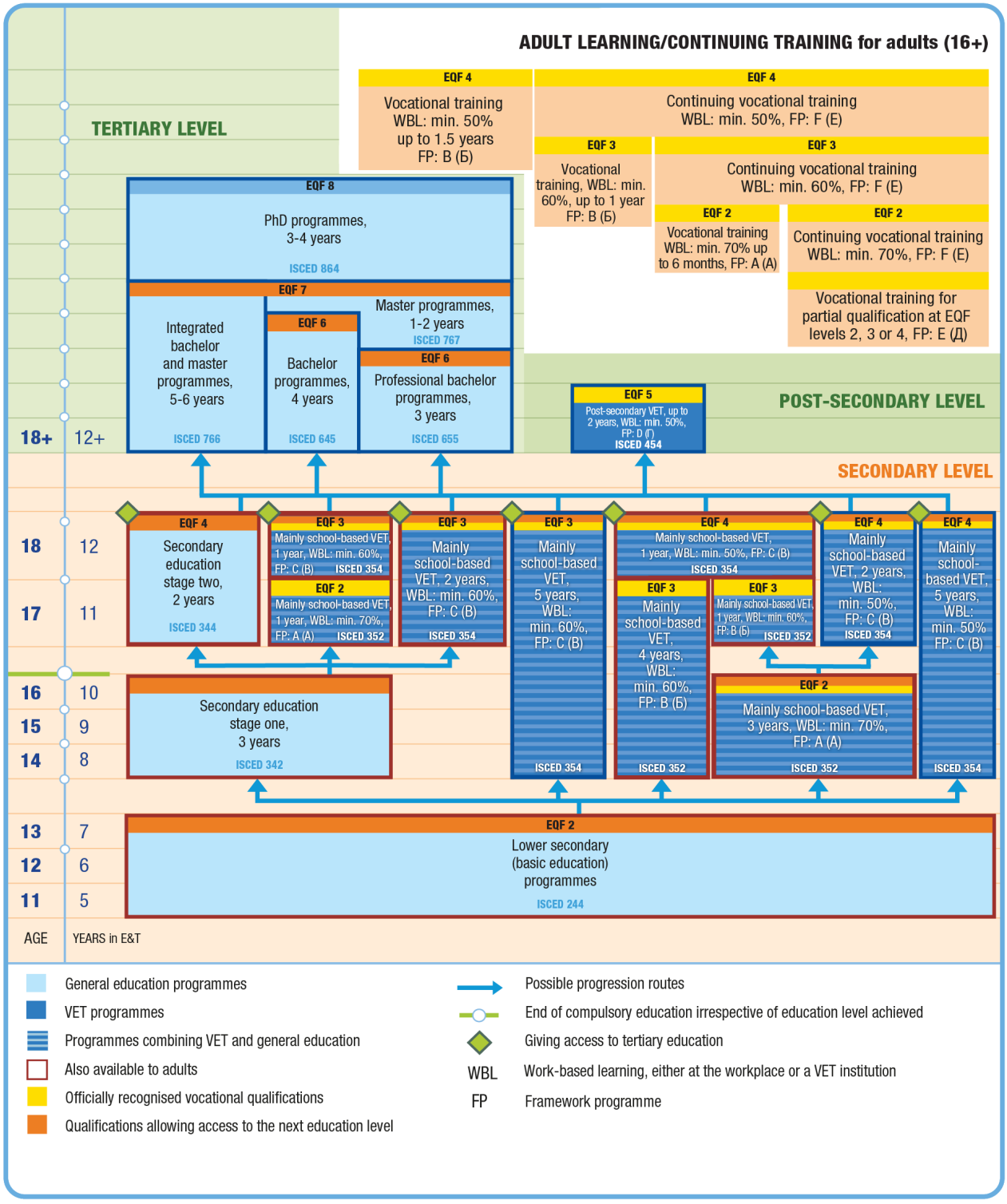
The main VET providers are the State, municipal or private schools, vocational gymnasiums, art and sports schools, VET colleges, and licensed vocational training centres. State education standards specify the content of VET qualifications. Four national VET qualification levels are referenced to the European qualifications framework. The legal framework distinguishes six types of initial and continuing VET (IVET and CVET) programme types (called ‘framework programmes’), that define EQF/NQF levels, age and entry requirements, and regulate education form, content and duration.

- A (А): ‘second chance’ IVET programmes lead to EQF level 2 qualifications at schools and training centres. The duration is 1 or 3 years for school-age learners and up to 6 months for adults;
- B (Б): IVET and CVET programmes leading to qualifications at EQF levels 3 (1 or 4 years) and 3 and 4 in adult learning (up to 1.5 years) at schools and training centres;
- C (В): mainstream IVET and CVET programmes leading to EQF level 3 and 4 qualifications at VET schools. Duration is 1 to 5 years, giving access to higher education, provided learners have passed final matriculation exams;
- D (Г): IVET and CVET programmes for adults only leading to qualifications at EQF level 5 at VET schools and colleges with a maximum duration of 2 years;
- E (Д): up to 1-year IVET and CVET programmes leading to partial qualifications at EQF levels 2 to 4 at schools and training centres;
- F (Е): CVET programmes for adults (16+) leading to qualifications at EQF levels 2 to 4: full or partial, updating already acquired qualifications. The programmes are provided by schools and training centres and duration is defined by training providers.

Work-based learning (WBL) forms a substantial part (50% to 70% or more) of all VET programmes. Most is offered by schools, with the WBL share decreasing with programme level. The current legal framework for dual VET is well defined and was upgraded in 2019. Practical training in a company alternates with periods of theory in a school or another VET provider. School-age learners are trained by companies at least 2 to 3 days per week in the final grades (11 and 12). Both school-age learners and adults receive remuneration from the employer.

Social partners have decision-making and advisory roles in shaping VET through their participation in regional and national councils and their involvement in the development of State education standards and in updating the List of professions for vocational education and training (LPVET) and the Lists of State-protected specialties. They are also members of examination boards set up by VET providers.

VET in Bulgaria's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & National Agency for Vocational Education and Training (NAVET). (2023). Vocational education and training in Europe – Bulgaria: 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/bulgaria-u3

BULGARIA

Distinctive features of VET

VET is provided at secondary and post-secondary (non-tertiary) levels. There are more learners in VET compared with general education: 57.8 % of the total secondary education population in 2022. Secondary general education schools may also open VET classes by a special order of the education minister, a popular option in small towns and rural areas.

Since 2016/17, secondary education has been offered in two stages; this improves access to VET, as learners may choose their education path twice, after completing grades 7 and 10.

State education standards play a major role in shaping qualifications and curricula. They are developed by the National agency for vocational education and training (NAVET) in units of learning outcomes for all VET qualifications (EQF levels 2 to 5).

Quality assurance criteria and procedures for the validation of non-formal and informal learning have been developed since the development of the relevant legal framework in 2015. Validation procedures may be organised by all VET providers on the condition that the process concerns qualifications from LPVET.

Challenges and policy responses

National policy priorities in vocational education and training (VET) aim at increasing the effectiveness and labour market relevance of the training provision, through inclusive and attractive learning choices for young people and adults. These objectives are being materialised through the *Modernisation of VET* programme, part of the strategic framework in education and training for 2021-30, and the ongoing Education 2021-27 programme. They are reaffirmed in the national implementation plan commitments taken by the country within VET priorities agreed at European level.

An impact assessment study (2022) on the last VET reform identified priority areas for policy action: validation of professional competences, review of educational standards, graduate tracking, career guidance and quality assurance in VET.

Significant steps were taken in 2023 to align the VET offer to labour market needs. Draft legislation was prepared in coordination with all stakeholders introducing the accumulation and transfer of units of learning outcomes in VET as an alternative to ECVET; this is expected to enable citizens engage in training to improve existing qualifications, promoting a lifelong learning culture. The National Agency for Vocational Education and Training (NAVET) finalised a comprehensive review of the State Educational standards which are used as a tool for curriculum and training programmes design; standards for digital and green skills were aligned to the EU framework.

Bulgaria is committed to develop a highly skilled teaching workforce along the key areas identified in the OECD-Bulgaria skills strategy project. The latest amendments of the VET Act increased the visibility of validation procedures, the role of vocational training centres and the overall monitoring role of NAVET in qualification design and training provision.

Adult participation in training is being facilitated through pilots for using individual learning accounts and micro-credentials, run by employer associations; continuation of the testing is planned through the operational programme Human Recourses Development.

VET in Croatia

Overall responsibility for vocational education and training (VET) in Croatia lies with the Ministry of Science and Education supported by the Agency for VET and Adult Education (ASOO). The agency is responsible for developing VET curricula, continuous professional development of VET teachers, skills competitions and quality assurance. Stakeholders are involved in curriculum development, sector skills councils and in the VET Council.

Initial VET is publicly financed and free of charge. All VET programmes combine professional and general competences, to varying degrees; all include work-based learning (WBL), with duration and type varying.

VET is provided at upper secondary and postsecondary levels; the entry point is completion of compulsory education at age 14 or 15.

At upper secondary level, 70% of learners participate in initial vocational education and training (IVET). Around two thirds of VET learners are in 4-year school-based programmes, with under one third in 3-year programmes. Only one upper secondary programme lasts 5 years, leading to a general nursing qualification.

The 4-year, mostly school-based VET programmes and dual education programmes lead to qualifications at the Croatian Qualifications Framework (CROQF) level 4.2/ EQF level 4 and allow progression to tertiary education upon completing State *Matura* exams.

3-year VET programmes give access to the labour market and lead to qualifications at the CROQF level 4.1/ EQF level 4; they include school-based programmes, apprenticeships (programmes for crafts, nationally referred to as unified model of education, JMO), and dual education programmes. Within the final exam for completion of the 3-year JMO programme, learners take the apprenticeship exam. Around 13% of all IVET learners are in apprenticeships.

Only a few learners take part in 2-year VET programmes, leading to qualifications, without completing upper secondary education. Graduates of 2- and 3-year programmes can continue their education as regular students to attain a (one level) higher qualification, which is decided by each school individually.

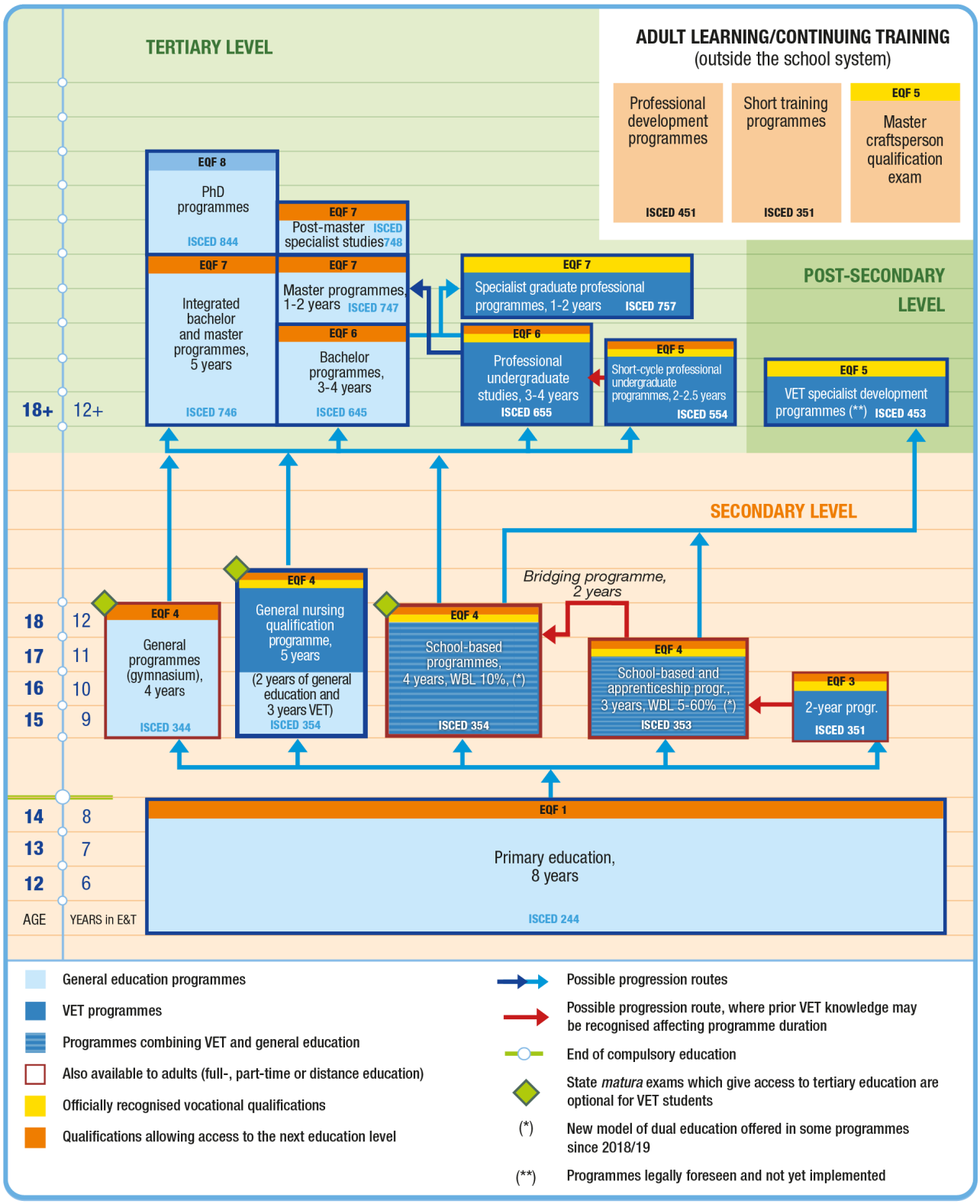
VET specialist development programmes (EQF 5) are being introduced at post- secondary level.

Professional education and training are offered at tertiary level. Short-cycle professional undergraduate programmes last 2 to 2.5 years and lead to qualifications at CROQF/EQF level 5. 3- to 4-year professional undergraduate programmes lead to a professional bachelor diploma at CROQF level 6.st (*) / EQF level 6. Specialist graduate professional studies last 1 to 2 years and lead to a professional specialist diploma at CROQF 7.1.st (*) / EQF level 7.

Adult education and training in Croatia lead to educational attainment at EQF levels 1 to 5 for learners older than 14. Most programmes are VET-related, ranging from short training and professional development to programmes leading to qualifications equivalent to those in IVET. The education ministry’s approval of programmes leading to formal certificates is necessary, with prior positive opinion from ASOO.

(*) As per Amendments to the CROQF Act (Official Gazette No 20/2021), abbreviation ‘st’ is added to professional qualifications at CROQF level 6 to differentiate these from university qualifications at the same level, indicated by abbreviation ‘sv’. ‘St’ is abbreviated from stručni (professional), and ‘sv’ from sveučilišni (university).

VET in Croatia's education and training system



NB: ISCED-P 2011.

Cedefop, & Agency for Vocational Education and Training and Adult Education (AVETAE). (2023). Vocational education and training in Europe – Croatia: 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/croatia-u3

CROATIA

Distinctive features of VET

VET in Croatia has two main roles. Alongside preparation for labour market entry, it enables progression to tertiary education; this is primarily through 4-year VET programmes, where learners spend half of their time acquiring general competences. In 2020 (summer examination period), 83% of VET students at CROQF level 4.2/EQF level 4 applied for the state matura exams, 67% passed the matura exams, and 51.1% enrolled in tertiary education studies in the year of their graduation.

Participation in VET at upper secondary level is one of the highest in the EU (70% compared to the EU-27 average of 48.7% in 2021). Croatia has the lowest rate of early school leaving in the EU (2.3% in 2022, compared to the EU-27 average of 9.6%).

Self-assessment at VET schools is part of the quality assurance system. Support measures are in place to advance self-assessment, including school visits, upgrades to the online tool e-Kvaliteta and feedback reports with recommendations.

To promote excellence in VET, Croatia has established a network of 25 regional centres of competence. These will offer state-of-the-art technologies, teaching excellence and work-based learning, training for professionals, VET teachers and in-company mentors, as well as close cooperation with local businesses.

In 2019, the first WorldSkills Croatia competition launched a reformed model of VET student competitions. With 10 000 visitors, over 40 disciplines, high visibility, and stakeholder endorsement, this became the leading national event for the promotion of VET. The competition was organized for the fourth time in 2023, becoming the largest education event and skills showcase in Croatia and the region.

Challenges and policy responses

Priorities for VET development focus on increasing labour market relevance, quality, attractiveness and internationalisation. Reforms are addressing outdated curricula, skills mismatches, work-based learning, apprenticeship, and VET's public image. The flagship initiative, VET curriculum reform, aims to comprehensively redesign in line with labour market needs, learning outcomes, and work-based learning, contemporary teaching, with strong support for VET providers. Youth unemployment (aged 15 to 24), which was 16.6% in 2019, rose to 21.9% in 2021 due to the COVID-19 pandemic's economic effects but decreased to 18% in 2022 as the economy recovered. Similarly, the share of young people (aged 15 to 24) neither in employment nor in education and training (NEETs) increased from 11.8% in 2019 to 12.7% in 2021 but returned to 11.9% in 2022. Youth guarantee schemes are in place to help young people enter employment, apprenticeships, education, or training within 4 months of leaving school or becoming unemployed.

National demographics have reduced the number of learners, particularly in apprenticeship programmes (JMO). Enrolment in JMO halved between 2013 and 2018 but began recovering, increasing by 30% in 2023. A new dual education model was introduced in 2018 to improve the quality of work-based learning and apprenticeships.

Participation in adult learning in 2022 was 4.4%, positioning Croatia at the lower end of EU range despite the tax incentives available for entrepreneurs for education and training costs, and VAT exemptions for adult education providers offering programmes approved by the education ministry. The main activities aim at promotion of lifelong learning in Croatia through awareness-raising efforts by ASOO.

VET in Cyprus

The vocational education and training (VET) system of Cyprus is constantly being developed to respond better to the needs of the labour market.

The Ministry of Education, Sport and Youth has overall responsibility for developing and implementing education policy. The Ministry of Labour and Social Insurance has overall responsibility for labour and social policy and the Human Resource Development Authority of Cyprus (HRDA) plays an important role in vocational training.

VET is available at secondary and tertiary education levels.

At upper secondary level, general education programmes (78% of enrolments in 2022/23) are with lyceums, including evening lyceums; VET programmes (22% of enrolments in 2022/23) are with technical schools, including evening technical schools. Horizontal and vertical movement across upper secondary education is possible upon successful completion of specific examinations. Technical schools offer two types of 3-year programmes, theoretical and practical, leading to EQF level 4 school-leaving certificates, equivalent to those of secondary general education schools. Specialisations are selected in the first year. Graduates are eligible for admission to universities and other tertiary education institutions in Cyprus and abroad. Both streams are school-based: they combine general education subjects with VET subjects and integrate practical training in enterprises at the end of the first and second years. However, the theoretical stream is mostly for those who wish to continue to higher education and the practical one is mostly for those oriented more towards entering the labour market.

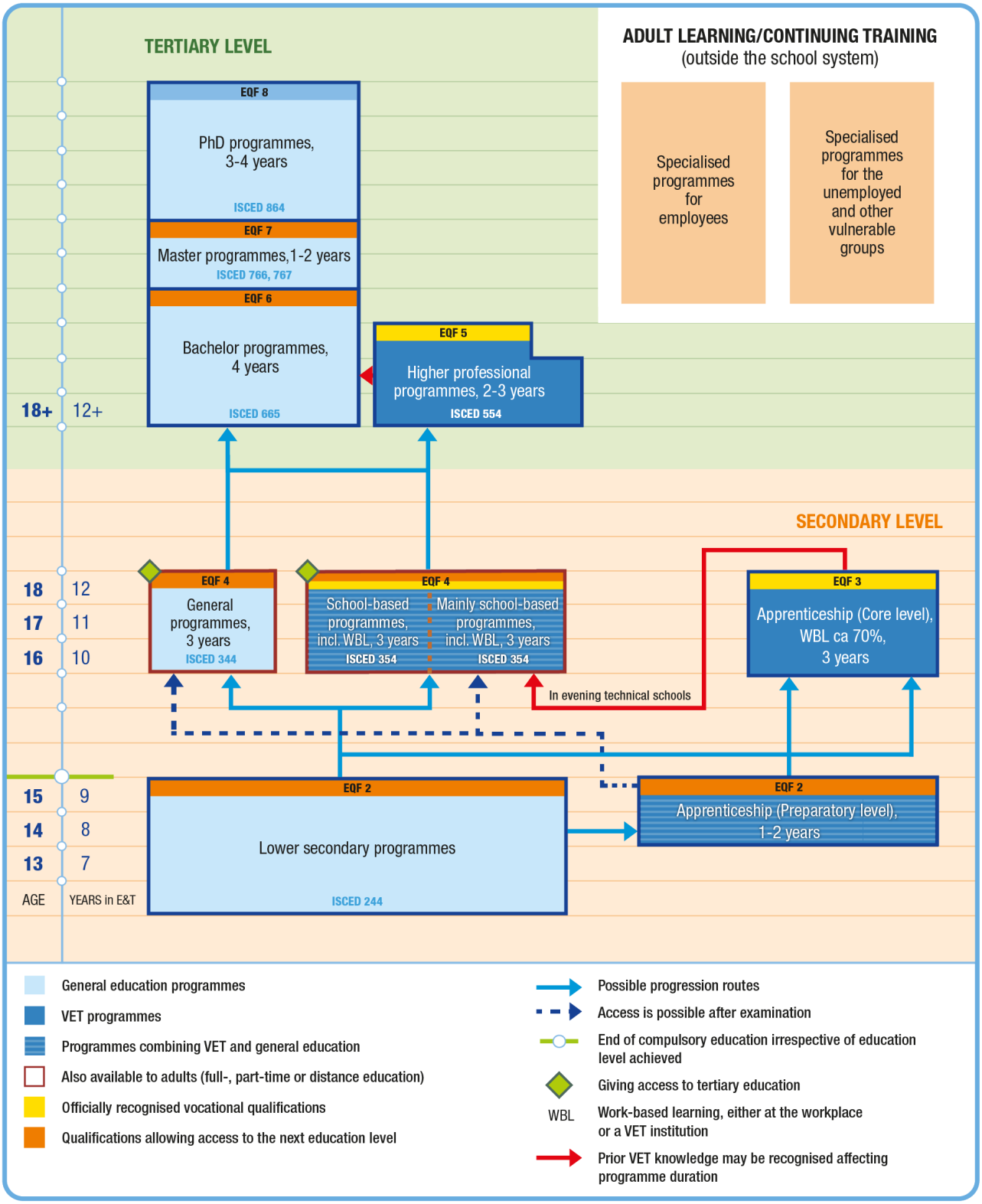
VET is also available through the apprenticeship system, which addresses young people between the ages of 14 and 18. Preparatory apprenticeship (EQF level 2) can last up to 2 school years, depending on the level and age of the apprentice. Young people aged between 14 and 16, who have not completed lower secondary programmes, may participate. After completing ‘preparatory apprenticeship’, graduates can either continue to ‘core apprenticeship’ or upper secondary programmes, provided they pass entrance examinations.

Core apprenticeship lasts for 3 years. Eligible candidates must be less than 18 years old to apply and must have either completed a lower secondary programme or ‘preparatory apprenticeship’ or dropped out of upper secondary programmes. On successful completion, participants may continue with evening technical school programmes, which lead to an EQF 4 certificate, and receive an upper secondary education qualification (school leaving certificate) in 2 years instead of 3. The apprenticeship certificate (EQF 3) allows access to several regulated occupations, provided all other requirements of relevant legislation are met.

VET at tertiary, non-university level is provided at public and private institutes/colleges, offering an opportunity to acquire, improve, or upgrade qualifications and skills. Successful completion of these accredited programmes, which may last from 1, 2 or 3 years, leads to a certificate/diploma or higher certificate/diploma awarded by the institution (EQF level 5). The earlier-known as public post-secondary institutes of VET were accredited in 2017 by the Cyprus Agency for Quality Assurance and Accreditation in Higher Education as public schools of higher (tertiary/non-university) VET; they offer accredited 2-year programmes leading to a diploma.

Vocational training for adults is extensively available in Cyprus for the employed, the unemployed, vulnerable groups and adults in general, through a mixture of public and private provision: colleges, training institutions, consultancy firms and enterprises. The employed usually participate in training programmes for job-specific skills to meet company needs. The unemployed and vulnerable groups acquire both horizontal and job-specific skills to improve their employability. Training schemes targeted at these groups combine training with either employment in an enterprise or job placement to acquire work experience. The HRDA provides subsidies through several relevant schemes for training the employed and unemployed.

VET in Cyprus's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Human Resource Development Authority of Cyprus (HRDA). (2023). Vocational education and training in Europe – Cyprus: 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/cyprus-u3

CYPRUS

Distinctive features of VET

Cyprus has a long-standing tradition of tripartite consultation (government, trade unions and employers' organisations) and social dialogue. The social partners are involved in:

- planning in an advisory and consultative capacity;
- supporting education reform;
- governance (in boards of directors of institutions dealing with human resource issues);
- identifying education and training needs and setting priorities.

VET is mainly public. Secondary VET - including evening technical schools and the apprenticeship system - and public higher (tertiary/non-university) VET are free of charge, while various adult vocational programmes are offered for a limited fee.

Financial incentives for participation in adult vocational training are provided by HRDA, a semi-government organisation under the remit of the labour minister.

HRDA funding has encouraged enterprises, employees and the unemployed to participate in training activities.

Cyprus' tertiary educational attainment is one of the highest in the EU. There is a cultural trend in favour of general secondary education followed by higher education. Efforts to increase VET attractiveness have resulted in an increase in upper secondary VET enrolments by 7 percentage points from 2011 to 2023.

Challenges and policy responses

A major challenge is to address youth and long-term unemployment. Actions are being taken to promote the employability of young people and the long-term unemployed, through individualised guidance, training and work placements.

Another challenge is to encourage adult participation in lifelong learning (10,5% in 2022,Eurostat) and to increase VET participation among the young (17.6% at upper secondary level in 2021). Although declining, the percentage of young people aged 15-24 not in education or training (NEETs) is the third highest in the EU (12.9% in 2022, Eurostat) and below the EU average (9.5% in 2022). According to the 2022 edition of the Digital Economy and Society Index (DESI), Cyprus ranks 20th among 27 EU Member States, with only 50% of people between 16 and 74 years having at least basic digital skills, below the EU average of 54%.

In order to response to the challenges above, four new training schemes have been included by HRDA in the Cyprus' Recovery and Resilience Plan for the employed and the unemployed, in line with existing and future needs in the national economy and EU priorities: digital and green skills, skills related to the blue economy and entrepreneurial knowledge and skills.

A new Lifelong Learning Strategy for the years 2021-27 has been approved by the Council of Ministers in September 2022. It is structured around six strategic horizontal pillars: digital transformation, green transition and sustainability, inclusion and equality, validation of non-formal and informal learning, health and wellbeing and lifelong learning culture. The strategy aims to improve efforts to upskill and reskill low-qualified and low-skilled adults and address the high percentage of unemployment among young people and to assist national agencies and other stakeholders in Cyprus reaching the EU targets for the participation of adults in lifelong learning.

The Cyprus qualifications framework (CyQF) supports the validation of non-formal and informal learning. It includes vocational qualifications offered in the formal education and training system as well as those offered in the competence-based system of professional qualifications by the HRDA, with the aim of improving the skillset of the workforce.

VET in Czechia

The main body responsible for initial vocational education and training (IVET) is theMinistry of Education, Youth and Sports. Representatives of employers are involved in curriculum development and participate in creation of occupational and qualification standards. Vocational education and training (VET) is provided at lower and upper secondary, as well as tertiary level. IVET is mainly school-based, but work-based learning (WBL) is an integral part of the programme (13-55% of instruction time). WBL may take place at companies' work-sites or in school workshops or facilities.

VET predominantly begins following completion of compulsory education. Lower secondary IVET programmes (European Qualifications Framework, EQF 2) last 2 years and are designed primarily for learners with special education needs. These programmes are completed with a final exam or with a 'VET certificate'.

Upper secondary VET programmes (EQF 3-4) last 3 to 4 years. They include the following options:

- 3-year VET programmes at EQF 3 (completed by a VET examination leading to a VET certificate) enable graduates to enter the labour market directly and perform manual occupations (e.g. bricklayer, hairdresser). Graduates can follow a 2-year follow-up programme (EQF 4) and take a *maturita* examination, which opens an access to higher education;
- 4-year VET programmes (completed with a*maturita* examination, EQF 4) enable graduates to continue learning in higher education or perform mid-level technical, business, service, health and other similar jobs (e.g. construction technician, travel agent);
- 4-year *lyceum* programmes with a high proportion of general subjects (up to 70% of the curricula) prepare their graduates for studies at higher education institutions or entering the labour market;
- programmes offered by conservatories prepare for performance in music, dance, singing and drama activities. Studies are completed with an *absolutorium* (graduate examination, including theoretical vocational subjects, a foreign language and a graduate thesis) (EQF 6), but learners may also take a *maturita* examination (secondary education, EQF 4);
- learners who have already completed upper secondary education have an option to acquire a (second) qualification in another field in the so-called shortened programmes (3-year school-based VET programmes (EQF level 3) and 4-year VET and *lyceum* programmes (EQF level 4) can be offered as shortened programmes, provided that the school director considers that the learner has completed a programme, at the same EQF level, in a relevant field. Shortened programmes do not lead to a higher EQF level).
- Those with *maturita* (EQF 4) can acquire a VET certificate or another*maturita* certificate in a relevant field; those with a VET certificate (EQF 3) can only acquire another VET certificate in a relevant field. Shortened programmes are suitable also for adults and last 1 to 2 years.

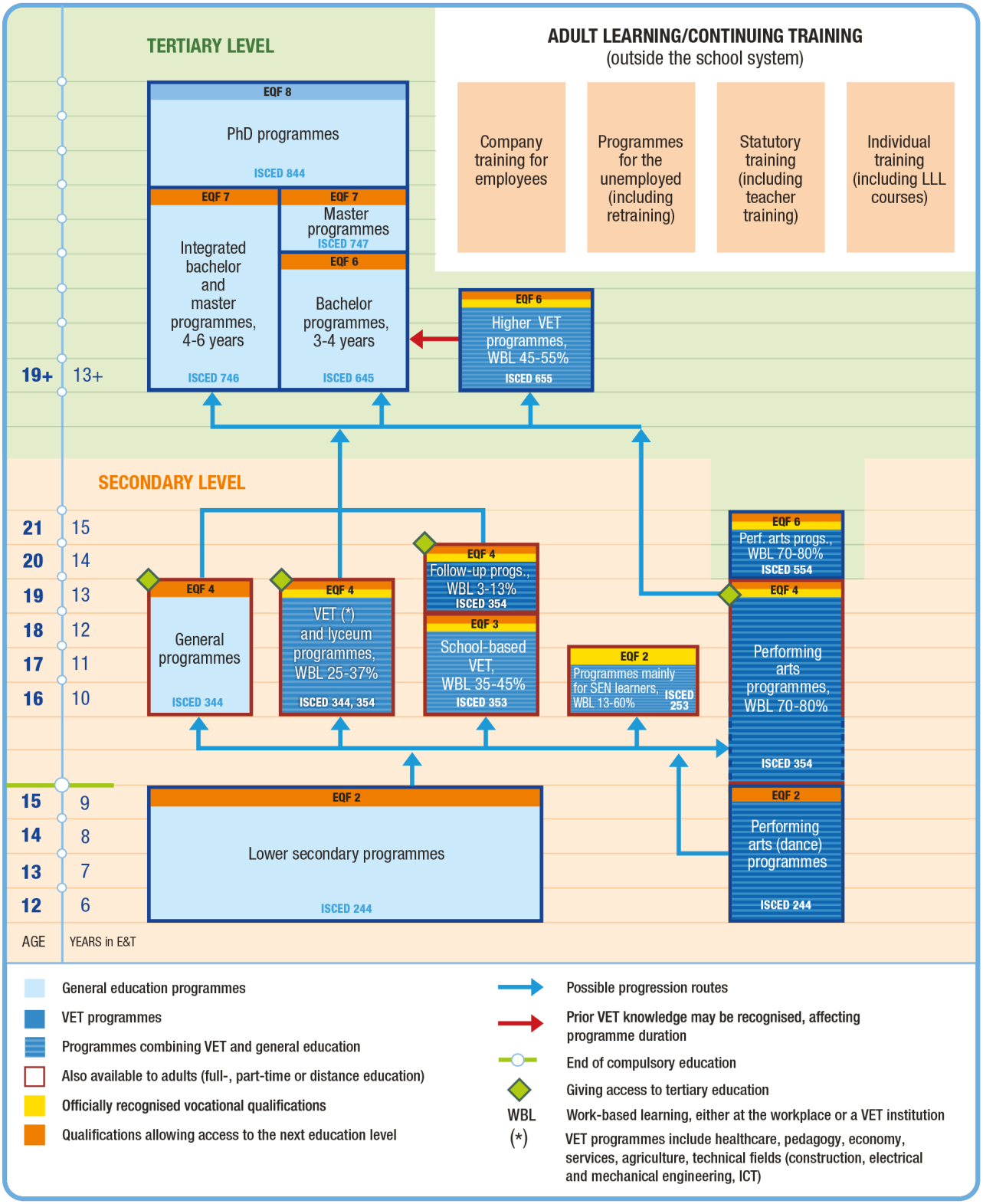
Higher VET programmes offered by tertiary professional schools prepare learners for demanding professional occupations, such as nutritionist. Studies last 3 to 3.5 years and are completed with an *absolutorium* (EQF 6) and a specialist diploma (*diplomovaný specialista, DiS*). The programmes are closely aligned to employer skill needs. Although many graduates enter the labour market, access to other higher education programmes is also an option. Graduates who, upon completion of their studies, continue in bachelor programmes at universities, may have some of their subjects and exams from higher VET programmes recognised.

The share of EQF 4 VET graduates continuing towards tertiary education was 65.5% in 2022.

Adults can attend VET programmes in the formal school system. While many programmes permit combination with employment, overall adult participation in VET is low.

The wide variety of continuing VET (CVET) programmes provided outside the formal system is not generally regulated. A system of validation of non-formal and informal learning outcomes (VNFIL) supports recognising learning outcomes acquired through CVET.

VET in Czechia's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & National Pedagogical Institute of the Czech Republic. (2023). Vocational education and training in Europe – Czechia: 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/czechia-u3

CZECHIA

Distinctive features of VET

VET has always represented a fundamental part of the Czech education system. The share of learners in VET programmes at upper secondary level was 69.1% in 2021 (Source: Eurostat, educ_uoe_enrs04).

General subjects are a strong component in all types of VET programmes. Their share varies by programme, from 30% to 70% of the instruction time.

A first choice between general and vocational upper secondary educational pathways comes at age 15. By age 17 to 19, most VET learners have acquired a vocational qualification recognised on the labour market.

Despite recent increase, the share of early leavers from education and training remains relatively low (6.2% in 2022), partly due to a wide choice of education pathways and horizontal permeability (Source: Eurostat, edat_lfse_14).

While demographic developments reduced the number of young learners in IVET,schools have become more active in providing CVET programmes for all. This allows school teachers developing their skills in teaching adults, but also helps increase young and adult learners' awareness of CVET as an integral part of life.

Graduate tracking has been in place for 20 years.

Challenges and policy responses

One of the main challenges in vocational education and training (VET) is to improve the quality and attractiveness of initial VET (IVET) by encouraging work-based learning (WBL) in companies, supporting the school-to-work transition of graduates.

Legislative measures adopted after 2014 supported cooperation between schools and employers through tax incentives, obligatory participation of employers in VET examinations and *absolutorium* or direct involvement of experts from the business world in instruction at schools.

Better matching of skills supply and labour market demand is another challenge. Several projects targeting better skills matching have been introduced but there is still no such system at national level. Linking IVET programmes with relevant qualifications in the National register of qualifications (NSK) should support responsiveness and flexibility to labour market needs.

A crucial challenge is the ageing of pedagogical staff. Around47.8% of vocational school workers are over 50 years old.

Despite an increase in average salaries, demanding teaching jobs up to tertiary level are not attractive.

The reform of financing formal education, introduced in January 2020, brought an increased level of centralisation. School funding is no longer based on a per capita approach but on the number of lessons taught.

As a policy response to Covid-19, an amendment to the Education Act, approved in August 2020, introduced obligatory online education in cases of emergency.

The new Strategy for the education policy of the Czech Republic 2030+ was adoptedin autumn 2020.

VET in Denmark

Vocational education and training (VET) plays a key role in the Danish strategy for lifelong learning, alongside meeting the challenges of globalisation and technological change.

Danish education and training provide qualifications at all levels, from compulsory schooling to doctoral degrees, and a system of parallel adult education and continuing vocational training (CVET). The two systems offer equivalent qualifications at various levels, enabling horizontal permeability.

VET jurisdiction is with the education ministry. Initial VET (around 100 programmes) is organised into four broad entry routes: care, health and pedagogy; office, trade and business services; food, agriculture and 'experiences' (an umbrella term for tourism and recreation); and technology, construction and transportation. Programmes are organised according to the dual principle, alternating between periods of college-based and work-based learning (apprenticeship training) in enterprises. A typical initial VET programme (EUD) lasts 3.5 years with a 2:1 split between workplace and college-based training, although there is considerable variation among programmes. Individual study plans are compiled for all students. VET colleges and social partners share the responsibility for developing curricula to ensure responsiveness to local labour-market needs. Qualifications at this level provide access to relevant fields in academy professional programmes (KVU) and professional bachelor programmes at the tertiary level. Professional bachelor programmes in Denmark correspond to EQF level 6, indicating that students' performance is equivalent to programmes at bachelor's and diploma degree and that students have acquired the required, advanced skillset.

Alternative routes to VET qualifications include:

- combined vocational and general upper secondary education (EUX, an academic preparation programme), a relatively new pathway, which lasts around 4 years. It enables highly motivated students to obtain access to higher education along with a vocational qualification
- 'new apprenticeship'

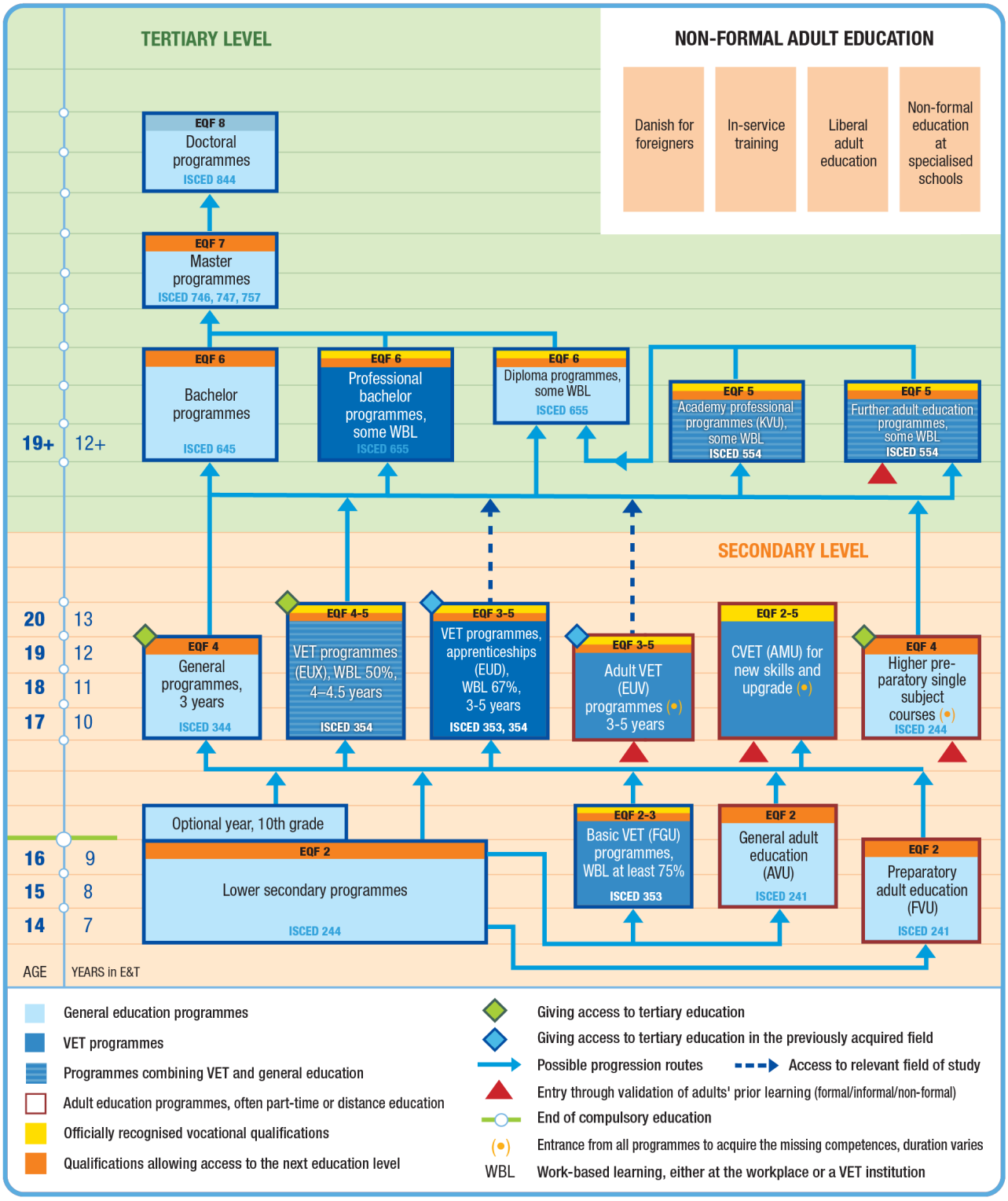
- (Ny Mesterlære) programmes, where the entire first-year basic course takes place at a company instead of partly at a VET college. Students with a practical approach to learning benefit from these programmes
- basic VET (FGU) for lower secondary graduates, with a practical approach to learning. The programme caters to the young unemployed, lasts 3 to 4 years, and includes at least 75% of work-based learning (WBL).

Adult learning

VET for adults aged 25 or older (EUV) has been established as a specific track to offer the low-skilled an attractive and goal-oriented path to becoming skilled workers.

Adults with at least 2 years of work experience can receive VET education without the basic programme and without an internship. Adult vocational training (*arbejdsmarkedsuddannelser*, AMU) provides participants with skills and competences relevant to the labour market and is primarily geared to specific sectors and jobs. The programmes help learners either to deepen their existing knowledge in a particular field or to develop new knowledge in related fields. AMU programmes (around 500) are created, adapted or discontinued in response to labour-market needs. At the tertiary level, further VET and adult education programmes lead to EQF level 5 qualifications.

VET in Denmark's education and training system



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

DENMARK

Distinctive features of VET

The Danish VET system is characterised by a high level of stakeholder involvement. Social partners, vocational colleges, teachers and learners are all involved in developing VET based on consensus and shared responsibilities. Stakeholders play a key role in advising the education ministry on overall VET policy and in determining the structure and general framework for training programmes within their field, cooperating in national trade committees. Locally, stakeholders cooperate in developing curricula to respond to local labour-market needs.

Denmark has one of the highest rates of participation in adult education and continuing training in the EU. This reflects the national strategy to focus on knowledge-intensive specialist sectors and lifelong learning, as well as the large public sector and a tradition of strong ties between educational institutions and social partners.

An integrated lifelong learning strategy introduced in 2007, improved horizontal and vertical permeability and guidance services and provided better opportunities for the recognition of non-formal learning and qualifications through standardised procedures to validate prior learning.

Public financing is central to the VET system, with colleges receiving performance-based block grants. Apprenticeships and further training for employees are subsidised according to a solidarity principle, coordinated by the Employers' reimbursement fund (*Arbejdsgivernes Uddannelses Bidrag-AUB*), Within this system, all enterprises, regardless of their involvement in VET, contribute a fixed amount per employee to a central fund. Enterprises are then partially reimbursed for providing training placements and for employee participation in continuing training.

Challenges and policy responses

Education and training are considered a key area. As the demand for skilled labour continues to increase, IVET is expected to accommodate an increasingly heterogeneous learner population. Two reforms have had significant influences on VET development. The VET reform of 2014 established minimum entrance requirements for VET learners. Requirements for VET teachers were strengthened in 2010, since when all VET teachers must have a teaching diploma (60 ECTS) at EQF level 6. Both initiatives are expected to increase VET quality. Social assistance reform (2014) makes it mandatory for unemployed people under 30 receiving social benefits to participate in education and training.

The 2014 VET reform has four main objectives for improving VET quality:

- more learners must enter VET directly from compulsory schooling, rising from 18% in 2015 to 30% by 2025;
- completion rates in VET must be improved, from 52% in 2012 to 67% in 2025;
- VET must challenge all learners, so that they reach their full potential;
- employer and learner satisfaction with VET must gradually be increased by 2020.

A lack of suitable training placements in enterprises is frequently cited as a primary reason for learner dropout. Under the 2020, Tripartite agreement to ensure more apprenticeships in Danish VET, 80% of VET students must have an apprenticeship at the end of the basic course. In 2022, this figure was 65%.

Unemployment, and particularly long-term unemployment, among young people with little or no work experience poses challenges for adult education and continuing training. Substantial upskilling and reskilling are necessary to avoid a considerable part of the workforce being permanently excluded from the labour market. The government launched a plan for upskilling unemployed adults. In the training period, it is possible to receive 110% of unemployment benefits.

VET in Estonia

Vocational education and training (VET) in Estonia is under the jurisdiction of the Ministry of Education and Research and is crucial to ensuring a flexible and skilled workforce. Professional standards in the eight-level Estonian qualifications framework are competence-based and are the basis for VET curricula. Social partners are involved in VET policy development and implementation. They participate in national professional councils and are involved in drafting VET-related legislation, including curricula. At provider level, their representatives belong to VET institution advisory bodies.

Recognition of prior learning and work experience has improved accessibility to VET for learners from diverse education and professional backgrounds.

VET providers offer both initial and continuing programmes. Initial VET is offered at levels 2, 3, 4 and 5 of the Estonian qualifications framework (and European qualifications framework, EQF). Learners can choose between full-time studies and those where the emphasis is on self-study (referred to as ‘non-stationary’ studies in the national context). Full-time studies are available as school-based tracks that all include practical training in school and in enterprise, and as apprenticeship. Financial assistance is available for VET learners to guarantee equal access to education.

There are no minimum admission requirements at EQF levels 2 and 3 but learners must be at least 17 years old to enrol. Entry to level 4 studies usually requires completed basic education but there are exceptions for ISCED 354 programmes for those over age 22 without basic education.

VET programmes at ISCED level 354 are referred to nationally as upper secondary vocational education.

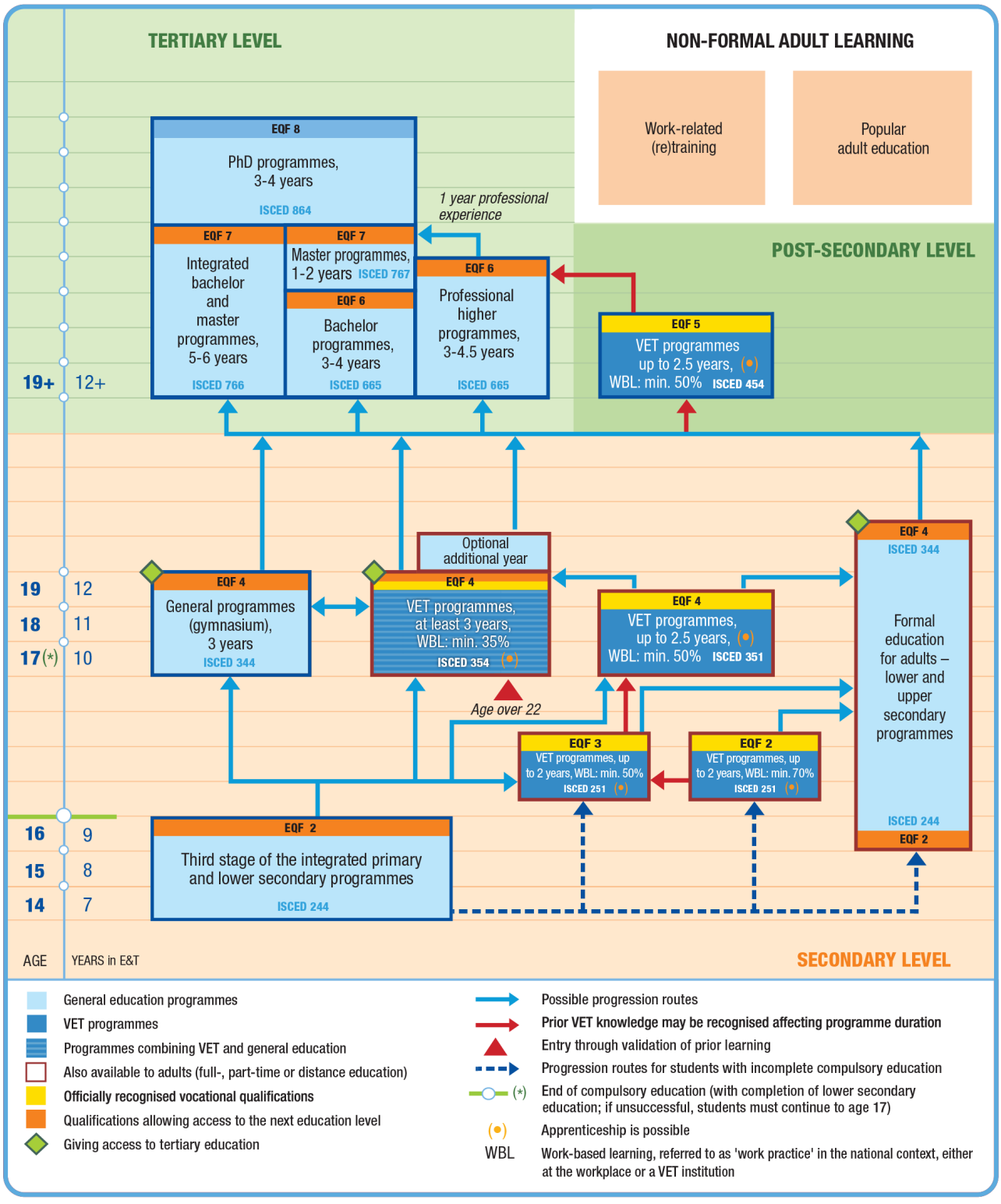
The ratio of learners in general and vocational upper secondary programmes is three to one. The qualification achieved in vocational secondary education gives access to higher education. This may require learners to pass State examinations that are compulsory for general upper secondary education graduates: an optional additional year of general education is available for upper secondary VET graduates (ISCED 354) to help prepare. Around 7% of upper secondary VET graduates continue in tertiary education. Upper secondary education gives access to EQF level 5 initial VET programmes (ISCED 454). These post-secondary programmes prepare learners for technical and associate professional occupations and further studies.

Continuing VET is offered at EQF levels 4 and 5. To enrol in these formal programmes, learners need a VET qualification or relevant competences, in addition to completed upper secondary education.

Tertiary VET does not feature in Estonian legislation, though tertiary education may also comprise professional qualifications. These are accessible to all graduates of upper secondary education and post-secondary VET.

Non-formal continuing VET is part of adult learning. Its forms, duration and content vary. To support up- and reskilling of vulnerable groups (e.g. with obsolete, low-level or no qualification), VET providers and professional higher education institutions offer free courses for working adults.

VET in Estonia's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Estonian Ministry of Education and Research. (2023). Vocational education and training in Europe – Estonia: 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/estonia-u3

ESTONIA

Distinctive features of VET

Although the number of VET learners has been decreasing, the share of adult learners (age 25 and over) in initial and continuing VET has increased, reaching 38.5% of all VET learners in 2022/23. This pattern reflects demographic trends but also changing labour market needs. Since 2010, the proportion of higher educated adults entering VET has also been increasing. In both initial and continuing education, learners have the right to take study leave.

The share of practical training in VET programmes is 35% or more, depending on the type of programme. In the school-based track, it is usually divided equally between school workshops and workplace learning, featuring work and study assignments with specific objectives.

Participation in apprenticeships has increased since 2016/17 and reached 9% of VET learners in 2020/21. Following the expiration of the initial EU support, the participation decreased to 5.3% in 2022/23. The education ministry continues to invest in functioning and sustainable work-based learning system with stronger employer involvement, including the renewed ESF (European Social Fund) funding.

General secondary education has remained the more popular option among basic education graduates despite the government's efforts to increase the attractiveness of VET. Preferences in education paths vary by region and gender. The proportion of adult learners in VET is high, but in recent years, the number and share of learners up to 19 years of age have steadily increased: in 2022/23, 47.4% of learners in this age group were VET learners. The most common VET study fields are engineering, manufacturing and construction, with 50% of upper secondary vocational graduates.

VET programmes are mainly offered in Estonian. There are also programmes in English and Russian. The latter will transform into Estonian-language programmes by 2030/31.

Challenges and policy responses

The Estonian labour market has a high level of skills mismatch. Jobs and skills forecasting system OSKA was launched in 2015 to improve alignment between education and the labour market. Results are available online and are used in curriculum development, career counselling, and planning of State-funded education. Support measures are implemented to increase the supply of IT and STEM professionals into the labour market.

Compared with 1.2% of dropouts from general upper secondary education, the rate in the first year of vocational upper secondary education was much higher, i.e. 20.6% in 2022. There are career counselling services, vocational orientation programme at EQF level 2 and other measures to prevent early leaving from VET.

In 2022, 25% of adults aged 25 to 64 had no professional or vocational qualification; the objective is to reduce this share. Several measures have been introduced to encourage adults without a qualification to return to formal education.

Participation in lifelong learning increased from 6% in 2005 to 21% in 2022 and VET has been playing a role in this. The goal is to increase it to 25% by 2035. There is a focus on broadening access to non-formal education, training courses for developing key competences, and career services.

VET in Finland

The Ministry of Education and Culture is responsible for strategic and normative steering of vocational education and training (VET) and leads national development. National VET objectives and core subjects are determined by the government.

Authorisations to provide VET are granted by the ministry. They cover VET fields, number of learners, language of instruction, locations, special education tasks and other issues. VET providers may also be assigned tasks to organise training in compliance with the labour market policy.

A VET provider may be a local authority, municipal training consortium, foundation, other registered association or State-owned company. These organise training in their areas of competence, matching provision with local labour market needs. They decide independently on how the training is carried out, the use of learning environments and pedagogical solutions.

Around 40% of learners who completed basic education enrol in initial VET (IVET) immediately after; they obtain their VET qualifications at vocational institutions or through apprenticeships. Since 2021, it is compulsory for all to study at least until the age of 18 (previously 16), including VET. Vocational qualifications are available for both young learners and adults.

There are 42 initial vocational qualifications (EQF 4), 64 further (EQF 4) and 54 specialist vocational qualifications (EQF 5). Admission to IVET programmes is based on a basic education certificate; for continuing VET (CVET: further and specialist) it is on a case-by-case basis, taking work experience into consideration.

IVET suits adults without a formal qualification or those who want to change profession. CVET programmes are mainly for adults with previous work experience. Adults may benefit from study leave. Leave that is 2 months or longer qualifies for the adult education allowance for up to 15 months, depending on the applicant’s work history. The allowance is equal to the amount of the earnings-related unemployment allowance.

An initial vocational qualification requires 180 competence points (cp) comprising vocational units (compulsory and optional) and common units (communication, maths, science, citizenship and skills for working life) included in all IVET programmes. The nominal duration is 3 years, depending on the individual personal competence development plan. Further vocational qualifications usually require 150 cp and specialist vocational qualifications 180 cp, consisting mainly of vocational units. All include work-based learning.

The legislation does not stipulate a maximum or minimum amount on work-based learning (WBL). It is planned as part of the learner’s personal competence development plan and implemented through an apprenticeship agreement (written fixed-term employment contract) or a training agreement. The latter does not establish an employment relationship with the training company; learners do not receive salary and employers do not receive training compensation.

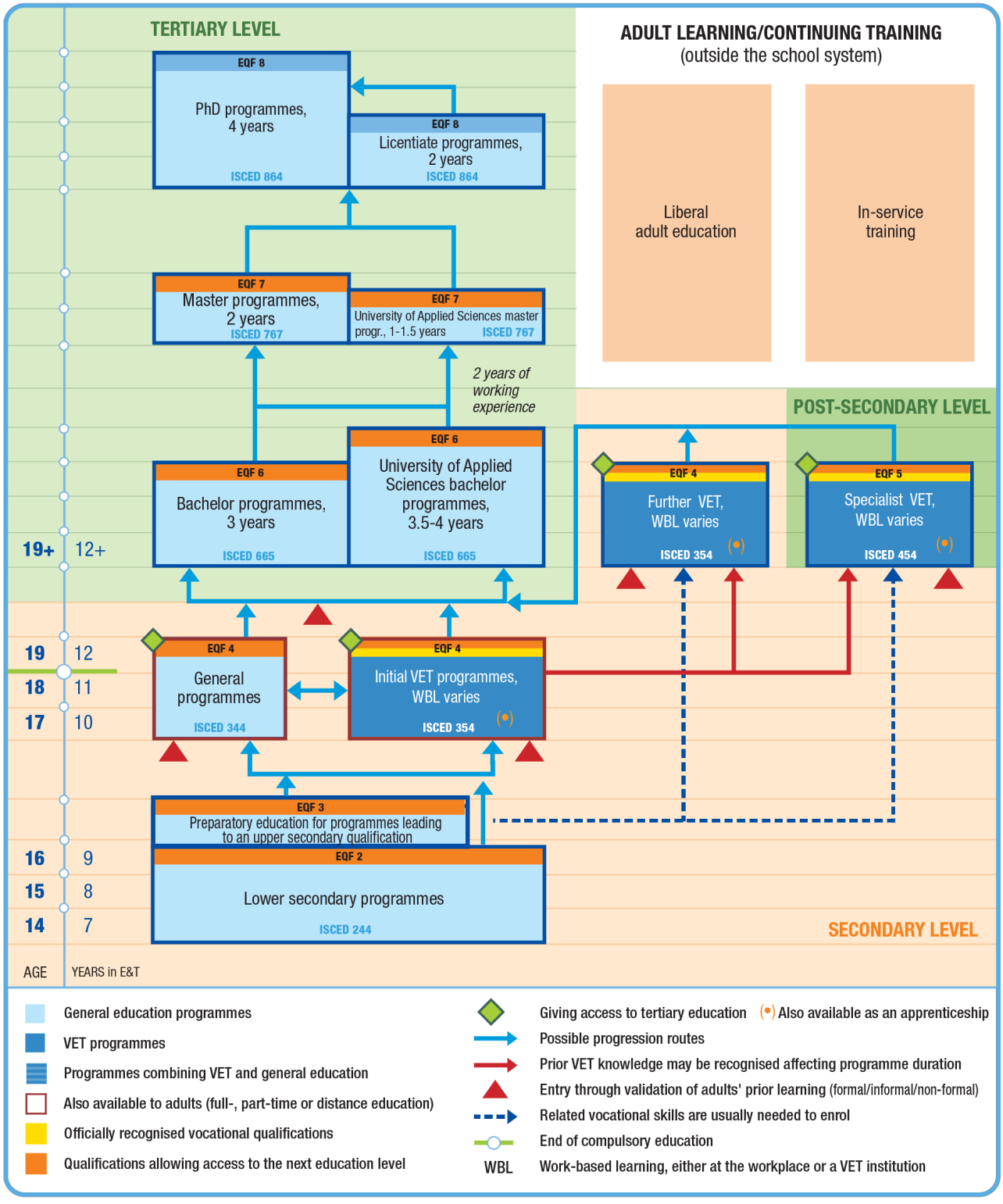
WBL forms may alter within a programme: a learner may transfer from training to apprenticeship agreement when the prerequisites for concluding such an agreement are met.

All VET programmes ensure eligibility for higher education studies.

National qualifications requirements ensure standardised vocational competence and are the basis for evaluating learning outcomes. The Finnish National Agency for Education develops them in tripartite cooperation between teachers, learners and education providers, employers and employees.

Representatives from enterprises contribute to developing national qualification requirements through sectoral working-life committees; they also organise and plan workplace training and competence tests, as well as assessing the tests.

VET in Finland's education and training system



NB: ISCED-P 2011.
Source: Cedefop, & Finnish National Agency for Education. (2023). Vocational education and training in Europe – Finland: 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/finland-u3

FINLAND

Distinctive features of VET

Finnish VET is competence-based and learner-oriented. A personal competence development plan is drawn up for each learner. It charts and recognises the skills previously acquired by the learner and outlines any further competences the learner needs and how they can be acquired in different learning environments.

There are no final exams in VET. Once learners successfully complete their personal competence development plan, they acquire a qualification.

VET supports lifelong learning and learners' development as human beings and members of society. It provides learners with the knowledge and skills necessary in further studies and promotes employment.

VET is also an attractive choice because of its flexibility and good job and study prospects: graduates may enrol in higher education or enter the labour market. The fact that VET is developed and delivered in close cooperation with the labour market guarantees its quality and attractiveness. Guided and goal-oriented learning at the workplace takes place in versatile learning environments, both at home and abroad, and is based on practical work tasks.

VET teachers and trainers are respected professionals. A career as a VET teacher is generally considered attractive. This is reflected in the high number of learners applying for VET training programmes, which invariably exceeds intake. Around one third of eligible applicants are admitted to training.

Challenges and policy responses

Finnish VET has recently undergone the most extensive reform in almost 20 years, aiming at more efficient and flexible, competence-based and customer-oriented VET that better matches qualifications to labour market needs.

The need to increase the share of WBL is one of the challenges it addresses. Further developing pedagogical thinking and practices, improving learning environments, and cooperation between workplaces and VET providers is required to achieve this objective. A sufficient number of workplaces and competent trainers, support and guidance and quality assurance are also key.

The COVID-19 pandemic has complicated the organisation of WBL, especially in the service branch where it has become difficult to find workplaces for learners. VET provider own facilities, such as school restaurants, can be utilised in this exceptional situation. In 2021, the situation normalised as vaccinations affect the picture.

Teachers' jobs include more guidance: individual study paths increase the importance of the guidance and support provided for learners. EUR 80 million has been allocated through the government programme for recruiting vocational teachers and instructors in 2020.

The reform also changes how VET is financed. Since 2018, a single funding system with uniform criteria has covered all VET programmes, including CVET and apprenticeships. The financing model has gradually started to move towards performance and efficiency funding; this will increase to 20% and 10% respectively by 2022, reducing the core funding to 70% from the current 95%. Performance funding is based on the number of completed qualifications and qualification units; effectiveness funding is based on learners' access to employment, pursuit of further education and feedback from both learners and the labour market.

VET in France

France has a long tradition in vocational education and training (VET); the foundations of continuing VET were laid in the early 1970s. Initial VET is mainly regulated by the Ministries of Education, Youth and Sports and of Higher Education, Research and Innovation. Different ministries develop vocational qualifications valid nationally. Vocational training for adults and the apprenticeship system are under the remit of the Ministry of Labour. France compétences is a four-party national public institution in charge of the funding and regulation of vocational training and apprenticeship.

Initial VET (IVET)

VET at upper secondary level. On leaving lower secondary education, generally at age 15, young learners may opt among the following upper secondary paths *(lycée):*

- general or technological (ISCED 344) 3-year programmes leading to an EQF level 4 general or technological baccalaureate, providing access to tertiary education. The first year is common to both paths, the last two years of technological programmes are vocationally oriented;
- vocational programmes (ISCED 354): leading to a vocational baccalaureate (EQF level 4) in 3 years or a professional skills certificate (CAP, EQF level 3) in 2 years. Both qualifications provide direct access to employment, and the training always includes in-company internship. Graduates may continue in specialisation programmes. Access to tertiary-level VET programmes in related fields is also possible.

Upper secondary education is governed by the Ministry of Education and financed largely by the Ministry of Education and partly by other ministries like agriculture and industry, as well as regional authorities.

VET at tertiary level. The *lycée*-based higher technician curricula provide a 2-year programme leading to the higher technician certificate (BTS, EQF level 5). General and technological baccalaureate graduates can also decide, on completion, to go on to a 3-year professional bachelor programme (EQF level 6) and progress to master level (EQF level 7). Since 2022 they may also enter 3-year University Bachelor of Technology programmes (*Bachelor Universitaire de technologie, BUT*). Technical and vocational studies are offered by *lycées*, universities, technology institutes attached to universities (IUT) and other public or private higher colleges of excellence (*grandes écoles*).

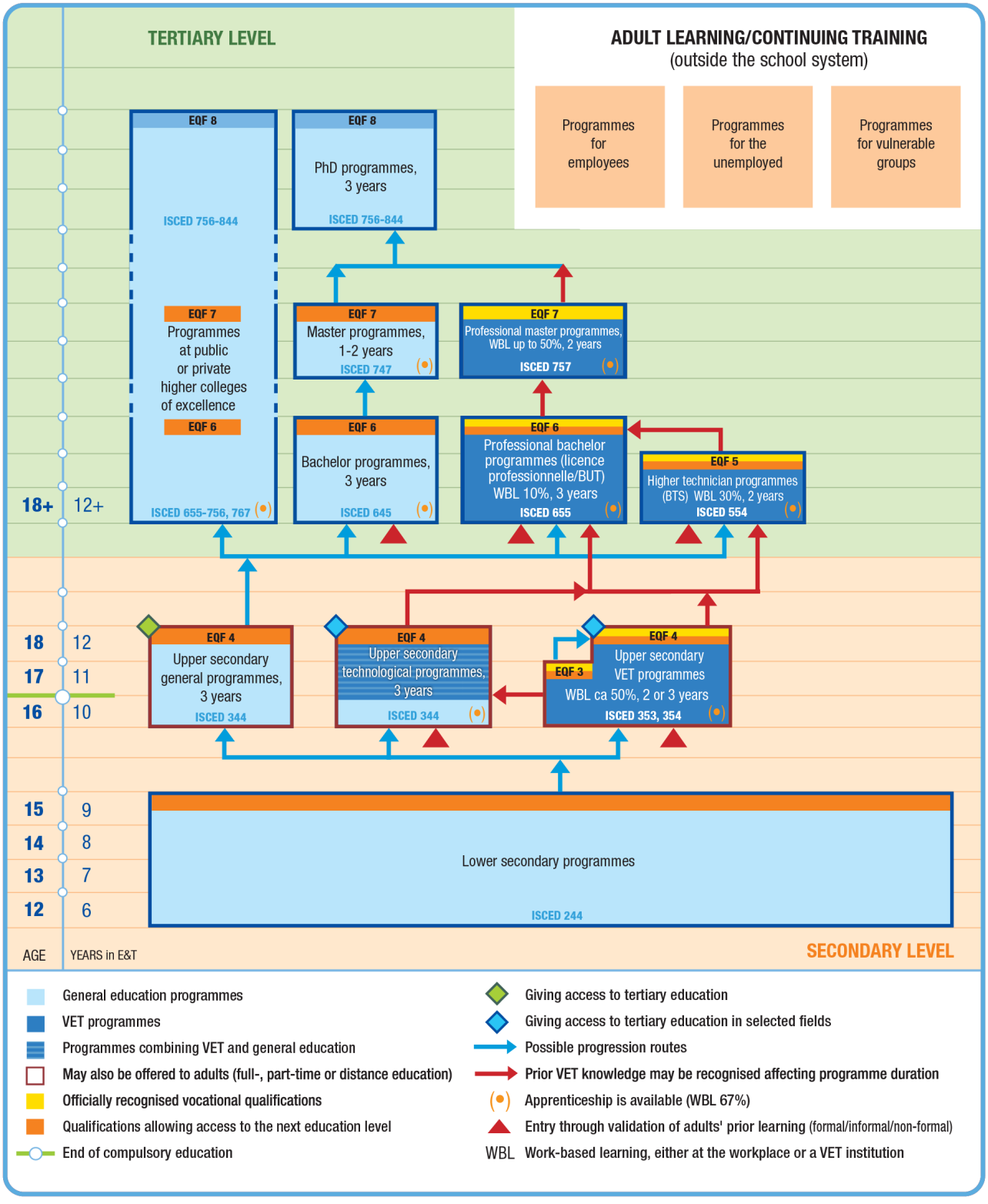
Apprenticeship. Apprenticeship in France is open to young people aged between 16 and 29 and provide comprehensive theoretical (classroom) training in apprentices training centres (*centre de formation des apprentis,* CFA) and practical (on-the-job) training with an apprenticeship contract lasting between 6 months and 3 years. Apprentices can obtain any qualification listed in the National Register of Vocational Qualifications (RNCP), from EQF level 3 (e.g. CAP) to EQF level 7 (e.g. engineer). Apprentices receive a salary and are considered employees. The system is jointly managed by the State, France Compétences and the social partners, with funding coming from compulsory training and apprenticeship contributions from companies, supplemented by regional.

Continuing VET (CVET)

CVET targets those entering or already in the workforce, irrespective of age. Continuing training is mainly aimed at facilitating professional integration, sustaining employment, and fostering upskilling. Employers directly finance employee training, or intermediary expenditures are managed by joint professional bodies for smaller companies. State aid is also available for eligible employers. Regions fund training for jobseekers registered with the public employment service.

The training market is open and adaptive to changing needs of individuals and companies. CVET training linked to the individual training account (CPF) scheme accessible to the (un)employed is quality assured. Only certified providers awarded with the national quality label Qualiopi may deliver CPF-funded programmes.

VET in France's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Centre for the Development of Information on Continuing Training (Centre Inffo). (2023). Vocational education and training in Europe – France: 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/france-u3

FRANCE

Distinctive features of VET

The State ensures the principles of equal opportunities and the right to education; public education is free of charge and secular. The social partners have an essential role in regulatory, political and financial aspects of lifelong learning programmes. They manage different bodies that fund apprenticeship and vocational training schemes for small companies, as well as the unemployment insurance system for jobseekers.

Regions have full authority over vocational training (except apprenticeship), career advice and coordinating job support policies. They develop training policies adapted to their needs, define and manage territorial public policies, and can elaborate their strategies on VET and economic developments.

Lifelong learning aims to facilitate access and secure employment for young people and adults. Companies have an obligation to contribute financially to continuing training of employees. The rate of applicable compulsory contributions is set by law, with some professional branches applying rates above the legal minimum. Any person engaged in working life is entitled to individual rights to training through the personal training account (CPF). The policy intention is to promote social progress and reduce inequalities in access to training. The system is unmediated; by activating the account online, individuals may use their credits to buy training sessions.

State-issued qualifications can be acquired in and outside the education system, in adult learning and through validation processes. Public and private providers, including social partners, may design and offer their own qualifications. However, only vocational qualifications and certificates included in the national registers (RNCP and RS) in line with the quality requirements of the national qualifications system are accessible through CPF-eligible training schemes financed by public or mutualised funds.

Challenges and policy responses

National policies aim to better align initial VET with labour market needs, including digital and green skills, and increase VET attractiveness. Training opportunities for skills are guaranteed for all 16-18-year-olds through schooling, apprenticeship, continuing education, civic service and support for social and professional integration programmes. Financial support for enterprises and low-skilled young people is complemented by targeted support under the national Youth Plan.

In 2023-24, the ongoing reform of upper secondary paths (*lycées*) is focusing on preventing early school leaving, easing transition from school to work and supporting VET graduates following further education through targeted actions: financial allowance to each learner for internships undertaken during their studies, creation of a business relations office in each *lycée*, acceleration of the adaptation of the training offer and support measures for programme completion. Professional integration through apprenticeship programmes continues with 14.3% increase on apprenticeship contracts recorded in 2022.

In the field of CVET, upgrading the skills of the least qualified remain high in the policy agenda. In 2023, new programmes are launched through the Investment in Skills Plan (PIC). The National Agency to Combat Illiteracy is coordinating local support schemes (ESF-funded) aiming to address the high number (1 in 15) of people without basic skills. Moreover, targeted measures under the National Recovery and Resilience Plan, which runs until 2026, allocate €15 billion for recruitment subsidies, sustainable professional integration support and 200 000 additional training opportunities in ecological and digital transition jobs. An ambitious national plan to reduce recruitment pressures is being implemented in 2021-23 (EUR 1.4 billion) by the public employment service.

An ambitious national plan to reduce recruitment pressures is being implemented in 2021-23 (EUR 1.4 billion) by the public employment service. At the same time, high level policy discussions were initiated in mid-2023 between the Head of State and social partners to agree on an ambitious social agenda, define career paths and retraining programmes for the (un)employed.

VET in Germany

Vocational education and training (VET) is based on close cooperation between the State, companies and social partners. The Federal Ministry of Education and Research (BMBF) is responsible for general VET policy issues and has a coordinating role for all training occupations. The BMBF works closely with the Federal Institute for Vocational Education and Training (BIBB). BIBB conducts research, moderates the process of developing the training regulations and plays a crucial advisory role for VET policy. The Federal States *(Länder)* are in charge of the school-based part of VET. Social partner contribution is important at different levels.

Upper secondary VET

Apprenticeship programmes (dual system) are the pillar of upper secondary VET. They are mostly offered at EQF level 4 and cover 326 occupations. Programmes usually last 3 years and combine two learning venues, companies and vocational schools: the work-based learning share is approximately 75%. Enterprises bear the costs of company-based training and pay learner remuneration. Those passing the final examination carried out by the chambers are qualified as certified skilled professionals.

In parallel, upper secondary VET programmes are offered in vocational schools at EQF levels 2 to 4. These include:

- school-based VET programmes, duration 1 to 3 years, leading to a qualification e.g. in the health sector such as physiotherapist (3 years, EQF level 4);
- general education programmes with vocational orientation, duration 2 to 3 years, leading to the general higher education entrance qualification.

Young people with learning difficulties, handicap or insufficient German language skills have the possibility to attend different one-year lasting transition programmes at EQF level 1-2.

At post-secondary level, specialised programmes are offered at EQF levels 4 to 5, lasting 1 to 3 years and leading to entrance qualifications for universities.

Tertiary VET

At tertiary level, those with vocational qualifications and professional experience can acquire advanced vocational qualifications at EQF levels 5 to 7. At EQF level 6 (bachelor professional, e.g. *Meister*) the qualifications entitle graduates to exercise a trade, to hire and train apprentices, and to enrol in academic bachelor programmes. Graduates can continue at EQF level 7 (master professional). These qualifications support the acquisition of middle and top management positions in companies. Preparation courses are offered by chambers or schools.

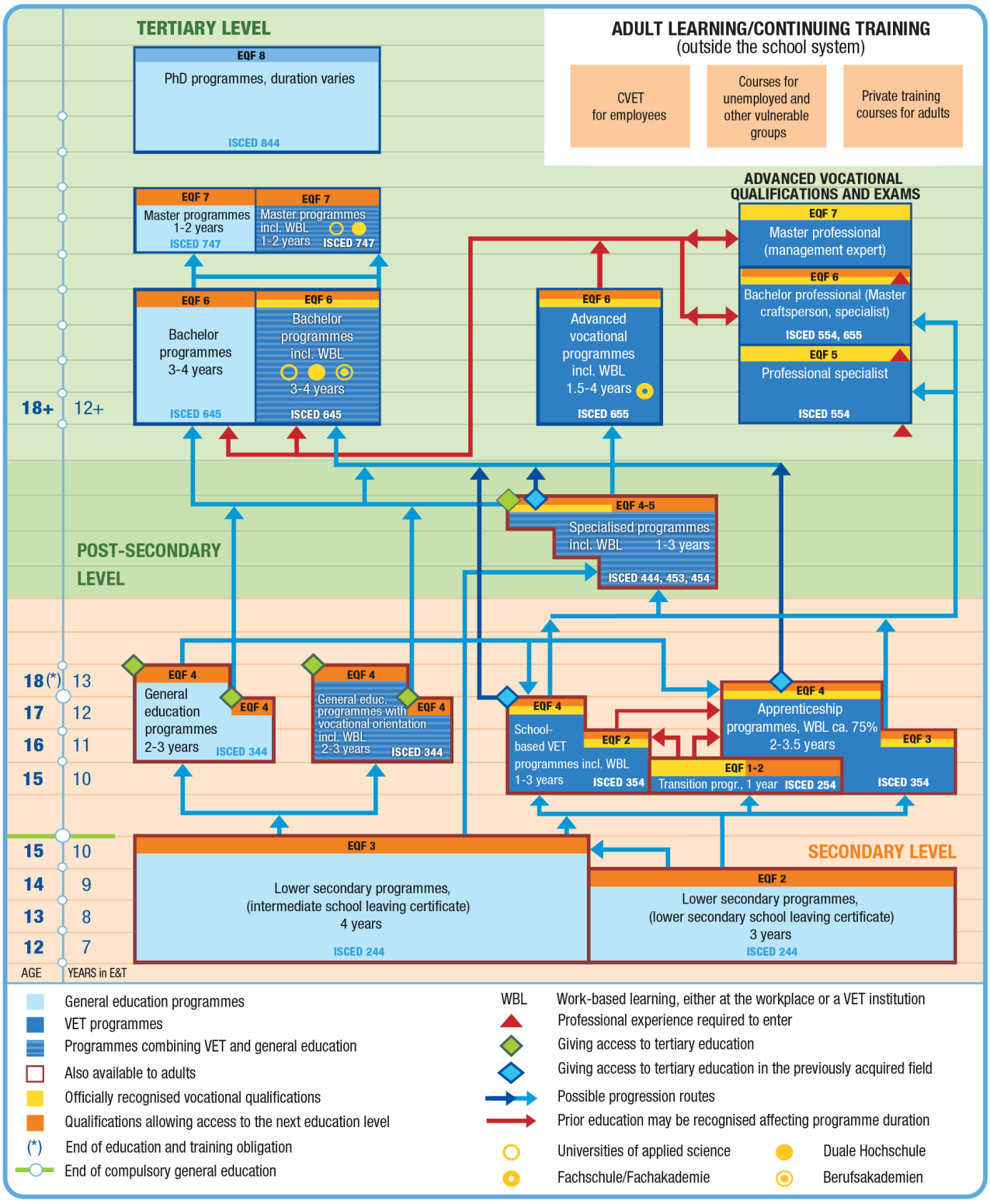
Advanced vocational programmes are offered at state regulated technical and trade schools at EQF 6, lasting 1.5 to 4 years. Entrance requirements include specific vocational qualification and work experience. They lead to an advanced qualification (such as technician, educator) and give access to the relevant field of study.

Dual study programmes are offered at EQF levels 6 to 7 by different higher education institutions. They provide a blend of academic and vocational training, in which in-company training is an important element (share of at least 40 to 50%). Enterprises bear the costs of company-based training and pay learners a wage.

Continuing VET

Continuing training is playing an increasingly important role in improving employability by upskilling and reskilling in line with the digital and ecological transition. It is characterised by a wide variety of training providers and a low degree of State regulation. State incentives are in place to increase participation in CVET.

VET in Germany's education and training system



NB: ISCED-P 2011.
Source: Cedefop, & Federal Institute for Vocational Education and Training (BIBB). (2023). Vocational education and training in Europe – Germany: 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/germany-u3

GERMANY

Distinctive features of VET

Germany's VET is a successful model, largely based on the dual system (apprenticeship) leading to high-quality vocational qualifications, valued on the labour market. Apprenticeship enables smooth education-to-work transitions, contributing to low youth unemployment: in 2021 this was 6.9% of those aged 15 to 24, versus 16.6% in the EU-27. Almost half of upper secondary school learners are enrolled in a VET programme; of those, about two thirds participate in apprenticeship. A growing share of apprentices has a higher education entrance qualification (29.7% of apprentices starting their training in 2021).

National standards and training regulations (curricula for in-company and school-based components) ensure the quality of the dual training programmes. Companies provide apprenticeships in accordance with the training regulations, developed by the four stakeholders (Federal and State governments, companies and trade unions). These regulations allow to agree on company training plans with apprentices and are technology open. Instruments such as additional qualifications as well as differentiation into various specialisations enable a high degree of flexibility and adaptability of the training regulations. Furthermore, regular revisions guarantee keeping pace with rapid technological and organisational changes.

Social partner contribution at different levels is important. As vocational training must respond to labour market needs, employer organisations and trade unions have a major influence on the content and form of IVET and CVET. At national level, they are represented in the BIBB board and participate in its vocational training committees. At regional level, the chambers play a crucial role in VET, such as in examinations. The initiative for updating or developing new occupational profiles comes mainly from social partners.

Challenges and policy responses

Access to training market. This priority aims at securing the next generation of skilled workers by promoting young people's interest in dual VET and addressing matching problems in training companies, e.g. through vocational orientation and inclusion. To this purpose, the *Alliance for initial and further training* between the main VET actors has been relaunched for 2023-26.

Excellence in VET. In response to more demanding occupational profiles, the focus is placed on talented learners and establishing the equivalence of vocational and academic education at all levels. The umbrella initiative *Excellence in VET* combines existing and new measures, e.g. programmes supporting inter-company training centres or innovative VET projects.

Ecological and technological transformation. VET policies contribute in identifying future skills needs and developing competences and qualifications of learners and trainers in sustainability at all levels. The project *H2PRO* examines how skills requirements in apprenticeship occupations are changing along the hydrogen value chain, e.g. with sectoral analyses in production, transport, storage, industry and heat supply.

Digital education and training area. The digital transformation requires new skills for learners, VET teachers and trainers, and allows new formats for learning in vocational schools, in companies and in the CVET segment. The *National Skills Strategy (NWS)* for developing a CVET culture was renewed by all partners. One goal is to strengthen the acquisition of new skills and possible reorientation in working life in the company context through regional CVET networks.

Internationalisation of VET. This priority aims at promoting international VET mobility and skills competitions, fostering VET cooperation worldwide, with a focus on the European education and training area. One portal for VET learners compiles all information on how to organise an internship abroad; another portal addresses VET institutions on how they can support international apprentice mobility.

VET in Greece

Vocational education and training (VET) is State-regulated, combining school- and work-based learning (WBL). It is offered at upper, post-secondary and tertiary levels. Overall responsibility is with the Ministry of Education, Religious Affairs and Sports in cooperation with the Ministry of Labour and Social Affairs. VET qualifications at EQF levels 3 and 5 are awarded after certification exams organised by the National Organisation for Certification of Qualifications and Vocational Guidance (EOPPEP).

Compulsory schooling lasts until age 15 and completion of lower secondary education *(Gymnasio).* At age 16, learners usually follow one of the two main upper secondary school education programmes, the general path (*Geniko Lykeio,* GEL) and the vocational one (*Epaggelmatiko lykeio,* EPAL). In 2021, 33.8% on all upper secondary learners were enrolled in VET. VET permeability is supported as well as its equivalence to general education: at the end of the first year, learners may change direction from VET to general education and vice versa; both types of programmes lead to an equivalent end of upper secondary school leaving certificate at EQF level 4.

EPAL provides 3-year upper secondary VET, with at least 25% of WBL, leading to specialisation at EQF level 4. Graduates can take part in national exams for admission to tertiary education on a quota basis: a 5% quota for specific programmes such as polytechnics and medicine; a 10% quota for other university departments; and a 20% quota for the School of Pedagogical and Technological Education (ASPETE) (EQF 6). EPAL programmes are also offered at evening classes for adults and employees under age 18 with lower secondary education. General upper secondary education graduates can enrol in year 2 of EPAL.

At post-compulsory level, two-year apprenticeship programmes (WBL >80%) address early leaving from education and training. They are regulated by the 2020 law on VET and lifelong learning and can be delivered by the vocational training schools (ESK) of the education ministry and the apprenticeship schools (EPAS) of the public employment service (DYPA). Both programme types include an internship and provide training in sectors linked to the local economy to support the employability of graduates. They lead, after examination, to an EQF level 3 certificate (*ΕΣΚ*, *ΕΠΑΣ*) valued in the labour market.

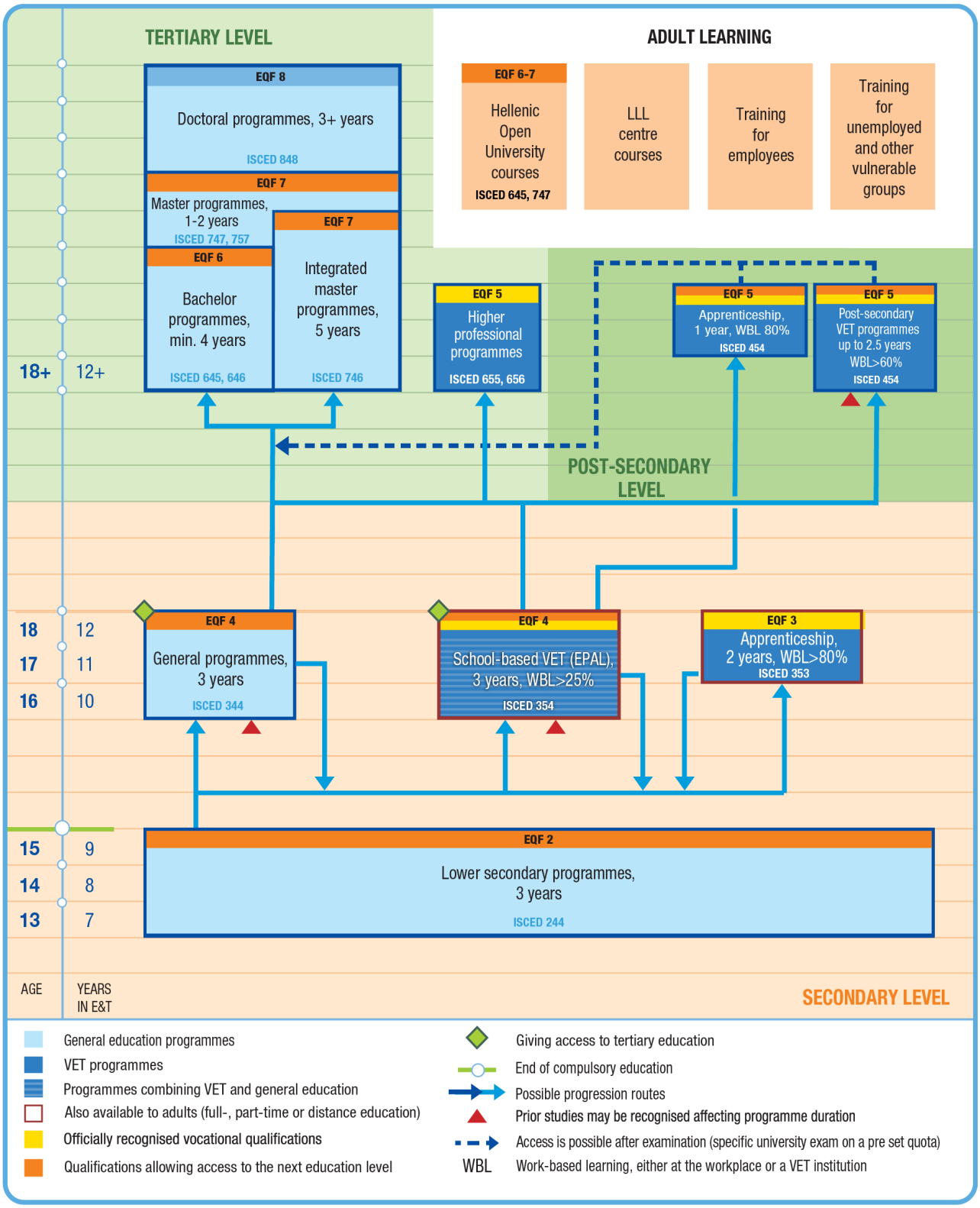
At post-secondary level, VET is offered in two formats:

- 1-year apprenticeship programmes (WBL 80%) offered by EPAL schools; Programmes are accessible only to those who hold an EQF level 4 VET certificate and lead to a VET specialisation at level 5, awarded after successful participation in certification exams, organized by EOPPEP. After completion of the apprenticeship year, learners may enter the labour market or continue in IEK programmes in relevant fields.
- 2.5-year VET programmes (WBL > 60%) offered by public and private vocational training institutes (IEK) to upper secondary graduates. These programmes only allow learners to obtain an attestation of programme completion; IEK graduates may can take VET certification examinations (practical and theoretical) conducted by EOPPEP to acquire an EQF level 5 certificate. EPAL graduates who continue their studies in the related field can enrol in the second year directly. Graduates of the apprenticeship programmes have access to the second or third semester of IEK in related specialisations.

2- to 4-year higher professional programmes are offered by higher professional schools, under the supervision of the competent ministry. Admission is granted via general national, or a programme-specific, examination. The diplomas awarded are considered non-university tertiary level diplomas (EQF level 5), as with merchant navy academies, dance and theatre schools.

Continuing vocational training is offered to adults in centres for lifelong learning run by regional authorities, municipalities, social partners, chambers of commerce, professional associations, higher education institutions and private entities. EOPPEP is responsible for quality assuring non-formal education, accrediting providers and certifying qualifications at EQF levels 3 and 5.

VET in Greece's education and training system



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

GREECE

Distinctive features of VET

Greece has an educational culture that favours general education. The main IVET route at upper secondary level is the EPAL programmes. Reforms in the last decade have endorsed apprenticeship and work-based learning in IVET to enable smooth transition from education to work and contribute in reducing youth unemployment and the share of NEETs. Companies provide apprenticeships in accordance with the training regulations, developed by the education ministry with the contribution of social partners.

National standards, training regulations and the quality assurance framework ensure the quality of IVET programmes. In order to increase the permeability of IVET, recent policies have opened access to higher education for IVET graduates.

Changes in VET are closely linked to national priorities set within the EU policy agenda. Greece is developing an overall lifelong learning culture through its reformed national VET and lifelong learning system (law 4763/2020) and its 2022-24 strategic plan for VET and LLL for resilience and excellence through quality, inclusive and flexible VET. The General Secretariat for VET, Lifelong learning and Youth has a central role in the design, coordination and monitoring of national policies (law 4763/2020).

In the CVET sector, the reform of public employment services (4921/2022) set up a new funding mechanism, a quality assurance system for continuing training programmes and certification of competences for individuals.

Challenges and policy responses

The Greek society is faced with high youth unemployment and persistent mismatches between skills demand and supply. Making VET responsive to labour market needs, improving its quality and laboratory infrastructure are among the aims of the ongoing reform of the national VET and lifelong learning (LLL) systems (Law 4763/2020). The law set a new governance for efficient policy coordination and monitoring at all system levels and established VET nationally at EQF levels 3, 4, 5. It secures social partners participation in advisory bodies created at national and regional levels and increases autonomy at VET provider level.

Significant measures recently implemented to support VET attractiveness include the launching by the education ministry of two-year VET programmes (VTS/ESK) for young learners with compulsory education leading to an EQF 3 VET certificate, and the creation of model upper secondary VET (PEPAL) programmes and experimental and thematic IEK institutes at post-secondary level. In addition, holders of an EQF level 5 qualification may enter tertiary education through a specific entry examination (on a pre-set quota basis).

The 2022-24 Greek strategic plan for VET, LLL and youth aims to address system weaknesses, with focus on quality assurance, VET inclusiveness and responsiveness to the digital and green transitions and connections with the labour market. It sets targets to reinforce apprenticeships and internship schemes (respectively, up to 25000 new apprentices and 35000 new internships annually) by 2025 and beyond. In addition, around 200 occupational profiles shall be created or updated, and certified, by EOPPEP in 2024.

The plan is in line with VET priorities agreed at European level and the national implementation plan (NIP) commitments by 2025. These include the creation of a digital platform for VET for institutions and learners, digitalisation of EOPPEP services, modernisation of laboratory infrastructure in initial VET (117 laboratory centres). The NIP also foresees expansion of the network of model PEPAL and thematic IEK and the upgrading of the teaching staff, including in adult education and training.

VET in Hungary

The 2019 VET Act, based on the VET 4.0 Strategy, reformed Hungary's vocational education and training (VET) system. VET was legally and administratively separated from general education, supporting closer cooperation with the economy.

The Ministry of Culture and Innovation oversees VET, with sectoral ministries handling qualifications in their respective fields. The National Office for VET and Adult Learning and the IKK Innovative Training Support Centre coordinate implementation. Stakeholder input supports government efforts through advisory bodies. The VET Innovation Council shapes national VET policies, while sector skills councils align qualifications with labour market needs. Dual VET is coordinated by economic chambers.

The school-based VET system includes 527 VET schools. Public VET schools are centrally governed, with about 20% maintained by non-state entities. Most public VET schools are organised into VET centres for better coordination.

Vocational qualifications can be awarded by the school-based VET system (nationally referred to as vocational education), by training providers (known as vocational training), and by higher education institutions (higher VET and professional tertiary programmes).

School-based VET is available at upper secondary and post-secondary levels, with the first two qualifications funded by the state. It offers regular full-time education for learners under 25 in 'student status' and flexible, shorter-duration options for those over 16 in 'adult status'. Work-based learning is provided in school settings or, preferably, through dual VET.

Upper secondary vocational education offers two main pathways, starting at age 14 after the completion of lower secondary education:

5-year ISCED 354 technician programmes at *technikum* schools prepare learners during grades 9-13 for both the upper secondary school leaving examination (*matura*) and an EQF level 5 vocational qualification (such as chemical technician). Programmes in art, pedagogy, and public cultural education fall outside the national VET framework.

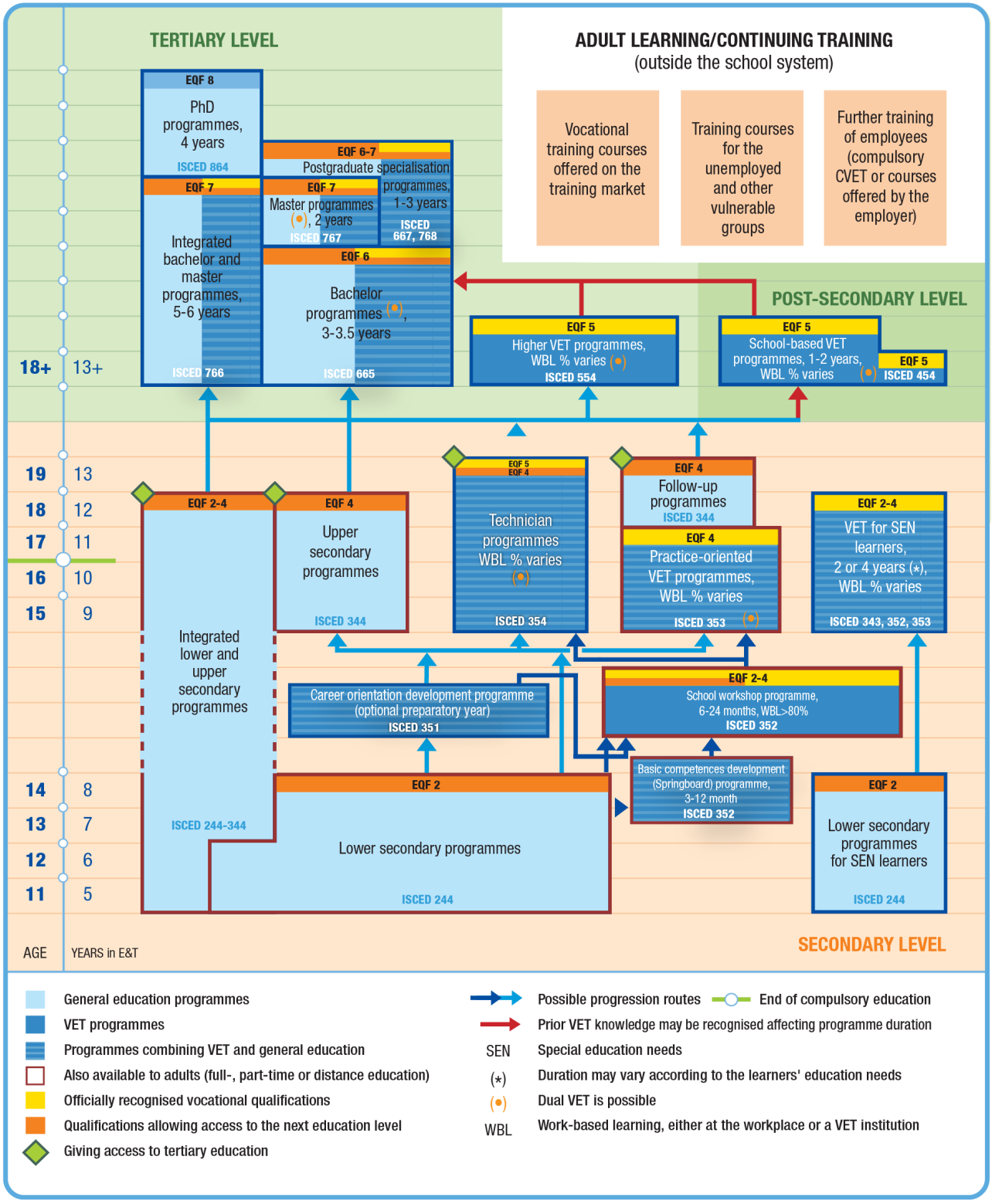
3-year ISCED 353 practice-oriented VET programmes at *szakképző iskola* schools lead to an EQF level 4 vocational qualification (such as carpenter or cook). Graduates can obtain the *matura* certificate by completing a two-year ISCED 344 general education follow-up programme.

Flexible programmes provide alternatives for learners who struggle with traditional methods, focusing on competence and skills development. These include: the Career orientation development programme (*orientációs fejlesztés*) (ISCED 351), where learners explore different professions during an optional preparatory year; the Springboard (*dobbantó*) programme (ISCED 352), which allows entry to upper secondary VET for those over 15 without a lower secondary certificate; and, following the Springboard, progression to the School workshop programme (*műhelyiskola*) (ISCED 352) to obtain a partial qualification at EQF levels 2-4. Vocational programmes tailored for learners with special education needs (SEN) are available at ISCED level 3 and typically last 2 to 4 years.

Holders of the *matura* certificate can enrol in post-secondary (ISCED 454) programmes for technician qualifications as well as higher VET (ISCED 554) programmes, earning a certificate (with possible credit transfer toward a bachelor degree). Professional tertiary programmes at EQF levels 6-7 lead to a diploma and a professional qualification, encompassing bachelor and master programmes.

VET also includes adult training programmes offered by various providers. These programmes are flexible, industry-driven, and continuously updated to meet labour market needs. They can be state-recognised, if exams are taken in accredited examination centres. Participation is mainly voluntary, except for mandatory training such as teachers' continuing professional development. Training for vulnerable groups is also available with government funding.

VET in Hungary's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & IKK Innovative Training Support Centre Private Limited Company (IKK Plc.) and Ministry for Culture and Innovation. (2023). Vocational education and training in Europe – Hungary: 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/hungary-u3.

HUNGARY

Distinctive features of VET

The 2019 VET Act changed the legal status of teachers in VET institutions, including teachers of general and vocational subjects. They are now employed under the labour code, instead of as public servants, which provides greater flexibility in salaries, working conditions, and career advancement, helping to attract a wider range of professionals to VET teaching. Since this change, they are referred to as VET teachers (*oktatók)* distinguishing them from teachers working in general education institutions *(pedagógusok)*.

Both the 5-year and 3-year VET programmes in school-based VET consist of two phases: sectoral basic education (*ágazati alapoktatás*) and vocational specialised education (*szakirányú oktatás*). The first phase provides broad sectoral knowledge within school facilities and ends with a sectoral basic exam, which allows access to vocational specialised education. During this phase, students prepare for their chosen vocational qualification. In vocational specialised education, students can participate in dual VET with employment contracts, gaining practical experience in real work environments while earning a wage.

The national register of vocational qualifications (*Szakmajegyzék*) includes 180 vocational qualifications. These are exclusively offered by the schools-based VET system and are regularly reviewed to align with the economy's needs. Vocational qualifications from adult training programmes aim to complement the school-based system with short-cycle programmes responsive to labour market needs. These are catalogued separately and can be expanded with new qualifications if any actor identifies a market need for a new training programme, following an authorisation process.

To support inclusivity and combat early school leaving, the VET system has provided IVET learners with a general scholarship since the 2020/21 school year. This scholarship helps young learners acquire their first vocational qualification and includes a career start allowance. Disadvantaged learners can also apply for the *Apáczai* scholarship, which aims to promote talent development and reduce disadvantages.

Challenges and policy responses

The Hungarian VET system faces challenges in aligning with labour market needs and addressing skills shortages. Efforts to adapt include modernising VET school infrastructure for digital and green technologies and strengthening dual training with incentives for SMEs. Partnerships with higher education and the certified technician programme, a special track within the technician programme, support pathways to higher engineering and IT studies. Current legislation to adopt micro-credentials aims to increase adult participation in lifelong learning by improving the validation of prior knowledge.

Hungary's early school leaving rate was 11.6% in 2023, exceeding the EU target, with notable regional and socioeconomic disparities. Several measures have been implemented to address this, including flexible programmes for at-risk learners and the scholarship system. Learner assessment programmes help to signal at-risk learners. Students identified as at-risk are engaged in individual or group-based skills development. Improved career guidance is mandated in VET schools to prevent misinformed career choices and consequent dropouts.

Sustaining a skilled teacher workforce up-to-date with industry practices is another challenge. Continuing professional development (CPD) organised in company environments, along with the shift from traditional teaching to project-based learning, supported by the IKK Innovative Training Support Centre, helps keep teachers current.

VET in Ireland

Ireland's education and training system is divided into four sectors: primary, secondary, further education and training (FET), and higher education (HE). FET covers EQF levels 1-5 (NFQ levels 1-6) with some higher apprenticeships at EQF Levels 6-8 (NFQ levels 6-10).

SOLAS is the Government agency responsible for funding, planning and coordinating FET provision. The tertiary education system comprises FET and HE under the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS), which is responsible for policy, funding and governance of Higher and Further Education. The main providers are 16 Education and Training Boards (ETBs). The national strategy, Future FET: Transforming Learning 2020-24, outlines the vision for the system to 2024 and sets the agenda for the next National Strategy 2025-2029.

FET programmes range from full time and/or flexible or part time provision for apprenticeships, progression to the labour market and to HE, learning in employment, pathways, youth provision, community education, adult literacy for life and agile programmes to meet learner or local or regional community or enterprise needs.

Having undergone several years of reform, FET is making a valuable contribution to a more collaborative and cohesive tertiary education system. A new National Tertiary Office (NTO) was established in 2023 in a joint initiative between the Higher Education Authority (HEA) and SOLAS. The NTO is tasked with the development of new progressive pathways through FET to HE.

Apprenticeship

- During 2023, the National Apprenticeship Office, set up in 2022, became well established, further strengthening the partnership between the enterprise and education communities. This office acts as a single point of contact for employers, apprentices and providers in accessing information and guidance on apprenticeship. The range of apprenticeship opportunities has diversified in recent years. There are currently 73 apprenticeships available, with more in development.

Workforce transformation: learning for employment, employment progression and progression to higher education

- Traineeship is a programme of structured training which combines learning in an education and training setting and in the workplace, aiming to improve recruitment and employment outcomes. The PLC programme (EQF levels 4/5) has two overarching aims: to enhance their employment outcomes of learners or to facilitate their progression to Higher Education through dedicated tertiary programmes at EQF level 6/7.
- Specific skills training (SST) courses are designed to meet the needs of industry and business across a range of occupations at EQF levels 2-5 (NFQ levels 3-6).

Workforce transformation: learning in employment

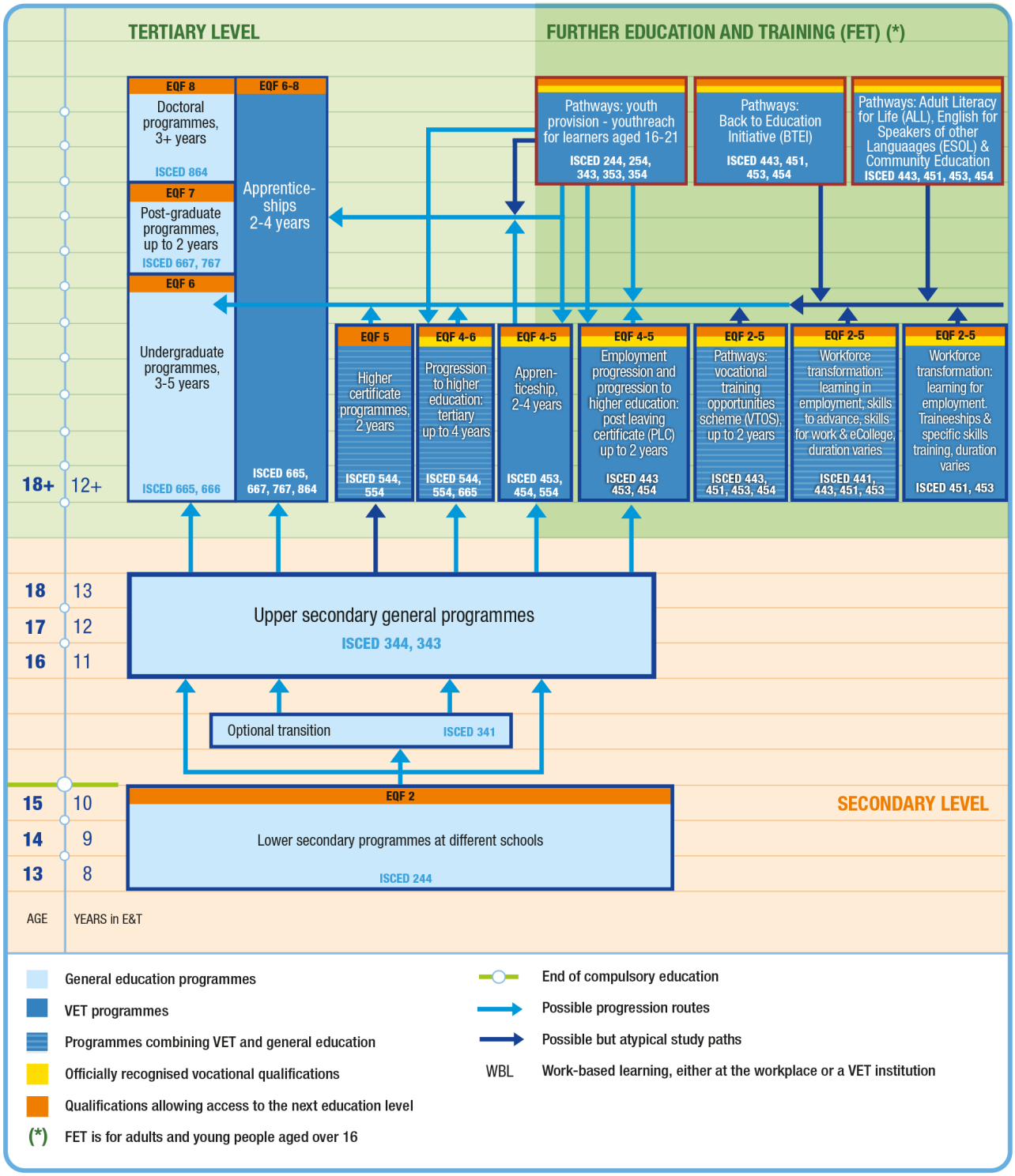
- Courses respond to the specific skills needs of employees and/or the employer or industry who require certified training or education to assist career progression, upskilling and reskilling, such as the Skills to Advance programme. This provision also includes eCollege, a national online learning platform.

Pathways, including youth provision/youth reach, community education and adult literacy for life

- These are courses designed to meet the needs of the most educationally, socially or economically disadvantaged learners and empower individuals and communities to achieve personal, educational, employment or other goals.

Discretionary targeted provision to meet the needs of specific cohorts in context.

VET in Ireland's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Further Education and Training Authority (SOLAS). (2023). Vocational education and training in Europe – Ireland: 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/ireland-u3

IRELAND

Distinctive features of VET

VET in Ireland (usually referred to as Further Education and Training - FET) is not offered within the second level system (neither lower secondary (NFQ 3, EQF 2, ISCED 244) nor upper secondary (NFQ 4/5, EQF3/4, ISCED 343/344)). Therefore, most learners are aged at least 16 or over. Active inclusion and community development have always been central tenets of the work of Education and Training Boards (ETBs) and other FET providers, with an extensive reach into and across local communities. FET balances the needs of skills for the economy with the just-as-critical lifelong learning, supporting citizenship and inclusion for individuals, their communities and developing social capital.

The National Skills Strategy 2025 outlines several key objectives, placing a stronger focus on providing skills development opportunities that are relevant to the needs of learners, society and the economy. The strategy also aims to engage employers to participate actively in the development of skills and make effective use of skills in their organisations to improve productivity and competitiveness.

The Strategic Performance Agreements between SOLAS and each of the 16 ETBs sets out the context, strategic priorities and individual ETB contributions to the achievement of key national FET sector targets.

In 2021 Adult Literacy for Life Strategy was launched. This is a new 10-year literacy, numeracy and digital skills strategy, which is a key commitment in the governmental programme, a holistic societal approach to unmet needs in literacy, numeracy and digital skills.

The development of flexible and agile qualifications is a priority for the sector, particularly to deliver the Green Skills agenda. To date, twenty-three (23) micro-qualifications have been validated by Quality and Qualifications Ireland including: green skills for sustainability; digital skills; robotics; aquafarming; business innovation; market development.

Challenges and policy responses

Current challenges facing the FET sector include addressing the backlog in craft apprenticeships off the job training phases which was caused by the closure of training centres during the pandemic. This backlog has been amplified because of a huge demand in those apprenticeships to address the current shortage of housing crisis. Additional sectoral resources and supports have been employed to address this challenge. There is also the issue of recruitment of staff into the FET sector with a very high demand for labour and a low unemployment rate. In more general terms, the Irish labour market has a shortage of skills in different sectors. Skill requirements are also changing for roles affected by technological change and the transition to a low carbon economy.

The creation of a unified tertiary system is one of the priorities of the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS). Crucial to the achievement of this goal is the provision of diverse and progressive pathways for learners, enabling progression across and between different institutions. 2023 saw the piloting of the first joint Tertiary Degrees co-designed and co-delivered by Higher Education Institutions and the Education and Training Boards to provide seamless transitioning pathways from FET to HE.

All key national FET stakeholders, including SOLAS, Education and Training Boards (ETBs) and DFHERIS, are in the phased implementation phase of the new outcomes-based FET funding model. The challenge to date has been programme-based rigidity around the deployment of resources and operational regulations. The funding model was reformed to move away from approaches that reinforce programme silos, to reflect the outcomes and performance of ETBs, and to facilitate strategic investment in long-term priorities. The implementation plan will consolidate and streamline the number of FET programmes, and ultimately align the funding with the national system targets.

VET in Italy

Vocational education and training (VET) is characterised by multilevel governance with broad involvement of national, regional and local stakeholders. Ministries of education and labour lay down general rules and common principles for the system. VET schools are in charge of upper secondary VET school pathways (EQF 4-ISCED 354). Regions and autonomous provinces are in charge of VET programmes and most apprenticeship-type schemes. Social partners contribute in defining and creating active employment policies relevant to VET and lifelong learning.

Compulsory education lasts 10 years, up to age 16. At age 14 learners make a choice between general education, secondary VET school pathways and regional IVET pathways (*Istruzione e Formazione Professionale,* IeFP). They have the 'right/duty' *(diritto/dovere)* to stay in education until age 18 to accomplish 12 years of education and/or vocational qualification.

At upper secondary level, the following VET programmes are offered:

- 5-year programmes at technical schools *(istituti tecnici)* or vocational schools (*institute professionali*) leading respectively to technical or vocational education diplomas (EQF level 4). Programmes combine general education and VET and can also be delivered in the form of alternance training. Graduates have access to higher education;
- 3-year regional IVET programmes (IeFP) leading to a professional operator certificate (*attestato di qualifica di operatore professionale,* EQF level 3);
- 4-year regional IVET programmes (IeFP) leading to a technician diploma (*diploma professionale di tecnico,* EQF level 4).

All upper secondary education programmes are school based but could be also delivered as apprenticeships (Type 1).

There is permeability across VET programmes and also within the general education system. On completion of a 3-year regional IVET path, it is possible to attend 1 additional year leading to an EQF level 4 vocational diploma; this allows enrolling in the fifth year of the State education system and sitting the State exam for an upper secondary technical or vocational education diploma (EQF level 4).

At post-secondary level, graduates of 5-year upper secondary programmes or 4-year IeFP programmes who passed entrance exams may enrol in

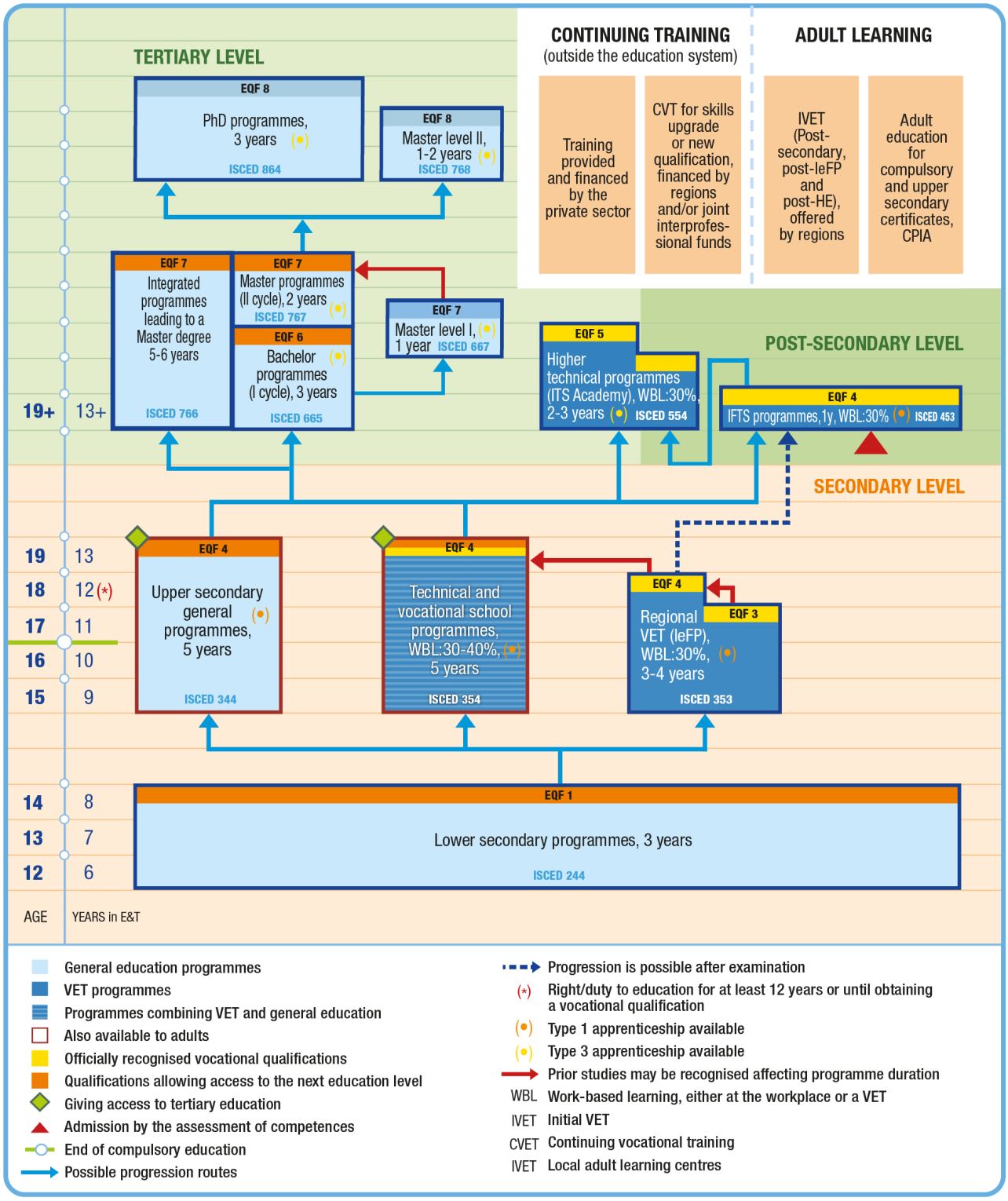
- higher technical education and training courses (*struzione e formazione tecnica superiore,* IFTS): 1-year post-secondary non-academic programmes leading to a high technical specialisation certificate (*certificato di specializzazione tecnica superiore,* EQF level 4).
- higher technological institute programmes (*istituti tecnologici superiori;* ITS academy): 2- year tertiary non-academic programmes which lead to a high-level technical diploma (*diploma di specializzazione per le tecnologie applicate* - EQF level 5 Implementation of the recently (2022) reformed system of higher technological institutes is ongoing in 2023; it foresees introduction of 3-year programmes leading to an applied technologies qualification (EQF level 6).

VET for adults is offered by a range of different public and private providers. It includes programmes leading to upper secondary VET qualifications to ensure progression opportunities (upskilling) for the low-skilled; these are provided by provincial centres for adult education (*centri provinciali per l'istruzione degli adulti,* CPIA) under the remit of the education ministry.

Continuing vocational training (CVT) to meet enterprise, sectoral and regional needs is:

- supported by the ESF and is managed by regions and autonomous provinces;
- directly funded by the regions and autonomous provinces;
- financed by joint inter-professional funds, managed by the social partners.

VET in Italy's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & National Institute for the Analysis of Public Policies (INAPP). (2023). Vocational education and training in Europe – Italy: 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/italy-u3

ITALY

Distinctive features of VET

Italian VET is characterised by multiple institutional actors at national and regional levels.

Article 117 of the Constitution provides for ownership either by the State, the regions or mechanisms for cooperation between the different institutions, relative to the type of education and training: the State establishes general education standards; regions have exclusive legislative power over VET; and education falls within the concurrent legislation, except for the autonomy of education institutions and vocational training.

Ministries of education and labour and the regions define, with formal agreements, matters of common interest with different responsibility levels.

Apprenticeship is available at all levels and programmes and is defined as an open-ended employment contract. Type 1 apprenticeship is offered in all programmes at upper secondary level and the IFTS. Type 3 apprenticeship (higher training/education apprenticeship) is offered in ITS programmes and all tertiary education leading to university degrees, ITS diplomas, and doctoral degrees. Type 2 apprenticeship does not correspond to any education level but leads to occupational qualifications recognised by the relevant national sectoral collective agreements.

Challenges and policy responses

The Italian VET system is characterised by multilevel governance that requires effective coordination and synergies. Learner exposure to work-based learning is low, while the labour market is facing skill shortages and skill gaps at regional level. In this context, new funds are allocated for the expansion of the dual system in regional (IeFP) programmes through quality in-company training /virtual business simulations and career guidance schemes (individualised training plans). In turn, the educational value of IeFP programmes is guaranteed through the transversal skills and guidance pathways (PCTO) scheme in place in upper secondary.

Supporting participation of adults in learning is high in the policy agenda. TheNational Recovery and Resilience Plan (NRRP) includes measures to reform active labour market policies, by implementing essential performance levels and promoting the employability of transitioning and unemployed individuals, particularly those considered vulnerable and distant from the labour market. The plan secures financial incentives and benefits for companies involved in dual training through regional calls for tender. NRRP investments in dual VET aim to facilitate entry of young people into the labour market, including in sectors linked to the digital and green transitions. The plan's ambitious target is to increase the number of participants in dual training from 39 000 (baseline) to 174 000 by 2025.

The tackle the high number of low-skilled people, education and labour authorities are running multiannual national plans for the upskilling of citizens; respectively, the guaranteeing the skills of the adult populationplan for the acquisition of basic and transversal skills in the regions and the 2021-27 Strategic plan for the development of the adult population.

The operational plan for 2023 of the National Digital skills strategy provides digital education in schools and continuous training schemes, with emphasis to inclusion initiatives for disadvantages groups. Focus is given to the digitalisation of SMEs though public-private partnerships. Actions are monitored at both national and regional level to ensure the effectiveness of those initiatives.

The update of the national qualifications framework (QNQ) referenced to the European Qualifications Framework in2022 and implemented in national legislation in 2023, brings all qualification sub-systems together and sets common criteria for levelling national and regional qualifications. This increases the relevance and transparency of qualifications and facilitates European and international mobility of workers. The Ministry of Education, the Ministry of Labour and the Regions work together to ensure that QNQ remains relevant to emerging needs at regional and national levels.

VET in Latvia

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. Arts, culture and sports programmes (referred to as 'vocationally oriented education programmes' nationally) are implemented concurrently with basic and secondary general education, but do not lead to a vocational qualification. To acquire a professional qualification at these levels, all VET learners take a State qualification exam at the end of the programme. An apprenticeship scheme (called 'work-based learning' nationally) offers alternating study periods at school and in an enterprise. The scheme is available for all VET programmes at EQF levels 2 to 4.

Basic VET programmes (one to three years, ISCED 254) lead to qualifications at EQF level 2 and involve 0.4% of the VET learners (2022/23 data). Those without completed basic education are admitted to 3-year programmes (ISCED 254) that include a compulsory basic general education course.

The secondary level VET enrols 42% of all learners in:

- 3-year programmes (ISCED 353) leading to a qualification at EQF level 3 and involving 5.8% of VET learners. To enrol in higher education, graduates should attend an additional 1-year follow-up programme;
- 4-year programmes (ISCED 354) leading to a secondary professional qualification at EQF level and involving 67% of VET learners. Graduation from the programme requires both the professional qualification and success in three State examinations in general subjects, giving access to higher education;
- 1- to 2-year programmes (ISCED 351 and 453) leading to a qualification at EQF levels 3 and 4. These programmes are designed for persons with or without completed 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:

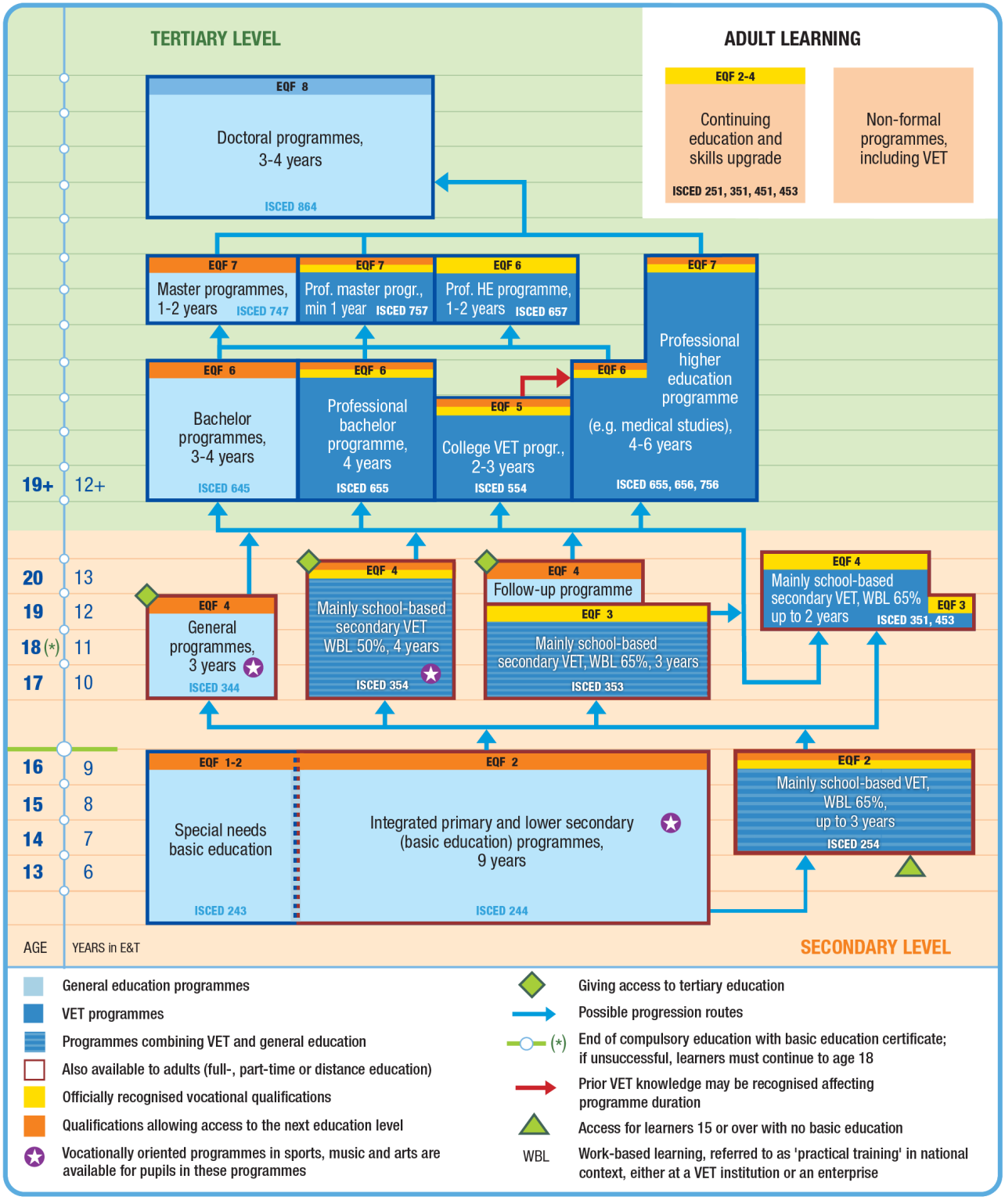
- college short cycle professional higher education programmes (two to three years; ISCED 554, EQF 5) targeted mainly at the labour market, though graduates can continue their studies in professional higher education programmes at EQF 6 and 7 levels).
- higher education programmes (two to six years) (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 CVET programmes enable adults with education/work experience to obtain a State-recognised professional qualification EQF levels 2 to 8. Shorter professional development education programmes don't lead to a qualification but provide the upskilling opportunities.

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 curricula. Social dialogue and strategic cooperation are arranged through the national Tripartite Sub-Council for Cooperation in VET and Employment. Fourteen sectoral expert councils ensure that VET provision is in line with labour market needs; they participate in developing sectoral qualification frameworks, occupational standards, qualifications requirements, curricula 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.

VET in Latvia's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Latvian Ministry of Education and Science. (2023). Vocational education and training in Europe – Latvia: 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/latvia-u3

LATVIA

Distinctive features of VET

Initial VET (IVET) is centralised and highly regulated by the State. There are 54 VET schools. Most of them are run by the State; half are technical schools. In addition to providing VET programmes, they validate non-formal and informal learning and offer lifelong learning and continuing teacher training.

Comprehensive reforms of VET curricula increase the responsiveness of VET to labour market needs and support the use of learning outcomes. They cover modular programmes, sectoral qualifications frameworks, occupational standards and national level curricula.

CVET providers are often private. However, IVET providers are increasing their education offer for adults.

Most VET learners are at upper secondary level. This share has increased in recent years.

VET provides learning opportunities for early leavers from education and training. With more investment in infrastructure and the development of new curricula, VET attractiveness is increasing.

A validation system for professional competences acquired outside formal education has been available since 2011, allowing direct acquisition of professional qualifications at EQF levels 2 to 4. Procedures for assessment and criteria for validation of prior learning were set up for higher education in 2012.

Challenges and policy responses

Reforming VET and adult learning are national policy priorities. Recent reforms aim atpromoting VET quality, ensuring its relevance to labour market needs, and efficient use of resources to raise VET attractiveness.

Policy strives for a balanced (equal) distribution of students choosing VET and general education after completing basic education. It also aims to more than double adult participation in learning from the current 6.9% (2022).

To improve the responsiveness of VET to labour market needs, modularisation of programmes is being implemented and modular VET programmes are being gradually introduced.

Limited access to guidance and counselling for young people, and the need to put in place EQAVET principles for better quality and permeability, are challenges that require aligning stakeholder opinions and extensive promotion. Other challenges include motivating employers to cooperate with VET providers, for example, by offering training at the workplace and promoting continuing training for employees.

An education strategy helps addressing these challenges(Future skills for the future society 2021-27). The priorities for VET include developing the education offer according to labour market needs, modern, digital, and green VET schools, competent educators, international cooperation and involvement of employers in VET.

Since 2023, VET graduates receive two graduation certificates: a certificate or a diploma proving completion of a VET programme and a professional qualification certificate. Professional qualification certificates are digital. Learners successful in all general school subjects, professional modules and practice, but failing professional qualification examination, can receive a certificate or diploma of lower-level qualification. It is also possible to acquire a certificate of partial qualification and a module certificate.

VET providers may decide on individual learning plans for learners, promoting flexibility and an individual approach in VET. This helps to get early leavers and those with low-level and outdated qualifications and skills back into learning.

VET in Lithuania

The Ministry of Education, Science and Sport is the main body responsible for shaping and implementing vocational education and training (VET) policy. The Ministry of Economy and Innovation participates in human resources development and VET policy. The Government Strategic Analysis Centre (STRATA) ensures the monitoring framework for VET and higher education, research and innovation, and human resources planning. It also forecasts needs for new qualifications.

VET is offered from lower- to post-secondary education for VET programmes (ISCED 4, EQF 4 and EQF 5), and higher VET (tertiary, ISCED levels 5 and 6) for college study programmes.

To acquire a VET qualification, learners take a specified exam, after which a VET diploma is awarded. Programmes are modularised; the recommended minimum duration is 30 credits (acquired in a half year).

Lower secondary level VET programmes (up to 3 years, ISCED 252 and 254) lead to qualifications at EQF level 2. They are open to learners over 14 and training is mandatory until age 16. Those without completed lower secondary education can study VET along with general education.

At upper secondary level:

- programmes with duration of up to 2 years lead to a VET qualification at EQF level 3 (ISCED 352) and prepare learners for entering working life;
- 3-year programmes lead to a VET qualification at EQF level 4 (ISCED 354) and a *matura* diploma giving access to higher education and post-secondary programmes (ISCED 454, 554). To receive a *matura* diploma a learner must take at least two *matura* exams. Graduates who apply to higher education ISCED 645 and ISCED 655 programmes in the same field of studies are awarded additional entrance points.

Post-secondary level VET programmes (up to 2 years, ISCED 454) lead to a VET qualification at EQF level 4 and 5.

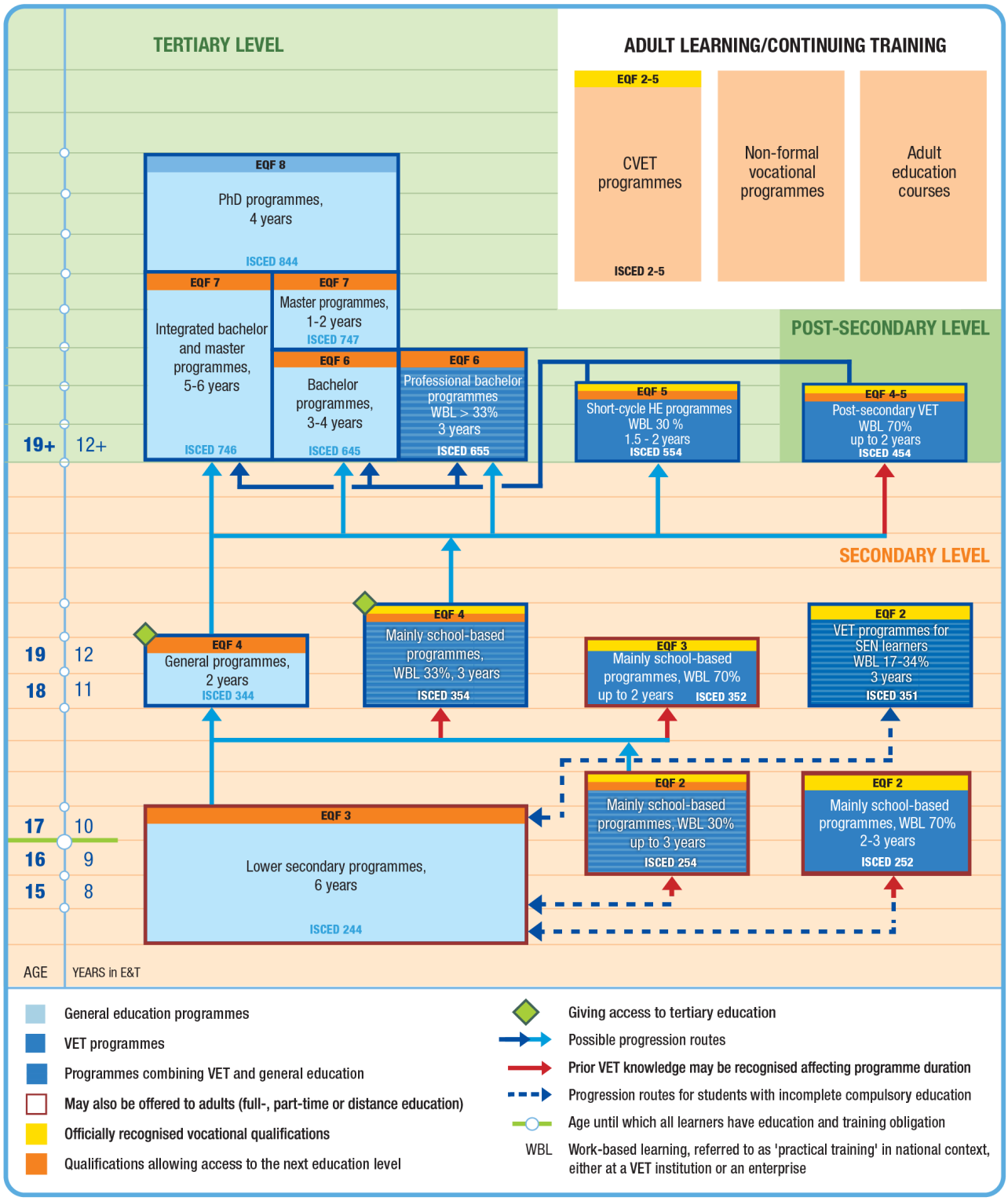
Higher (or tertiary) VET programmes include: short-cycle HE programmes with a duration of 1.5-2 years (ISCED 554, EQF 5) and higher education college studies (ISCED 655, EQF 6) leading to a professional bachelor degree in 3 years.

Formal continuing VET (CVET) is for learners who want to improve an existing qualification or acquire a new one. It follows the same curricula as IVET with exception of short (less than 6 months) programmes aimed at acquiring a competence needed to do jobs specified in regulations. Non-formal VET programmes must follow a specified template and be registered in the Register of studies, training programmes and qualifications.

Although VET is school-based, work-based learning (WBL) is a significant part. It takes place in school settings, with at least 110 to 220 hours period (90 to 180 hours for CVET) at the end of programme to be spent in a company. 42 sectoral practical training centres offer quality practical training environments. Progressing implementation of apprenticeship is a national priority and policy initiatives are in process.

Qualification exams are detached from the training process and, from 2022 onwards, following reform of procedure, are carried out by nominated VET institutions together with assessors from accredited institutions. Social partners, enterprises and employers' associations may apply for accreditation of their assessors. Social partners participate in developing new qualifications, standards and VET programmes. The 2017 Law on VET boosted the role of sectoral professional committees in shaping VET qualifications and planning future apprentice intake.

VET in Lithuania's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Qualifications and Vocational Education and Training Development Centre (KPMPC). (2023). Vocational education and training in Europe – Lithuania: 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/lithuania-u3

LITHUANIA

Distinctive features of VET

Initial VET (IVET) and continuing VET (CVET) are centralised and regulated by the State. IVET and CVET are delivered by training providers, public or private organisations.

Following the 2017 Law on VET, individuals can acquire two VET qualifications free of charge; for additional qualifications, VET programmes are offered for a fee, except for the unemployed and those at risk of unemployment whose training is supported by European social fund (ESF) projects. A voucher system allows the unemployed to choose the training provider. The provision of training is based on contracts between the local public employment service, the unemployed and, if applicable, the enterprise (which undertakes to employ the person after the training for at least 6 months).

From 2002, VET curricula in Lithuania have been competence-based, with clearly defined learning outcomes. Since 2018, sectoral qualification standards have been in development for all economic sectors; by the end of 2022, 24 new or updated qualification standards were in place. Based on these standards, VET programmes have been redesigned into modular programmes consisting of mandatory and optional modules. Modularisation of VET programmes started since 2015. It allows learners to acquire a VET qualification by taking individual modules and choosing the most acceptable way and pace of learning.

At the beginning of the academic year 2022/23, there were 53 training providers (public and private organisations) with 26 800 IVET students. Among these, 13 500 (nearly 50.5 %) IVET students, pursued upper secondary education alongside their vocational training to acquire a profession. In 2022, vocational schools witnessed 8 500 graduates obtaining vocational qualifications, a decrease from 9 600 graduates in 2021.

Challenges and policy responses

Skills forecasts up to 2030 predict a significant loss of the labour force in the country, especially among those with medium-level qualifications. At the same time, it is expected that 51% of job openings will require medium-level qualifications. Reviewing the human resources development policy is key to guaranteeing labour force productivity and economic competitiveness.

The challenge remains to encourage participation in VET among young learners. To increase VET flexibility and attractiveness, from 2020 learners in the last 4 years of secondary (general) education (grades 9 to 12) can enrol into experimental VET programmes. Learners in the last 2 years of secondary (general) education (grades 11 and 12) are offered individual vocational modules. This path of education is gradually becoming more popular in Lithuania: In 2022, 1 390 gymnasium learners expressed a wish to study VET programme modules. In 2021, there were only 786.

Participation in lifelong learning remains low (8.5% in 2022). The national goal is to increase it to 15% by 2030. The education, labour and economy ministries plan various adult training opportunities for key competences development, with training of the (un)employed jointly funded by ESF.

Participation in apprenticeship is gradually increasing. In 2022, the number of students who signed a VET learning contract and an apprenticeship labour contract for at least one module or 2 months reached 16.7% (up from 5.59% in the 2020-21 academic year). Improved cooperation between VET institutions and companies is needed.

With the adoption of the Law on VET at the end of 2017, reforming VET management, financing schemes, competences evaluation and recognition, and quality assurance mechanisms are included in policy priorities to raise the prestige of VET among all stakeholders. The challenge for the coming years is the consistent application of the legal framework.

VET in Luxembourg

Luxembourg's vocational education and training (VET) system is centralised. The Ministry of National Education, Children and Youth is responsible for initial VET; higher VET is under the responsibility of the Ministry of Research and Higher Education. The dual system is an important feature of secondary VET, with strong links between school- and work-based learning.

Secondary VET prepares learners for professional life and studies in higher education. 3-year pre-VET programmes provide 12-to-14-year-olds with general and practical knowledge based on learning outcomes and guidance. Afterwards, learners can pursue a professional qualification through the following programmes:

- vocational 3-year programmes with apprenticeships at their core, comprising modules of general education and vocational theory and practice, and combining learning at school and in an enterprise under the guidance of a supervisor. Two types of programmes are offered, leading to:
- the vocational capacity certificate (CCP), which attests holders semi-skilled worker skills and is designed for learners less likely to cope with other programmes. Basic vocational training includes practical training, and graduates can continue to the last year of DAP in the same field;
- the vocational aptitude diploma (DAP), which provides access to the labour market as a skilled worker. DAP holders can be admitted to specific DT technician programmes or can prepare for a master craftsperson certificate. If they complete preparatory modules, they can also pursue higher technical studies;
- technician 4-year programmes are school-based and include a job placement of at least 12 weeks; some programmes are carried out under an apprenticeship contract. Technician programmes offer in-depth and diversified competences and more general education than DAP programmes. They aim at a high professional level, leading to a technician diploma (DT). Graduates can enrol in the third year of a technical (ESG) programme or, after completing preparatory modules, pursue higher technical studies.

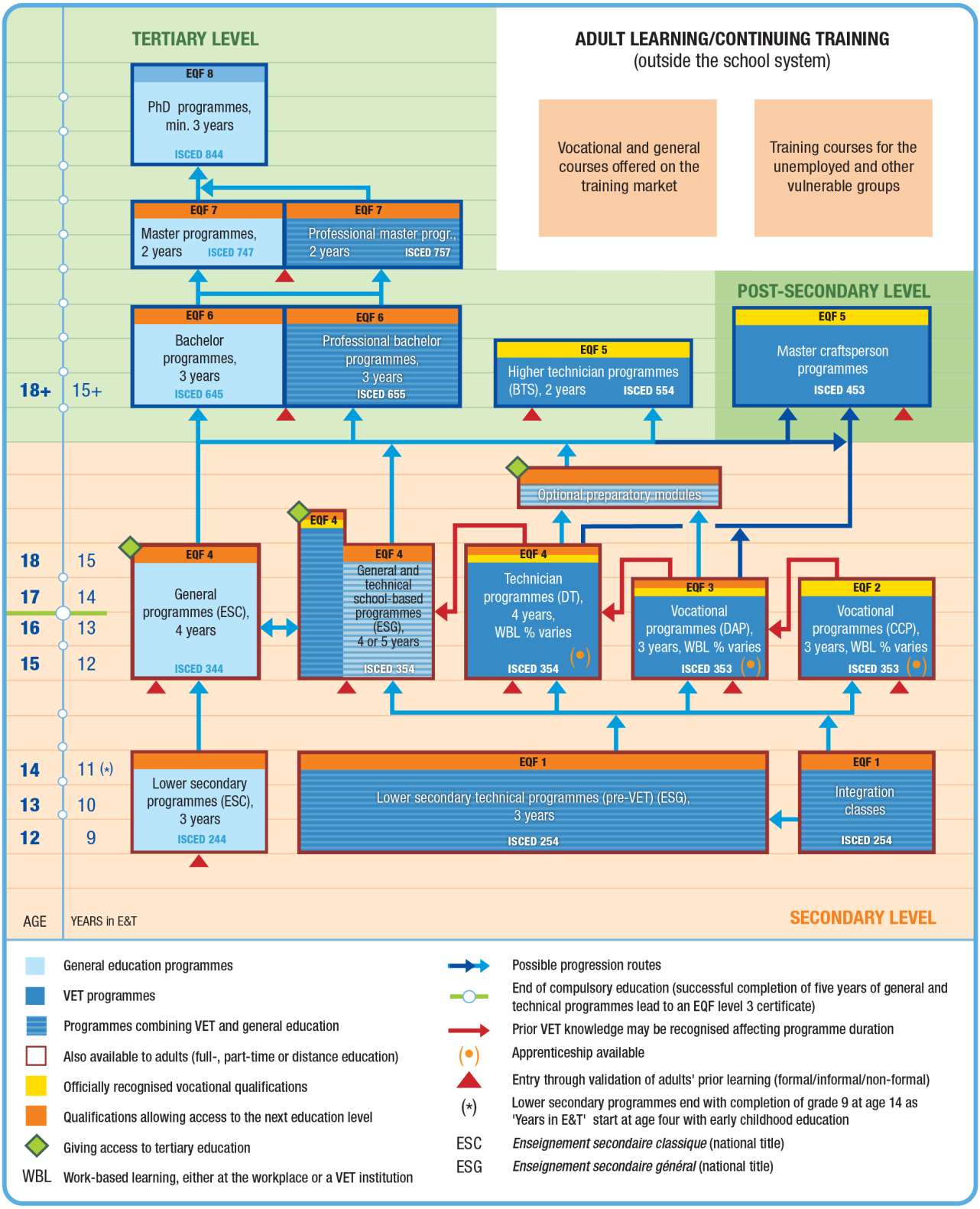
At upper secondary level, there are also general and technical 4-5-year school-based programmes, leading to the technical secondary school leaving diploma (DFESG) in different fields: administrative and commercial, general technical, arts, health and social professions, hotel management and tourism. The curriculum includes general and technical education. Graduates can enter the labour market or continue with higher education. In the national context these are not regarded as VET programmes.

Following amendment of the Education Law in 2017, general secondary education is nationally referred to as classical secondary education (ESC) while technical secondary is referred to as general secondary education (ESG).

At tertiary level, VET is offered as short-cycle (2-year) studies leading to a higher technician certificate (BTS). Depending on the field, graduates can continue with bachelor studies. Bachelor's programmes (ISCED level 6) are open to persons holding a general or technical secondary education diploma or a technician's diploma (supplemented by optional modules) in the field of study. Some programmes may have a professional dimension (ISCED 655), combining academic teaching, applied courses, work placements and/or case studies. However, the qualifications awarded do not indicate the orientation of the programme. Bachelor's programmes last six semesters, including one semester of compulsory mobility abroad.

All adults have access to formal and non-formal learning, as well as guidance services. Training leave and other incentives promote continuing VET (CVET) participation. There are financial incentives for companies, such as joint funding arrangements and support for language learning. Training is provided by the State, municipalities, professional chambers, sectoral organisations, private training centres and other organisations. The public employment service organises vocational training for upskilling or reskilling of jobseekers. Non-regulated CVET often leads to sectoral rather than formal qualifications.

VET in Luxembourg's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & National Institute for the Development of Continuing Vocational Training (INFPC). (2023). Vocational education and training in Europe – Luxembourg: 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/luxembourg-u3.

LUXEMBOURG

Distinctive features of VET

Social partner involvement is a core principle in VET policy. The professional chambers act as independent policy institutes; they are represented in the tripartite advisory committee on vocational training and consulted on VET legislation. They are involved in developing and revising VET programmes and curricula and accompany enterprises and apprentices through practical training and organise CVET.

Teaching in vocational programmes is based on modules with defined learning outcomes related to concrete professional situations.

Learners have an opportunity to follow cross-border apprenticeship to acquire qualifications for which school training cannot be provided due to the small number of learners. Practical training in a company based in Luxembourg is combined with learning at school in one of the neighbouring countries.

Close ties with neighbouring countries, multilingualism in all spheres of life, and the high share of foreign citizens with a mother tongue other than one of the three official languages have a strong impact on VET. Luxembourg provides more language training than any other country, in terms of both the number of foreign languages studied per learner and time spent in learning. Multilingualism is a strength but also a challenge for learning outcomes. In response to the multilingual demography, English, French and Luxembourgish teaching languages are offered throughout education levels and so apply also to VET programmes.

Challenges and policy responses

Recognising the dynamic nature of the labour market and the ever-changing skill demands, the Ministry of Education aims to bridge the gap between education and employment. This involves finely tuning vocational curricula to address skills shortages resulting from demographic change and rapidly evolving skills requirements, and to equip the labour force with skills to ensure both the digital and green transitions.

Luxembourg is currently developing a National Skills Strategy, supported by an OECD-led study, in a whole-of-government approach and consultation with all relevant stakeholders. Four priority areas to further improve Luxembourg's skills CVET system have been identified:

- providing labour-market relevant adult learning opportunities;
- guiding and incentivising skills choices;
- attracting and retaining foreign talent to fill skills shortages in Luxembourg;
- strengthening the governance of skills data.

The improvement of data governance is also a priority for IVET, including sectorial skill analyses and a stronger use of data-based evidence on labour market skills demand with the objective to efficiently inform demand for IVET curricula update or new programmes.

The Ministry of Education continues its strategy to introduce small supplementary certifications in demand on the labour market for IVET learners to complement existing curricula and equip learners with skills to master the green transition.

Additionally, the ministry is implementing the EQAVET framework and, specifically for apprenticeships, the European Framework for Quality and Effective Apprenticeships.

VET in Netherlands

Study results and advice from school determine the type of secondary education that learners follow after leaving primary education at age 12. In 2022/23, in the third year of secondary education, 54% of students attended 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 46% of students in the third year of secondary education took part in one of these programmes in 2022/23.

Labour-oriented practical training *(praktijkonderwijs)* 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 41 large multi-sectoral regional training centres (ROCs). Furthermore, 16 occupational colleges provide agricultural VET programmes and programmes for other specific sectors. Three structural elements determine provision of MBO programmes:

- 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 (EQF 4) gives access to higher professional bachelor programmes (HBO) offered by universities of applied sciences. In 2022/23, 58% of VET students were enrolled in level 4 programmes;
- area of study: upper secondary VET programmes are available in four areas (sectors): green/agriculture, technology, economics and care/welfare;
- 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.

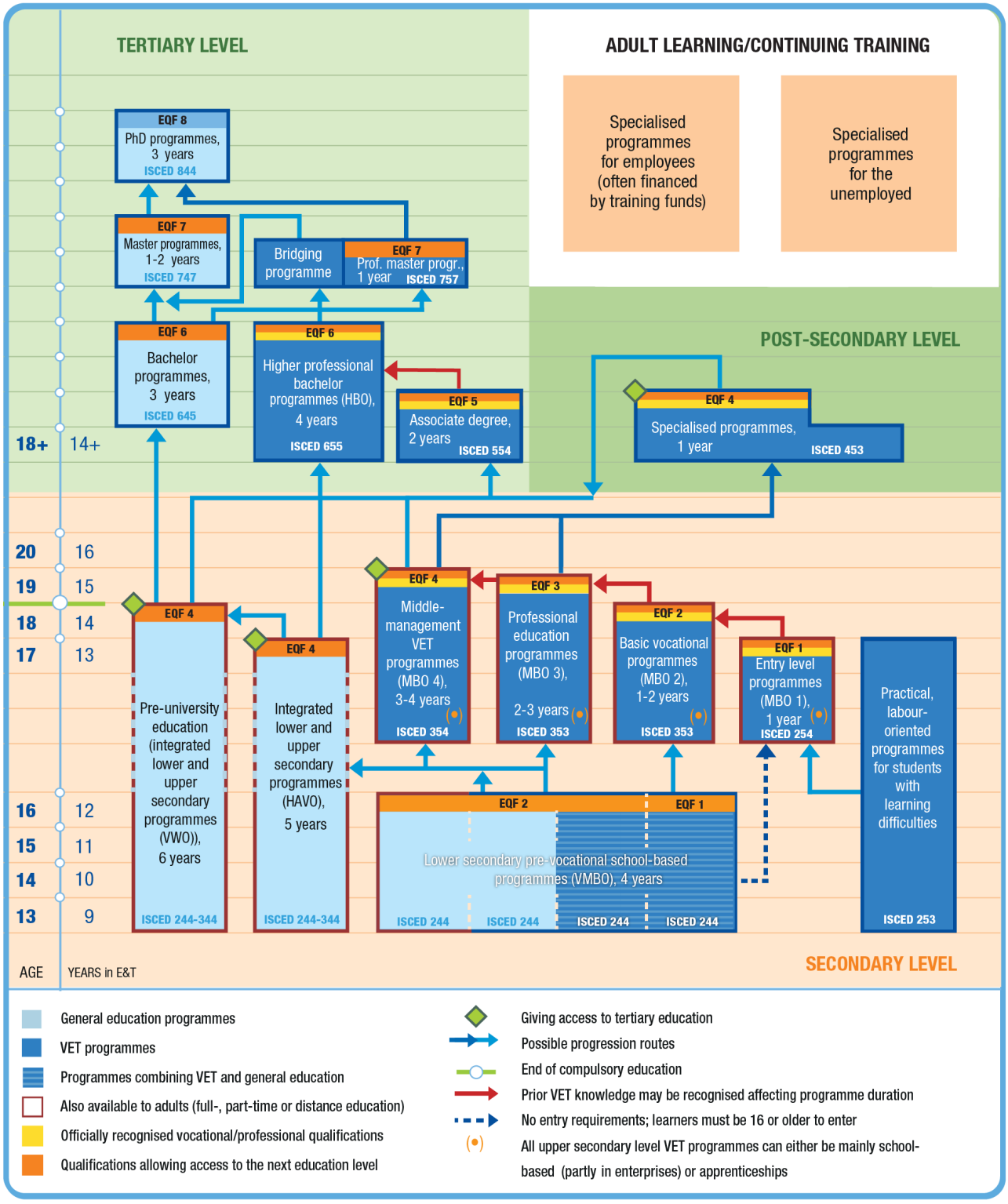
Post-secondary VET. Specialised programmes (ISCED 453/EQF level 4) are open to graduates of MBO programmes (ISCED 353/EQF level 3, ISCED354/EQF level 4). Their duration is 1 year.

Higher professional education. Higher professional bachelor programmes (HBO) are open to all EQF level 4 graduates. About 30% of all MBO level 4 (middle management VET programmes) graduates in the school-based pathway enter HBO programmes. In the 10-year period before 2022, the percentage of VET alumni that directly continues to HBO programmes, has declined. On completion, a HBO diploma gives access to a professional master degree programme.

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 use sectoral funds to support CVET, aid career progression, offer arrangements for older workers, and develop Human Resource Management (HRM) policies.

VET in Netherlands's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Centre for Expertise in Vocational Education and Training (ECBO). (2023). Vocational education and training in Europe – Netherlands: 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/netherlands-u3

NETHERLANDS

Distinctive features of VET

The heterogeneous and multifunctional nature of upper secondary VET in the Netherlands is unique. Key distinctive features are:

- The 57 MBO schools have an average student population of 8 357 in 2022/23, providing IVET for young people and adults and general education for adults. MBO schools are also active in CVET, with privately funded programmes. Government-regulated VET qualifications are also offered by private providers under certain conditions;
- School-based and dual pathways in upper secondary VET lead to the same diplomas. Participation in each is influenced by the economic cycle; for instance, in periods of economic boom the number of learners in the dual pathway increases;
- The intended outcomes of qualifications are defined in the national qualifications system. Occupational standards cover one qualification profile or several interrelated ones. Social partners and education institutions represented in sectoral committees have a legal responsibility to develop and maintain these standards. Once approved by the education ministry, schools - in cooperation with enterprises providing work-based learning - develop curricula based on the qualification profiles;
- Education institutions have a relatively high degree of freedom to shape VET provision. TheAdult Education and Vocational Education Act (WEB) only provides a broad framework outlining key elements at system level; institutions receive a lump sum for their tasks;
- The Netherlands promotes a culture of evidence-informed VET policy and practice and encourages innovation. Recent initiatives include providing VET schools regularly with up-to-date regional labour market information and early school leaving data and implementing plan-do-check-act mechanisms as a basis for organisation and programme development. Research and intelligence are increasingly used to improve VET quality and effectiveness, both by involving professional researchers and by encouraging teachers to engage in research activities.

Challenges and policy responses

The VET sector has agreed to strengthen itself to be ready for the main current challenges like unequal opportunities for at-risk learners, an uncertain economy and a labour market with major shortages in skilled workers. The Work agenda VET 2023-2027, formally signed by the education ministry, the MBO council and other relevant stakeholders in February 2023, validated the shared policy aims for 2023-27.

There are three national priorities in the work agenda: promoting equal opportunities in education and training; improving the alignment between education and the labour market; and improving quality, research and innovation.

Furthermore, in the National Implementation Plan of the Netherlands, the goal is added that the participation rate in lifelong learning should further increase, via both formal and informal learning.

Cooperation among the partners of the Work agenda in the region is important for achieving the three priorities, which are broken down into 12 objectives within the Work agenda for VET. The schools will work together with their regional and sectoral partners to achieve the ambitious goals of the agenda. The education ministry wants to learn together what works and what doesn't, and respond to what is happening in the Netherlands and in the world. The partners of the Work agenda for VET therefore monitor together what is being achieved with the measures.

The government is structurally investing approximately 367 million euros extra per year in ensuring quality in upper secondary VET (MBO). The budget of existing quality agreements is approximately 528 million euros per year. Both the existing budget and the extra investment will be used for the objectives in the Work agenda for MBO. In total, 0.9 billion euros per year is available for the implementation of the work agenda.

VET in Norway

The Ministry of Education and Research has overall responsibility for education and training at all levels. In upper secondary vocational education and training (VET), VET curricula and system structures are both laid down in national regulations, and providers are required to comply with them. There is close cooperation between education and training authorities and the social partners on upper secondary and tertiary VET.

The county authorities are responsible for general education and VET provision, distributing VET financing provided by the State budget and ensuring apprenticeship placement and supervision.

All young people completing compulsory schooling have a statutory right to 3-4 years of upper secondary education and training. Half of them choose one of the 10 VET programme areas leading to one of 197 different professional skills (trade certificates, journeyperson certificates or similar).

Upper secondary VET is offered in schools and enterprises, approved by the county authorities. The main model comprises 2 years at school, including practical training in workshops and enterprises, followed by 2 years of formal apprenticeship (training and productive work) in enterprises. The first year of training consists of an introduction to the vocational programme. In the second year, VET students choose specialisations and courses become more trade-specific, but core general education subjects are also included. Some trades and crafts follow other models, for example 3 years of school-based training or 1 year in school followed by 3 years of formal apprenticeship.

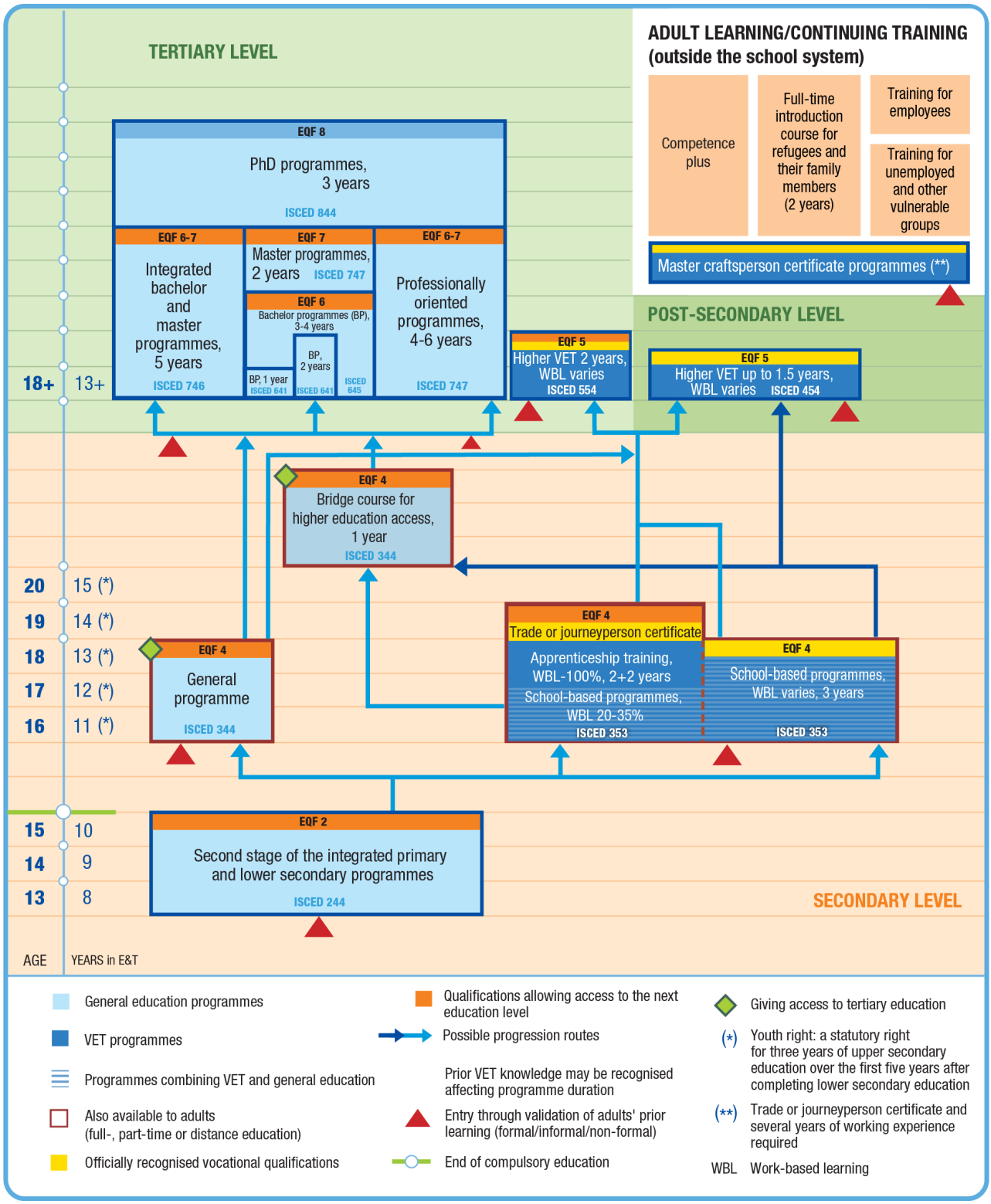
In the main model, upper secondary VET (2 years in school +2 years in company/enterprise) is completed with a practical-theoretical trade- or journeyperson examination (*Fagprøve* or *svenneprøve*) leading to an EQF level 4 qualification: a trade certificate *(Fagbrev)* for industrial and service trades or a journeyperson certificate*(Svennebrev)* for traditional crafts. The 10 programme areas offer 197 different certificates. Some crafts are provided as 3 years of school-based learning with integrated WBL, completed by a final exam and EQF level 4 qualification.

There are several routes to higher academic education via upper secondary VET, both with and without a trade- or journeyperson's certificate.

Legal rights shape VET and contribute to making vocational skills visible. Those over 25 are entitled to upper secondary education or training, adapted to their needs and life situation. Adults also have a right to have prior learning assessed towards national curricula, which may result in exemption from parts of training. The experience-based trade certification scheme enables adults to sit a trade or journeyperson examination based on sufficient relevant practice, usually over a minimum of 5 years in the trade or craft.

VET colleges offer a wide range of vocational programmes at EQF level 5 for students with a trade or journeyperson certificate. Some programmes at this level are also accessible for students with upper secondary general education.

VET in Norway's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Norwegian Directorate for Higher Education and Skills. (2023). Vocational education and training in Europe – Norway: 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/norway-u3

NORWAY

Distinctive features of VET

Norway has a long-standing tradition of close national and regional cooperation between education authorities and the social partners. National cooperation is organised in the National Council for VET (*Samarbeidsrådet for yrkesopplæring,* SRY), 10 vocational training councils *(Faglige råd)*, one for each programme area, and national appeal boards *(Klagenemnder).* Regional cooperation involves county vocational training boards *(Yrkesopplæringsnemnder)* and examination boards *(Prøvenemnder).*

Tripartite cooperation aims to ensure that training provided to VET learners meets labour market and skill needs. It informs changes in the VET structure, curriculum development, regional structure and volume of VET provision, the framework of examinations leading to trade or journeyperson certificates, and quality control at all levels. At EQF level 5, the social partners participate in the National Council for higher VET *(Nasjonalt fagskoleråd)* and six national higher vocational education councils *(Nasjonale fagråd).* In higher education, institutions are requested to set up a consultative council for cooperation with social partners.

Norway has a unified education and training system including both VET and general education as equal. Most education at upper-secondary level is provided by public schools. Young people have a right to attend upper secondary education, and most choose to do so. They also have the right to enrol in one of their top three choices.

More than half of trade and journeyperson certificates are awarded to people over 25.

Challenges and policy responses

Skilled workers with VET qualifications will play an important role in the reorganisation of the Norwegian economy. Figures from the Confederation of Norwegian Enterprise (NHO) show that many enterprises lack such employees and consequently lose business. Statistics Norway (SSB) estimates a shortage of almost 100 000 skilled workers by 2035.

The VET system is becoming more flexible, digital, labour market relevant and attractive. Initiatives aimed at increasing the number of students who complete their education, as well as teacher competences including digital, are continuous works in progress.

Important developments took place in 2022/23:

- the completion reform, White Paper 21 (2020-2021) (*Fullføringsreformen*) was agreed upon by the Government and is a priority for the next 10 years. The reform looks at all aspects of upper secondary education and how the content of upper secondary education will change;
- modular structured adult training has been initiated and will be implemented from 2024.
- an evaluation of the national qualification framework has been conducted and one recommendation is to allow VET to expand to level EQF 6 and above;
- a White Paper for higher VET is planned to be published in spring of 2025. Work has started and different stakeholders and social partners are involved;
- a report on a possible national centre for VET has been published.

VET in Poland

Vocational education and training (VET) has three governance levels: national (ministries), regional (school superintendents, mainly for pedagogical supervision) and county (governing schools). The Ministry of National Education is responsible for secondary and higher VET, supported by other ministries (responsible for particular occupations), social partners, the Vocational School Directors Council and Regional VET coordinators. Legislation changes in 2011-15 and organisational ones in 2017-23 helped improve the VET system. VET is provided in school-based upper secondary education and post-secondary programmes. Learners can acquire vocational qualifications in:

- 3-year first stage sectoral programmes (*branżowa szkoła 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;
- 2-year second stage sectoral programmes (*branżowa szkoła II stopnia*, ISCED 354), starting in 2020/21. These develop the vocational qualifications attained in first stage sectoral programmes and lead to vocational qualification diplomas for occupations consisting of two qualifications (after passing State vocational examination in the second qualification). General education is provided on a full-time, evening or extracurricular basis. Graduates can acquire an upper secondary school leaving certificate (*matura*) providing access to tertiary education;
- 5-year vocational upper secondary programmes (*technikum*, 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;
- 3-year special job training programmes (*szkoła specjalna przysposabiająca do pracy*, ISCED 243) for special education needs (SEN) learners leading to a job training certificate;
- work preparation classes for SEN learners aged 15 and above already in primary school (*oddział przysposabiający do pracy*).

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

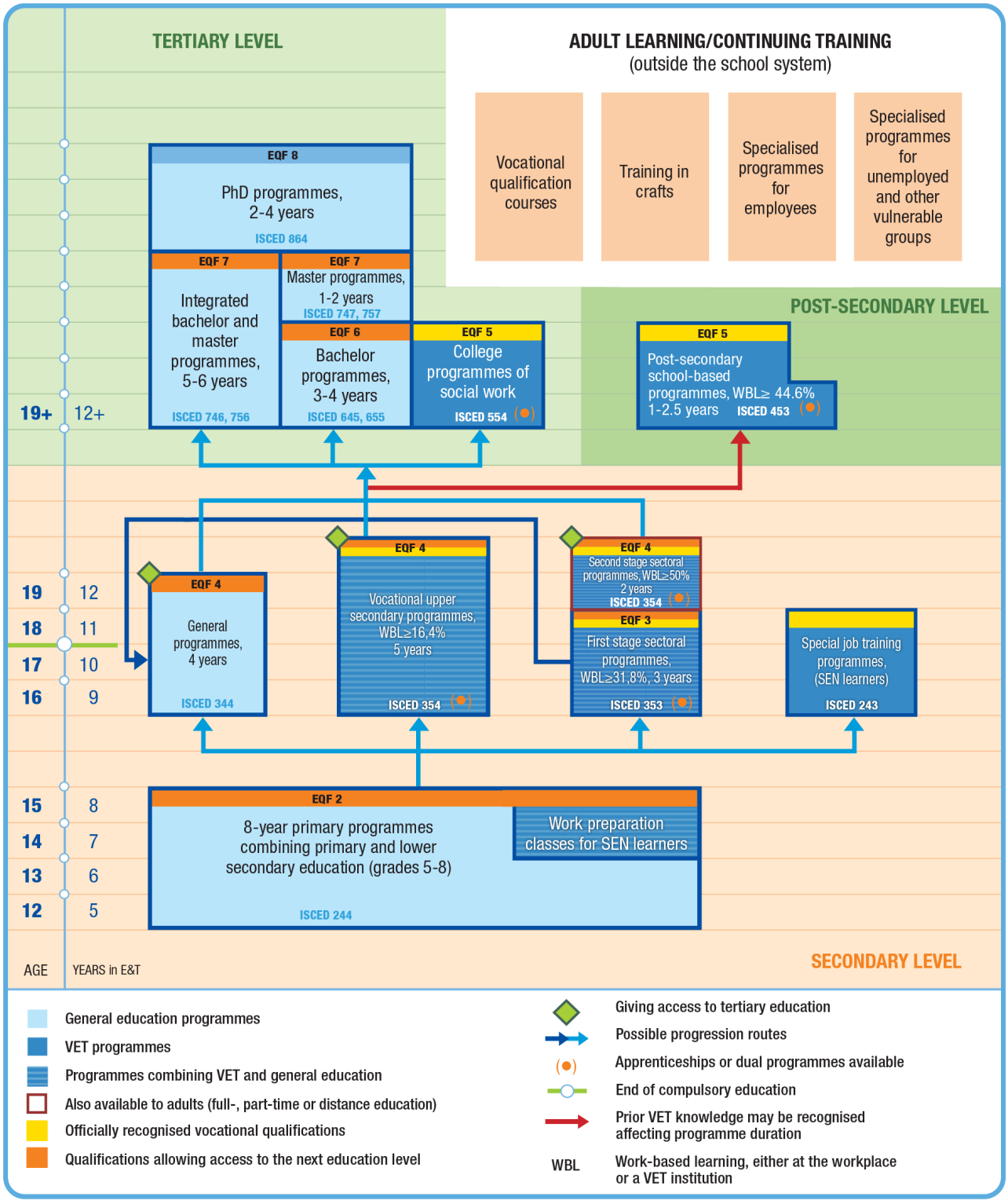
Social work college programmes (*kolegium pracowników służb społecznych*, ISCED 554) are tertiary education that combines school-based learning and in-company training, leading to an EQF 5 diploma.

Work-based learning (WBL) is mandatory for all VET-oriented programmes and takes place in various educational settings, industry competence centres (*branżowe centrum umiejętności*) or with employers, including apprenticeships. On-the-job training lasts 4-12 weeks, depending on the type of occupation, and is compulsory for vocational upper secondary, post-secondary and second-stage sectoral programmes.

Adult learning, continuing and out-of-school VET offer:

- 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;
- theoretical courses for juvenile employees;
- vocational training - minimum 15-hours specialised training based on curriculum which includes professional knowledge or skills in one of the professional fields specified in the regulations, useful for practising a profession;
- other courses to acquire and supplement knowledge, skills and professional qualifications or the change of professional qualifications. As of 2016, the Integrated qualifications register can include curriculum-based qualifications attained in courses offered by training companies and non-formal education institutions.

VET in Poland's education and training system



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

POLAND

Distinctive features of VET

The key features of Polish VET are:

- flexibility, allowing changing pathways at any point;
- classification of occupations updated by various stakeholders in line with labour market needs. Each occupation consists of one to two qualifications that can be attained through IVET and CVET programmes, and is linked to a core curriculum. A vocational diploma can be issued only when all qualifications required for an occupation are obtained (via State vocational examinations) together with a school leaving certificate;
- autonomy of VET schools in developing core curriculum-based school programmes, easily modified for labour market needs;
- uniform, centrally organised external vocational examinations;
- vocational qualification courses allowing adults to attain qualifications;
- validation of non-formal and informal learning via extramural examinations;
- compulsory work-based learning;
- student apprenticeship *(staż uczniowski)* - an additional form of work-based learning available for learners of first stage sectoral programmes and vocational upper secondary programmes as of 2019;
- Polish Qualifications Framework - a reference system for qualifications awarded in Poland.

Challenges and policy responses

The main challenges for VET are:

- raising the attractiveness of VET in society;
- increasing employer engagement in practical training, in identifying labour market needs for skills and qualifications, and in reviewing VET curricula;
- improving VET teachers' qualifications and competences;
- encouraging lifelong learning among adult learners;
- encouraging sustainable cooperation between VET schools and higher education institutions to transfer good practices in teaching, training and developing teachers' competences;
- ensuring high quality guidance and counselling for all age groups; providing high quality infrastructure for VET schools to ensure teaching and training in line with labour market needs;
- further developing training programmes;
- ensuring high quality psychological and pedagogical support for learners in response to post-pandemic challenges and large influx of Ukrainian students migrating to Poland due to armed conflict in Ukraine;
- continually adapting the VET system to meet the needs of the modern economy.

Since 2018, measures have been introduced to strengthen vocational education and training (VET) by involving employers and aligning VET with labour market needs. These measures include improving practical training and teacher development in enterprises, expanding work-based learning, providing annual forecasts of labour demand in VET occupations, directing more resources to occupations in high demand, ensuring quality assurance, improving accreditation of VET providers, organising vocational courses for adult learners, introducing student apprenticeships, setting up a monitoring system for graduate careers and revising VET examinations.

Several other initiatives by the education ministry address VET challenges by including non-statutory CVET qualifications in the integrated qualifications register, strengthening school guidance and counselling, developing new IVET core curricula, establishing sector skills councils, launching the national Integrated Skills Strategy, identifying significant VET professions, and developing ICT infrastructure for VET schools.

VET in Portugal

The National Qualifications System (SNQ), created in 2007, introduced a new legal and strategic framework for vocational education and training (VET) and lifelong learning (LLL) in Portugal. The main objectives are to raise the citizens qualifications level, to ensure that VET qualifications better match the needs of the labour market and to promote the competitiveness of economy. The 2021 VET agreement, signed between the government and the social partners, created conditions to increase training participation and qualification levels, reinforcing the principle of double certification (educational and professional) and the integration of general, technical and work-based training components.

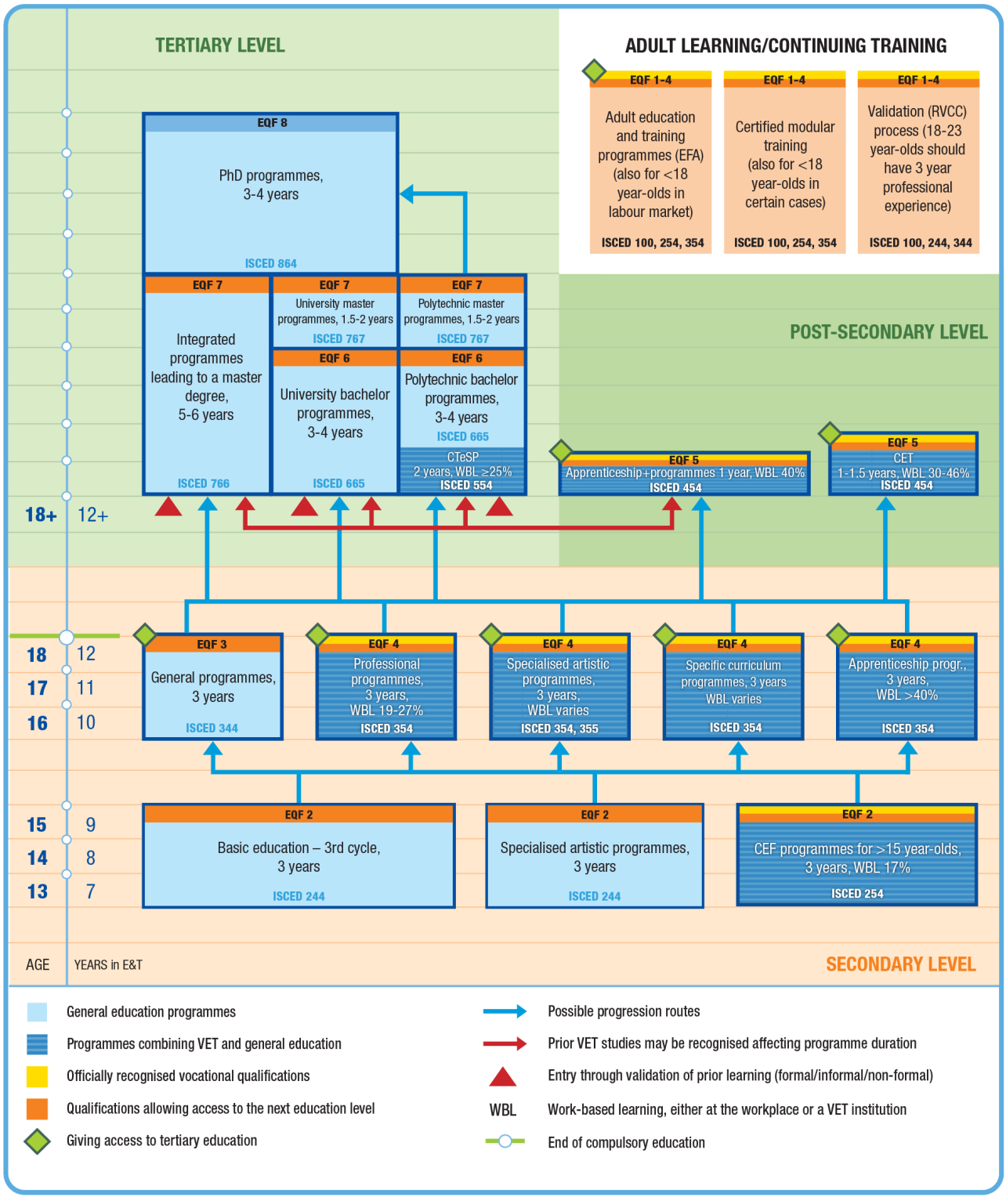
VET and adult training are the joint responsibility of the Ministry of Education and the Ministry of Labour, Solidarity and Social Security. Their duties are undertaken by departments that are part of direct state administration, indirect state administration bodies, advisory bodies, and other organisations and entities. The political coordination of the VET system, within the context of the SNQ, is the responsibility of an inter-ministerial commission comprising members from several government departments. Governance of VET also involves the participation of the social partners, i.e., employers and workers' organisations, reinforced by the 2021 VET agreement. They participate in VET advisory or coordinating bodies and as promoters of sectoral VET operators. Main VET programmes include:

a. at lower secondary level, CEF programmes (ISCED 254; EQF 2) combining school-based and practical training. They target those aged 15+ who completed the first cycle of basic education (four years) and are at risk of early leaving education and training. Progression to upper secondary education is possible;
b. at upper secondary level, the programmes (ISCEDs 344-354, EQF 4) are:
    - three-year professional programmes; WBL is provided as a traineeship in enterprises or organisations;
    - three-year specialised artistic programmes, including visual arts and audiovisual, and dance;
    - specific curriculum programmes combining elements of general and VET programmes, as schools' autonomy allows them to diversify their education and training provision. WBL takes place as traineeship in companies or other entities for varying durations;
    - apprenticeship programmes are for young people up to age 29. A training contract between the apprentice, the training provider and the enterprise must be signed;
c. at post-secondary level:
    - technological specialisation programmes (CET, ISCED 454; EQF 5) last from one to one-and-a-half years, leading to a technological specialisation diploma. CET graduates can be accredited up to 90 ECTS points; and apprenticeship+ programmes, since 2022, allow people aged 18 to 29 holding a secondary education to obtain a NQF5 qualification after 1 year of in-company practice.
d. at tertiary level, two-year short-cycle high professional technical programmes (CTeSP, ISCED 554) are offered by polytechnics. Graduates are credited 120 ECTS points and receive a higher professional technician diploma (not a tertiary education).

Adult learning programmes (EQF 1-4) include:

a. education and training programmes for adults (EFA, ISCED 100, 254 and 354), aimed at those who want to complete lower or upper secondary education and/or obtain a professional qualification;
b. certified modular training (ISCED 100, 254; and 354) is based on short- term training units (25-50h), offering them greater flexibility in obtaining a qualification;
c. RVCC (ISCED 100, 244, 344) enables the certification of competences developed through life, including at least 50 training hours. The two RVCC paths (education and professional) can lead to a basic, upper secondary education, professional or double certification. Adults lacking competences required for a qualification are guided to relevant training programmes to acquire them.

VET in Portugal's education and training system



NB: ISCED-P 2011

Source: Cedefop, & Directorate-General of Employment and Industrial Relations (DGERT). (2023). Vocational education and training in Europe – Portugal: 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/portugal-u3

PORTUGAL

Distinctive features of VET

In Portugal, the VET system has permeability between different VET programmes and between them and general education; double certification for all VET programmes; increased non-tertiary post-secondary training and encouraging lifelong learning; inclusive schooling for all students; special higher education entry admission process for double certification holders; flexible curriculum management; decreasing early leaving from education and training.

Key principles of VET provision are the wide range of programmes accessible to young people and adults, the link between VET provision and labour market needs, and flexibility in the type and duration of courses for adults. Accreditation and certification of VET providers, teachers and trainers, and their external evaluation, ensures VET quality.

The SNQ promotes upper secondary education as the minimum level of attainment. It adopted a governance model based on the involvement of different VET providers, sector councils, and social partners, establishing common objectives and instruments. SNQ support tools are:

a. the eight-level national qualifications framework (QNQ), designed in line with EQF;
b. the national catalogue of qualifications (CNQ), which helps manage and regulate non-tertiary VET qualifications. This aims to develop competence-based qualifications, regulate double certification, aid in designing learning programmes, provide standards for the RVCC process, promote the transparency and efficiency of public funding, and modularise the training offer;
c. the *Qualifica* passport, an instrument for guidance and individual record of qualifications and competences;
d. the system for anticipating qualification needs (SANQ), evaluates the relevance of qualifications to the labour market and monitors trends in qualified human resources supply;
e. the National credit system for VET, which allocates credits to VET qualifications.

Challenges and policy responses

High on the policy agenda are the following challenges:

- increasing participation in lifelong learning;
- modernising VET provision by introducing new teaching methods and diversified VET programmes;
- strengthening the alignment of VET with labour market needs;
- underlining the principles of inclusion, sustainability and transparency;
- facing the profound transformations caused by digitalisation and the greening of the economy and society;
- upskilling and reskilling vulnerable groups.

The Government continues to focus on the valorisation of double certification modalities addressed to youths, through a modernised, inclusive and quality offer, able to attract more young people to secondary education. At the same time, the government aims to encourage more graduates to pursue further studies, particularly at a higher level.

In adult qualification, the focus continues to be on flexible training paths, more suitable for adults, and leading to effective qualification, i.e., expanding the network of adult education and training providers in cooperation with the *Qualifica* centres to attract more adult learners to VET programmes.

The Government, through the recovery and resilience plan (2021), has identified areas in which policy interventions will focus with a view to modernise VET, including quality assurance, digital and green transition, industrial renewal etc.

VET in Romania

Initial vocational education and training (VET) is provided at upper secondary and post-secondary levels.

Based on the recently adopted Law of pre-university education (198/2023), compulsory education covers all upper secondary education cycle, including initial VET in Romania. Enrolment in grade 9 of VET requires passing the national exams in mathematics and the Romanian language, acquiring a lower secondary diploma, and a final mark transcript for all subjects. Some initial VET schools also have entry exams.

Initial VET is under the responsibility of the Ministry of Education. National Centre for TVET Development coordinates the development of training standards for qualifications, validated by sectoral committees (coordinated by the National Qualifications Authority, NQA). Social partners participate in the committees and support VET implementation. Continuing VET is under the responsibility of the Ministry of Labour and Social Solidarity.

Initial VET

At upper secondary level there are:

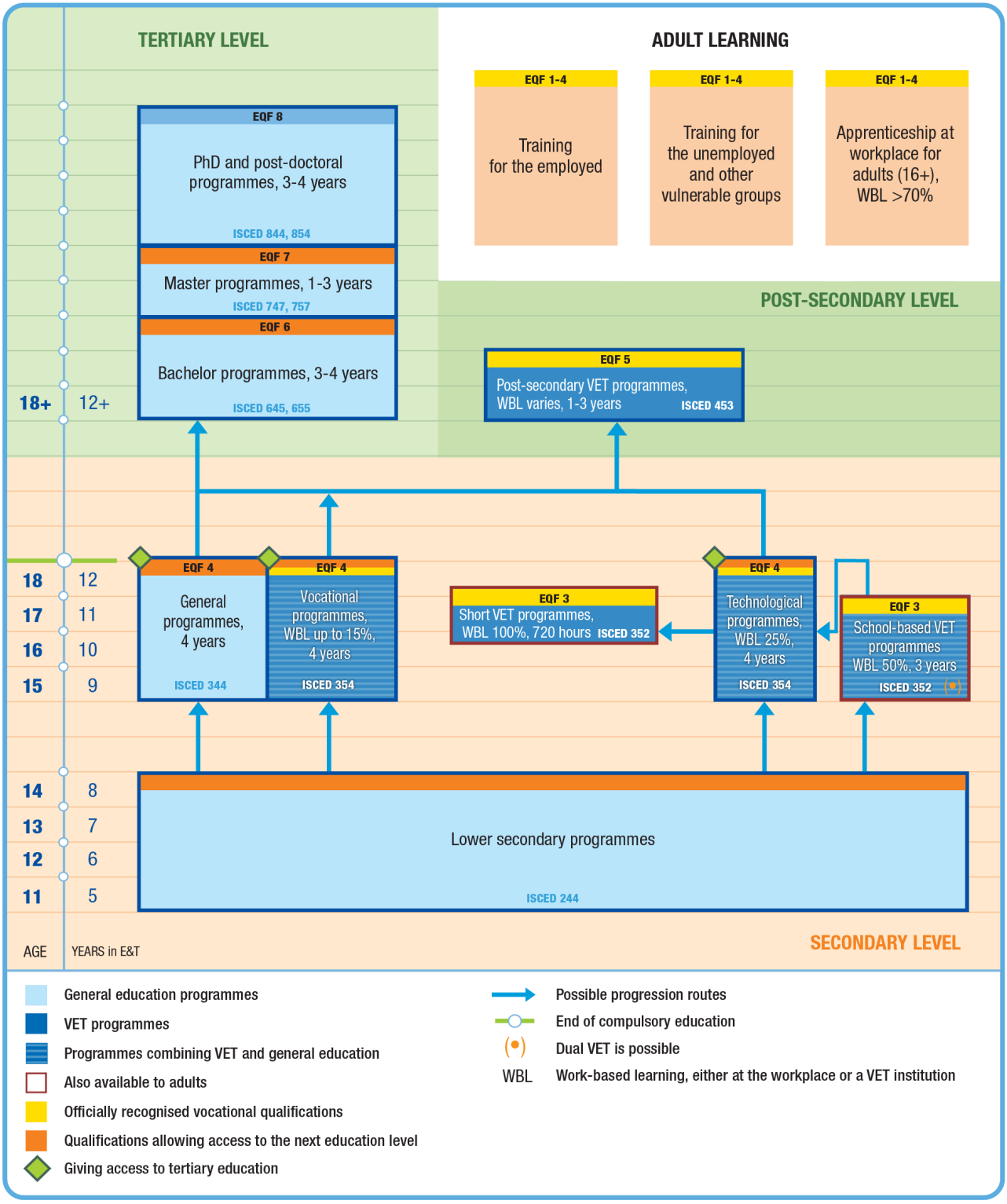
- 3-year school-based VET programmes (ISCED-P 352), providing graduates with a professional qualification at EQF level 3 (such as cook). Programmes are offered by 'professional schools', cooperating with employers who provide compulsory in-company training for learners as part of work-based learning (WBL). WBL is also offered in schools, at an average of 50% per programme. Since 2017/18, a dual form of VET is available. The programmes open access to the labour market. In 2022/23 graduates could also enrol in the third year of EQF level 4 technological programmes;
- 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. In 2022/23. 7 out of 10 IVET learners were in 4-year programmes. This is 39% of the total VET population.
- 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.
- 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 are managed by the public employment service. 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.

VET in Romania's education and training system



NB: ISCED-P 2011.
Source: Cedefop, & National Centre for TVET Development. (2023). Vocational education and training in Europe – Romania: 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/romania-u3

ROMANIA

Distinctive features of VET

Distinctive features of initial VET are its inclusiveness and flexible pathways. Reflecting the double role of VET in promoting economic as well as social development, initial VET's main goals are to ensure:

- learners' personal and professional development;
- equal access opportunities to VET;
- high-quality provision, organisation and development.

Initial VET qualifications are based on training standards, including units of learning outcomes and, for each unit, an assessment standard. The standards were revised in 2016, to help increase VET labour market relevance by ensuring a better match between qualifications and the reality of working life after graduation.

Creating sector committees, which represent the various sectors of the economy, made the involvement of social partners in designing and assessing vocational qualifications more systemic. To ease education planning, social partners also participate in partnerships at regional level (regional consortia) and local level (local committees for social partnership development in VET).

Romania has developed a system for validating non-formally or informally acquired skills and competences. In line with guidelines adopted by the National Qualifications Authority, procedures were put in place to create a network of providers acting as validation/ assessment centres. These centres are active in more than half of the counties.

Challenges and policy responses

Investments to support the institutional development of education and training are still few, leading to unequal access to education and training and the high rate of early leaving from it; this particularly affects children in rural areas, from poor communities.

Another challenge is to reduce youth unemployment by supporting skills acquisition and securing smooth and sustainable transitions from education and training to the labour market. The National Centre for TVET Development has introduced the dual form as part of initial VET, leading to level 3 EQF qualifications with a prospect to extend it to levels 4 and 5 EQF. Based on the 2023 legislation, a dual VET can also be offered at higher education levels (EQF 6-8) pending the development of the implementation methodology.

The national ReConect project (supported by ESF) helps develop mechanisms to anticipate labour market skills needs, monitor VET and higher education graduate insertion, and evaluate/monitor public policies on active measures and VET. The data from several databases are stored online.

Continuing VET faces challenges such as unemployment and low participation in lifelong learning in the EU. The labour ministry has addressed these challenges by developing an elementary occupations list, giving unskilled adults access to participate in 6-month apprenticeship programmes leading to EQF level 1 qualifications, as well as by creating a framework for variable duration training programmes linked to labour market needs; these can be from 180 hours for level 1 to 1 080 for level 4 EQF qualification.

The share of IVET learners decreased from 57% in 2021/22 to 55% in 2022/23 from all learners at upper secondary level.

VET in Slovakia

Despite growing interest in general education, secondary vocational education and training (VET) remains a strong pillar of the education system. In 2022, 68% of secondary education students graduated from VET; with 77.4% of them in programmes enabling continuation in higher education. In 2022/23, 440 approved VET programmes were available in secondary schools; including 24 regulated by health and interior ministries. The education ministry oversees initial VET (IVET). Secondary VET schools, typically maintained by self-governing regions, receive equal State funding, including private and church-affiliated ones. 'Dual VET' has been offered since 2015. From 2018/19, school-based and dual VET follow the same national curricula, opening the door for all secondary programmes to be offered in either format. IVET programmes at secondary level include:

- 4-year (occasionally 5-year) school-based programmes (150 in total; ISCED 354), mainly theory-focused leading to a *maturita* school leaving certificate confirming education level and VET qualifications;
- 4-year (occasionally 5-year) programmes (58 in total; ISCED 354) with extended practical training, leading to a *maturita* school leaving certificate, and a certificate of apprenticeship;
- 3-year (occasionally 4-year) programmes (106 in total; ISCED 353) leading to a certificate of apprenticeship;
- 2- or 3-year programmes (16 in total; ISCED 253) for low achievers without completed lower secondary education, potentially leading to a certificate of apprenticeship and the attainment of lower secondary education (ISCED 244).

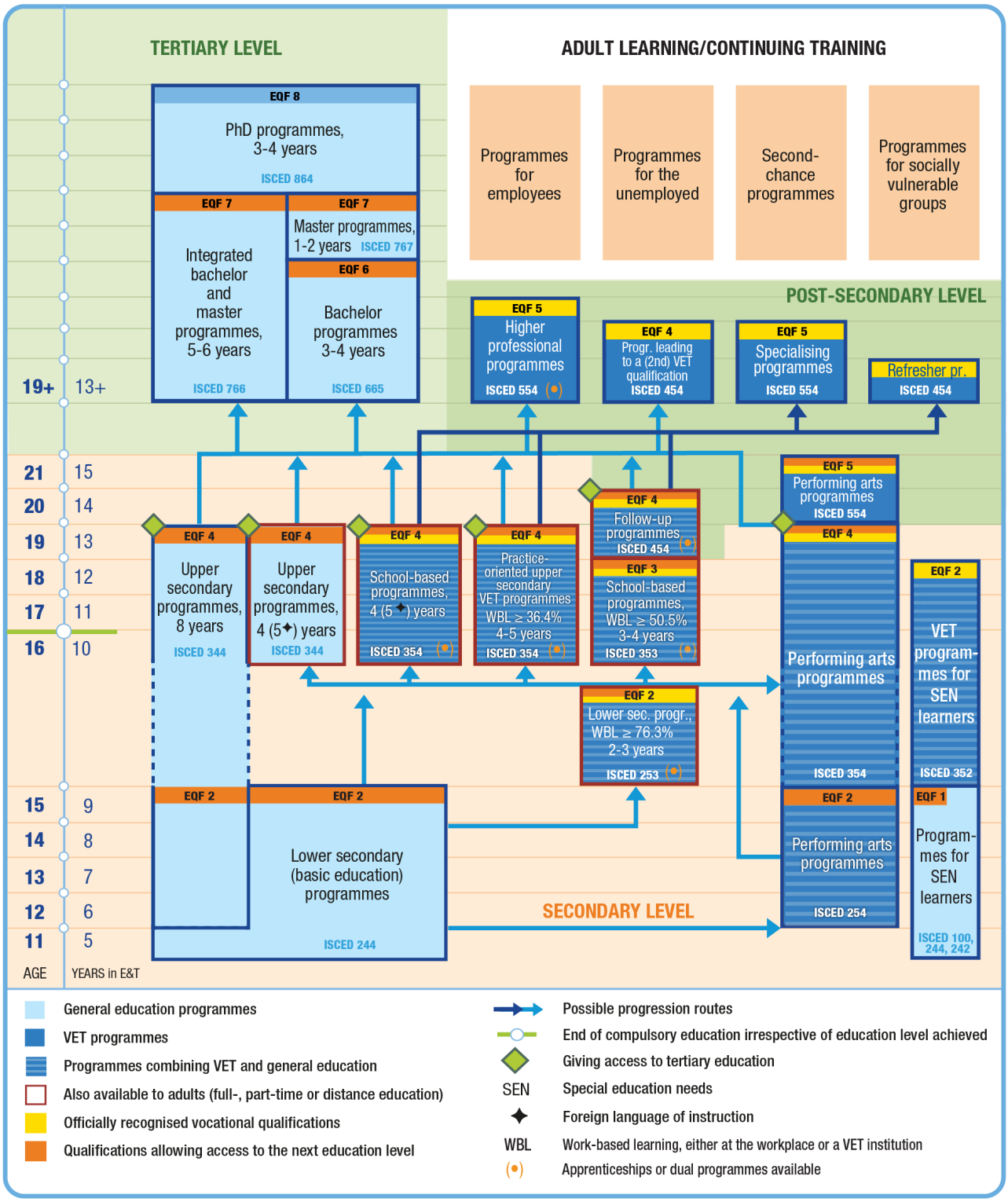
Programmes at conservatories (31), specific arts and sports management programmes are not regulated by the Act on VET, despite offering VET qualifications. Special education schools also offer VET programmes tailored to SEN students.

Post-secondary non-tertiary VET programmes comprise:

- 2-year follow-up study programmes (ISCED 454) for graduates of the ISCED 353 VET programme leading to a *maturita* school leaving certificate (30);
- 2-year qualifying programmes (ISCED 454) leading to a second VET qualification certified by a*maturita* and sometimes, a certificate of apprenticeship (16 including refresher programmes);
- refresher programmes (ISCED 454) with a minimum 6-month duration ending with a post*maturita* exam;
- 2-year specialising programmes and 3-year higher professional programmes (ISCED 554) leading to a non-university diploma and title DiS - *Diplomovaný špecialista* / certified specialist (33), or in the healthcare, titles with specific wording

Continuing VET is semi-regulated: the Lifelong Learning Act requires programmes for adults who wish to start a business regulated by the Trade Licensing Act to be approved by the education ministry's accreditation commission. Some qualifications are regulated by sectoral authorities, while many training programmes and adult education are not regulated. The labour ministry regulates labour market training via the central and district labour offices.

VET in Slovakia's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & ŠIOV/SNO - State Institute of Vocational Education/Slovak National Observatory of VET. (2023). Vocational education and training in Europe – Slovakia: 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/slovakia-u3

SLOVAKIA

Distinctive features of VET

Combining provision of general education and developing key competences with vocational skills within a broad variety of upper secondary programmes, predominantly school-based, is a result of tradition and historical development. The characteristic pattern of the education system, featuring a high share of secondary education and a low share of tertiary, has changed since EU accession. The share of population aged 15 to 64 with ISCED 3 to 4 levels of education was 68.7% in 2005 and 61.2% in 2022, while the data for the same cohort and years for ISCED 5-8 levels were 11.4% and 26.0%.

Ties between VET schools and the business world loosened during the economic transformation in the 1990s. Since 2015, specialised legislation supports the involvement of companies in the provision of 'dual VET' via direct financing from the State budget; it explicitly sets the rights and duties of professional and employer organisations regarding VET. Stronger engagement of the business world in informing VET schools about skill needs via sectoral (skills) councils should help VET adjust better to a rapidly changing labour market.

A 10-year compulsory education generally guarantees that learners should attend at least 1 year of upper secondary education after completing 9-year integrated primary and lower secondary general education. Despite a negative trend, this contributes to preventing early leaving from education and training. While there has been a slight improvement in the indicator (from 7.8% in 2021 to 7.4% in 2022), it still exceeds the national benchmark of 6%. The improvement can be attributed to the provision of new programmes combining completion of lower secondary general and vocational education.

Challenges and policy responses

Several international indicators calls for action:

- PISA 2022 results across all three domains (reading, maths, science) shows a further decline compared to 2018; this challenges technical VET programmes, impacting the supply of technically skilled graduates;
- early leaving from education and training in Eastern Slovakia has surpassed the EU 2020 target of 10% since 2015, indicating the need for alternative pathways to qualifications alongside formal education;
- adult participation in learning, long-term well below the EU-27 average, increased dramatically to 12,8% in 2022, largely due to revised data collection methodology and massive ESIF support for labour market training. A voucher scheme piloted by labour ministry could be a game changer.

The 2020 Council country-specific recommendations advocated for strengthening digital skills and ensuring equal access to quality education. The shift to distance learning during the COVID-19 pandemic renewed focus on inclusive education and the acquisition of digital skills within the Recovery and resilience plan

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VET in Slovenia

Formal vocational education and training (VET) in Slovenia starts at upper secondary level and is provided mainly by public schools that are founded and financed by the State. The education and labour ministries share responsibility for preparing legislation, financing, and adopting VET programmes, standards and qualifications. While the education ministry deals with VET at systemic level, the Institute of the Republic of Slovenia for VET (CPI) is responsible for VET at the practical level; it monitors and guides the development of VET and provides in-service teacher training and VET curricula. The CPI also acts as a link between ministries, schools and social partners.

VET programmes

After completing compulsory basic education, learners can enrol in the following upper secondary programmes:

- technical upper secondary programmes (ISCED 354, EQF 4): 4-year programmes that consist of 40% of general subjects and at least 8 weeks of in-company work-based learning (15% WBL). After vocational matura (*poklicna matura*) learners can enter the labour market or enrol in tertiary education.
- vocational upper secondary programmes (ISCED 353, EQF 4): 3-year labour-market-oriented programmes with two paths:
  - school-based path: approximately 20% (at least 24 weeks) of the programme is undertaken at an employer (in-company training) and the rest at the school (consisting of general subjects and professional modules);
  - apprenticeship path: a minimum 50% of the programme is undertaken at an employer (in-company training), while at least 40% is delivered in school;
- after final exams *(zaključni izpit)*, students from both school and apprenticeship paths can enter the labour market or enrol in 2-year vocational technical education programmes at ISCED 354 (EQF 4) that lead to vocational matura;
- short vocational upper secondary programmes (ISCED 353, EQF 3): 2-year programmes that qualify learners for less demanding occupations (at assistant level) or continuing education in vocational programmes.

Graduates with a vocational matura can enrol in 2-year higher vocational programmes (ISCED 554, EQF 5) or first-cycle professional education (ISCED 655, EQF 6) and, after successful participation in an additional entry examination, also in first-cycle academic education (ISCED 645, EQF 6).

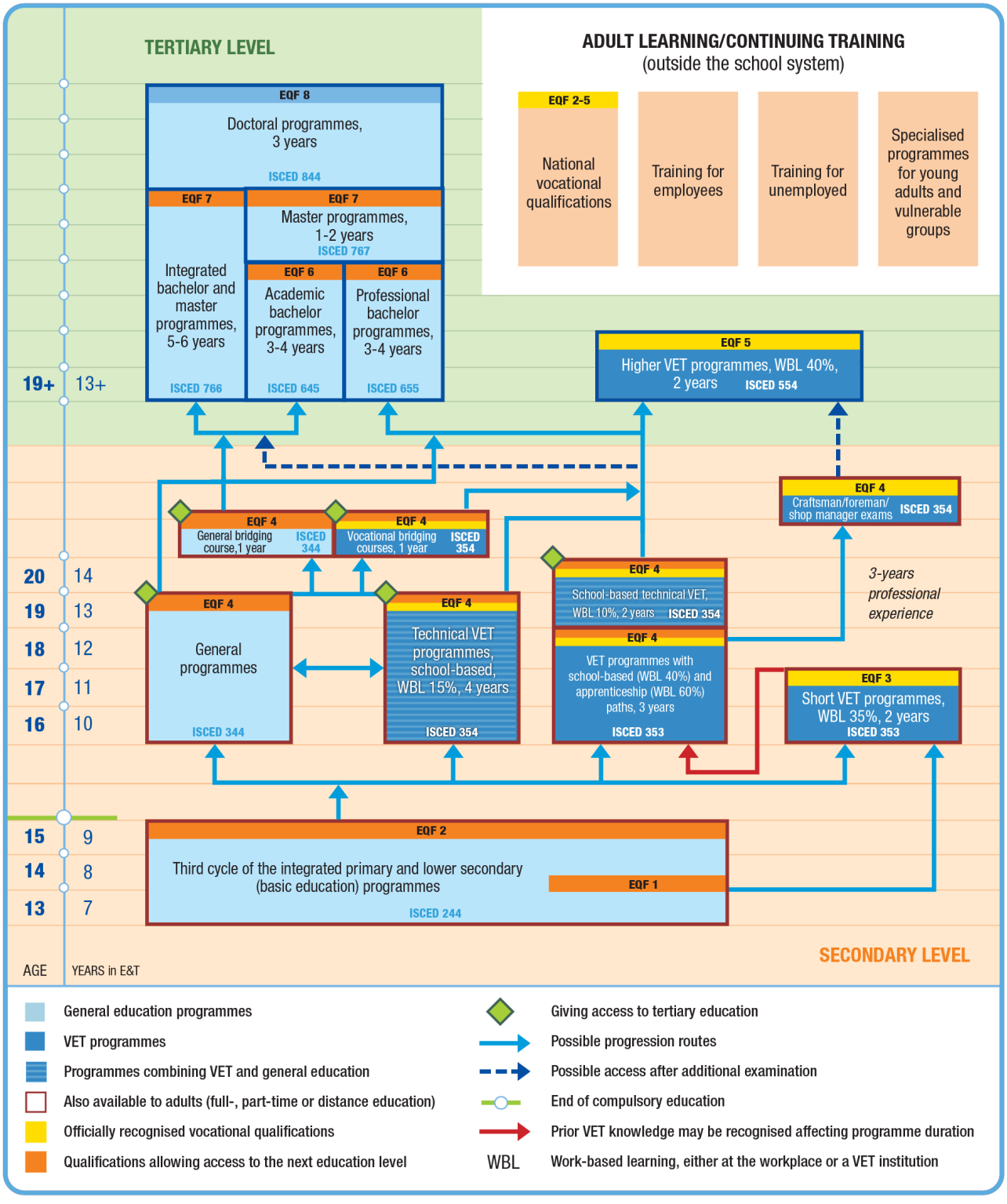
Higher vocational programmes are practice-oriented and include 40% of work-based learning in companies. These were developed to meet the needs of the economy, as they train graduates for managing, planning and controlling work processes. In 2022/2023, 12.49% of all tertiary students enrolled into higher VET schools.

Adult learning and CVET

Adults can enrol in the same formal VET programmes as young people. Adults can also participate in continuing VET, offered by public and private providers; regulation of provision of most of these programmes is not covered by legislation. Many activities to support adult education are organised by adult education centres.

According to the most recent data available, in the school year 2021/22 14 225 adults participated in the upper secondary programmes. Of these adults, 3.8% were enrolled in general education, 60% in technical education, 34.6% in vocational education and 0.6% in short vocational education. 77% of them where younger than 25.

VET in Slovenia's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Institute of the Republic of Slovenia for Vocational Education and Training (CPI). (2023). Vocational education and training in Europe – Slovenia: 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/slovenia-u3

SLOVENIA

Distinctive features of VET

VET in Slovenia is characterised by the following main features:

- occupational standards form the basis for competence-based VET programmes and for the NVQ system;
- vocational and technical programmes are offered in all professional fields, all VET programmes combine general subjects with professional modules that integrate theoretical and practical learning; permeability between education levels and programme types is high;
- work-based learning represents an integral part of all types of VET programmes. Students are trained in modern intercompany training centres and companies as well as in apprenticeship form;
- upper secondary school autonomy: framework curricula are set at national level, while VET schools are responsible for design curricula. They adapt 20% of the curricula (open curricula) to local companies' needs.

Slovenia has one of the lowest rates of early leavers from education and training (ELET) in the EU. In 2022 the percentage of ELETS/ NEETS aged 18-24 with a maximum of primary education was 4.0%. The reasons are the traditionally high value of education in society, availability of State scholarships, progression opportunities in education, and a well-developed guidance system, as well as a well-developed network of formal adult education providers.

Challenges and policy responses

Improving VET response to labour market needs has been at the heart of the development of competence-based curricula since 2006. The implementation period has brought changes in school curriculum planning, school-company cooperation culture, didactic and student assessment approaches and VET attractiveness. Significant efforts were made through investing in new training facilities (intercompany training centres) and reinforcing in-company work-based learning (WBL). The apprenticeship path is available in 39 out of 44 vocational upper secondary programmes. Still, the quality of WBL and competence-based assessment remain a challenge.

Further development of career guidance services and promoting more flexible and individualised paths remain current priorities. The importance of raising adults' levels of skills is growing, as adult participation in VET has been consistently decreasing. Additionally, in 2021, 50% of the population aged 16-74 in Slovenia had at least basic digital skills, compared to 54% in the EU-27.

Projects supported by the Recovery and resilience facility (RRF) focus on the adapting VET to digital, sustainable transition, and increasing the resilience of the education system. Digital, green and entrepreneurial competences are being introduced into education programmes; computer science and informatics are being strengthened. Development of accredited CVET programmes for upskilling specific vocational competences is another response to labour market needs. New programmes offer training to employees to improve vocational competences and acquire new or in-depth specialisation. They are developed at EQF levels 4 and 5.

Recognising the importance of monitoring and forecasting labour market needs for occupations and competences, the labour ministry, together with other stakeholders, presented the results of the Skills Forecasting Platform project in June 2023. The project continues under the new name "Labour Market Platform" and aims to contribute to a well-functioning labour market, by creating quality jobs and providing infrastructure to better match supply and demand. It will also include a transparent job search interface, matching support tools, and offering information on current and future labour market needs (based on occupational needs and competence projections), as well as resources needed for skills development and career guidance.

Shortages of VET teachers and other professionals are also challenges to address.

VET in Spain

Vocational education and training (VET) is the responsibility of the education authorities. Labour authorities are responsible for VET within active labour market policies (training programmes addressing companies' and employed and unemployed skills needs, employment-training schemes and the regulation of apprenticeship contracts). They share the same consultation bodies but keep their respective governance and objectives. VET system is governed by Organic Law 3/2022, which organises VET offer in training itineraries, from 'micro-trainings' to full qualifications. Gradual implementation is planned from 2023/24.

The General Council for Vocational Training advises the government on VET policy. It comprises representatives of national and regional authorities, employers' organisations and trade unions. Stakeholders collaborate in the design of occupational standards and are involved in VET qualification design.

Initial VET offers upper secondary (basic and intermediate) and higher VET qualifications as part of the education system. All programmes include work-based learning in a company and at a VET school:

- basic programmes (ISCED 353) are available in the last year of compulsory education. They allow students at risk of dropping out to develop 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 attain the compulsory secondary qualification, opening up the general education path;
- intermediate programmes 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;
- higher programmes (ISCED 554) lead to an advanced technician qualification (such as logistics coordinator) at the tertiary level. Graduates can progress to bachelor programmes through an admission procedure.

Graduates from intermediate and higher VET programmes can enrol in shortspecialisation courses in the same field of study to acquire occupation-specific and digital skills in line with the emerging needs of the economy.

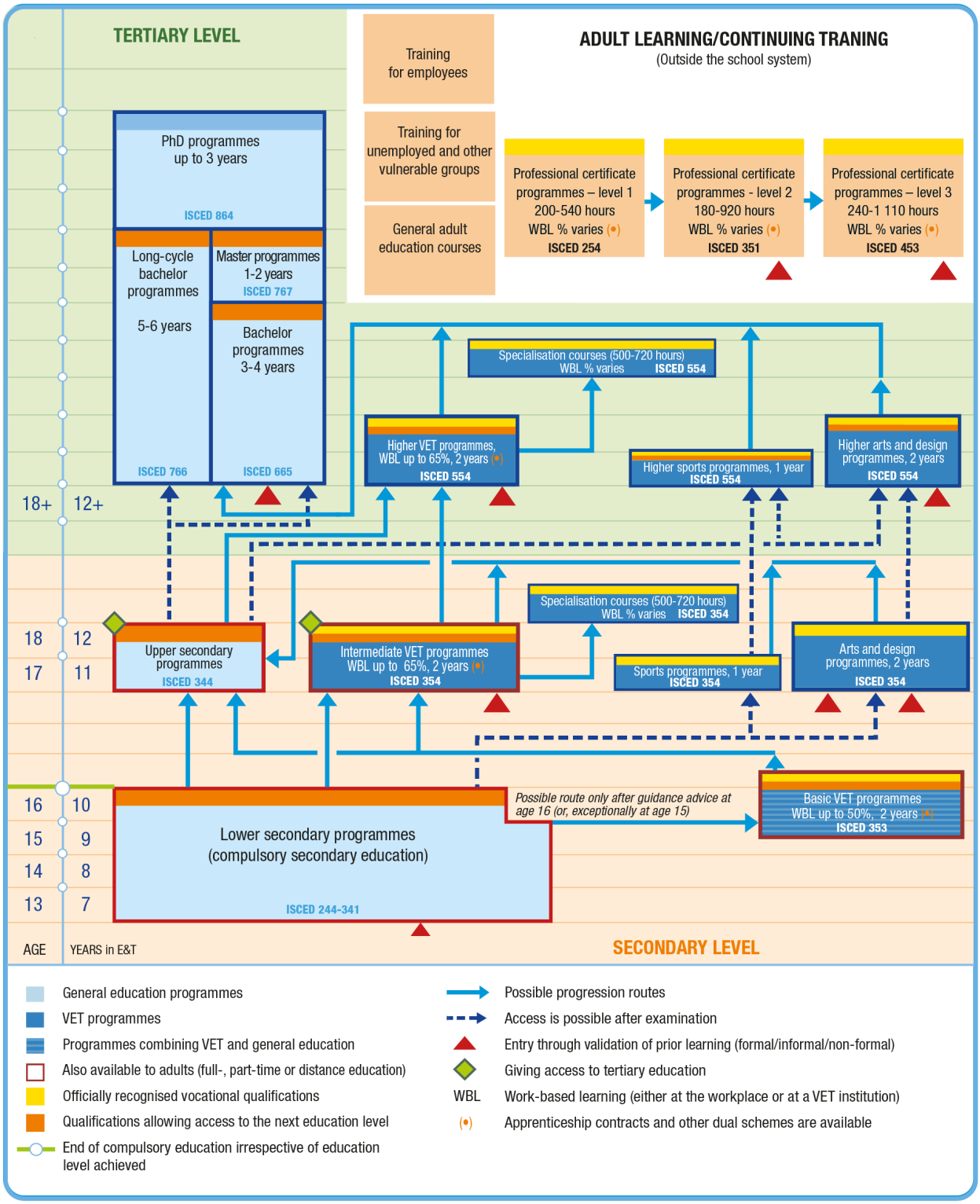
All IVET programmes allow learners to spend time in a real working environment. The Organic Law 3/2022 law introduced two schemes (*régimen general y régimen intensivo*) including social security contributions for apprentices and a paid contractual relationship if training in the workplace exceeds 35% of the programme duration (*régimen intensivo*). There are specific training programmes in arts and design and in sports (4% of the VET population in 2021/22).

Adults can enrol in the same IVET programmes as young people or enter a vocational programme leading to a professional certificate corresponding to an occupational profile, organised on three levels. Learners can move from one level to the next in the same field. Levels 2 and 3 programmes require having completed, respectively, compulsory or upper secondary, or equivalent, education. Duration varies according to the learning outcomes. All three level programmes include work-based learning and can be taken as apprenticeships. Only authorised public and private VET providers can deliver programmes leading to formal vocational qualifications.

Adults may also have their skills recognised throughvalidation.

Non-formal VET includes a wide range of schemes designed for different needs and skill profiles, allowing upskilling or reskilling. VET within active labour market policies is financed through public funds (mainly from company and worker contributions to social security). Publicly funded programmes, not linked to the national catalogue of occupational standards, are included in a catalogue of training specialities of the State public employment service (SEPE); providers need to be registered accordingly.

VET in Spain's education and training system



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

SPAIN

Distinctive features of VET

The national system for qualifications and vocational training is the umbrella for VET programmes leading to qualifications awarded by the education authorities: VET diplomas and professional certificates. They are based on the learning outcomes of the national catalogue of occupational standards, allowing mutual recognition of some parts of the training (modules) and the transfer of (units of) competences between different VET programmes, shortening their duration. Organic Law 3/2022 sets out a single, modular and flexible offer for formal VET in five ascending grades (A, B, C, D and E), ranging from smaller units or micro-training (grade A), professional certificates (level C), to VET diploma programmes and specialisation courses (grades D and E), and three levels of competence.

Modularisation allows the accumulation of learning outcomes towards (partial) certification and re-engagement from a lifelong learning perspective. Besides occupational skills, programmes include training in transversal competences, entrepreneurship, and socio-professional maturity, easing school-work transitions and career development, as well as compulsory workplace learning. Programmes can be taken in-person or through virtual learning platforms, making VET more accessible.

Occupational standards and programmes are regularly updated, and new specialisation courses are developed to address emerging needs.

Skills validation procedures empower citizens to engage in further learning and acquire full qualifications. The process is coordinated at different levels, with regional authorities playing an essential role in policy implementation and social partners participating in qualification designing and system's governance.

Upskilling and reskilling measures are essential to active labour market policies responding to current and future needs, with extensive social partner involvement in management. Vocational Training for Employment aims to train workers for the qualified and updated performance of different occupations, allowing access to employment and promoting active participation in social, cultural and economic life.

Challenges and policy responses

Spain has an ageing workforce that includes many low-skilled adults. Technological developments and global changes pressure businesses and people to upskill and reskill. The share of the labour force with intermediate skills is low compared to the EU average, a risk for the country’s future development as skills demand forecasts point to the need to increase this share.

Recent policy initiatives have focused on boosting VET attractiveness, improving and expanding apprenticeship, and making the VET system more responsive to the labour market. This has resulted in a new VET framework reflected in Organic Law 3/2022. This law on VET seeks to unify the two previous sub-systems of VET qualifications, reduce regional disparities, and create more opportunities for young people and adults, employed and unemployed. It facilitates lifelong learning through different training pathways and enhances work-based learning by further involving employers.

The law on VET also reinforces validation procedures to enable individuals underqualified for their jobs to demonstrate and capitalise on the skills acquired through work experience. A new comprehensive guidance system is underway. New measures also focus on teachers, reinforcing their digital competence and setting the framework for digital competence in teaching. Other measures seek to modernise infrastructures, particularly in the digital domain, and to bring VET provision closer to citizens.

Training at work, that is, VET within active labour market policies aims to provide upskilling and reskilling programmes, outside the national catalogue of occupational standards, designed for the lifelong training of every working person, whether employed or unemployed, with the goal of improving their professional qualifications and employment opportunities. A future specific regulation on training at work is under discussion.

VET in Sweden

Swedish vocational education and training (VET) starts after compulsory education and includes programmes at upper secondary, post-secondary and tertiary levels.

To enrol in upper secondary VET programmes, learners need a sufficient number of passing grades in a lower secondary programme. Four bridging programmes offer an alternative pathway to gain access rights for upper secondary programmes. They do not lead to any VET qualification but learning outcomes might be recognised if they continue an upper secondary VET programme or ease their access to the labour market as semi-skilled workers. Depending on student goal and performance, they usually last from 1 to 3 years.

Upper secondary VET programmes are 3-year programmes leading to an upper secondary vocational diploma at EQF level 4. Each programme can be followed through two pathways: school-based and apprenticeship. Both pathways incorporate mandatory training at the workplace; in school-based programmes the overall share of work-based learning is at least 15%; in apprenticeship the minimum is 50%. Overall, there are 12 such VET programmes focusing on different occupational fields. Graduates having sufficient passing grades in particular modules (such as Swedish, English and mathematics) can access higher vocational education.

Higher 1- or 2-year VET programmes are offered at post-secondary and tertiary levels, leading to a diploma (EQF 5) or advanced diploma (EQF 6) in higher vocational education. Programmes combine school-based learning with training at the workplace; the programme leading to the advanced diploma needs to contain a minimum of 25% of workplace training.

Adult education is provided in many forms and has a long tradition. In 2021, participation in lifelong learning was above 34%, making it the highest in the European Union (Eurostat). Individual modularised pathways for adults, set up according to specific required needs, are the most common way to gain a qualification in a new field or study the courses required to access higher vocational or higher general education. A range of non-formal courses and programmes is offered, financed through fees or by companies and organisations, with public grants also provided.

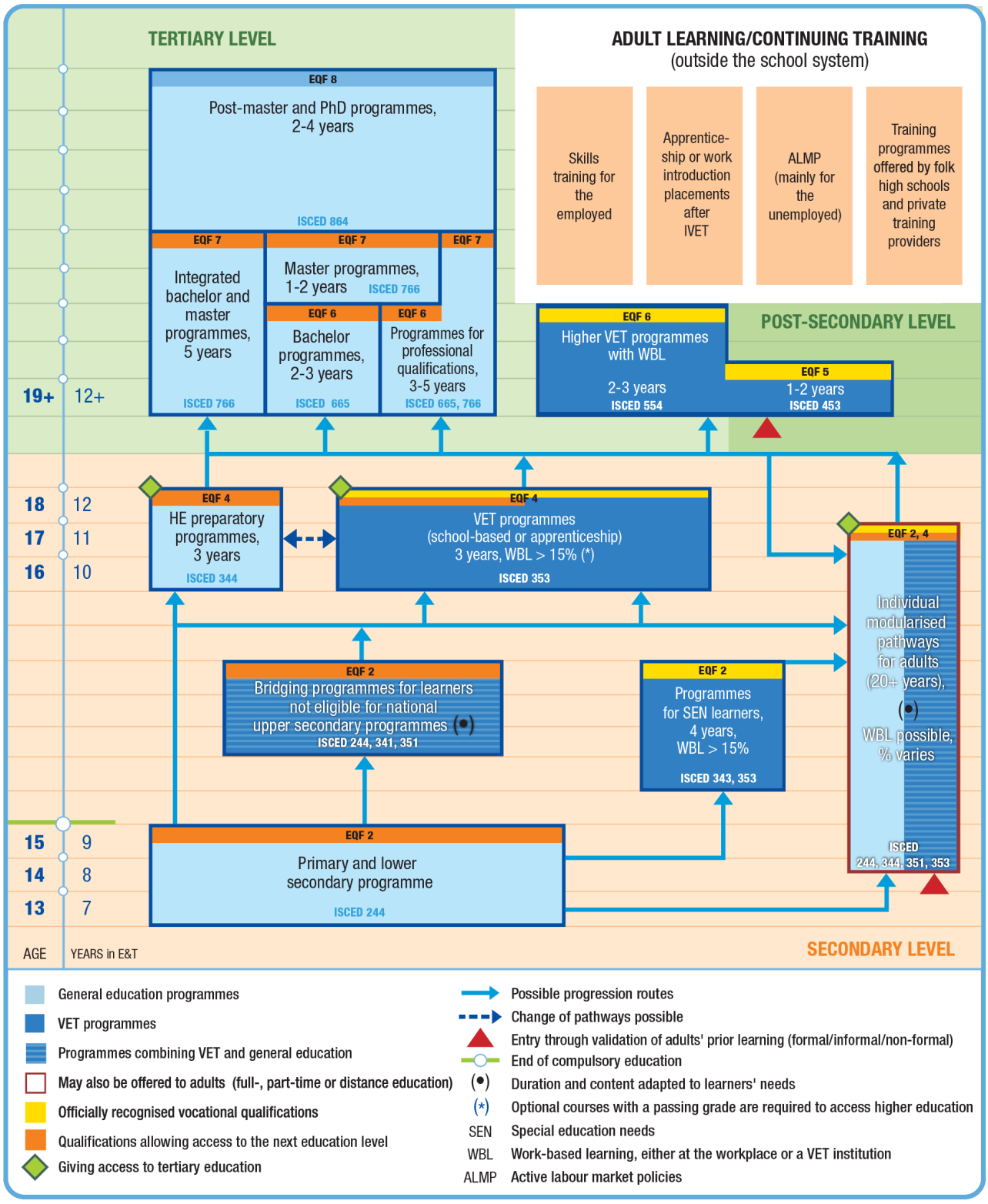
Since 2016, non-formal qualifications and certificates can be referenced to the Swedish national qualifications framework (SeQF).

Governance

The Swedish government has overall responsibility for the education system and sets the policy framework at all education levels. Goals and learning outcomes are defined centrally but with decentralised implementation. The Ministry of Education and Research is responsible for most education fields, including upper secondary schools, adult education, and higher VET. Steering documents regulating upper secondary school and municipal adult education are drawn up by the government and by the Swedish National Agency for Education *(Skolverket).* There is a national programme council for each vocational programme; these advise and support *Skolverket* regarding adaptation, development and modernisation of vocational education.

The Swedish Agency for Higher Vocational Education (MYH) is in charge of higher VET, approving and financing training providers who then cooperate with the world of work to develop and deliver programmes. Training providers can be run by municipalities, counties, State or private stakeholders**.**

VET in Sweden's education and training system



NB: ISCED-P 2011.

Source: Cedefop, & Swedish National Agency for Education (Skolverket). (2023). Vocational education and training in Europe – Sweden: 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/sweden-u3

SWEDEN

Distinctive features of VET

Modularised structure of upper secondary education. Modularised programmes allow learners in upper secondary education to transfer one or more courses to another programme, for example when changing study route. Municipal adult education provides the same courses as secondary school, with a few exceptions, allowing learners to build on their earlier studies and, for example, gain higher education access.

National governance, decentralised provision, municipal funding. Upper secondary education is governed by the State, financed by municipalities through a voucher system (funded through taxes) and provided for locally. It is a decentralised system with private and public education providers competing on a school market for students. The voucher is paid by the municipality to the education provider the student chooses to go to.

Validation in adult education. Validation is possible in municipal adult education courses at upper secondary and higher vocational levels. Education, knowledge, skills and competences acquired through training, job experience or otherwise may be validated and recognised for part of a programme. Education providers are responsible for the process.

Strong social partner involvement. To guarantee a close link of education with the world of work, social partners are represented in various councils and involved at many other levels. For example, they are represented in the national programme councils for each of the upper secondary vocational programmes and members of the Labour Market Council, an advisory body linked to the Swedish National Agency for Higher Vocational Education.

Challenges and policy responses

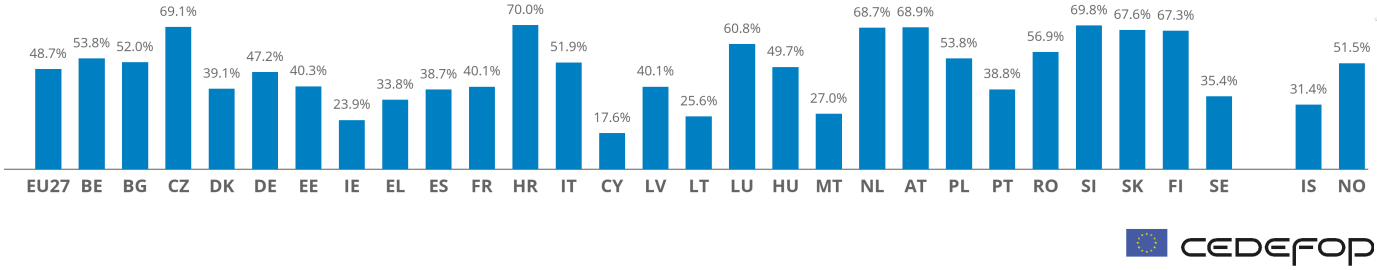
Small school units in need of regional cooperation. Swedish VET schools are small. Decentralised provision, public funding and learner choice have increased competition among them, leading to inflated costs and risks of skill mismatch. The Swedish National Agency for Education provides regions with data for planning and dimensioning of upper secondary education, to secure the skills supply demanded by the regional and national labour markets, streamline the use of resources, and improve access to a comprehensive and wide range of high-quality education. According to an amendment to the Education Act in 2022, municipalities are obliged to cooperate with at least two other municipalities by concluding an agreement when planning upper secondary education.

Transition from education to the labour market. The government has focused on strengthening the link between education and the world of work, within upper secondary and tertiary VET. Municipal adult education has accordingly shifted from prioritising admission to VET for those that have the lowest education levels to other target groups. This includes adults with a diploma from an upper secondary higher education preparatory programme or someone with a tertiary degree from another country. More opportunities for VET are also given to adults with intellectual disabilities.

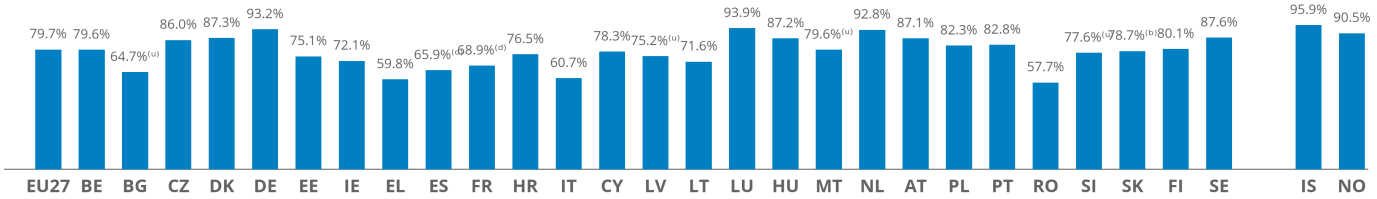
Fast introduction of newly arrived immigrants. Many newly arrived immigrants have received training and professional experience in occupations facing labour shortage (as e.g. in healthcare). In consequence, many new VET pathways were introduced allowing for partial qualifications. To reduce the time from arrival to first job entry, the government consulted with social partners, the Swedish public employment service and other relevant government agencies on measures for creating ‘fast tracks’ into the labour market. The initiatives may include Swedish language training specific to the vocational field, quicker validation of skills and competences, assessment of foreign qualifications, and supplementary training.

Education and training in figures

IVET students as % of all upper secondary students, 2021

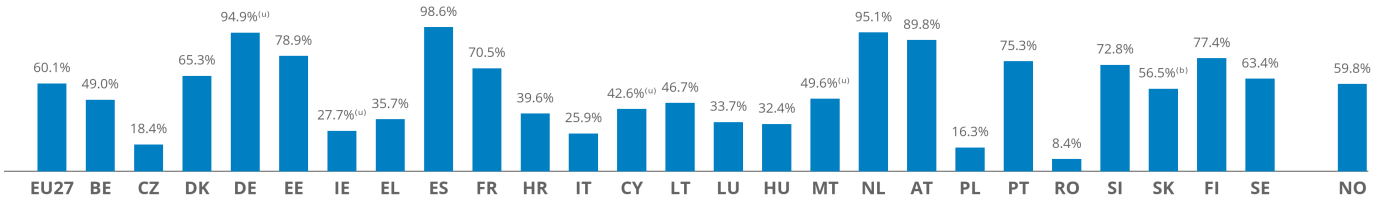


Employment rate for recent IVET graduates (20-34 year-olds) (%), 2022



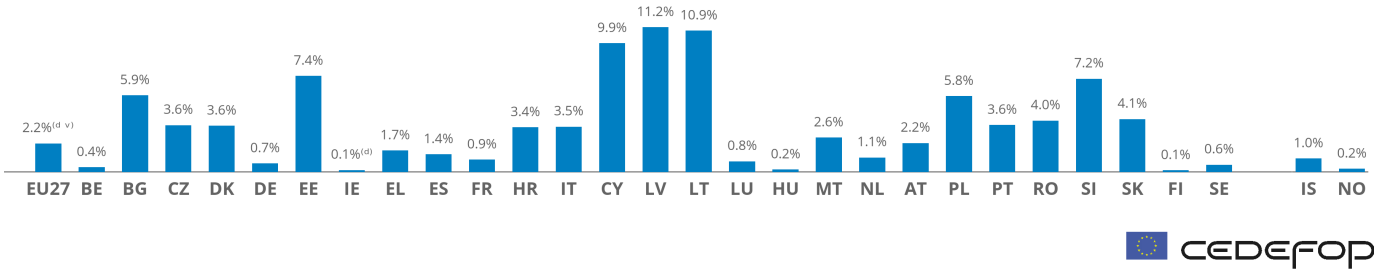
Notes: Bulgaria, Latvia, Malta and Slovenia: (u) low reliability, Czechia: (b) break in time series, Spain and France: (d) definition differs

Recent IVET graduates (20-34 year-olds) with a work-based learning experience as part of their vocational education and training (%), 2022



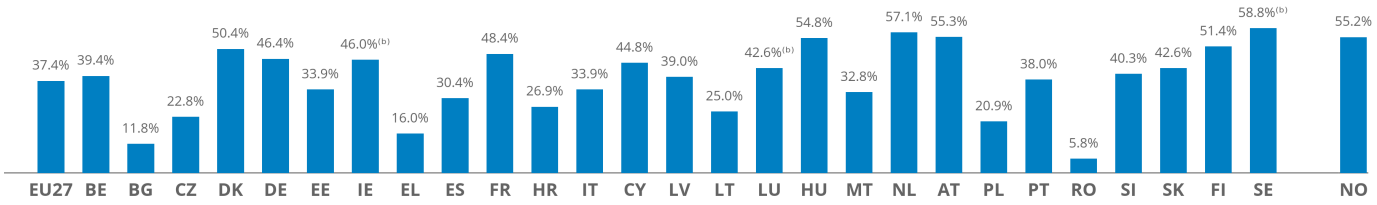
Notes: Germany, Ireland and Cyprus: (u) low reliability

IVET learners who benefitted from a learning mobility abroad (%), 2021



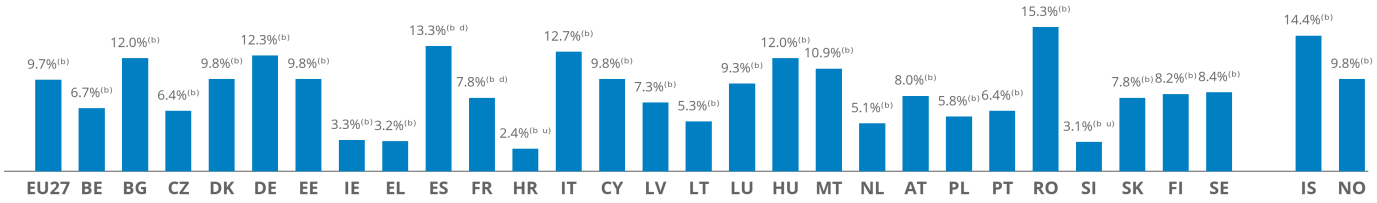
Notes: EU27: (d) definition differs (V) Cedefop estimate, Ireland: (d) definition differs, Croatia, Cyprus, Netherlands and Slovenia: (z) not applicable

Adults (25-64 year-olds) with a learning experience in the last 12 months (%), 2016



Notes: All values: (b) break in time series

Early leavers from education and training (%), 2021



Notes: EU27, Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovakia, Finland, Sweden, Iceland and Norway: (b) break in time series, Croatia and Slovenia: (b) break in time series (u) low reliability

Source: Cedefop's Key indicators on VET



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