



CEDEFOP

European Centre for the Development
of Vocational Training

EN

Spotlight on VET

2020 compilation

Vocational education
and training systems
in Europe



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The **European Centre for the Development of Vocational Training** (Cedefop) is the European Union's reference centre for vocational education and training, skills and qualifications.

We provide information, research, analyses and evidence on vocational education and training, skills and qualifications for policy-making in the EU Member States.

Cedefop was originally established in 1975 by Council Regulation (EEC) No 337/75. This decision was repealed in 2019 by Regulation (EU) 2019/128 establishing Cedefop as a Union Agency with a renewed mandate.

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Foreword

Concise, clear and comprehensive snapshots of vocational education and training systems in EU, Iceland and Norway: this is what the Cedefop Spotlight on VET series offers. Building on individual country Spotlights, this publication provides an overview of VET systems with their distinctive qualities, such as main accession and progression routes for learners; types and levels of qualifications they lead to; types of programmes, delivery modes, work-based learning ratio and duration. In addition to the system charts, it also briefly reflects on current challenges and recent VET policy initiatives.

Shaped by socioeconomic contexts and traditions, VET systems across Europe are diverse while often sharing the same goals and facing similar challenges. The Covid-19 pandemic forced all countries to adjust their education and training processes to a new reality caused by an unprecedented disruption. While continuing with their VET policy agenda and addressing long-lasting challenges (e.g. early leaving from education and training or modernising qualifications), countries have worked to make education and training truly digital, ensuring access to computers and the internet to all students, providing training to teachers and trainers, developing flexible approaches to assessment. The concepts of quality, inclusiveness and flexibility are enjoying a renewed focus.

With its different reporting formats, studies, interactive databases and toolkits for specific VET features and VET-related policies in Member States, Cedefop caters to varied information needs, purposes and stakeholders. Information on VET's main features, its role and status is a prerequisite to understanding developments and learning from another country. We believe that this publication is a useful starting point for policy-makers, social partners, experts and researchers. It will provide orientation to a range of other actors involved in VET-related activities: VET providers, teachers and trainers; guidance, qualifications and validation staff; and other readers who want to familiarise themselves with VET systems across Europe.

Jürgen Siebel

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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 (year 9) of compulsory education 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 one- or two-year pre-VET (PTS, ISCED 341; BMS, ISCED 351): learners acquire general education and basic vocational skills preparing them for further school-based VET and apprenticeships;
- three- to four-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 programme (lasting two to three years) or take the *Berufsreifeprüfung* (higher education entrance exam) also obtain general access to higher education studies;
- five-year school-based VET (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 two to four 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 programme, they can obtain general access to higher education;
- VET programmes in the healthcare sector last one to three 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.

Tertiary level

Post-secondary VET programmes (ISCED 554, EQF 5) last two to three 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 (EQF 6) and master programmes (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.

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 five-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 and entrepreneurial 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.

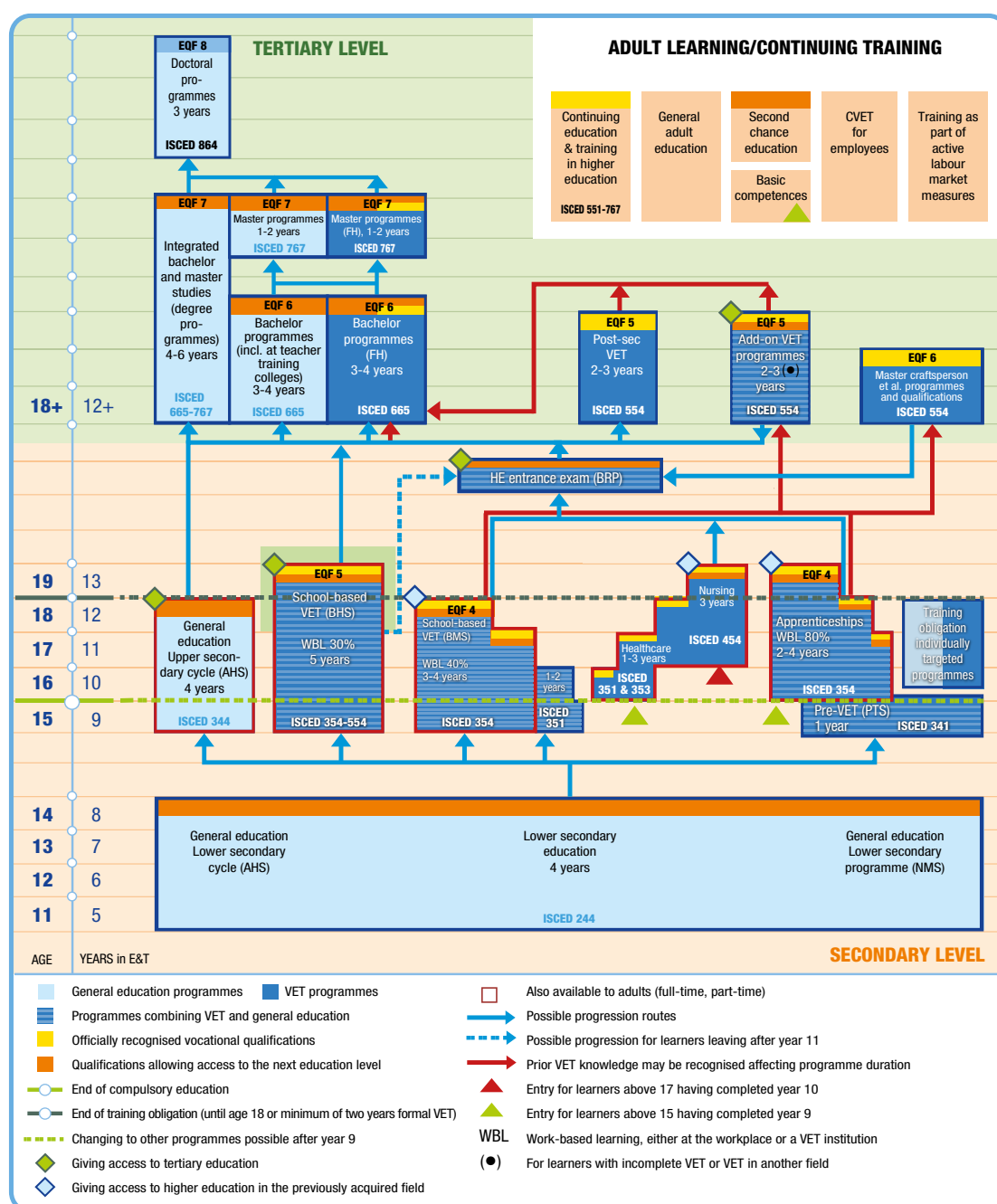
The number of apprentices (within the dual VET-track) being trained is driven by company demand. The training is based on a training contract between the company and the apprentice and learners need to follow a respective school-based programme. Early leaving rates from education and training have been comparatively low (7.8% in 2019) 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.

Contrary to fears, the coronavirus pandemic has, so far, not had any serious impact on the supply of apprenticeship places. However, consideration is being given to how alternative supra-company training can be expanded to bridge possible gaps in apprenticeship training places.

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



NB: Simplified. ISCED-P 2011.

Source: Cedefop and ReferNet Austria, 2020.

- 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, such as the possibility to follow part-time apprenticeship for parents and people with health problems (from 2020).

VET in Belgium (BE-DE)



Belgium is a federal State comprising three Regions (Flanders, Wallonia and Brussels) and three Communities (Flemish, French, and German-speaking). Citizens can access three different vocational education and training (VET) systems: Flemish (BE-FL), French-speaking (BE-FR) and German-speaking (BE-DE). Brussels is a specific case, as both BE-FR and BE-FL systems coexist. Despite multiple authorities being responsible for education, training and employment, as well as diverging VET systems, there is political consensus on specific issues. At all levels, VET policies involve social partners in a tradition of social dialogue.

In the BE-DE system, the German-speaking Community is in charge of education, training, and employment. Compulsory education covers learners aged 5 to 18. VET is offered at secondary, post-secondary and tertiary levels.

Formal upper secondary education can be accessed from age 14; it lasts four years and is offered in two branches (nationally referred to as full-time secondary education): general education and VET. The latter comprises:

- technical school-based programmes that lead to an upper secondary education diploma and a VET qualification;
- vocational school-based programmes that are more practice-based and focus on preparing learners for labour market entry. These lead to a VET qualification only, but graduates can follow a one-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 or apprenticeship.

Graduates of these upper secondary education programmes can follow a three-year nursing programme at post-secondary level.

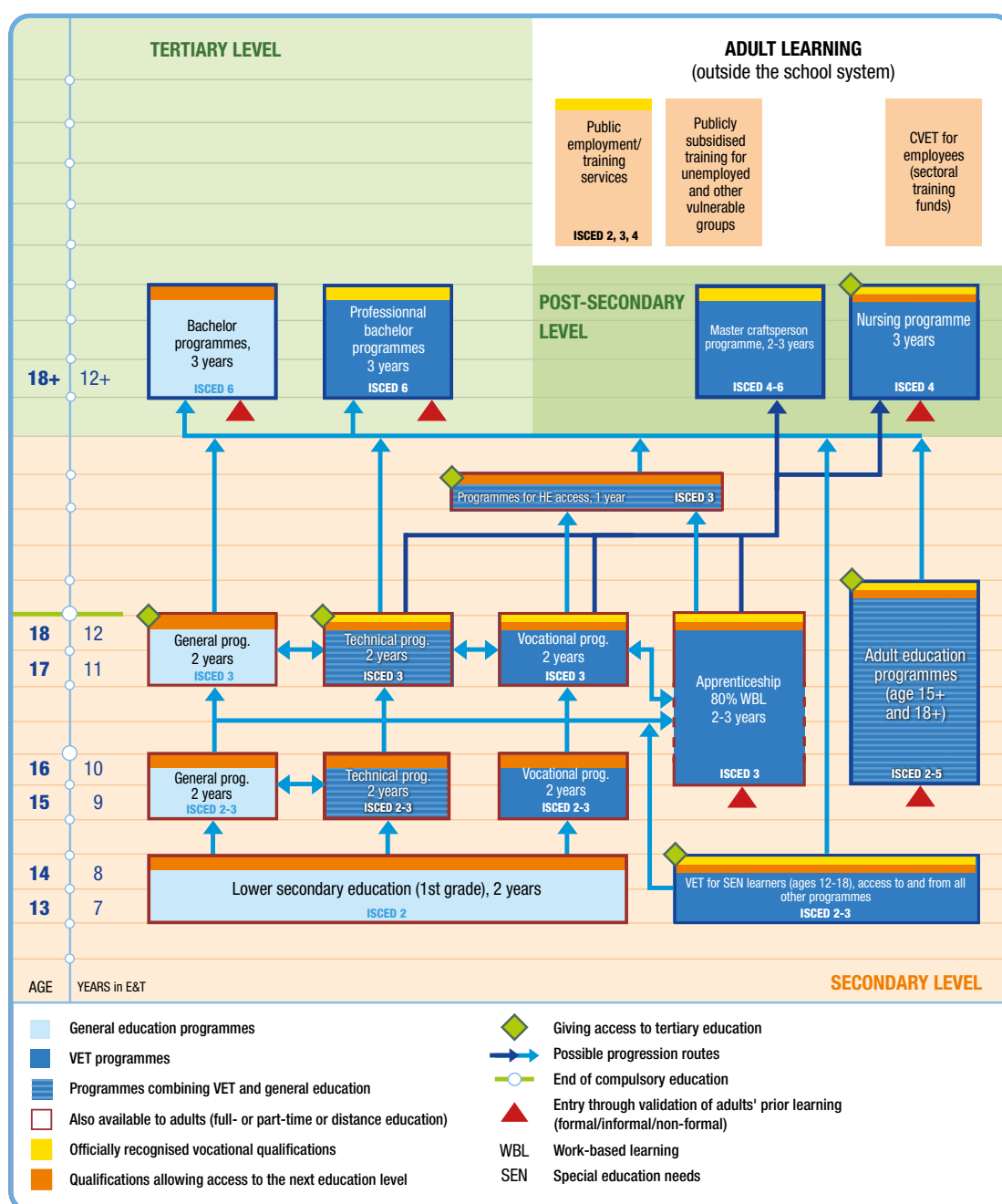
Besides these formal VET programmes, the regional training provider IAWM (*Institut für Aus- und Weiterbildung im Mittelstand und in kleinen und mittleren Unternehmen*) offers two- to three-year apprenticeship programmes to learners from age 15 onwards to become a skilled worker. These programmes incorporate one day per week of general, occupational, and practical courses at school and four days of work-based learning in a company, based on a contract. Apprenticeship programmes are very popular, socially highly recognised, and supported by many stakeholders.

Graduates with a certain level of professional experience can follow a two- to three-year master craftsperson programme at post-secondary level, which qualifies them to become self-employed professionals and train apprentices themselves.

Adult education is partially accessible from age 15 (individual modules/courses) and fully from age 18. Course participants may obtain a recognised diploma, qualification or certificate from primary to tertiary level. Adult learners can choose among a wide range of programmes at secondary level, which can lead up to an upper secondary education diploma. Adult programmes are offered by the formal education system and by public and private VET providers.

At tertiary level, graduates with an upper secondary education diploma can access three-year professional bachelor programmes, offered in various professional fields such as primary school teacher or accountant. Due to the small size of the German-speaking Community, professional master programmes are not offered. However, students can obtain a master degree in a nearby university in another Community (e.g. Université de Liège), the Netherlands (e.g. Maastricht University) or Germany (e.g. RWTH Aachen).

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 as language learning. Such training mainly targets jobseekers and employees and is sometimes provided in cooperation with public or private VET providers.



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 2020, adapted from *Spotlight on VET - 2018 compilation*.

VET in Belgium (BE-FL)



Belgium is a federal State comprising three Regions (Flanders, Wallonia and Brussels) and three Communities (Flemish, French, and German-speaking). Citizens can access three different vocational education and training (VET) systems: Flemish (BE-FL), French-speaking (BE-FR) and German-speaking (BE-DE). In the Brussels Region both BE-FR and BE-FL systems coexist. Despite multiple authorities being responsible for education, training and employment, as well as diverging VET systems, there is political consensus on specific issues. At all levels, VET policies involve social partners in a tradition of social dialogue. The Flemish Government is in charge of education and training and employment in Flanders.

Compulsory education covers learners aged 5 to 18. VET starts at age 14 as school-based programmes (nationally referred to as full-time education) and from age 15 onwards it is also offered in the form of dual learning programmes combining company and school-based learning (referred to as part-time education). These are organised by schools and based on a contract with the company involved. VET programmes last four years and comprise:

- technical programmes, which combine technical-theoretical classes and practical lessons. They lead to an upper secondary education diploma including a VET qualification such as hospitality;
- vocational programmes that are more practice-based and aim at direct employment. After successful completion of an additional year (follow-up vocational programme), an upper secondary education diploma is awarded.

Another apprenticeship scheme is organised by the regional training providers. In these apprenticeship programmes, learners follow general and technical courses at school or at a training centre (one or two days per week).

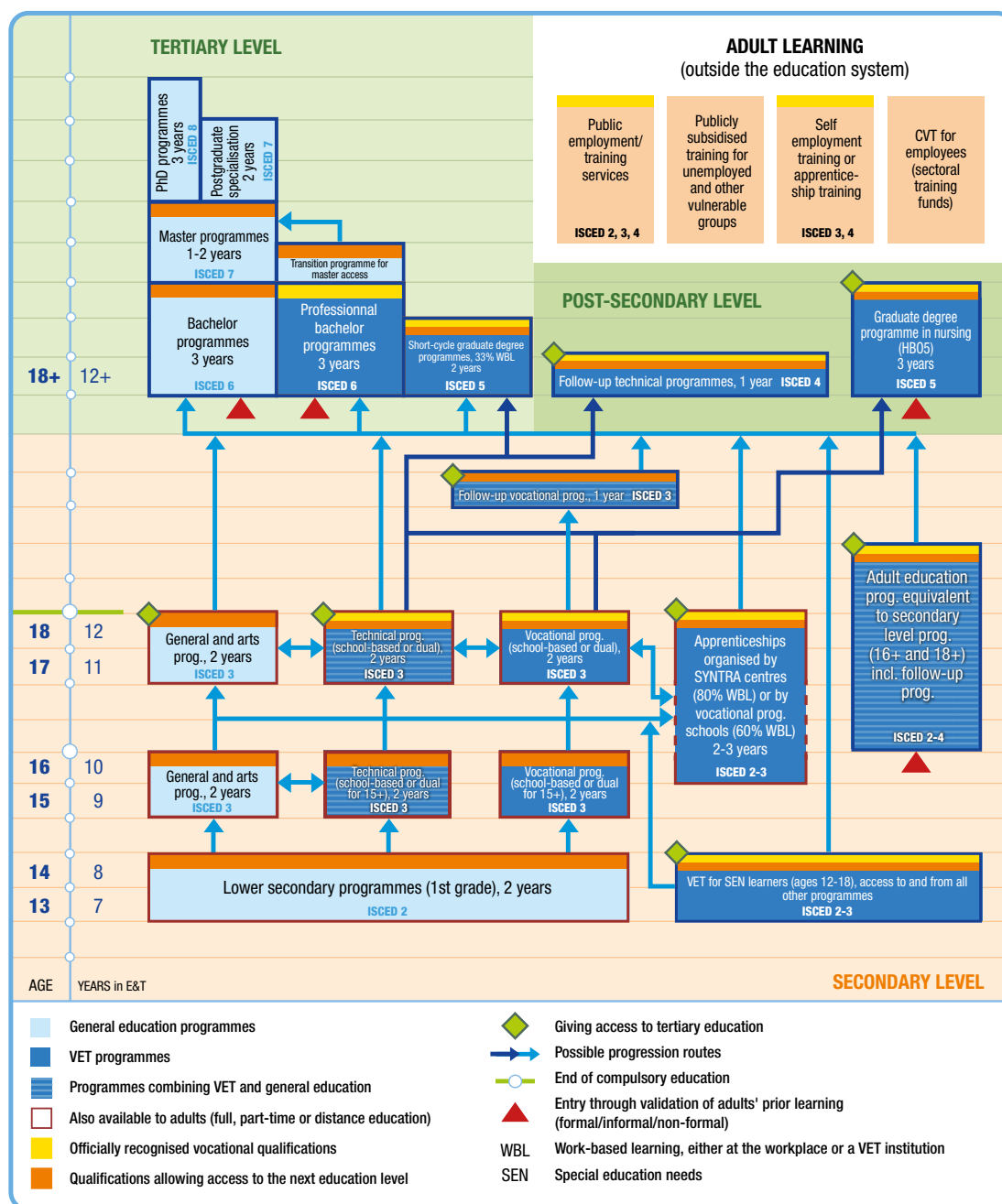
The other days (three or four), are for work-based learning in a company. Graduates receive a vocational qualification and an upper secondary education diploma. These programmes are also accessible to young adults up to age 25.

Adults over 18 can choose among a wide range of programmes offered by the formal adult education system and by public and private VET providers, including entrepreneurial training programmes.

At post-secondary level, one-year specialisation programmes are offered as follow-up technical programmes, as well as a three-year nursing (HBO5) graduate programme.

An upper secondary education diploma is necessary to enter tertiary education. People who have failed to get this diploma can obtain it via formal adult education programmes later. An exception is the two-year short-cycle programmes (two years, 33% WBL) which can be accessed by VET programme

graduates. Professional bachelor programmes (three years) are another profession-oriented programme offered in Flanders; graduates can progress to a master degree after following a one-year transition programme. Higher education is accessible to adults either by full-time pathways, part-time pathways or distance learning. Public services organise vocational training for jobseekers, employees and entrepreneurs. This leads to partial or full professional qualifications, or relates to specific subject areas, such as language learning. It is offered by SYNTRA (for entrepreneurs) and by the Flemish public employment service VDAB, which also organises some training in co-operation with public or private VET providers.



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 2020, adapted from *Spotlight on VET - 2018 compilation*.

VET in Belgium (BE-FR)



Belgium is a federal State comprising three Regions (Flanders, Wallonia and Brussels) and three Communities (Flemish, French and German-speaking). Citizens can access three different vocational education and training (VET) systems: Flemish (BE-FL), French-speaking (BE-FR) and German-speaking (BE-DE). In the Brussels Region, due to its bilingual status, both BE-FR and BE-FL systems coexist.

In the BE-FR VET system, the Ministry of the French Community regulates formal education in collaboration with school boards. The Walloon and Brussels Regions are in charge of vocational training and employment, and four regional public training services regulate vocational training provisions. This sharing of competences requires close and regular intergovernmental cooperation with formal and non-formal agreements, to ensure the consistency of the system. At all levels, VET policies involve social partners.

Compulsory education in Belgium covers learners aged 5 to 18. VET starts at the age of 14 as school-based (nationally referred to as full-time education) and from age 15 alternance VET schemes are offered (nationally referred to as part-time programmes).

Upper secondary education lasts four years and is offered in two branches; general education (nationally referred to as transition education) and VET (nationally called qualification education). The latter comprises:

- technical or artistic qualification programmes that lead to upper secondary education diploma and a VET qualification such as electronics and automation technician; graduates have direct access to tertiary education;
- vocational qualification programmes are more practice-based and aim at direct employment. They lead to a VET qualification such as electrician/industrial installer.

At post-secondary level, one-year technical follow-up programmes (called seventh year) provide access to tertiary education and/or a specialisation.

All the above upper and post-secondary programmes can be delivered as school-based or dual programmes. Dual programmes offer alternance between two days learning at school and three days in a company based on a contract.

Besides these formal VET programmes (offered by schools) regional dual training services organise apprenticeship programmes for learners aged 15 to 25. These programmes follow the alternation scheme of one day in the training centre and four days in a company based on a contract. These regional training services are:

- IFAPME (*Institut wallon de formation en alternance et des indépendants et petites et moyennes entreprises*) in Wallonia;
- SFPME (*Service formation pour les petites et moyennes entreprises*) in Brussels.

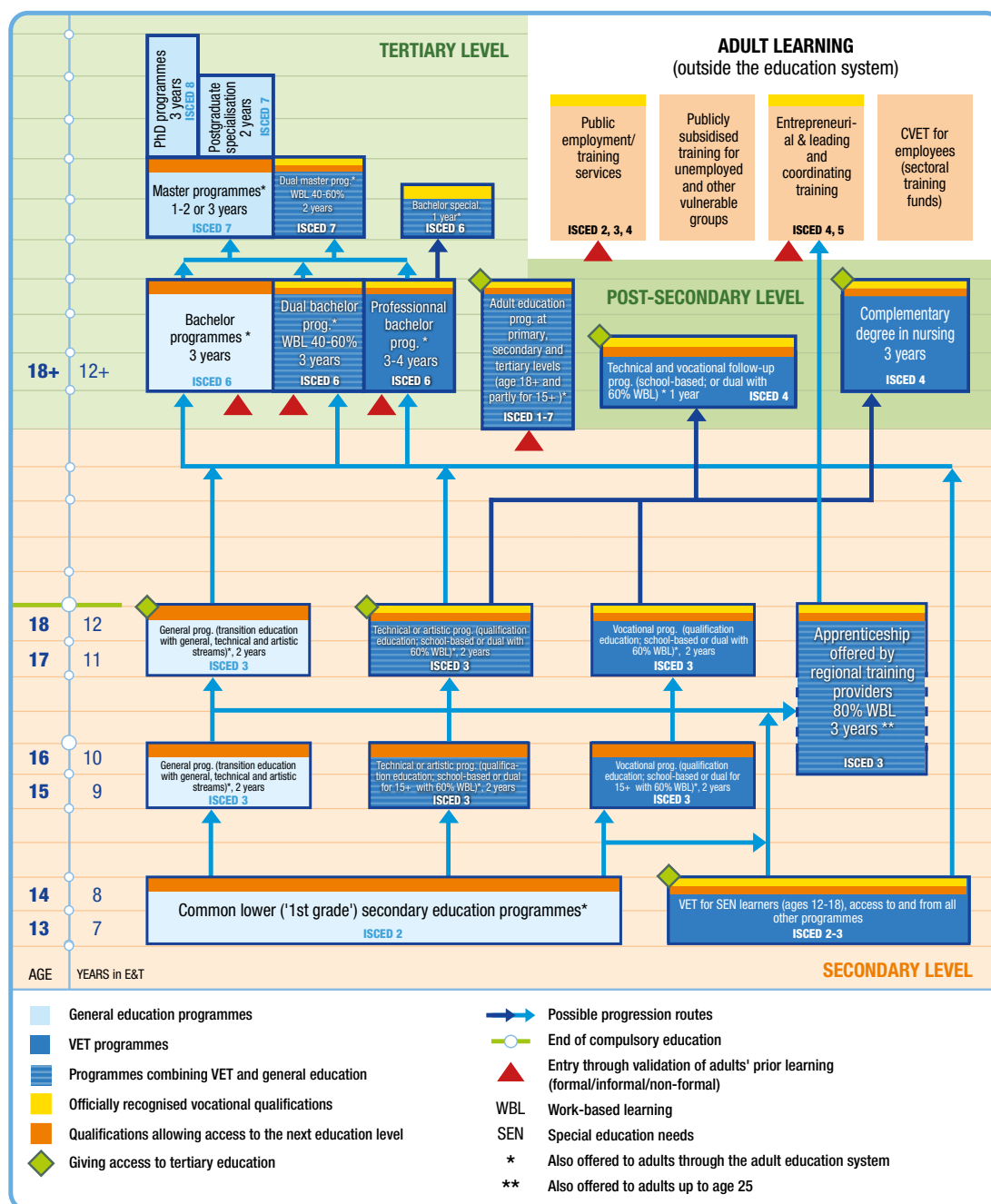
Certified apprentices can progress to entrepreneurial or to leading and coordinating training programmes, offered by these public services to adults from age 18 onwards.

An upper secondary education diploma is necessary to enter tertiary education. Professional and dual bachelor graduates can enter the labour market or progress to master degrees. Professional bachelors are school-based, include an end-of-studies internship, and can be followed by a one-year bachelor specialisation programme. Dual programmes are similar to professional bachelor or academic masters but include an alternation scheme (two to three days in a company) with the signing of a tripartite contract.

The adult education system offers formal education programmes at all levels 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 adult education 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 vocational training services organise vocational training for the unemployed and employees. This leads to partial or full qualifications, or relates to specific subject areas, such as language learning. The public services are:

- FOREM (*Office Wallon de l'emploi et de la formation*) in Wallonia;
- Bruxelles Formation, in Brussels.

Training is organised by their own services or in cooperation with public or private VET providers. 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.



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 2020, adapted from *Spotlight on VET - 2018 compilation*.

VET in Belgium ⁽¹⁾



Distinctive features

Belgium compulsory schooling duration is long. From 2020/21, children are required to attend school from the age of five until 18, unlike most European countries where compulsory schooling ends at age 16. This makes the duration of compulsory education and training in Belgium among the highest in Europe. Reducing the age for starting obligatory schooling is based on findings that participation in pre-primary education is a strong protector against early school leaving.

Another distinctive feature is the high number of actors in the VET system. This is split between the three Regions (Flanders, Brussels, and Wallonia) and the three Communities (Flemish, French and German-speaking), which overlap but do not coincide. 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 common certification, common occupational profiles and VET standards, while benefiting from a certain autonomy in their own organisation.

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, for example, 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 the Communities themselves mostly takes place through informal talks. On selected topics (for example, the coronavirus 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 2020 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.

The concept of 'school basin' is also a distinctive element, created and developed in BE-FR. There are 10 basins corresponding to 10 geographic areas, which face specific socioeconomic and education challenges. Though VET is, by nature, decentralised in Belgium, this is perhaps more so in the French Community compared with Flanders: 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, such as that on the validation of competences, renewed in March 2019, the OFFA, which coordinates dual learning, and FormaForm, which brings together organisations responsible for vocational training. The BE-DE Community is different still, with some regional competences linked to employment.

The high number of different political actors involved in the VET system sometimes makes cooperation between partners challenging. Agreements regarding the validation of competences are split between Communities, and more coordination is needed to ensure competences are recognised nationwide. Different legislative frameworks due to policy choices can cause complications for pupils, students, or employers who are seeking interregional educational mobility.

Learners leaving the education system without a certificate/diploma of secondary education have the possibility 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.

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

Main challenges and policy responses

Despite the different socioeconomic and education contexts within Belgium, the VET systems face many similar challenges.

The coexistence of three official languages in Belgium remains a key challenge in all Regions, also having an impact on interregional mobility. Knowledge of the language of instruction is an important matter within VET, especially for better integration of newcomers. In response to this need, in Brussels for instance, jobseekers are offered language job vouchers to improve their language skills and employment chances.

Lifelong learning is also a major challenge, as participation in adult education and continuing education/training remains comparatively low in Belgium. Currently, low participation (especially in Wallonia at 6.6% in 2019) and low involvement of companies in training results in a lack of qualified work force among the already employed people to respond to the evolution of needs. This is particularly the case in relation to ICT skills and jobs, which results in companies being underprepared for tackling the digitalisation of the workplace. Efforts are also made to expand the offer of adult education, literacy and language learning. Policies aim at increasing synergy between the worlds of work and education. For example, until 2017 com-

⁽¹⁾ This part is based on information collected by Fondazione Brodolini under Cedefop's service contract No 2020/0140

panies were obliged to allocate 1.9% of wage costs to support lifelong learning programmes; a new inter-professional agreement signed by social partners from the private sector has since then established the rule that each employee has the right to five days of training per year. Some measures have also been implemented to increase or maintain the number of employees aged 45+ in companies. Improving the provision of, and access to, lifelong learning is high on the political agenda.

The need for digital transformation in terms of training provision and labour markets was underlined by the coronavirus crisis. Due to lack of equipment and of adequate competences in distance learning (among both teachers and students) the provision of distance learning faced some difficulties. The Communities introduced several measures to tackle these challenges. In BE-FR, FormaForm and the Institute for in-service training (IFC) developed new courses to help teachers adapt to online teaching. In Flanders, support for teachers was provided via Klasse (a magazine for teachers of the Flemish education ministry) and KlasCement (an education portal of the Flemish education ministry where teaching materials and learning resources are shared by teachers and students following teacher training). These changes are expected to have a long-term impact on teaching methods. From a wider perspective, initiatives such as GO4Brussels 2030 and Digital Wallonia are aiming to build towards the future of work.

Youth unemployment remains a major concern for Belgian authorities, a challenge which has been exacerbated by the coronavirus crisis, as the so-called 'Covid generation' is being severely affected by the lack of internships and higher dropout rates due to distance learning. Dual education is often promoted in the Regions and Communities as a measure to reduce inactivity among young people, but mainly as a learning path that makes alternate learning possible for more young people, with the goal of improving their qualifications. There is already a long tradition of dual learning in the German-speaking Community, which is now being expanded to higher education. In BE-FL, in 2019, a new system of dual learning was implemented, allowing secondary learners aged 15 and older to combine their studies with training at a company. Different tools and campaigns have been developed to promote this new method of work-based learning, which will be extended into higher and adult education in the future. The range of training opportunities and the number of students involved is increasing every year. It will replace the two current apprenticeship schemes and encompass selected professional fields, which are covered in technical and vocational upper secondary education programmes. In BE-FR, the French-language Office for Dual Training (*Office franco-phonie pour la formation en alternance* – OFFA) was created to coordinate and promote dual training. Dual education was also made possible in higher education; it has been available in both bachelor and master programmes since 2016.

Giving renewed value to VET is considered a shared challenge, and the three Communities are aiming to improve the

performance of their education systems. In the Flemish Community these reforms include improvements to the school curriculum, a thorough review of teacher training, language measures and language integration pathways, as well as preventing early school leaving. At the same time, the government in Flanders continues to work on the reform and update of the education curriculum. In the French Community, the decree relating to steering the system sets seven objectives for improving outcomes, student progress and the equity of the system, and encourages all schools to set individual objectives and action plans to contribute to these overarching objectives. The provisions relating to the reinforcement of nursery education, the language of learning and individual support for pupils in difficulty, which came into force in September 2019, also aim to increase pupil performance and reduce failure. From the perspective of greater equity in the system, the reform removes early selection mechanisms and the relegation of the most socioeconomically fragile students. In the German-speaking Community, a range of projects are planned, such as the promotion of lifelong language awareness, multilingualism, citizenship education, media education, integration of people with special needs and with a migrant background, technical and vocational training, support for teachers, and the design of modern learning environments.

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.

Amendments to the VET Act from 2018 and 2020 defined new requirements related to VET quality assurance, work-based learning included.

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 (A): 'second chance' IVET programmes lead to EQF level 2 qualifications at schools and training centres. The duration is one or three years for school-age learners and up to six months for adults;
- B (B): IVET and CVET programmes leading to qualifications at EQF levels 3 (one or four years) and 3 and 4 in adult learning (up to one and a half years) at schools and training centres;
- C (B): mainstream IVET and CVET programmes leading to EQF level 3 and 4 qualifications at VET schools. Duration is one to five 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 two years;
- E (Д): up to one-year IVET and CVET programmes leading to partial qualifications at EQF levels 2 to 4 at schools and training centres;
- F (E): 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 two to three 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.

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: 50.4 % of the total secondary education population in 2019. 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 in units of learning outcomes for all VET qualifications (EQF levels 2 to 5).

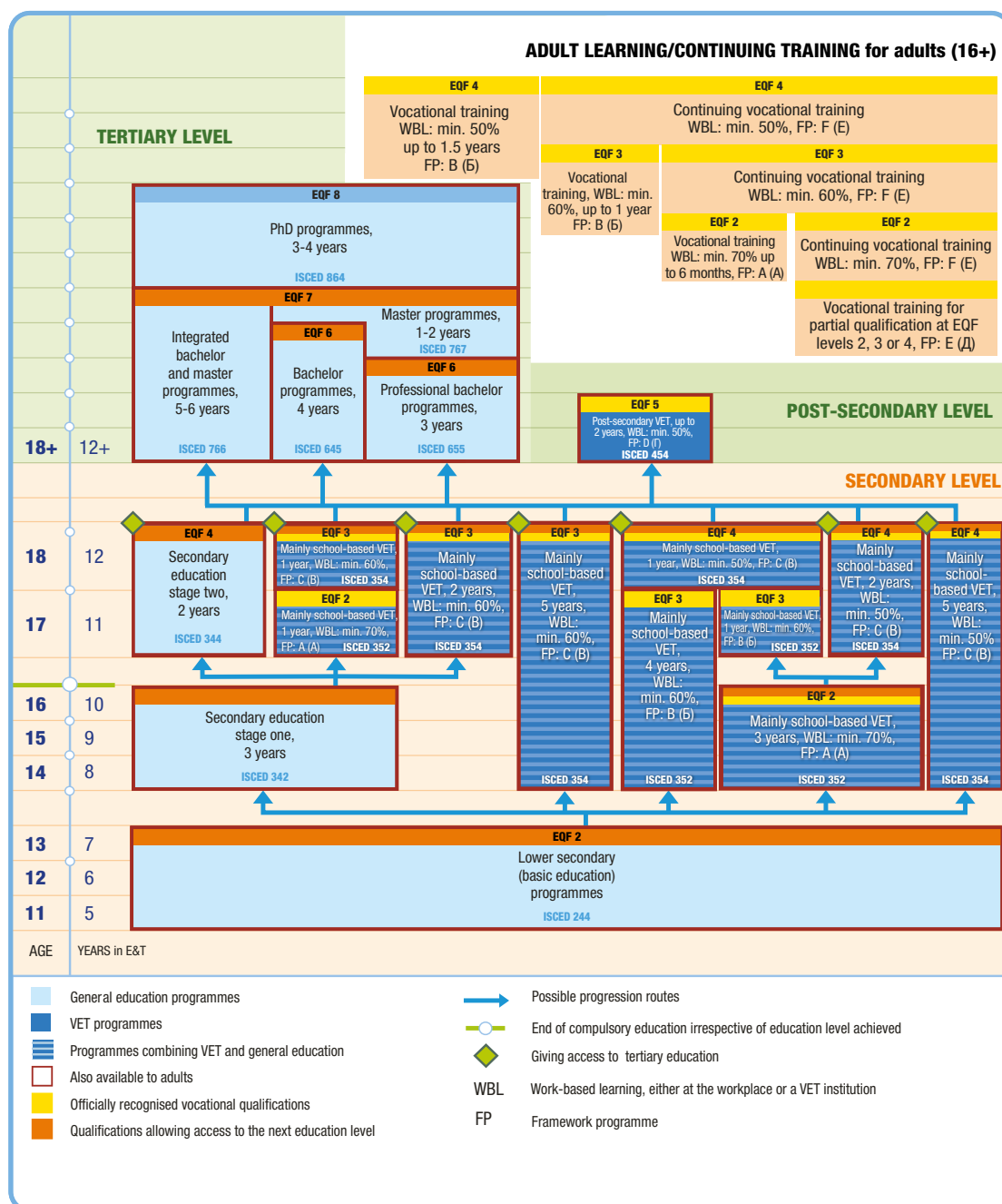
Quality assurance criteria and procedures for the validation of non-formal and informal learning have been developed since the development of the relevant legal framework in 2015. Validation procedures may be organised by all VET providers on the condition that the process concerns qualifications from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

Challenges and policy responses

The 2015-20 National strategy has focused on main challenges: wider use of a modular approach in VET, improved VET implementation flexibility, improved quality and more easily accessible career guidance services. According to industrial enterprises there is still a high level of skills mismatch: in 2019, 37% pointed out labour shortages as a factor limiting their activity.

To increase VET labour market relevance, the pre-school and education Act (2015) increased the responsibilities of local and regional authorities in planning VET provision and defining occupations, funding staff salaries, organising VET for the unemployed and equipping VET schools. Employer organisations are also becoming more actively involved in implementing VET; since 2016 they have been able to propose changes to the list of VET qualifications.

Dual VET was introduced in 2016, with the number of apprentices almost doubling since. Participation in dual VET is also encouraged by fiscal policy interventions, with financial support for learners in grades 8-10 who receive monthly loans.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Bulgaria, 2020.

Learners in 11th and 12th grade receive wages due to their contractual relationship with their employer. Measures such as specialised forums and media campaigns help attract learners and motivate employers to participate in dual VET.

The 2015 quality assurance regulation mandates VET providers of adult training to organise self-assessment based on a set of indicators.

The education ministry has a national programme to ensure professional development of teachers and trainers and to attract more young people to the profession.

The Covid-19 virus highlighted the need for increasing digital readiness of VET institutions.

The VET development Strategy 2030 is under 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, almost 70% of learners participate in initial vocational education and training (IVET). Around two thirds of VET learners are in four-year school-based programmes, with under one third in three-year programmes. Only one upper secondary programme lasts five years, leading to a general nursing qualification.

The four-year, mostly school-based, VET programmes, with a WBL share of around 10%, lead to qualifications at CROQF level 4.2/ EQF level 4 and allow progression to tertiary education; this follows completing external *matura* exams. In 2019, around 80% of four-year and five-year programme graduates took *Matura* exams and 45% enrolled in higher education immediately on completion of secondary education.

Three-year VET programmes give access to the labour market and lead to qualifications at CROQF level 4.1/ EQF level 4; WBL share ranges from 5% and more in school-based programmes to up to 60% in apprenticeships (programmes for crafts, nationally referred to as unified model of education, JMO). Within the final exam for completion of the three-year JMO programme, learners take the apprenticeship exam. Around 10% of all IVET learners are in apprenticeships.

Only a few learners take part in two-year VET programmes, leading to qualifications, without completing upper secondary education. Graduates of two- and three-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 foreseen but not introduced yet at post-secondary level.

Professional education and training is offered at tertiary level. Short-cycle professional undergraduate programmes last two to two-and-a-half years (120-150 ECTS points) and lead to qualifications at CROQF/EQF level 5. Three- to four-year professional undergraduate programmes lead to a professional bachelor diploma at CROQF/EQF level 6. Professional bachelors may continue their studies in university; this is decided by each higher education institution individually. Specialist graduate professional studies last one to two years and lead to a professional specialist diploma at CROQF/EQF level 7.

Adult education and training in Croatia lead to educational attainment at EQF levels 1 to 5 for learners older than 15.

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. Adult learning is typically financed by learners.

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 four-year VET programmes, where learners spend half of their time acquiring general competences. In 2019, around 45% of four-year VET graduates enrolled in tertiary education.

Participation in VET at upper secondary level is one of the highest in the EU (69.2% compared to the EU-28 average of 47.6% in 2018). Croatia has the lowest rate of early school leaving in the EU (3.0% in 2019, compared to the EU-28 average of 10.3%) and has already met its Europe 2020 national target of 4%.

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.

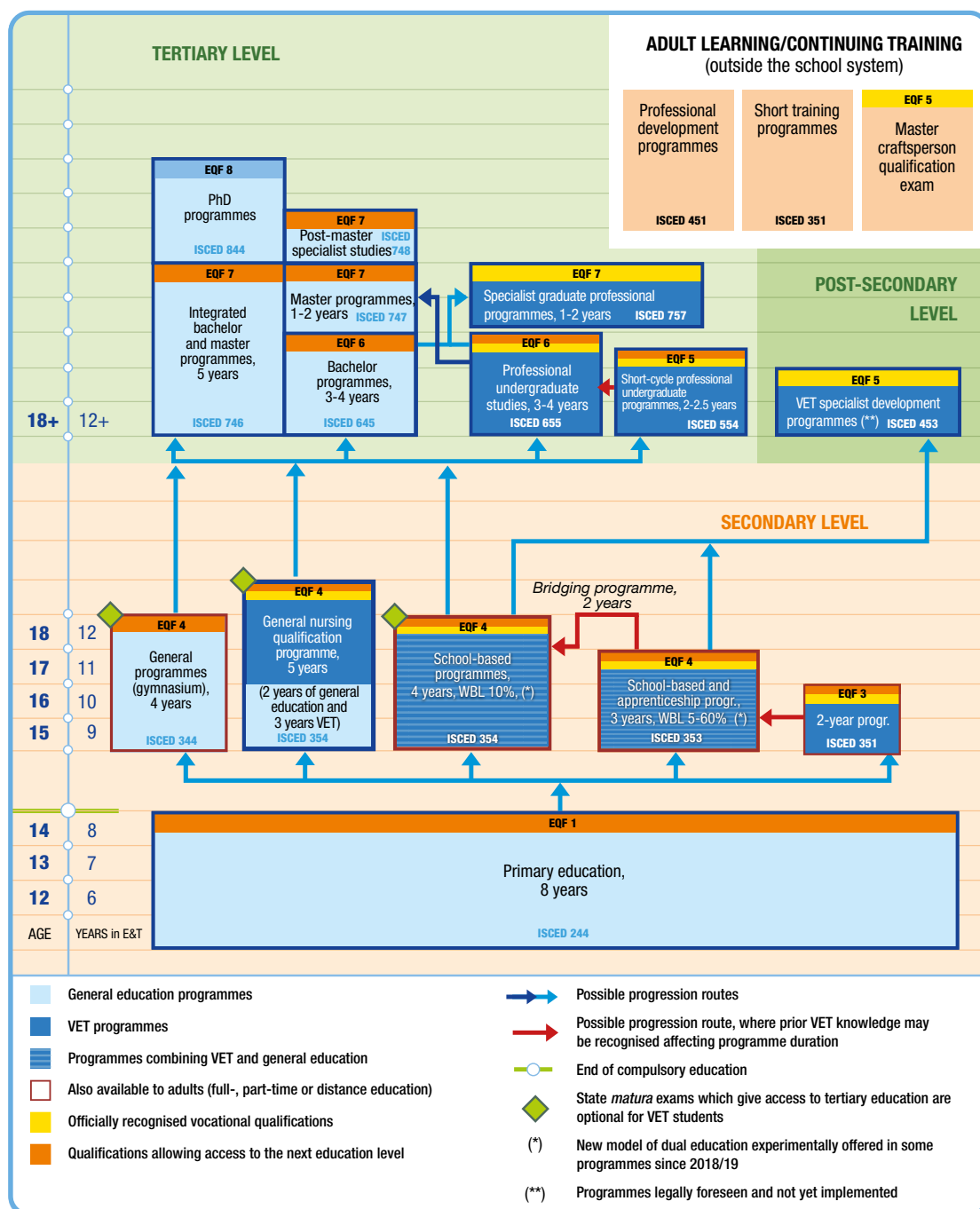
To promote excellence in VET, Croatia is establishing a network of 25 regional centres of competence. These will offer state-of-the-art technologies, teaching excellence and work-based learning, training for professionals, VET teachers and in-company mentors, as well as close cooperation with local businesses.

In 2019, the first WorldSkills Croatia competition launched a reformed model of VET student competitions with over 560 competitors in 47 disciplines and fairs. With 10 000 visitors, high visibility and stakeholder endorsement, this became the leading national event for the promotion of VET.

Challenges and policy responses

Current priorities for VET development focus on increasing its labour market relevance, quality, attractiveness and internationalisation. Determined reform efforts are under way to address outdated curricula, skills mismatch, the quality of work-based learning and apprenticeship, as well as the public image of VET. As the flagship initiative, VET curriculum reform is oriented towards comprehensive redesign in line with labour market needs, learning outcomes, work-based learning, contemporary teaching and close support to VET providers. New VET curricula are expected to be implemented in 2022/23.

Youth unemployment has been gradually falling (16.6% in 2019 among 15 to 24 year-olds), as has the share of young people (aged 15 to 24) neither in employment nor in education and training (NEETs), to 11.8% in 2019. Youth guarantee schemes are in place to help young people get into employment, appren-



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Croatia, 2020.

ticeship, education and training within four months of leaving school or becoming unemployed.

National demographics are reducing the number of learners, particularly in three-year IVET programmes. Those most affected are the apprenticeship programmes (JMO), losing half of their learners in the past six years. A new model of dual education was introduced as of 2018 to improve the quality of work-based learning and apprenticeships.

Participation in adult learning in 2019 was only 3.5%, 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 developed to respond better to the needs of the labour market.

The Ministry of Education, Culture, Sport and Youth has overall responsibility for developing and implementing education policy. The Ministry of Labour, Welfare 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 (83.3% of enrolments in 2017/18) are with lyceums, including evening lyceums; VET programmes (16.7% of enrolments in 2017/18) 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 three-year programmes, theoretical and practical, leading to EQF 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 mainly 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. The theoretical stream is for those who want to continue to higher education and the practical one is 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 2) can last up to two 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 succeed in entrance examinations.

'Core apprenticeship' lasts for three years. Eligible candidates must be less than 18 years old to apply and must have either completed a lower secondary programme (EQF 2) 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 two years instead of three. 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 two to three years, leads to a diploma or higher diploma awarded by the institution (EQF 5). The 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 vocational education and training; they offer accredited two-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 employed and unemployed training.

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 post-secondary 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 and employees to participate in training activities.

Cyprus has a high level of educational attainment. There is a cultural trend to favour general secondary education followed by higher education. However, the economic crisis of 2012-15, combined with efforts to increase VET attractiveness, have resulted in an increase of upper secondary VET enrolments (by four percentage points from 2011 to 2017).

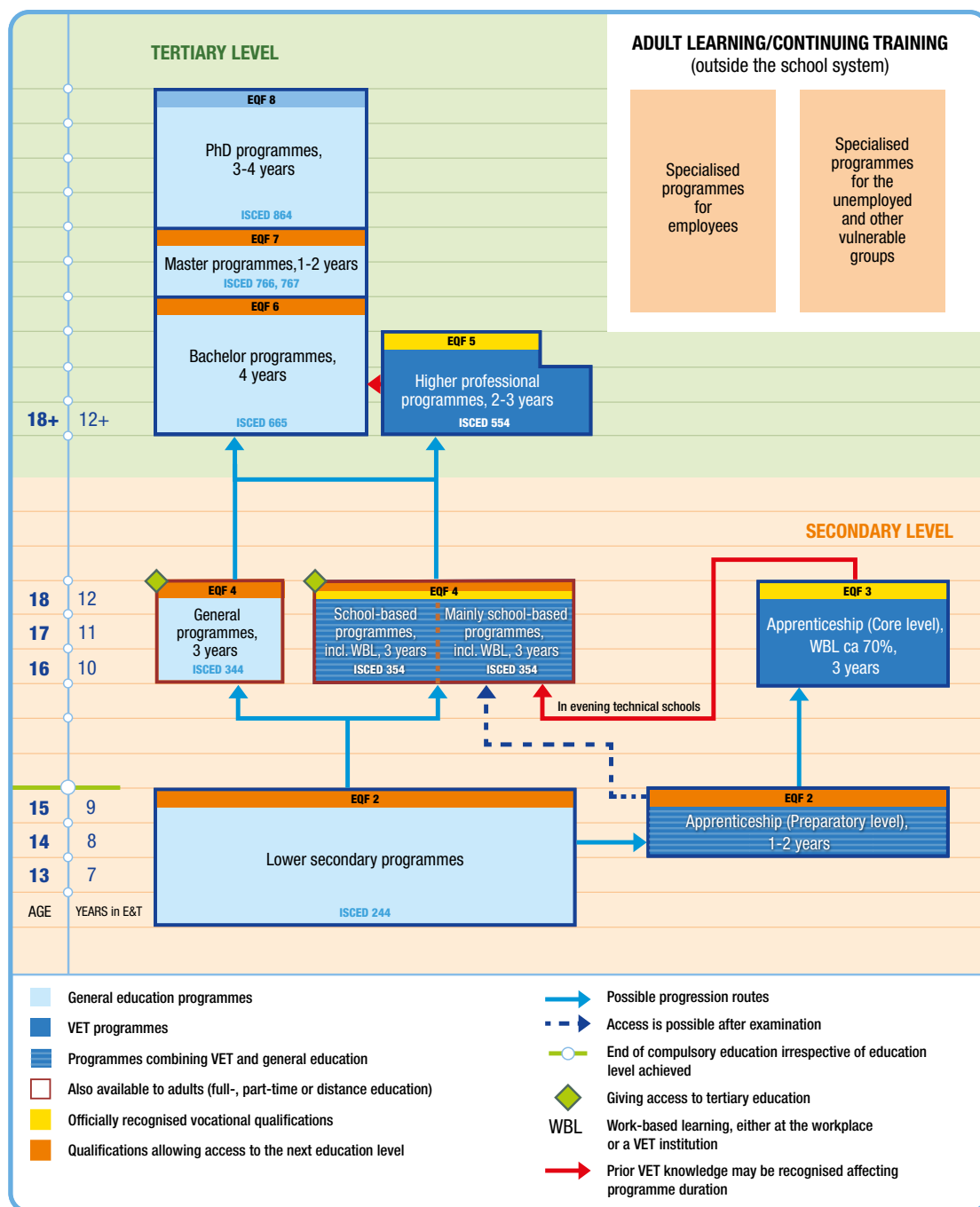
Challenges and policy responses

The 2012-15 economic crisis, and its adverse effects on the labour market, has challenged the VET system.

In response, training has been redirected, targeting mainly the unemployed, economically inactive, and the employed.

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 (6.7% in 2018, 12% national target for 2020) and



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Cyprus, 2020.

to increase VET participation among the young (16.7% at upper secondary level). Core measures include:

- promoting tertiary non-university VET programmes;
- upgrading secondary technical and vocational education curricula;
- improving the competences of VET teaching staff. There are also actions-included in the 2015-20 strategic plan for technical and vocational education, to upgrade apprenticeship, making it an attractive form of training for young people.

The Cyprus qualifications framework (CyQF) supports the validation of non-formal and informal learning and is expected to improve horizontal and vertical permeability. The development of a competence-based system of vocational qualifications by HRDA, is expected to improve the skillset of young people and adults.

The Covid-19 outbreak has challenged the VET system. In response, distance learning was implemented and, in March 2020, HRDA allowed CVET providers of subsidised training programmes to utilise e-learning methods.

VET in Czechia



The main body responsible for IVET is the Ministry of Education, Youth and Sports (MŠMT).

Representatives of employers are involved in curriculum development and participate in 28 sector skill councils responsible for creation of occupational and qualification standards.

Vocational education and training (VET) is provided both at lower and upper secondary level, as well as at tertiary level.

IVET is mainly school-based, but work-based learning (WBL) is an integral part of the programme (25-45% 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 (EQF 2) last two years and are designed primarily for students with special education needs. These programmes are completed with final exam or with a 'VET certificate'.

Upper secondary level VET programmes (EQF 3-4) last three to four years. There are the following options:

- three-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 (bricklayer, hairdresser, etc.). Graduates of these programmes can follow a two-year follow-up programme (EQF 4) and take a *maturita* examination, which opens an access to higher education;
- four-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 (construction technician, travel agent, etc.);
- four-year lyceum programmes with a high proportion of general education (up to 70% of the curricula) prepare their graduates for studies at higher education institutions or to enter labour market;
- programmes offered by conservatories have a different set-up, preparing for performance in demanding music, dance, singing and drama activities. Studies are completed with an *absolutorium* (tertiary professional education, EQF 6), but students 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. Those with *maturita* (EQF 4) can acquire a VET certificate or another *maturita* certificate in a different field; those with a VET certificate (EQF 3) can only acquire another VET certificate in a different field. Shortened courses are suitable also for adults and last one to two years.

Tertiary professional programmes prepare secondary school graduates (with *maturita* certificate) for demanding professional tasks (nutritionist, etc.). Studies last three to three-and-a-half years and are completed with an *absolutorium* (EQF 6). These programmes provide practically oriented tertiary education and are closely aligned to employers' skill needs.

Although many graduates enter the labour market, vertical permeability to higher education institutions is also possible. Graduates who, upon completion of their studies, continue in bachelor programmes at universities, may have some of their subjects and exams from tertiary professional school recognised.

The share of EQF 4 VET graduates continuing towards tertiary education was 61% in 2018.

Any adult can study any VET programme in the formal school system. Many programmes permit combination with working life, but overall adult participation is low.

The wide variety of continuing VET (CVET) programmes provided outside the formal system is not generally regulated; nevertheless, a system of validation of non-formal and informal learning outcomes (VNFIL) has been gradually developing since 2007, when the Act on validation and recognition of prior learning came into force.

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 over 71% in 2018.

General subjects are a strong component in all types of VET programmes, but their proportion varies depending on the 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 students have acquired a vocational qualification recognised on the labour market.

Early leaving from education and training is still quite low (6.7% in 2019), partly due to a wide choice of education pathways and horizontal permeability.

Demographic developments have led to a decreasing number of young learners; IVET schools have become more active in providing CVET programmes for the general public. This is an opportunity for school teachers to develop their skills in teaching adults, but also helps increase young and adult learners' awareness of CVET as an integral part of life.

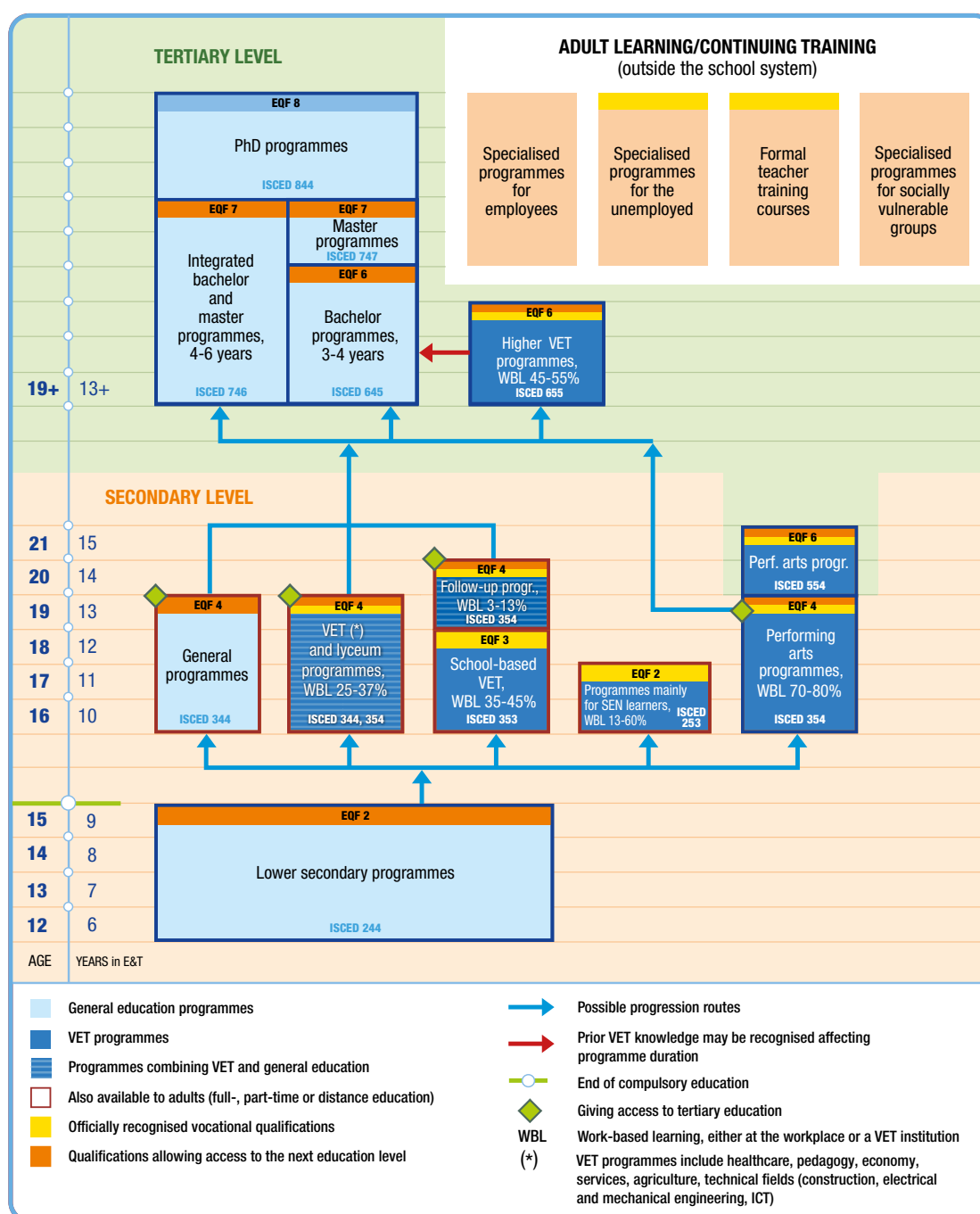
A graduate tracking system has been in place for almost 20 years.

Challenges and policy responses

One of the main challenges in VET is to improve the quality and attractiveness of secondary VET by encouraging 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.

Linking IVET programmes with relevant qualifications in the National register of qualifications (NSK) should support responsiveness and flexibility to labour market needs. The reform of for-



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Czechia, 2020.

mal education funding 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.

A crucial challenge is the ageing of pedagogical staff, as the average age of upper secondary school teachers is 49.4 years. Despite an increase in average salaries, demanding teaching jobs up to tertiary level still suffer from generally low attractiveness.

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.

As a policy response to Covid-19, an Amendment to the School Act from August 2020 introduced obligatory online education in case of emergency.

The new Strategy for the education policy of the Czech Republic 2030+ was adopted in autumn 2020. The revision of national VET curricula documents shall start in line with its principles.



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

VET jurisdiction is with the Ministry of Education. Initial VET (106 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 three-and-a-half 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 profession (KVU) programmes and professional bachelor programmes at tertiary level.

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 four years. It enables highly motivated students to obtain access to higher education along with a vocational qualification;
- 'new apprenticeship' ⁽¹⁾ (*Ny Mesterlære*) programmes, where the entire training 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 three to four 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 a skilled worker.

Adults with at least two years of work experience can receive VET education without the basic programme and without internship. Adult vocational training (*arbejdsmarkedsuddannelse*, 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 deepen their existing knowledge in a particular field or develop new knowledge in related fields. AMU programmes (around 500) are created, adapted or discontinued in response to labour market

needs. At tertiary level, further VET and adult education programmes lead to EQF level 5 qualifications.

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 responsibility. Stakeholders play a key role in advising the Ministry of Education on overall VET policy and determining the structure and general framework for training programmes within their field, cooperating in national trade committees. At local level, 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 education institutions and social partners.

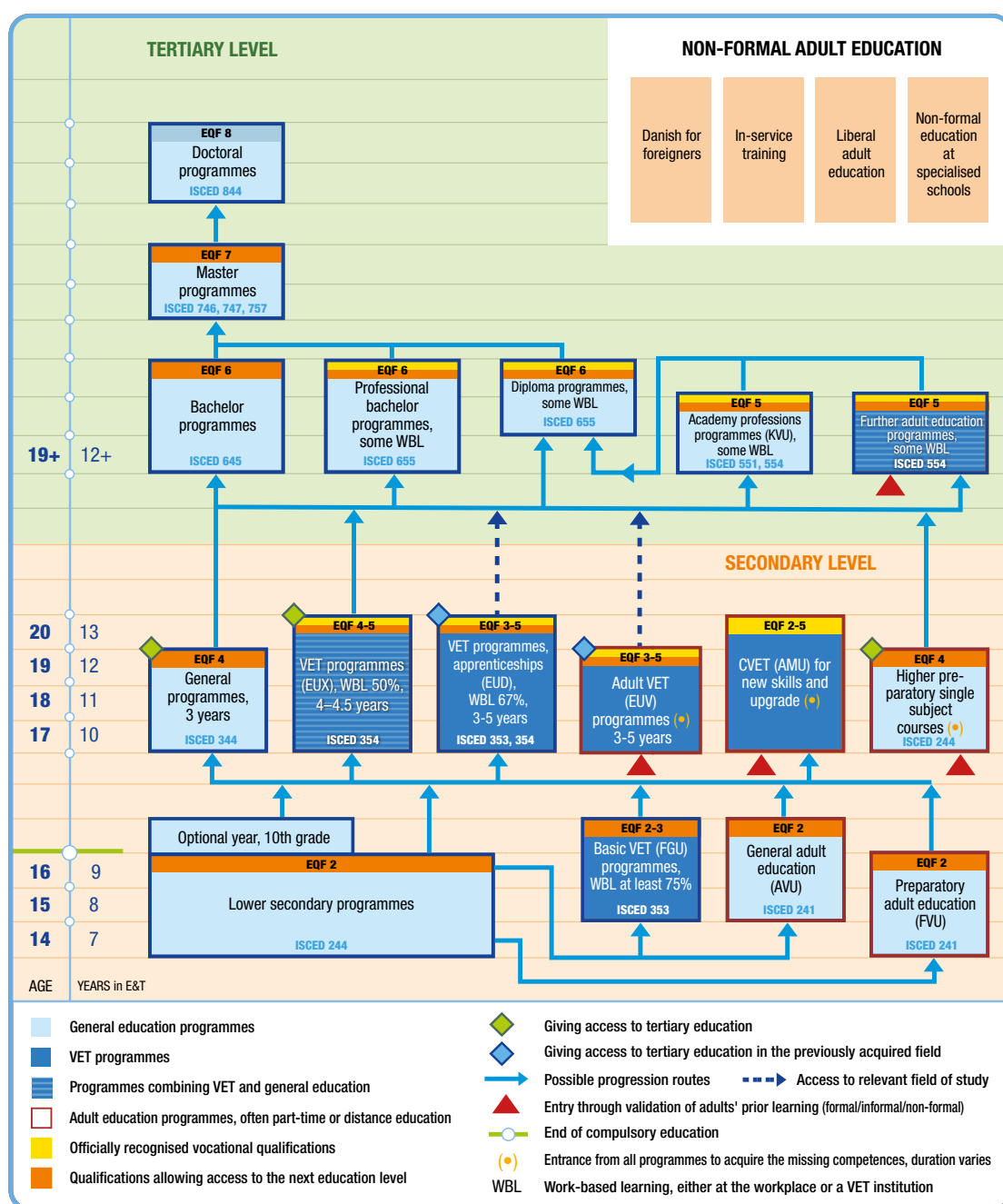
An integrated lifelong learning strategy introduced in 2007 improved horizontal and vertical permeability and guidance services and provided better opportunities for recognition of non-formal learning and qualifications through standardised procedures for validation of prior learning.

Public financing is central to the VET system, with colleges receiving performance-based block grants. Apprenticeships and employee further training are subsidised according to a solidarity principle, coordinated in the AUB system (*Arbejdsgivernes Uddannelses Bidrag*). 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 demand for skilled labour continues to increase, IVET is expected to accommodate an increasingly heterogeneous learner population. Two reforms have had significant influence on VET development. The VET reform (2014) established VET learners' minimum entrance requirements. Requirements for VET teachers were strengthened in 2010, since when all VET teachers must have a pedagogic 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. This will increase the number of weaker learners entering VET.

⁽¹⁾ This is the minor pathway and therefore not presented in the VET in Denmark's education and training system chart.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Denmark, 2020.

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

- more learners must enter VET directly from compulsory schooling: 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 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. Several

policy initiatives seek to address the problem, but the Covid-19 crisis has further widened the gap between training place supply and demand. A tripartite agreement in 2016 aims to establish 10 000 new placements in 2025.

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 becoming permanently excluded from the labour market. Due to the Covid-19 crisis in 2020 the government has launched a plan for upskilling unemployed adults. In the training period it is possible to receive 110% of the 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 outcomes-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, and as apprenticeship. Financial assistance is available for VET learners to guarantee equal access to education.

There are no minimum admission requirements at 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 ⁽¹⁾ for those over 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 8-9% 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 qualifi-

cation), VET providers and professional higher education institutions offer free courses for working adults.

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 more than doubled since 2010/11, reaching 41.7% of the total VET population in 2019. 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 been increasing since 2016/17 and now accounts for 8% of VET learners. This is a result of the education ministry's efforts to develop a functioning and sustainable work-based learning system with stronger employer involvement, including more ESF investments.

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 greatly by region and gender. Many basic and upper secondary education graduates make a choice in favour of VET within several years of graduation; within three years after basic school completion, 37% of young people reach vocational training.

The most common VET study fields are engineering, manufacturing and construction, with 50% of upper secondary vocational graduates earning a qualification.

VET programmes are mainly offered in Estonian but, to a lesser extent, also in Russian and English.

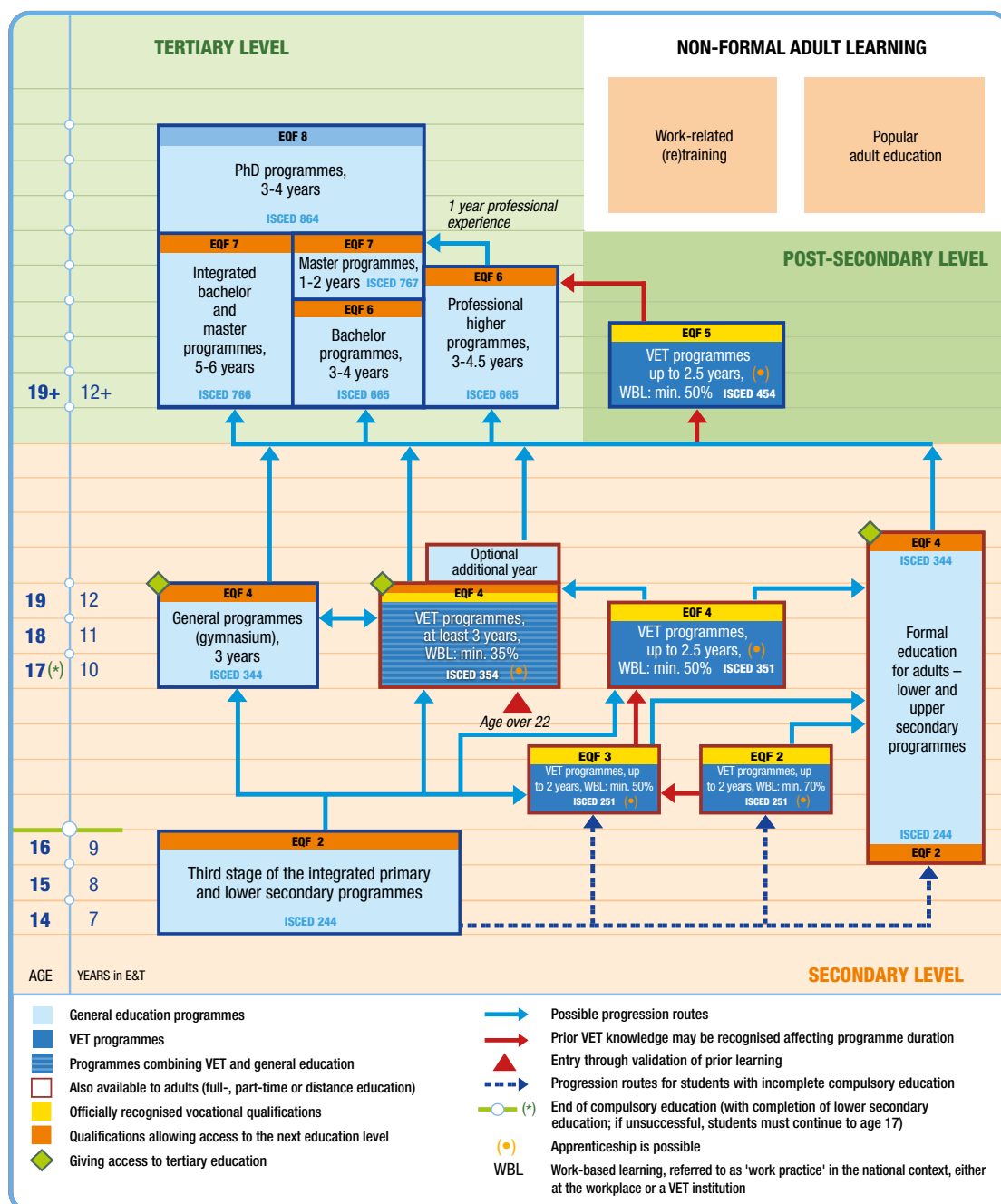
Challenges and policy responses

The Estonian labour market has a high level of skills mismatch. A labour market needs monitoring and 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.

Dropping out from VET is a challenge. Compared with 1.2% of dropouts from general upper secondary education, the rate in the first year of vocational upper secondary education was 23.4% in 2019. There are career counselling services, vocational orientation programme at EQF level 2 and other measures to prevent early leaving.

In 2019, 27% of adults aged 25 to 64 had no professional or vocational qualification; the objective is to reduce this share.

⁽¹⁾ For ISCED 354 programmes.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Estonia, 2020.

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 20.2% in 2019. The goal to increase it to 20% by 2020 has been achieved and VET has been playing a great role in this. There is a focus on broadening access to non-formal education, training courses for developing key competences, and career services.

During the Covid-19 crisis, regulatory flexibility of VET has facilitated the transition to distance learning. WBL was reorganised case by case: postponed, suspended or continued.

State-level support was tailored according to VET providers' needs. For example, short webinars, Facebook groups, answers to FAQs on school management, organisation of studies, lists and guidelines for distance-learning environments were offered. The success factors in coping with the crisis were:

- sufficient learner and teacher digital skills, adequate digital infrastructure in VET schools and at homes;
- information and clear messages for reorganising studies;
- good governance, cooperation, partnership and information-sharing between stakeholders.

VET in Finland



The Ministry of Education and Culture (MoEC) 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 MoEC. 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 labour policy education.

A VET provider may be a local authority, municipal training consortium, foundation or other registered association or State-owned company. These organise training in their areas, 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 42% of learners who completed basic education enrol in initial VET (IVET) immediately after; they obtain their VET qualifications at vocational institutions or through apprenticeships. Vocational qualifications are available for both young learners and adults.

There are 42 initial vocational qualifications (EQF 4), 67 further (EQF 4) and 56 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 two 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 three 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.

Distinctive features of VET

Finnish vocational education and training 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. Nine out of 10 of all Finns think it is of high quality and provides skills needed for jobs. It is attractive 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 serves as a guarantee of 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.

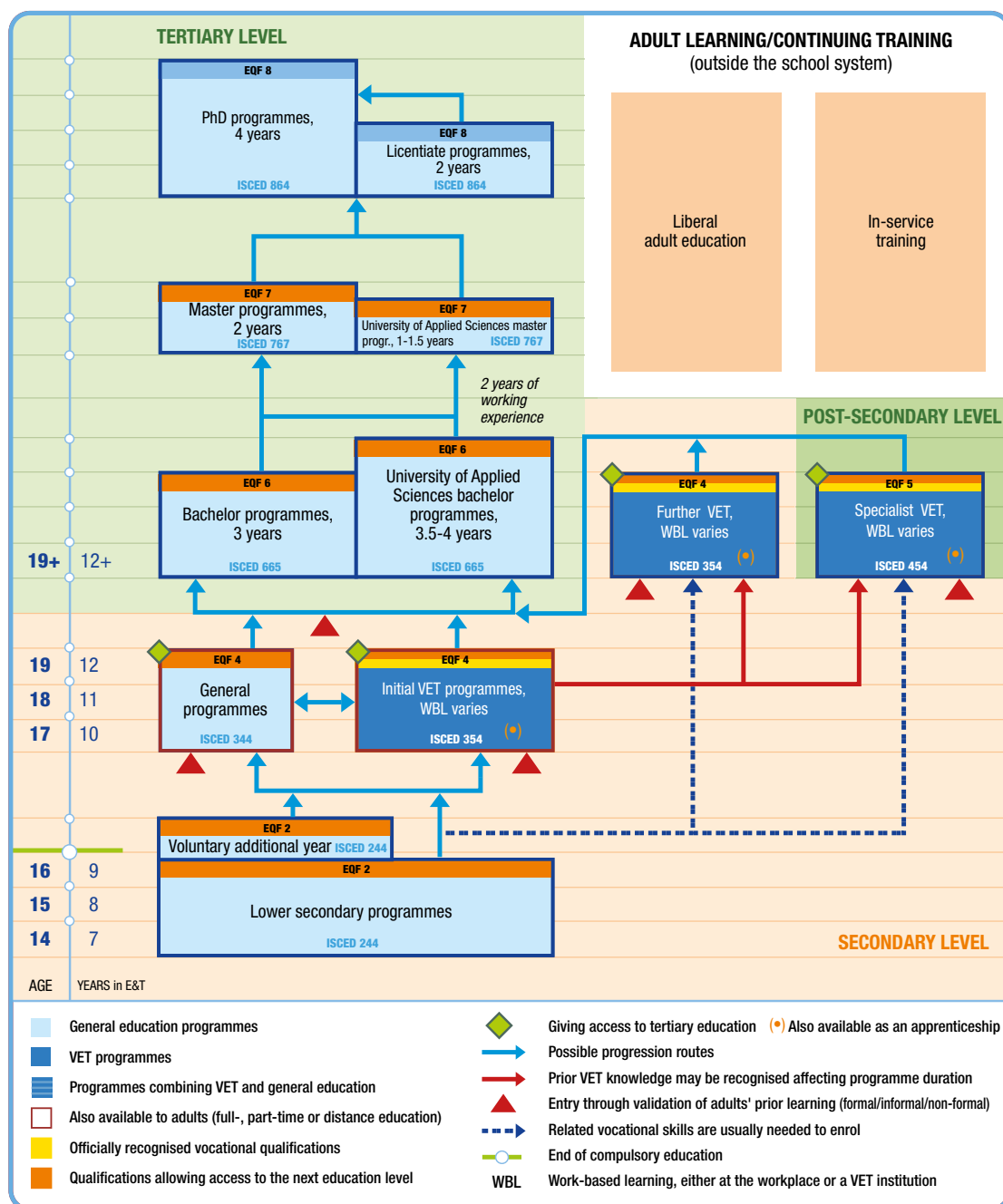
VET teachers and trainers are respected professionals. A career as a VET teacher is generally considered attractive. This is reflected in the high number of learners applying for VET training programmes, which invariably exceeds intake. Recently, about 30% of eligible applicants were admitted to training.

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 facil-



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Finland, 2020.

ities, such as school restaurants, can be utilised in this exceptional situation.

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 and Higher Education. Different ministries develop VET qualifications and certificates valid nationally. Vocational training for adults is under the remit of the Ministry of Labour. *France compétences* (2019) is the national public institution implementing vocational training and apprenticeship policies.

The vocational training system reform (2018) aims to improve VET attractiveness and responsiveness to the labour market by restructuring its governance, funding mechanisms, and apprenticeship provision.

Initial VET (IVET)

VET at upper secondary level

On leaving lower secondary school, generally at age 15, students are steered towards three main upper secondary paths (*lycée*):

- general and technological (ISCED 344) three-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, with technological studies being vocationally oriented in the last two years;
- a vocational programme (ISCED 354) leading to a vocational baccalaureate (EQF level 4) in three years or a professional skills certificate (EQF level 3 - CAP) in two years. Both qualifications provide direct access to employment, and the training always includes in-company internship. Access to tertiary-level VET programmes in related fields is also possible.

Upper secondary education is governed and financed largely by the Ministry of Education and partly by other ministries (including agriculture and industry).

VET at tertiary level

The *lycée*-based higher technician curricula provide a two-year programme leading to the higher technician certificate (BTS, EQF level 5). Universities offer a two-year technological university diploma (DUT, EQF level 5) designed for entry into the labour market. Students can also decide, on completion, to go on to a vocational bachelor programme to acquire a vocational qualification (EQF level 6) and progress to master level (EQF level 7). Higher education provides general courses and technical and vocational courses within universities and public or private higher colleges of excellence (*grandes écoles*).

Apprenticeship

This pathway can lead to all vocational certifications registered in the national directory of professional qualifications; it includes all secondary or higher education certifications as well as vocational qualification certificates (CQP), created by the professional branches. IVET learners on an apprenticeship contract (from six months to three years) are considered employees and receive a salary. The course takes place both in the workplace and in an apprentice training centre (CFA). The system is mainly governed by the State (legislation) and the social partners (management

of the CFAs). Its funding comes from the State, which exempts enterprises from employer contributions for the amount of each apprentice salary, and from companies (apprenticeship tax), sometimes from regional councils (contribution to CFA funding for land-use planning and economic development needs).

Continuing VET (CVET)

CVET applies to those entering the world of work or already in work, both young and adults. It aims to promote professional (re-)integration; maintaining people in work; and upskilling. The training market is open.

Access and funding procedures for courses vary according to individual status: jobseekers or people in employment (private sector employees, public servants, self-employed workers).

Training of jobseekers is managed by the regions, and partly by the national agency for employment. Employers (private or public) and the social partners are responsible for training people in employment.

Distinctive features of VET

Right to education. The State ensures the principles of equal opportunities and the right to education; public education is free of charge and secular.

Role of the social partners

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 job-seekers.

Obligation to contribute financially to CVET

Compulsory contributions are allocated to a particular purpose: to encourage companies to train their staff. The rate is set by law, with some professional branches applying rates above the legal minimum.

Recognition of 'individual rights' to training

The policy intention is to promote social progress and reduce inequalities in access to training. The personal training account (CPF) scheme, accessible to all (employed and unemployed), gives every individual a credit of EUR 500 to 800 per year (throughout professional life, up to EUR 5 000 to 8 000 in total) to buy (through a secure personal space) training sessions in the CPF dedicated online platform.

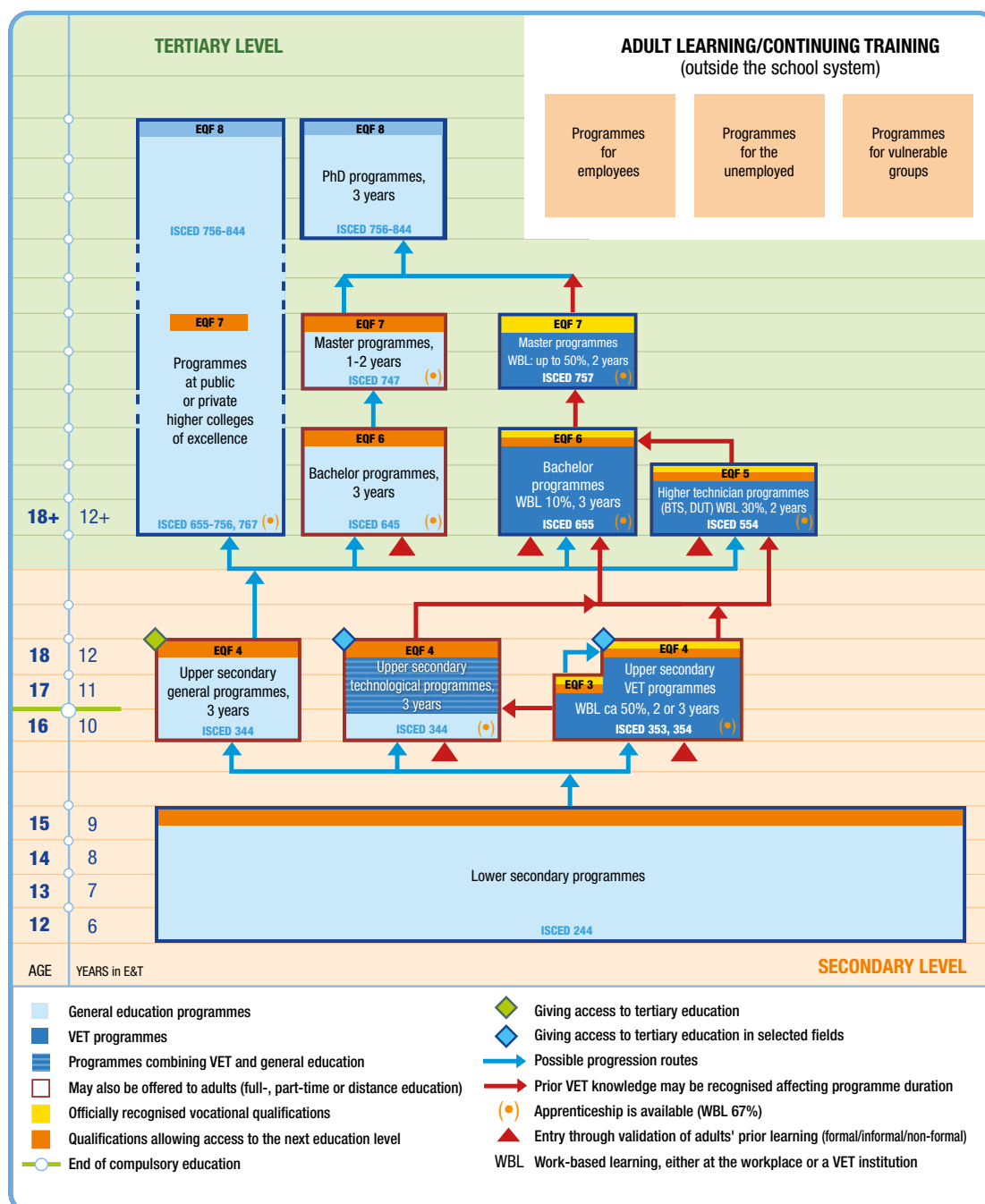
Decentralisation / leadership role of regions

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 articulate their strategies on VET and economic developments.

Challenges and policy responses

Promoting youth education and training

To support the at-risk young in gaining a qualification, a training obligation for all those aged 16 to 18 is in place as of 2020-21.



NB: ISCED-P 2011. The French qualification framework is not linked to European qualifications framework levels 1 and 2.
Source: Cedefop and ReferNet France, 2020.

This obligation can be met by several means: schooling, apprenticeship, continuing training courses, civic service, support for social and professional integration.

System responsiveness to training needs

Driven during the 2020 pandemic lockdown, pedagogical continuity has been ensured both for initial and continuing training, and apprenticeships. IVET and CVET providers have created and continue to develop digital learning offer.

Revitalising the economy

The 2020 *Plan de relance* aims to bring the economy to pre-crisis levels by 2022. Youth employment is a major challenge:

nearly EUR 15 billion is for 750 000 new entrants to the labour market. Measures foreseen include recruitment aids, support for sustainable integration into the workplace and support for training (200 000 additional training places on ecological and digital transition jobs).

Upskilling low-qualified young people and the unemployed

The Investment in skills plan (PIC) aims at training and supporting the access to employment of one million young people and one million jobseekers. It is funded up to EUR 15 billion for the period 2017-22. The plan links skills needs, analysis and innovation with the provision of new training paths.

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 325 occupations. Programmes usually last three 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 one to three years, leading e.g. to a qualification in the health sector such as a nurse;
- general education programmes with vocational orientation, duration two to three 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 transition programmes.

At post-secondary level, specialised programmes are offered at EQF levels 4 to 5, lasting one to three 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 EQF 6, lasting one and a half to four 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.

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 2019 this was 5.8% of those aged 15 to 24, versus 15.1% in the EU-27. About 50% of upper secondary school learners are enrolled in a VET programme; of those, 70% participate in apprenticeship. A growing share of apprentices has a higher education entrance qualification (29.2% of apprentices starting their training in 2017). The success of the German apprenticeship system was also the main driver for implementing the European Alliance for Apprenticeships.

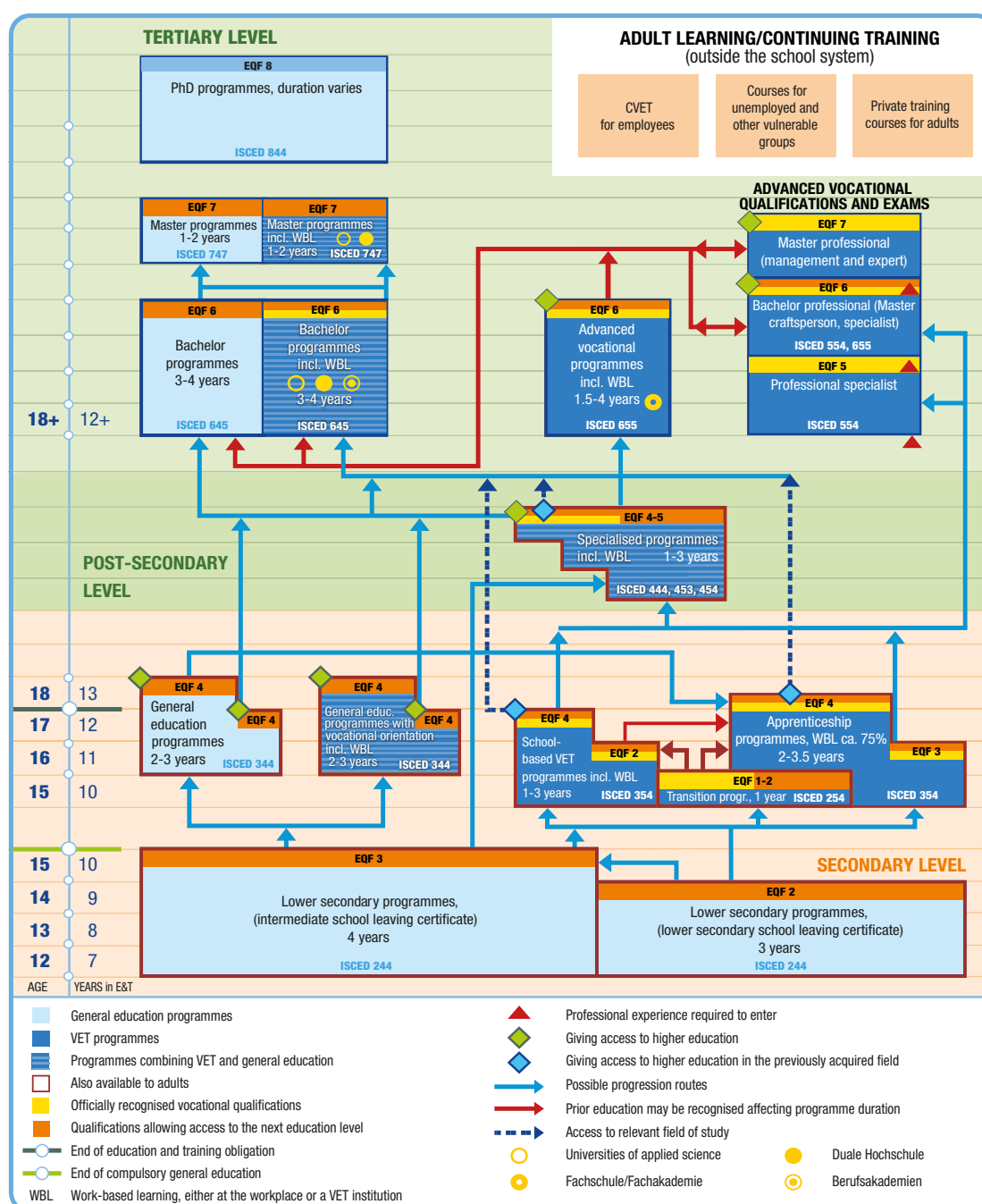
National standards and training regulations (curricula for in-company and school-based components) ensure the quality of the dual training programmes. Companies provide apprenticeships in accordance with the training regulations, developed by the four stakeholders (Federal and State governments, companies and trade unions). These regulations allow for flexibility to agree on company training plans with apprentices. Regular revisions to training regulations 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

Increasing the attractiveness of VET to secure a future skilled workforce by promoting:

- vocational educational pathways up to EQF levels 6 and 7 and underlining the equivalence to academic education through new designations of bachelor professional and master professional;
- excellence in VET with the funding scheme InnoVET, which supports cooperation between learning locations, for the transfer of new developments (including artificial intelligence) from research institutions via VET into company practice;
- training for care and nursing occupations, by broadening the qualification, abolishing school fees and introducing remuneration for trainees.



NB: ISCED-P 2011. This is a simplified chart, based on the unified approach used for the spotlights on VET in all EU-27 countries plus Iceland and Norway.
Source: Cedefop and ReferNet Germany, 2020.

Modernising IVET and CVET to prepare for digital and ecological transition:

- IVET: the VET 4.0 initiative investigates the effects of digitalisation on qualifications and competences requirements of skilled professionals;
- CVET: the Qualification Opportunities Act introduces the right of employees to access CVET funding, if they are affected by structural changes. The National skills strategy responds to the challenges of the increasing digitalisation of the world of work. The overall goal is understanding occupational CVET as a lifelong necessity.

Providing guidance and coaching to reduce matching problems and support inclusive VET:

- the number of unfilled training places shows a need for reconciling supply and demand while taking into account regional and branch-specific differences. Employment agencies play a major role in matching SMEs and applicants;
- the Alliance for initial and further training has committed to integrating all interested learners in a VET programme; pre-VET measures and support during training are offered to migrants, refugees and other disadvantaged groups to facilitate their transition to VET and successful completion.



VET in Greece

Vocational education and training (VET) in Greece is State-regulated, combining school-based and work-based learning (WBL). It is offered at upper secondary and post-secondary levels. Overall responsibility is with the education ministry, in cooperation with the labour ministry.

Compulsory schooling lasts until age 15 and completion of lower secondary education programmes (*Gymnasio*). There are two main routes at upper secondary level: general education (*Geniko Lykeio* with 70% of learners) and VET (30%). Both lead to an equivalent upper secondary school leaving certificate at EQF level 4. On completion of the first year, learners are allowed to change direction from general to vocational education and vice versa.

The main VET route uses three-year vocational programmes at *Epaggelmatiko Lykeio* school (EPAL) that also lead to a specialisation degree. They have over 25% of work-based learning. EPAL graduates can take part in national examinations for admission to tertiary education. Recent legislation reinforces VET permeability and its equivalence to general education. Quotas for EPAL graduates in higher education programmes have increased: 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 employed students below 18 with lower secondary education. General upper secondary education graduates are entitled to enrol in the second year of EPAL.

Two-year apprenticeship programmes (EPAS) are also available at upper secondary level. They are open to young people, 16 to 23 years old, who have completed at least the first year of upper secondary education. These programmes (WBL > 80%) lead to specialisation degrees at EQF level 4. EPAS graduates can continue their education in post-secondary VET programmes.

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

- one-year apprenticeship programmes (EQF level 5, WBL 100%) offered by EPAL schools in cooperation with the Manpower Employment Organisation. These programmes are offered only to those who hold an upper secondary school leaving certificate and an EPAL specialisation degree;
- two-and-a-half-year VET programmes (WBL > 60%) offered by public and private training providers (IEK) to upper secondary graduates. These programmes only allow learners to obtain an attestation of programme completion; alternatively, they can take VET certification examinations (practical and theoretical) conducted by the National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP) leading to an EQF level 5 certificate. EPAL graduates who continue their studies in the related field can enrol in the second year directly.

Two- to four-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 (LLL) 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 level 5.

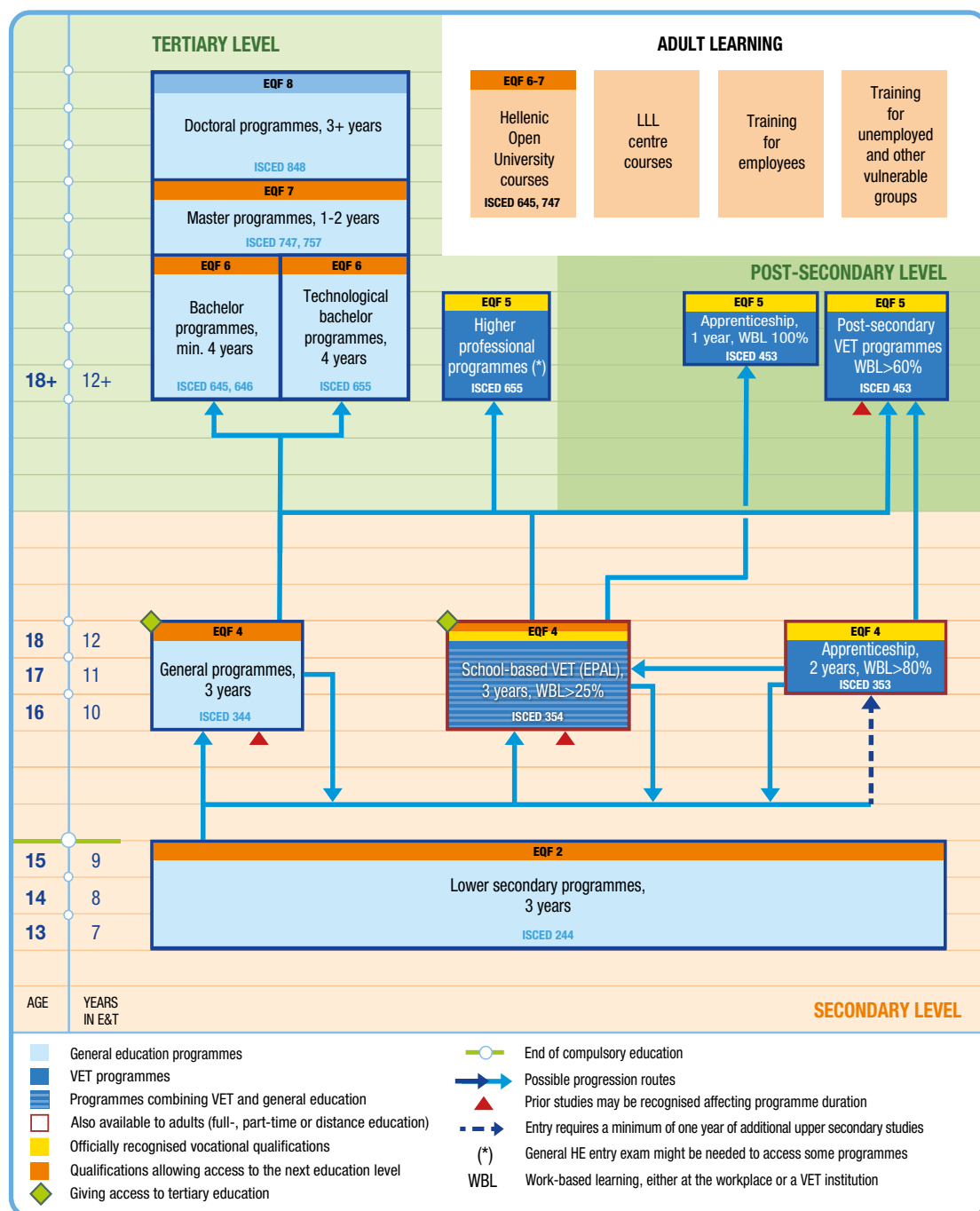
Distinctive features of VET

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. The changes follow the Riga conclusions in fostering the role of work-based learning and apprenticeship schemes in VET, and improving access for all to VET and to professional qualifications through more flexible and permeable systems.

The total number of learners enrolled in post-secondary non-tertiary vocational education has increased from 15 852 in 2014 to 82 860 in 2018. Participation in adult education and training remained stable during the previous decade (3.9% in 2019) well below the EU28 average (10.8%). The share of young people neither in employment nor in education and training (15 to 24 years old) has been constantly decreasing from 20.4% in 2013 to 12.5% in 2019.

Challenges and policy responses

The education ministry, with the significant contribution of the social partners, is currently initiating VET reform directly linked to increasing productivity and economic growth and reducing unemployment. It will also aim to raise VET attractiveness, increase VET graduates' employability and further improve VET responsiveness to labour market needs. The main areas of reform include: linking VET and LLL with the labour market, using labour market diagnosis and tracking of VET graduates; redesign of programmes and teacher training for IVET; endorsing career counselling and internships in VET programmes; and creating pilot vocational schools promoting VET innovation.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Greece, 2020.

The Covid-19 pandemic has affected the delivery of VET courses. During the ban on physical presence in education institutions, the education ministry made digital platforms available to teachers and learners (also in VET) for distance education and interactive digital media. Since the reopening of the econ-

omy distance education has still been available. Social distancing is still the norm as physical presence in training institutions is limited, the number of students in class and laboratories reduced, and the use of masks obligatory.

VET in Hungary



The Ministry for Innovation and Technology, is responsible for the governance of VET and adult learning (AL); as of 2019 this includes vocational qualification curricula in higher education. Coordination and policy implementation is ensured by the National Office for VET and Adult Learning and (since 2019) by the Innovative Training Support Centre.

Social partners shape VET policy through participation in advisory bodies. The VET Innovation Council (a discussion forum for education and training providers, chambers, employers and trade unions) and sector skills councils shape proposals for aligning VET programmes and qualifications with labour market needs. The Chamber of Commerce and Industry is responsible for the registration and attestation of apprenticeship placements.

VET for young people

VET is available from age 14 (or 15), after completion of lower secondary, offering several options:

- five-year technological programmes (*Technikum*) combining general subjects and sectoral basic education (common contents of vocational training affiliated to the same economic sector) in grades 9 and 10 and vocational specialisation in grades 11 to 13. Learners acquire the upper secondary school leaving certificate (EQF level 4) giving access to HE, and a technician diploma (EQF level 5);
- three-year vocational school (*Szakképző Iskola*, ISCED 353) programmes provide general and vocational (sectoral foundation) education in grade 9, followed by vocational specialisation (grades 10 and 11). Learners acquire an EQF level 4 vocational qualification entitling holders to perform an occupation. Graduates may enrol in a two-year follow up programme in a *technikum* to obtain the secondary school leaving certificate;
- at the end of the ninth grade there is interoperability between the two VET tracks, without any aptitude test. Skills acquired during the sectoral foundation year(s) are assessed before moving on to specialised vocational training. General upper secondary graduates may enrol in any of the two VET tracks, without general subjects, to acquire a vocational qualification in two years;
- two- to four-year special vocational school programmes for SEN learners (*szakiskola* ISCED 252, 352, 353) provide VET based on special framework curricula issued by the Minister for Education to acquire a partial (EQF level 2) or full (EQF level 3) vocational qualification;
- holders of the secondary school leaving certificate may enrol in post-secondary (ISCED 454) programmes in *technikums* and higher VET programmes (ISCED 554) in higher education institutions. In both programmes, learners acquire in two years an EQF level 5 VET qualification and may transfer credits to a bachelor (BA/BSc) programme in the same field.

Work-based learning is delivered in school-settings or through a practical training placement in companies. In contrast

to the phasing out of apprenticeship contracts, as of 2020/21, learners may conclude vocational employment contracts to follow both, (specialised vocational) theory and practice in companies.

After completion of lower secondary, those unsure of which pathway to follow can enrol in a one-year (optional) orientation programme (ISCED 294, EQF 2).

Learners unable to finish lower secondary by the age of 16 can enrol in a basic competences development programme (*Dobbantó*, ISCED 242), followed by a *catch up program* delivered in school workshops (*műhelyiskolai program*, ISCED 254) to acquire the primary school leaving certificate attesting completion of lower secondary and/or an EQF level 2 or 3 partial qualification.

The formal system is centrally governed. VET schools (371 in 2020) are affiliated to 41 VET centres equipped with state-of-the-art technology. In 2020/21, 54% of the total upper secondary population is enrolled in VET programmes.

VET for adults

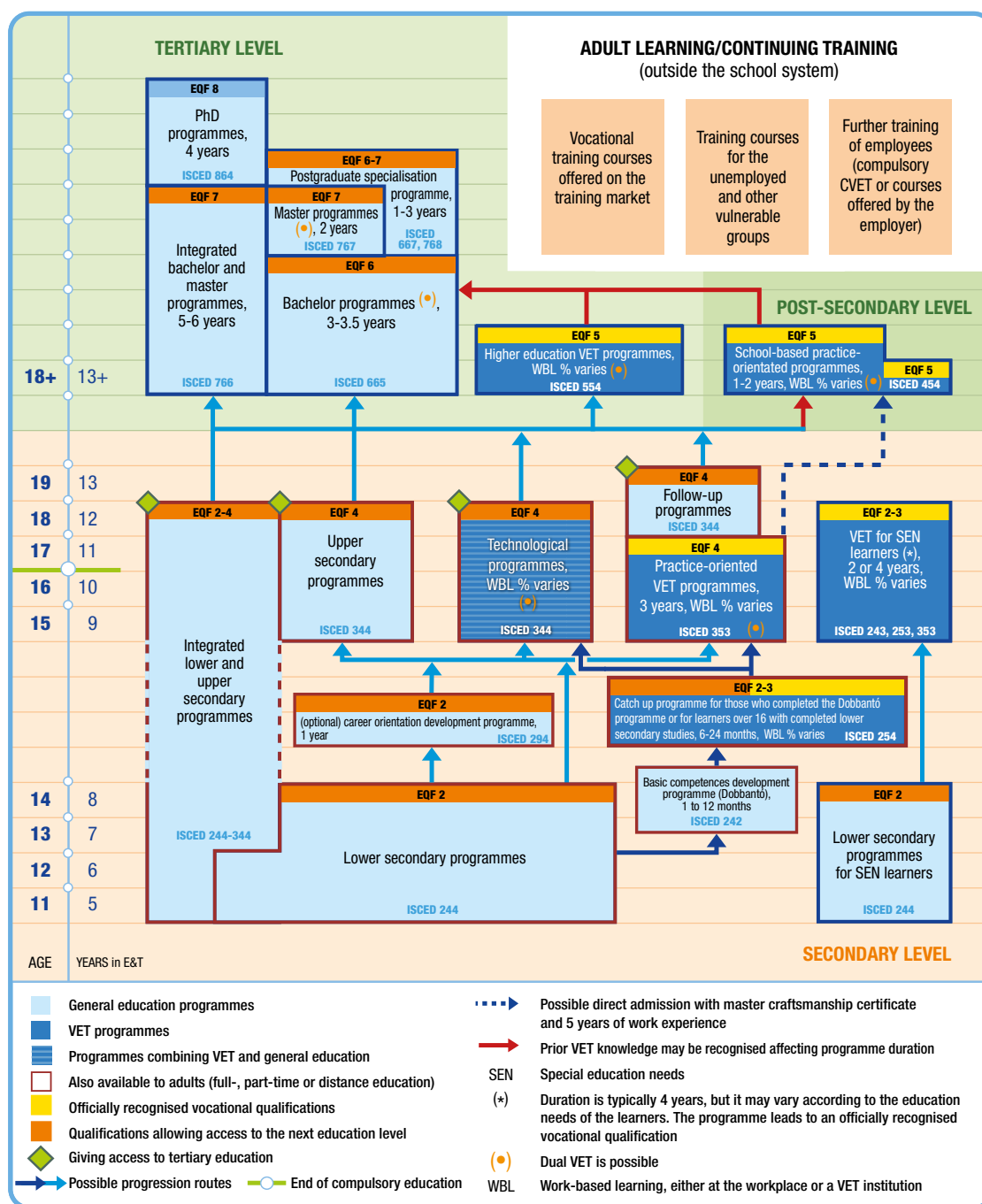
Adults may acquire up to two vocational qualifications free of charge in formal VET programmes. Legislation in force in 2020 (VET Act and Adult Learning Act) aims, by 2022, to reform the adult training provided outside the school system to improve its quality and flexibility. The State provides financial support for the training of vulnerable groups and SMEs.

Distinctive features of VET

Based on job analysis, the national vocational qualifications register (OKJ) was revised in 2019. The new register (*Szakmajegyzék*) lists a reduced number of qualifications aligned with the needs of the economy in the sectors. Qualifications entitle holders to practise the occupation (HUQF/EQF levels 4 and 5) specified in respective training and learning outcomes requirements set in the register. Qualification requirements, programme curricula and local (practical training) curriculum have been shaped based on a learning outcomes approach. Former VET (OKJ) qualification programmes are phasing out.

Young people and adults need to pass a final examination upon completion of a formal VET programme. Currently a system of accredited vocational examination centres is being established and should be operational by 2025.

The general VET scholarship scheme is accessible by all VET learners in upper secondary schools (including during practical training periods delivered in school workshops). Learners in company placements under a vocational employment contract (*szakképzési munkaszerződés*) receive remuneration (60% of the minimum wage or more, depending on performance). A career starter allowance in one lump sum is given on completion of the first vocational qualification (EUR 420 to 840 depending on the results of the exam). Business organisations can compensate (reduce) the obligatory vocational contribution by providing dual VET (theory and/or practice).



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Hungary, 2020.

Challenges and policy responses

Hungary has high shares of dropout rates, especially for men and from VET; the share of upper secondary learners with low basic skills is still below the EU 2020 benchmark. Measures to tackle early leaving include the introduction (2020) of an early warning system in the public education monitoring system (NEPTUN-KRÉTA) to detect learners mostly at risk and inform school administration. An optional orientation year is being introduced in 2020/21 to allow learners who completed lower secondary with lack of competences to receive personalised support and career guidance for further VET studies.

The adoption of the new VET Act in 2019 (in force in 2020) introduced a learning outcomes approach with less prescriptive programme implementation and more freedom for VET institutions to shape implementation. It allows delivery of both theoretical and practical vocational training to take place in companies upon completion of the sectoral basic examination. The dual training form remained in place, with a prominent change in the approach and methodology of content regulation.

In contrast to adult education, the challenge remains to attract young learners to upper secondary VET.

VET in Iceland



The Icelandic vocational education and training (VET) system originates from the time when Iceland was still part of the Danish kingdom. At that time, apprentices learned from their masters by working alongside them. Gradually, schools took over parts of the training and more theoretical subjects were added. Workplace learning is still important, and the journeyman's exam is centred on demonstrating skills learners have acquired.

Almost all VET is offered at upper secondary level (ISQF 3/EQF4), where studies at school and workplace learning form an integral part. Study programmes vary in length from one school year to four years of combined school and workplace learning. Enterprises responsible for training need official certification and training agreements with both the learner and the school, stipulating the objectives, time period and evaluation of the training. Most learners in workplace learning receive salaries, at an increasing percentage of fully qualified workers' salaries. Companies training learners can apply to the Ministry of Education, Science and Culture for a subsidy to fund training.

Several qualifications are offered at upper secondary level; some of these are preconditions for holding relevant jobs. The most common are journeyman's exams but there are also exams for healthcare professionals and captains and engineers of ships and planes. In other professions, a VET degree is not a precondition for employment, but graduates enjoy preferential treatment for the jobs they are trained for.

A few VET programmes are available at post-secondary non-tertiary level (ISQF 4/EQF 5), including tourist guides and captains at the highest level. Certificates for all master craftsmen are also awarded at this level. These programmes last one to two years and lead to qualifications giving professional rights.

Learners with severe learning difficulties are offered special programmes at mainstream upper secondary schools. Several VET pathways leading to a diploma give these students the potential to continue their education.

The overall emphasis of the education system is to keep its structure simple and understandable, so learners can move relatively easily between study programmes. They can finish upper secondary school with a vocational and a general degree (matriculation exam), the prerequisite for higher education. VET learners who have not passed the matriculation exam can attend further general education to qualify.

Courses which give study points at upper secondary schools must be approved by an official validation body, according to standards approved by the education ministry.

Upper secondary schools need to submit descriptions of new study programmes to the education ministry. Approved programmes become part of the national curriculum guide. When formulating ideas for new study programmes, schools cooperate closely with occupation councils, which form the link between the ministry and the labour market.

Iceland has one of the highest lifelong learning participation rates among 25 to 64 year-olds in Europe (21.6% in 2019). Adult learning is available in upper secondary schools (day classes or special adult evening classes), 11 lifelong learning

centres, training centres owned and operated by social partners for skilled workers in certain trades, and in numerous private training institutions. Two institutions owned by employer and employee organisations offer courses for journeymen and masters of trades in the latest technology. For the healthcare sector, retraining courses are offered by universities and there are specific training institutions for several professions. Labour agreements reached in 2000 established specific training funds for employees; both employees and employers pay a certain percentage of all salaries into these funds and both parties can apply for funding towards training.

Distinctive features of VET

Study programmes vary in length from one school year to four years of combined school and workplace learning.

Participation of young people in VET aged 15 to 24 is among the lowest in Europe at 20.3% in 2020. Looking at all upper secondary learners, however, the proportion is around 29.5% *vis-à-vis* general studies; this reflects the higher average age of VET learners, many of whom had enrolled in general studies before switching to VET programmes.

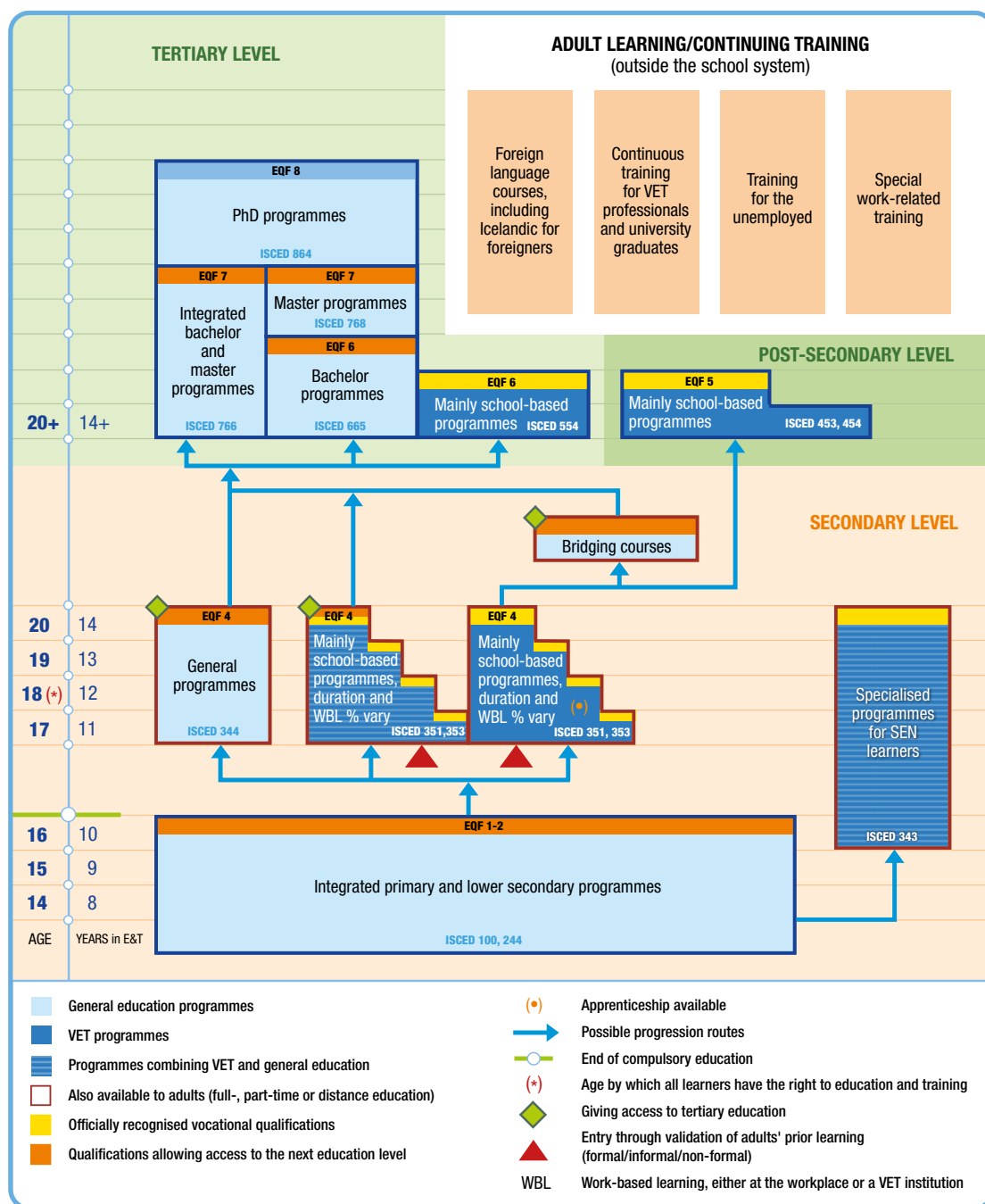
Most learners in workplace learning receive salaries; enterprises involved in training can apply to the education ministry for a subsidy to fund the training.

The Upper Secondary Act of 2008 called for VET programmes that better respond to labour market skill needs. The act, as well as the Icelandic national curriculum guide for upper secondary schools, provides, since 2011, for a decentralised approach in designing study programmes and curricula. Upper secondary schools are entrusted with great responsibility and enjoy autonomy in developing study programmes both in general education and VET, combining learning outcomes, workload and credits. Focus is on flexible schedule, in the balance between general subjects and occupational specific skills, and can vary between different VET programmes. However, learning pathways must be accredited by the directorate of education on behalf of the education ministry.

Challenges and policy responses

In 2014, the education ministry published the White Paper on education reform. Following this publication, the education ministry, the Federation of Icelandic Industries and the Association of Local Authorities contributed to more visible and accessible VET that is also more attractive to young learners. In February 2020, the education minister, along with the chairwomen of the Federation of Icelandic Industries and the Association of Local Authorities, introduced a strategy and priorities on strengthening Icelandic VET. Among the priorities introduced were new policy proposals such as:

- transferring the responsibility for finding apprenticeship contracts from learners to VET schools. When the digital logbook is fully implemented, schools will be responsible for finding work placements for learners;



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Iceland, 2020.

- VET learners should have the same access to tertiary education as learners succeeding in matriculation exams;
- easier access to qualified guidance and counselling in lower and upper secondary schools;
- making access to VET in rural areas more flexible;
- analyse future infrastructure needs for VET schools;
- simplify VET governance in Iceland.

This action plan and some of the proposals are already implemented but the challenges posed by Covid-19 have re-defined many priorities within both the ministry and the Parliament, possibly delaying some implementation measures.

VET in Ireland



Ireland's education and training system is divided into four sectors: primary, secondary, further education and training (FET), and higher education. Further education in Ireland covers EQF levels 2-5 (NFQ levels 3-6) with some higher apprenticeships at EQF level 6 (NFQ levels 7/8). The main providers of VET are the 16 education and training boards (ETBs). SOLAS is the Government agency responsible for funding, planning and coordinating FET provision in Ireland. A newly established Department of Further and Higher Education, Research, Innovation and Science is responsible for policy, funding and governance of Higher and Further Education. Other statutory providers include BIM (seafood industry training) and Teagasc (agricultural training).

VET programmes within FET range from workplace training options, apprenticeship opportunities, courses in further education colleges and community education. Having undergone five years of reform, FET is making a valuable contribution to a more collaborative and cohesive tertiary education system for Ireland. In this context, the tertiary education system comprises FET and HE. Clear progression routes into higher education allow learners to make the transition from EQF levels 3 and 4 (NFQ levels 4 and 5) to EQF levels 5 and 6 (NFQ levels 6, 7, 8) and beyond. It is estimated that 21% of school leavers are enrolling in FET and from the 2017 cohort of 33 017 FET learners, 16% progressed to higher education. VET programmes within FET include:

- apprenticeships: the range of apprenticeship opportunities has diversified in recent years. There are currently 58 apprenticeship programmes available, which include off the job training which spans both FET and Higher Education (EQF levels 4/5/6/7/8 with comparatively few programmes as this is a new development at levels 6, 7, and 8). Apprenticeships are included in the following sectors: engineering, construction, motor, electrical, finance, hospitality and food, biopharma, logistics, property services, recruitment, sales and ICT;
- 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 for participants. Traineeships range from EQF levels 3-5 (NFQ levels 4-6) and are predominantly focused on employment. 75 traineeship programmes are currently available;
- many learners enrol on a post-leaving certificate (PLC) programme (EQF levels 4/5). PLC provision has two overarching aims: to provide successful participants with specific vocational skills to enhance their employment opportunities or to facilitate their progression to additional education and training.

Specific skills training (SST) courses span both IVET and CVET and are delivered by the ETBs (and, in some instances, private providers) and are designed to meet the needs of industry and business across a range of occupations at EQF levels 3-5 (NFQ levels 4-6).

Skills to advance is a national initiative that provides upskilling and reskilling opportunities to employees in jobs undergoing change and to those currently employed in vulnerable sectors.

eCollege is a leading learning platform that delivers online training courses to those who are employed as well as those already enrolled on FET programmes. Courses are designed with the flexibility of response to the specific skills needs of individuals who require certified training to assist return to or progression in the labour market.

Other FET programmes, delivered mainly by ETBs, include second chance education opportunities and community education. Community education plays a critical role, supporting participation and re-engagement in education and training, with around 50 000 learners across FET each year.

Distinctive features of VET

VET in Ireland is not usually 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 and FET providers, with an extensive reach into and across local communities. FET balances the needs of skills for work with the just as critical skills for life; supporting citizenship and prosperity across communities and developing social capital.

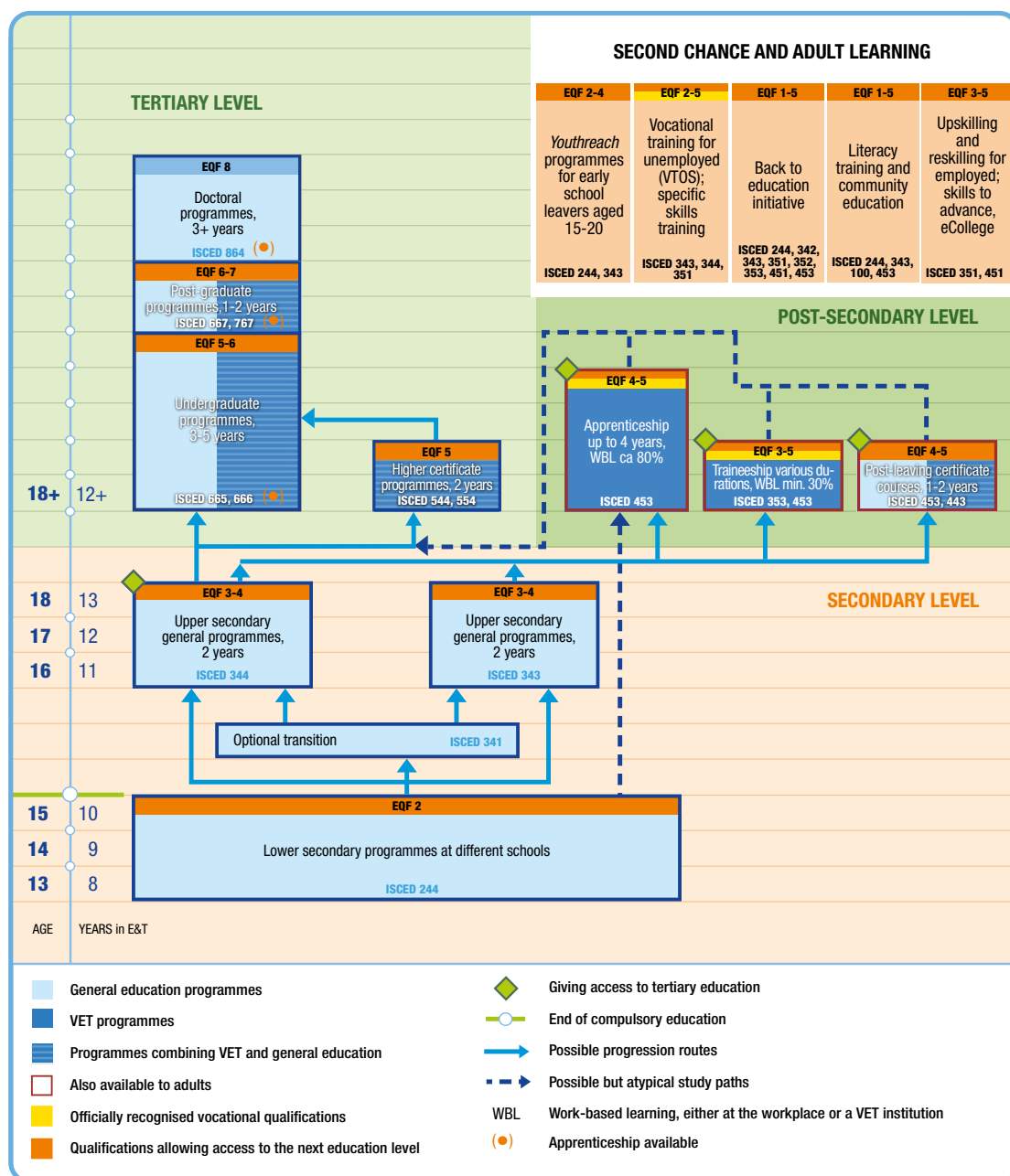
The Irish Government has tasked SOLAS with the development of a new 10-year literacy, numeracy and digital skills strategy, which is a key commitment in the programme for Government.

Considering the future world of work, information technology and digital creativity are growing in popularity. Courses and pathways are available to learners who wish to train as software professionals, network engineers, digital marketers and cybersecurity experts. There are new apprenticeships in ICT which include a focus on female-only cohorts.

Challenges and policy responses

The Further education and training strategy 2020-24 sets out a five-year roadmap for the sector which is built around three key pillars of building skills, fostering inclusion and creating pathways; it aims to address the economic and societal challenges faced over the coming years. FET planning must ensure agility to respond to a large base of unemployed people, or vulnerable workers in need of upskilling and reskilling to re-join or remain in the workforce. This need is currently exacerbated by Covid-19 and the serious potential economic risks of Brexit.

FET Policy responses to the challenging circumstances brought about by Covid-19 include Skills to compete – a funding initiative to support those who have lost their jobs as a result of Covid-19 in returning to the workforce – eCollege, and the apprenticeship incentivisation scheme, a current package of financial support for apprenticeship employers.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Ireland, 2020.

Within the FET Strategy 2020-24 there is a vision for transforming learning, and for future FET provision to be shorter, more agile and targeted to specific skills areas. Within FET, flexibility and agility is already evident in relation to extending registration dates and enabling digital technologies to deliver and support priority learners, including but not limited to peo-

ple with disabilities, new migrants, the long-term unemployed, ex-offenders and women. Teaching and learning is also now offered through online and blended approaches. The challenge for FET practitioners is to adapt to new ways of teaching and learning, going beyond online platforms to consider pedagogical approaches and concepts.

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. 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 and VET. 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:

- five-year programmes (EQF level 4) at technical schools (*istituti tecnici*) leading to technical education diplomas; at vocational schools (*istituti professionali*) they lead to professional education diplomas. Programmes combine general education and VET and can also be delivered in the form of alternance training. Graduates have access to higher education;
- three-year programmes (*istruzione e formazione professionale*, leFP) leading to a vocational qualification (*attestato di qualifica di operatore professionale*, EQF level 3);
- four-year programmes leading to a technician professional 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 with the general education system.

On completion of a three-year vocational qualification, it is possible to attend one additional year leading to a four-year vocational diploma; this allows enrolling in the fifth year of the State education system and sitting the State exam for a general, technical or professional education diploma.

At post-secondary level, VET is offered as higher technical education for graduates of five-year upper secondary programmes or four-year leFP programmes who passed entrance exams:

- higher technical education and training courses (*istruzione e formazione tecnica superiore*, IFTS): one-year post-secondary non-academic programmes leading to a high technical specialisation certificate (*certificato di specializzazione tecnica superiore*, EQF level 4);
- higher technical institute programmes (*istituti tecnici superiori*; ITS): two- to three-year post-secondary non-academic programmes which lead to a high-level technical diploma (*diploma di tecnico superiore*, EQF level 5).

These courses are organised by foundations that represent schools, universities, training centres, enterprises and local bodies.

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

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.

Distinctive features of VET

Italian VET is characterised by multiple institutional players at national and regional level.

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 training:

- the State establishes general education standards;
- regions have exclusive legislative power over VET;
- 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.

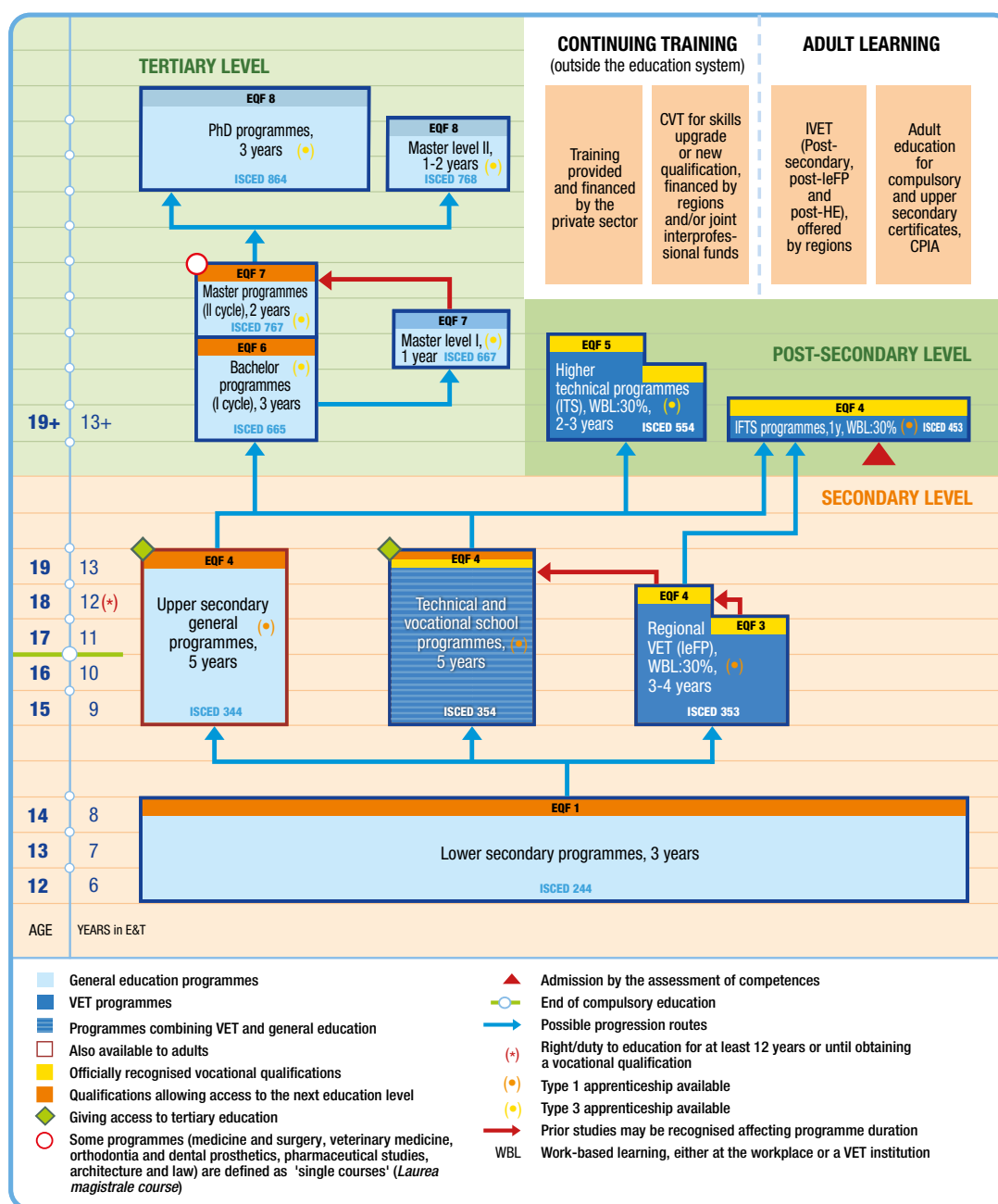
Challenges and policy responses

In order to raise the level of digital skills, the first national strategy for digital skills, covering both the education and labour market sectors, was adopted in 2020.

The Italian VET system is characterised by regional complexity. In order to reduce regional diversities, the education ministry introduced an action plan in 2020.

The promotion of the dual system in leFP aims to relaunch apprenticeship with the allocation of new resources from the Government (MLPS) for the realisation of paths characterised by a high amount of in-company training (minimum of 400 hours per year) or virtual business simulation, and new individualised training plans.

To increase the formative value of work-based learning pathways, school-work alternance (ASL, *Alternanza Scuola-Lavoro*) has been replaced by transversal competence and guidance pathways (PCTO, *Percorsi per le Competenze Trasversali e per*



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Italy, 2020.

l'Orientamento) in 2019. This will support the acquisition of interdisciplinary skills and raise learners' vocational awareness.

Due to the Covid-19 breakout, the government allocated EUR 201.7 million to support distance learning. Measures included the acquisition of digital devices for schools to enable learners to participate in distance learning. Other measures aimed to ensure equal access to all learners, particularly those from disadvantaged backgrounds. Also, the labour ministry has created a 'new skills fund' to supplement reduced working shifts with worker training.

In order to improve the labour market relevance of VET provision the National repository for regional vocational qualifications

(*Repertorio nazionale delle figure nazionali di riferimento per le qualifiche e i diplomi professionali*) was updated in 2019 and in 2020. Professional profiles have been revisited and new qualifications and minimum training standards were introduced.

In order to tackle the high number of low-skilled people, the education ministry has promoted the national plan for 'guaranteeing the skills of the adult population'.

The collaboration of training providers and SMEs is identified as a challenge. In order to improve this collaboration, regions and joint interprofessional funds have supported the training of teaching staff for developing new skills within the framework of enterprise 4.0 national plan and the new (digital) transition 4.0 plan.

VET in Latvia



Vocational education and training (VET) in Latvia is offered at three ⁽¹⁾ levels: lower secondary (part of the national ‘basic’ education; integrated primary and lower secondary); upper secondary (secondary); and tertiary (professional higher) education. It includes practical training (50% to 65% of curricula) at schools and enterprises. In 2015, an apprenticeship scheme (called ‘work-based learning’ nationally) was introduced with alternating study periods at school and in an enterprise. The scheme is available for all VET programmes at EQF levels 2 to 4. To acquire a VET qualification at these levels, all VET learners take a State qualification exam at the end of the programme.

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

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

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

Professional higher education programmes are provided at two levels:

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

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

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

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

Distinctive features of VET

Initial VET is centralised and highly regulated by the State. Most vocational schools are owned and run by the State; half have the status of vocational education competence centres, receiving substantial investments in infrastructure and equipment with the support of EU funds since 2007. In addition to provision of vocational programmes, they validate non-formal and informal learning and offer lifelong learning and continuing teacher training.

Comprehensive reforms of VET content – the introduction of modular vocational education programmes, new occupational standards and sectoral qualifications frameworks – increase the responsiveness of VET to labour market needs and support the use of learning outcomes.

CVET providers are mainly private. IVET providers are increasing their educational offer for adults.

Most vocational education learners (92%) are at upper secondary level (2019/20 data). 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 programmes, VET attractiveness is increasing.

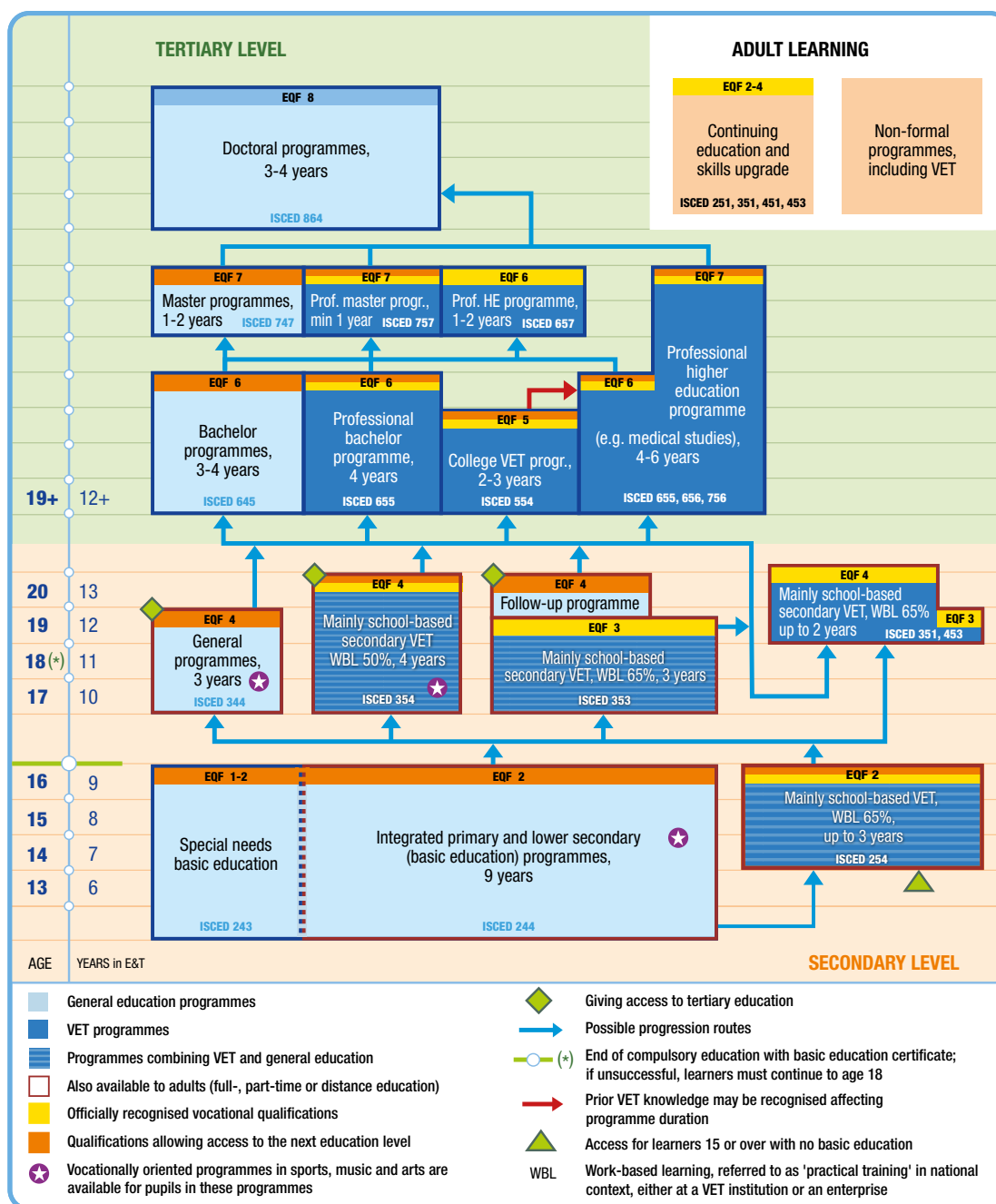
A validation system for professional competences acquired outside formal education has been available since 2011, allowing direct acquisition of professional qualifications at EQF levels 2 to 4. Procedures for assessment and criteria for validation of prior learning were set up for higher education in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

Challenges and policy responses

Reforming VET and adult learning are national policy priorities. Recent reforms aim at:

- promoting VET quality;
- ensuring its relevance to labour market needs;
- efficient use of resources to raise VET attractiveness.

⁽¹⁾ 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.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Latvia, 2020.

Policy strives for a balanced (equal) distribution of students choosing VET and general education after completing basic education. It also aims to double adult participation in learning from the current 7.4% (2019).

In order to improve the responsiveness of VET to labour market needs, modularisation of programmes is being implemented. Content for modular programmes is being developed and gradually introduced.

Limited access to guidance and counselling for young people, and the need to put in place ECVET and 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.

In order to address these challenges, the education development plan (Future skills for the future society 2021-27) was submitted for consultation in October 2020. 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.

VET in Lithuania



The Ministry of Education and Science is the main body responsible for shaping and implementing vocational education and training (VET) policy. The Ministry of Economy 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 (ISCED levels 2 to 4). To acquire a VET qualification, learners take a specified exam, after which a VET diploma is awarded. Programmes are modularised; the minimum duration is 30 credits acquired in a half year.

Lower secondary level VET programmes (up to three 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 two years lead to a VET qualification at EQF level 3 (ISCED 352) and prepare students for entering working life;
- three-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). 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 two years, ISCED 454) lead to a VET qualification at EQF level 4. Six EQF level 5 VET programmes delivered jointly by VET institutions and colleges are being piloted in 2020.

Higher education college studies lead to a professional bachelor degree (ISCED 655) in three years. Implementation of EQF level 5 short-cycle programmes is being legislated.

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 six 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 study, 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 are carried out by accredited institutions. Social partners, enterprises and employers' associations may apply for accreditation. Social partners participate in developing new quali-

cations, standards and VET programmes. The 2018 VET law boosted the role of sectoral professional committees in shaping VET qualifications and planning future apprentice intake.

Distinctive features of VET

Initial VET (IVET) is centralised and highly regulated by the State. Continuing VET (CVET) is delivered by IVET and other training providers, public or private organisations.

Following the new VET Law (2018), individuals can acquire two VET qualifications free of charge; for others, CVET programmes are offered for a fee, except for the unemployed and those at risk of unemployment whose training is supported from 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 six months).

Due to the demographic decline in the young population, the number of young IVET learners has decreased by 21.5% over six years. The share of adults in formal (C)VET programmes is steadily increasing, especially for ISCED level 4 programmes; in 2019 42% of all IVET and 69% of CVET learners were adults aged 25 to 64.

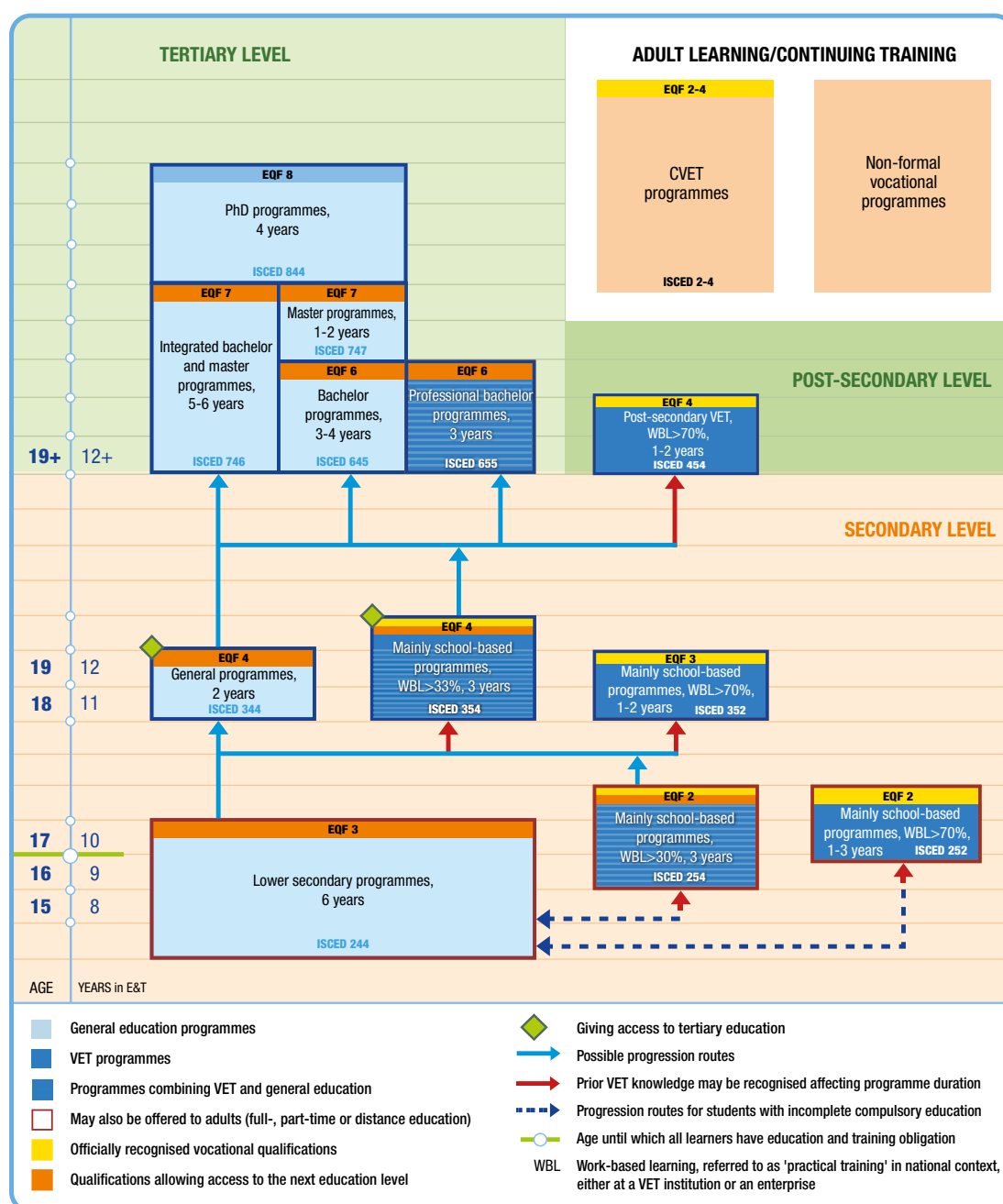
From 2002, VET curricula in Lithuania have been competence-based, with clearly defined learning outcomes. Since 2018, sectoral qualification standards are being developed for all economic sectors. Based on these standards, VET programmes are being gradually redesigned into modular programmes consisting of mandatory and optional modules. Modularisation allows learners to acquire a VET qualification by taking individual modules and choosing the most acceptable way and pace of learning.

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 four years of secondary (general) education (grades 9 to 12) can enrol in individual vocational modules offered in programmes delivered by VET institutions. Learners wishing to continue in the vocational stream may have their acquired competences recognised, thus shortening the duration of studies.

From 2019, the governance bodies of VET institutions include representatives from municipalities and businesses. Reforming VET institution networks and using their resources



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Lithuania, 2020.

more effectively remains a policy priority. VET institutions (those with fewer than 200 students are being merged) should be reduced to 57 by the end of 2020 (73 in 2016).

Participation in lifelong learning remains low (7% in 2019). The national goal is to increase it to 12% by 2022. Ministries of Education and Science, Social Security and Labour and Economy plan various adult training opportunities for key competences development, with training of the (un)employed jointly funded by ESF. Measures foreseen include VET and lifelong learning promotional campaigns and strengthening career guidance services.

Participation in apprenticeship is low and needs better co-operation between VET institutions and companies through apprenticeship pilot projects in VET institutions, plus reimbursement of apprentice salaries.

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.

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 vocational education and training (VET); higher VET is under the responsibility of the Ministry of Higher Education and Research. 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. Three-year pre-VET programmes provide 12 to 14-year-olds with general and practical knowledge based on learning outcomes and guidance. Afterwards, learners have the opportunity to acquire a professional qualification through the following programmes:

- vocational three-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 programme are offered, leading to:
 - the vocational capacity certificate (CCP), which attests holders semi-skilled worker's skills and is designed for learners who are 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 a master craftsman certificate. If they complete preparatory modules, they can also pursue higher technical studies;
- technician four-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 and lead 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.

Also offered at upper secondary level are general and technical four- to five-year school-based programmes, leading to the technical secondary school leaving diploma (DFESG) in different fields: administrative and commercial, general technical, arts, healthcare and social professions, and tourism and innkeeper. The curriculum includes general and technical education. Graduates can enter the labour market or continue with higher education. In the national context these programmes 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 (two-year) studies leading to a higher technician certificate (BTS). Depend-

ing on the field, graduates can continue with bachelor studies. Professional bachelor programmes include one compulsory semester abroad and enable graduates to enter the labour market or progress to master degree programmes.

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.

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.

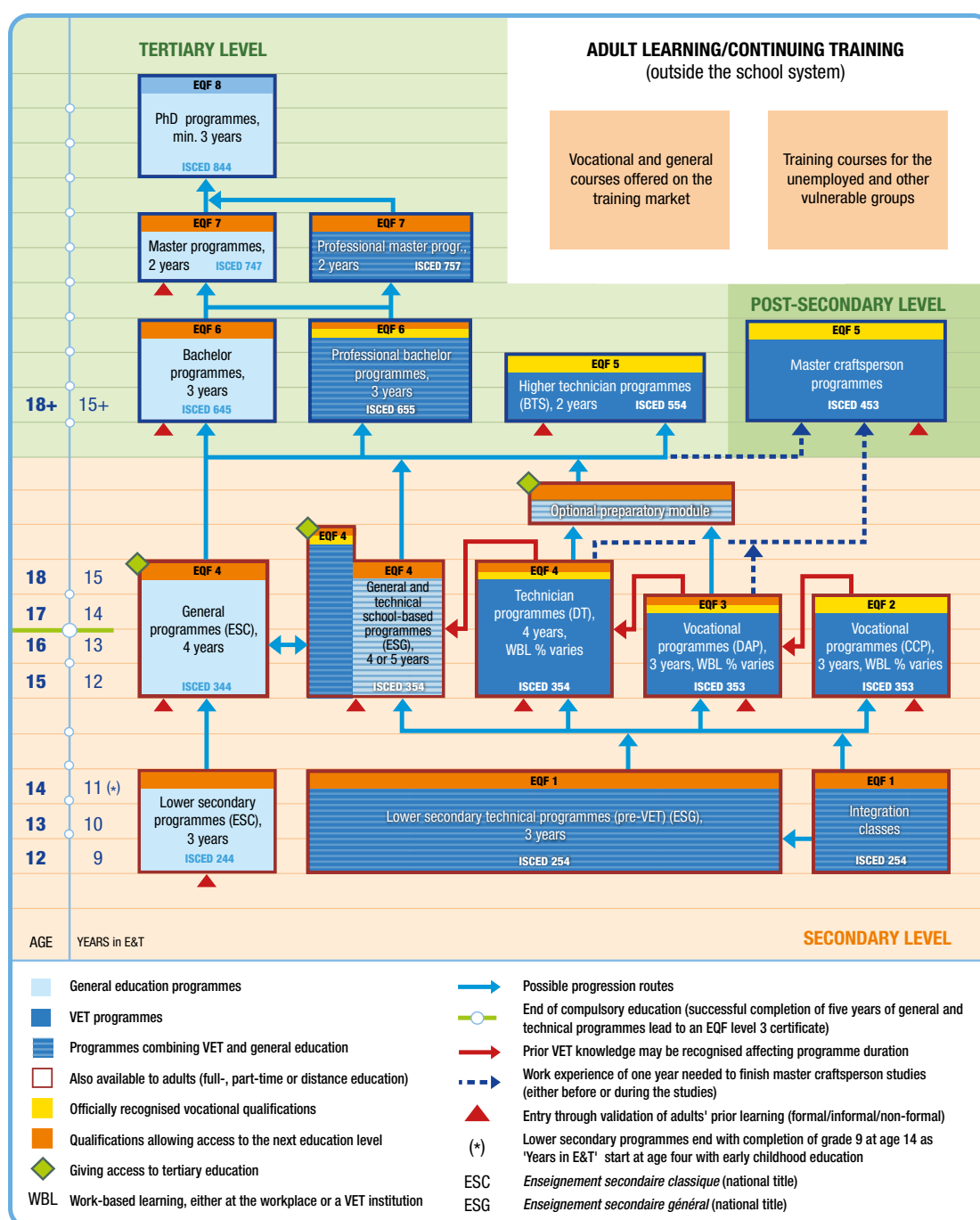
Learners have an opportunity to follow cross-border apprenticeship to acquire qualifications for which school training cannot be provided due to the small number of learners. Practical training in a company based in Luxembourg is combined with learning at school in one of the neighbouring countries.

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

The short-term priority of the ministry is to tackle the consequences of the Covid-19 crisis and to minimise the long-term scarring effects of the economic recession on young learners and graduates.

Since the end of summer 2020, the education ministry has implemented the Summer School, aimed at supporting learners to fill their educational gaps. This offer will be maintained beyond the Covid-19 crisis. Online tools remain available to parents and learners to download revision materials.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Luxembourg, 2020.

To address the fall in apprenticeship contracts, the government offers financial support measures to training companies as an incentive to continue to hire new apprentices and take over laid-off apprentices. The Ministry also extended the offer of apprenticeship programmes in public training centres. The offer of full-track school programmes providing both the school based and the work-based learning has been expanded.

In the medium term, one of the education ministry's priorities is to diversify the offer to meet the needs of the increasingly heterogeneous demography of learners, to ensure education

and training equity, and temper effects of language skill level or socioeconomic status.

To support the transition to the labour market or tertiary education, young upper secondary graduates can follow a one-year programme *Diplom+* from the school year 2020/21. The programme focuses on transversal and soft skills and includes personalised support.

A comprehensive digital education strategy has been adopted in response to the increasing need for digitalisation. This introduced a set of measures strengthening the digital competences of pupils.



VET in Malta

Overall responsibility for vocational education and training (VET) in Malta lies with the Ministry for Education (MFED). The Ministry for Tourism is in charge of VET for the tourism sector. The two main State providers – the Malta College for Arts, Science and Technology (MCAST) and the Institute for Tourism Studies (ITS) – are self-accrediting further and higher VET institutions offering VET qualifications at EQF levels 1 to 7. There is also an increasing number of private VET providers.

Lower and upper secondary level

The *My Journey* reform has introduced a new compulsory secondary school system that aims to increase enrolment in vocational and applied subjects, to enhance the flexibility of educational pathways and increase the attractiveness of VET. In school year 2019/20, almost 30% of learners are enrolled in upper secondary VET programmes (EQF/MQF level 3), continuing the upward trend recorded in the past five years.

Qualifications

The Maltese qualifications framework (MQF) sets the overall parameters for VET programmes at EQF levels 1 to 5 in terms of distribution of key competences (decreasing with level), sector skills and underpinning knowledge (increasing with level). Both VET State providers offer study courses ranging from foundation programmes up to master degrees.

Available VET qualifications and progression pathways are:

- certificate courses at EQF/MQF levels 1 or 2, giving access to programmes at the next EQF/MQF level in the same field: these are introduction and foundation certificate programmes, which include a component of work experience:
 - for learners without a qualification;
- certificate courses at EQF/MQF level 3, comprising a percentage of work-based learning, which provide access to programmes at the next level:
 - for foundation certificate holders and those with an EQF/MQF level 2 compulsory education qualification;
- national diploma courses at EQF/MQF level 4 (two- to three-year duration);
- for learners with a general education or VET EQF/MQF level 3 qualification. These courses include mandatory work experience through apprenticeship schemes. Higher national diploma courses at EQF/MQF level 5 (one- to two-year duration):
 - for learners with an EQF/MQF level 4 VET qualification;
- both State VET institutions offer a suite of tertiary qualifications at bachelor and master levels. VET degree programmes are also provided by the University of Malta's Faculty of Health Sciences.

Adult learning/continuing VET

Continuing VET is mainly provided by MFED's directorate for research, lifelong learning and employability, MCAST and the ITS. Most courses are part-time and take place in the evening. Pegging CVET courses to the EQF/MQF ensures the quality and value of all learning.

Adult learning is mainly provided by MFED's directorate for research, lifelong learning and employability, MCAST and the University of Malta. The latter two enrol individuals as regular students based on the maturity clause. Besides targeting the unemployed, Jobsplus (PES) is increasingly refocusing courses towards reskilling and upskilling employees. This will help meet the demand for new skills in emerging economic sectors and so improve employability and career prospects.

Distinctive features of VET

The 2016 Eurobarometer opinion survey on vocational education and training showed that, of all the EU countries, VET is most appealing and attractive in Malta.

VET features as a central theme in Malta's education policy in the *Framework for the education strategy for Malta, 2014-24*.

Developing excellence in VET and higher education through research, effective licensing, programme accreditation, quality assurance and recognition of qualifications is entrusted to the National Commission for Further and Higher Education (NCFHE).

Malta was the first EU country to reference its qualifications framework to the European qualifications framework for lifelong learning (EQF) and the qualifications frameworks in the European higher education area (QF-EHEA) in 2009. VET is referenced at all qualification levels, allowing for flexible progression pathways and permeability between education and training sectors.

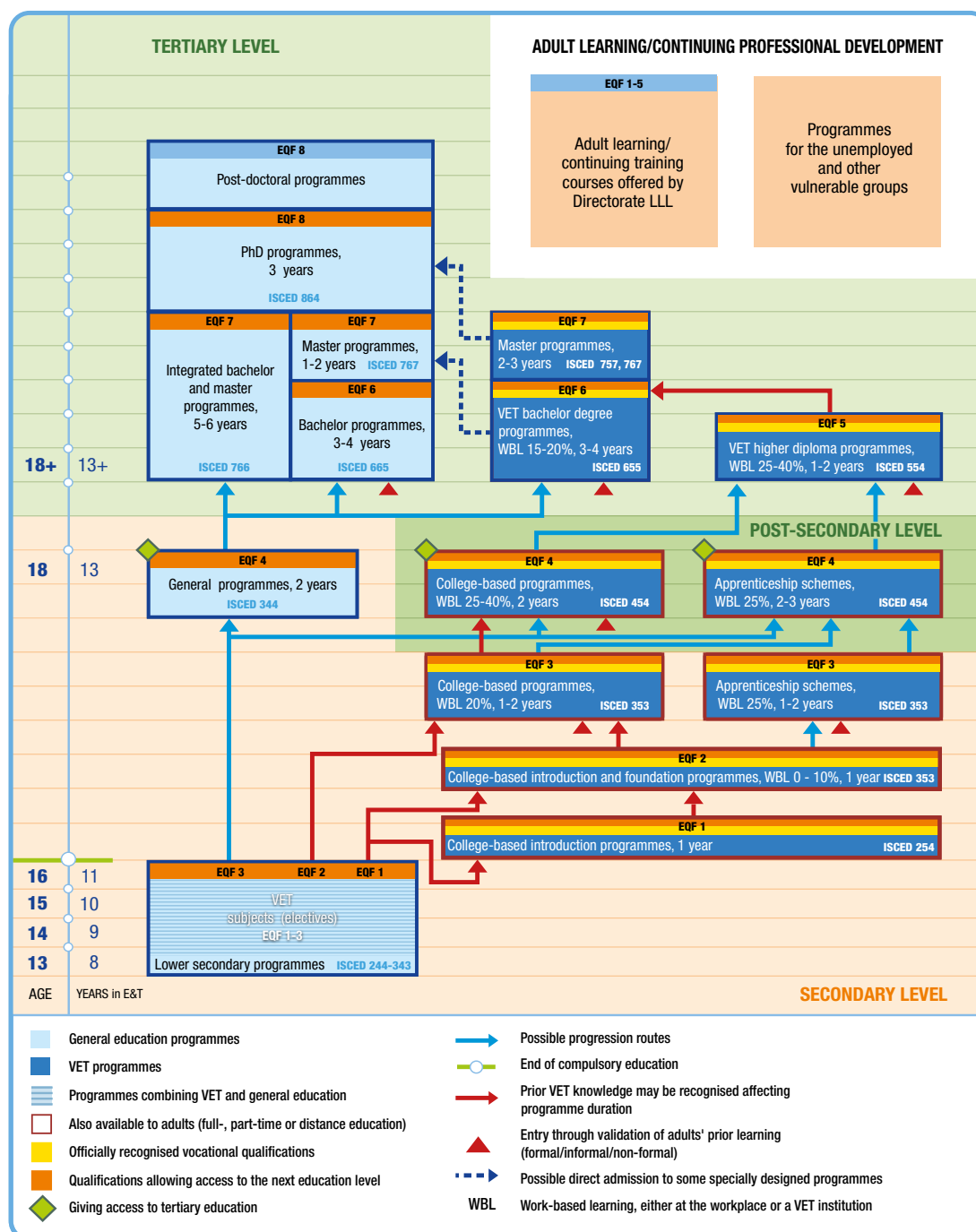
VET education now starts in compulsory lower and upper secondary education. All VET programmes at upper secondary level combine VET with general education. The 2018 Act regulating work-based learning and apprenticeship established work-based learning as central to VET. Apprentices receive remuneration for the on-the-job training from employers and a stipend from the government.

Stakeholders strongly support VET. The chamber for commerce, enterprise and industry, the Malta employers' association and the unions are involved and sit on the boards of State VET providers. Many employers promote apprenticeships, with dialogue between VET providers and industry as a key feature in qualification design.

Challenges and policy responses

Skills shortages and mismatches are the result of demographic challenges, low unemployment and strong economic growth. The domestic labour supply cannot meet the increase in demand. Consequently, over the past few years, there has been an increase in an influx of foreign employees. Employers face difficulties recruiting skilled workers in the healthcare, financial and ICT sectors and frequently rely on foreign workers to meet their needs.

The focus of VET and employment policies is to increase skilled workforce supply by helping more young people complete education or training, make a successful transition to a job and by increasing employment among inactive ageing people.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Malta, 2020.

The new legislation strengthening the regulation of apprenticeship and work-based learning is part of the measures.

Early school leaving from education and training, although falling faster than other countries, is the second highest in the EU. Measures to reduce it include:

- a strategic prevention plan launched in 2014;
- second chance education options;
- more progress monitoring in the education ministry.

Introducing vocational subjects in lower secondary education has also proved effective in preventing early school leaving.

Motivating more adults to engage in upskilling and reskilling in lifelong learning is a priority. The national lifelong learning strategy paves the way for empowering people through personalised and innovative learning approaches.

A National Skills Council (NSC) was set up in 2016 to improve skills governance and forecasting. It recommends policy changes – relevant to its mandate – to the government.

VET in the Netherlands



Study results and advice from school determine the type of secondary education that learners follow after leaving primary education at age 12. In 2019, in the third year of secondary education, 53% of students followed lower secondary pre-vocational programmes (VMBO). Almost half of VMBO students are in vocationally oriented programmes; the rest follow general programmes offered by VMBO schools. 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 47% of students in the third year of secondary education took part in one of these programmes in 2019.

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

Upper secondary VET

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

- level: upper secondary vocational education has four levels leading to EQF levels 1 to 4. Student admission to a level depends on the diploma obtained in prior education. Admission to level 1 programmes is limited to learners without a prior qualification at lower secondary level. It is possible to progress within upper secondary VET; the highest level (leading to EQF 4) gives access to higher professional bachelor programmes offered by universities of applied sciences. In 2019, more than half 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 four days a week and one day at school.

Post-secondary VET

Specialised programmes (EQF 4) are open to graduates of MBO programmes (EQF levels 3 to 4). Their duration is one year.

Higher professional education

Higher professional bachelor programmes (HBO) are open to all EQF level 4 graduates. Around 36% of graduates of middle management VET programmes enter HBO programmes; 64% enter the job market. HBO programmes last four years.

On completion, they can give access to a professional master degree programme, an option not yet extensively used.

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

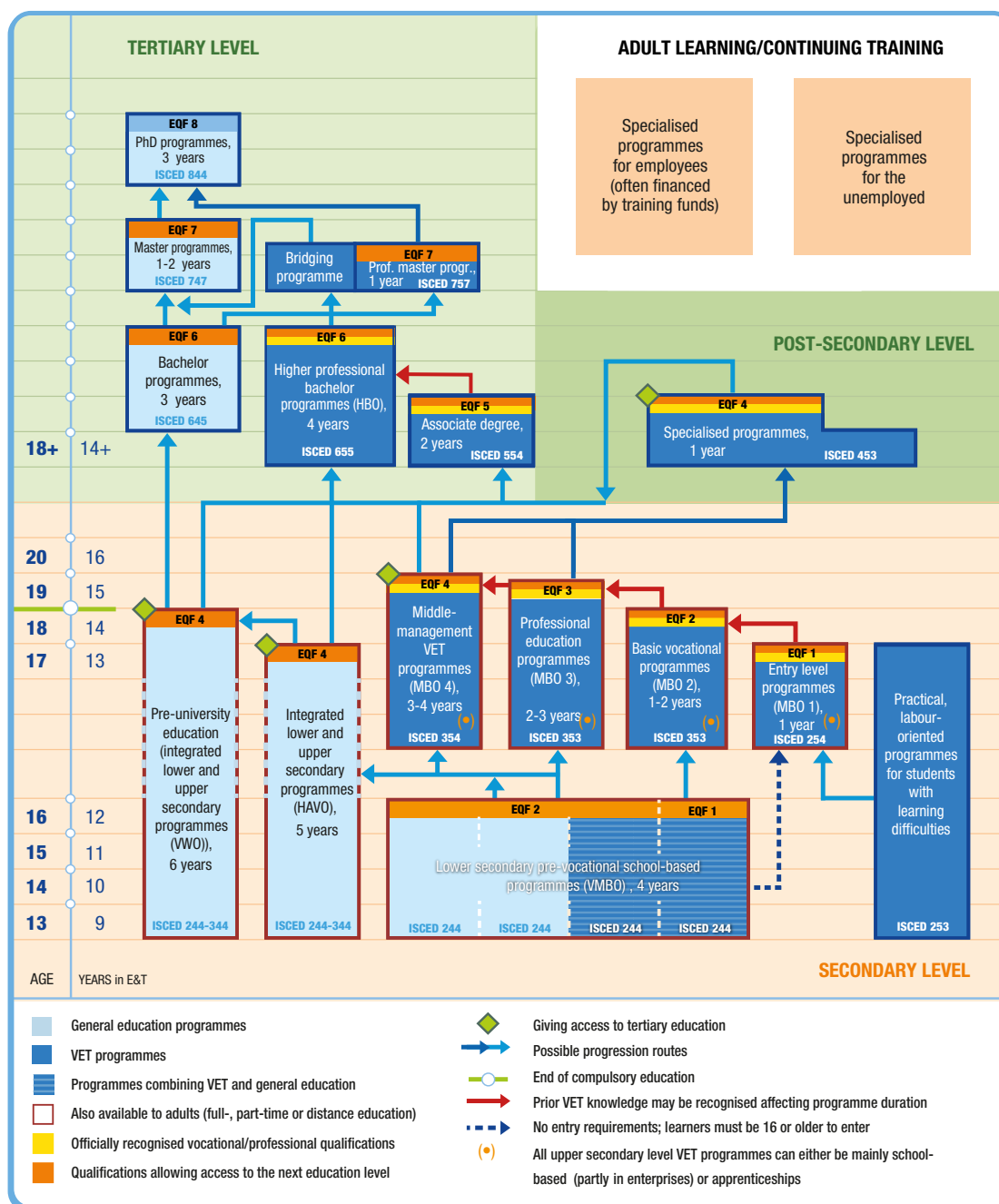
Continuing VET

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

Distinctive features of VET

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

- ROCs have an average student population of 11 000 providing IVET for young people and adults and general education for adults. They 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 students 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. The VET law 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.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Netherlands, 2020.

Challenges and policy responses

The VET sector is challenged to take greater responsibility ('ownership') for programme innovation, quality assurance, and responding to the needs of regional business world. The policy agreement, formally signed by the education ministry and the VET schools in February 2018, validated the shared policy aims for 2019-22. Subsequently, all schools should come up with a plan for programme innovation in response to regional needs and priorities, to be implemented in close collaboration with regional stakeholders/ businesses.

There are three national priorities in the sector-based policy agreement. All VET schools have to take action to:

- improve their labour market outcomes (reducing youth unemployment);
- facilitate equal opportunities in education and training;
- support young people, particularly from disadvantaged groups.

Funding is available for activities linked to these priorities; it is partly performance-based, meaning that the total budget will depend on whether targets are met and to what extent.

Besides these priorities, schools are free to set their own goals, ideally after having consulted their regional stakeholders.

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), both curricula and the VET system structure are laid down in national regulations, and providers are required to comply with them. There is cooperation on upper secondary and tertiary VET, between education and training authorities and the social partners.

The regional 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 three years of upper secondary education. Half of them choose between 10 VET programmes.

Upper secondary VET is conducted both in schools and in public and private enterprises. The county authorities must approve training establishments. The main model includes two years in school, where students also participate in practical training in workshops and enterprises, followed by two years of formalised apprenticeship (training and productive work) in enterprises. The first year of training consists of an introduction to the vocational programme. During the second year, VET students choose specialisations and courses are more trade-specific but core general education subjects are also included. Some trades and crafts follow other models, with three years in school or one year in school followed by three years of formalised apprenticeship.

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

There are many possible routes to higher academic education via upper secondary VET. With a trade or journeyman certificate, the options to higher academic education are:

- via a one-year bridging course in core subjects (*påbyggingsår*);
- direct admission to certain specially designed bachelor programmes (*Y-veien*).

Options without a trade or journeyman certificate are:

- five years' experience gained in work and/or education and passing courses in core subjects (for those aged 23 or older);
- recognition of relevant formal, informal, and non-formal learning for people aged 25 or older, who do not meet general entrance requirements;
- completing the bridge course in core subjects after completing the first two years of a VET programme;
- successfully completed two years higher vocational education (EQF5).

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 journeyman examination on proof of sufficient relevant practice. The candidate must demonstrate comprehensive experience in the trade or craft, normally over a minimum of five years.

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

Master craftsperson programmes are for holders of a relevant trade or journeyman certificate with several years' work experience. The programmes are provided by vocational colleges (*Fagskoler*), both private and public, and combine general business management, marketing, and vocational theory.

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*).

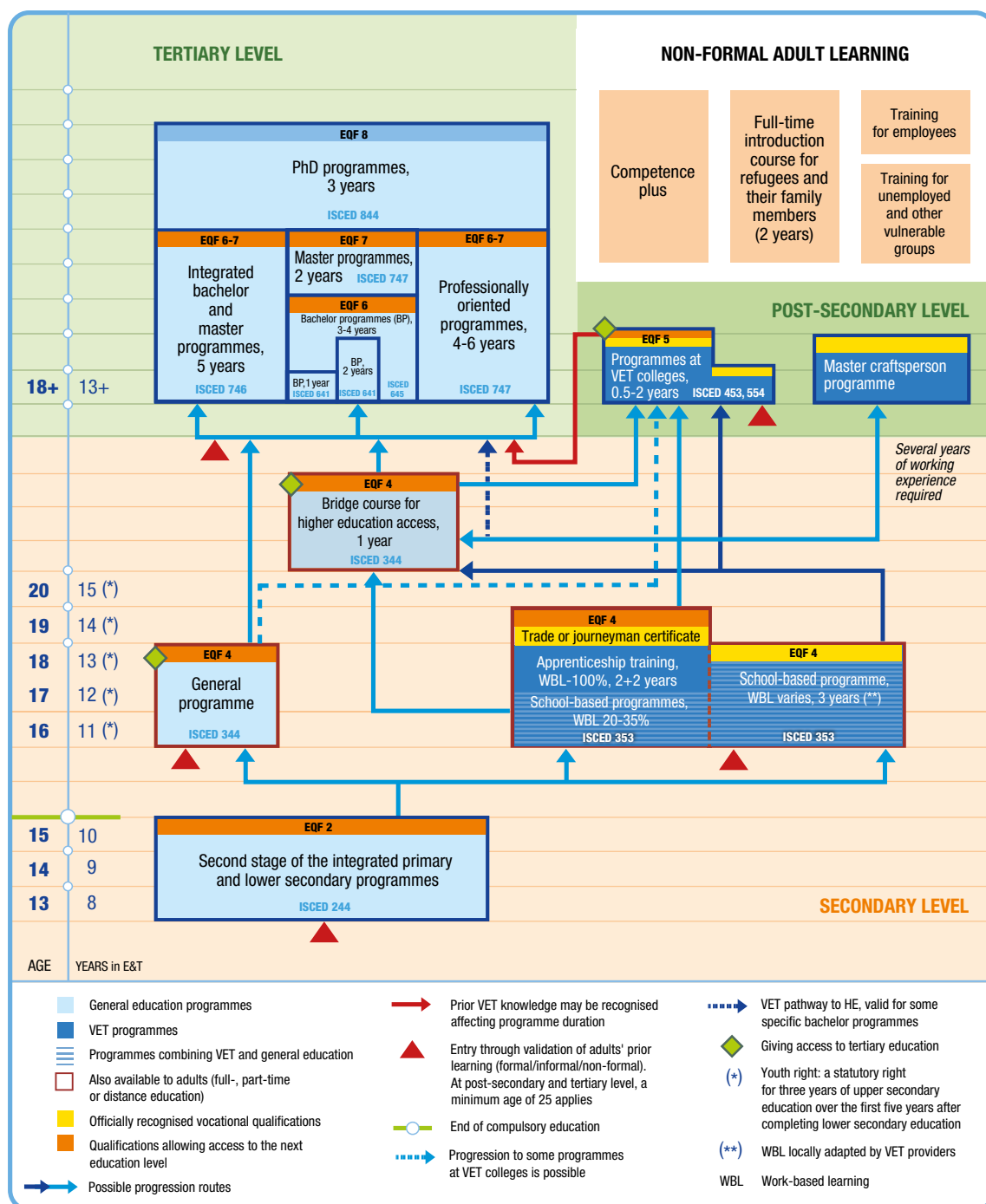
Tripartite cooperation aims to ensure that training provided to Norwegian VET learners meets labour market and skill needs. It informs changes in the VET structure, curriculum development, regional structure and volume of VET provision, the framework of examinations leading to trade or journeyman certificates, and quality control at all levels. At EQF level 5, the social partners participate in the National Council for higher VET (*Nasjonalt fagskoleråd*). 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 journeyman 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



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Norway, 2020.

lose business. Statistics Norway (SSB) estimates a shortage of almost 100 000 skilled workers in 2035.

Initiatives aimed at increasing the number of students who complete their education, as well as teacher competences including digital, are in process. About 50 measures from the white paper *Skilled workers for the future (Fagfolk for fremtiden)* have been implemented, increasing VET attractiveness and labour market relevance. A new programme structure in upper secondary VET, including new curricula, was implemented from 2020/21.

Important changes took place in 2019/20:

- several suggestions on changes for a better upper-secondary education, both general and VET (NOU 2019:25);
- proposal for a new Education Act for primary and upper secondary education has been presented (NOU 2019:23);
- the Government has suggested several measures to ensure education and work during Covid-19;
- it is a priority to increase the digital teaching competence and establish more study places in higher vocational education;
- a regulation for higher vocational education (EQF 5) was adopted.

VET in Poland



Vocational education and training (VET) has three governance levels: national (ministries), regional (school superintendents, mainly in pedagogical supervision) and county (governing schools). The Ministry of Education and Science is in charge of secondary and higher VET, supported by other ministries responsible for particular occupations. Social partners advise policy-makers on necessary changes in VET.

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

- three-year first stage sectoral programmes (*branżowe szkoły I stopnia*, ISCED 353) leading to a vocational qualification diploma for a single-qualification occupation (after passing State vocational examinations). Graduates can enrol in the second year of general upper secondary programmes for adults or in a second stage sectoral programme;
- two-year second stage sectoral programmes (*branżowe szkoły II stopnia*, ISCED 354), launched in the 2020/21 school year. These further develop the vocational qualifications attained in first stage sectoral programmes. General education is provided in full-time day or evening classes, or extramurally. Graduates can acquire an upper secondary school leaving certificate (*matura*) providing access to tertiary education;
- five-year vocational programmes (*technika*, ISCED 354) leading to a vocational qualification diploma for occupations consisting of two qualifications after passing State vocational examinations. Graduates can acquire an upper secondary school leaving certificate (*matura*) giving access to tertiary education;
- three-year special job training programmes (*szkoły specjalne przysposabiające 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 (*oddziały przysposabiające do pracy*).

At the post-secondary non-tertiary level, vocational qualifications are acquired in one- to two-and-a-half-year school-based programmes (*szkoły policealne*, ISCED 453).

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

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

Adult learning and CVET

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

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

Since 2016, curriculum-based qualifications attained in courses offered by training companies and other non-formal education institutions can be included in the integrated qualifications register.

Distinctive features of VET

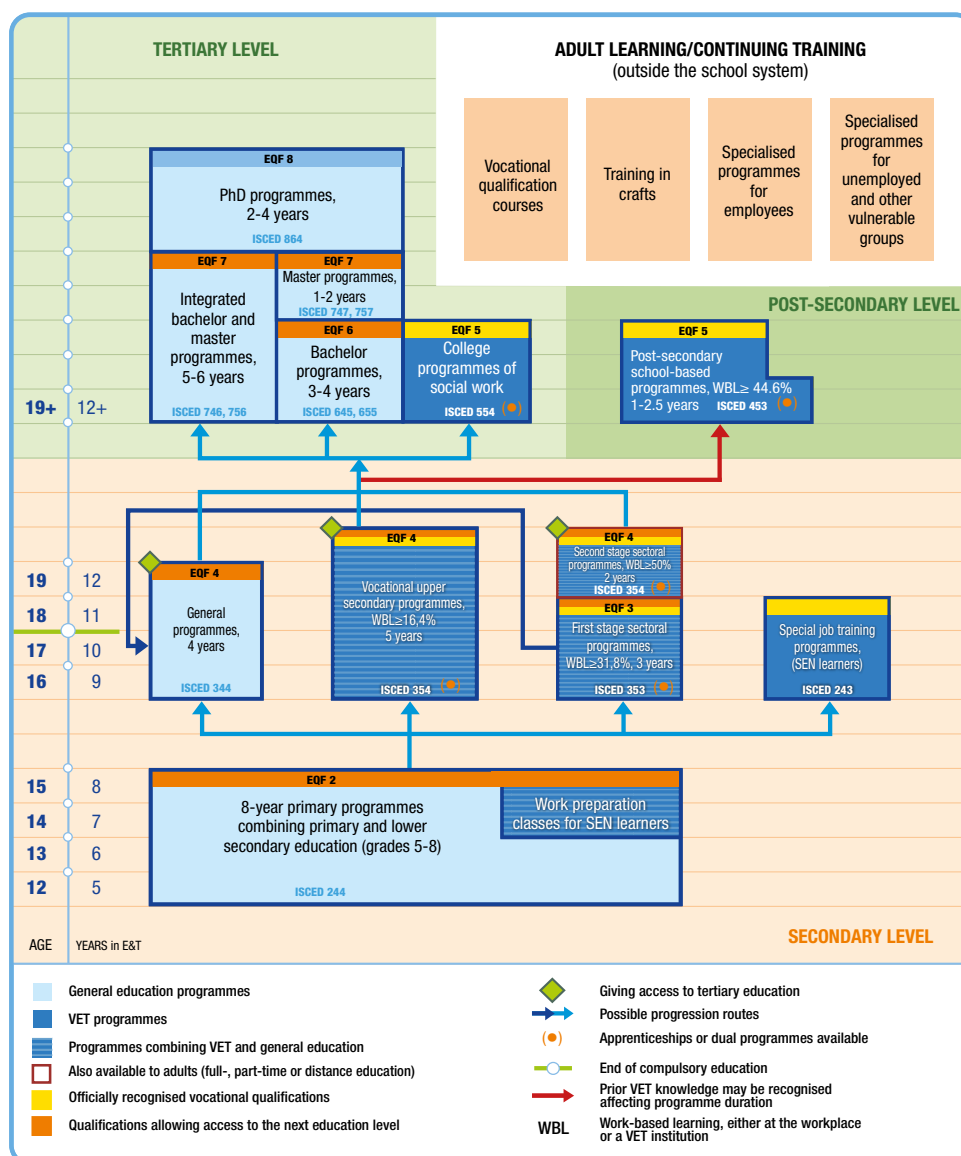
The key features of Polish VET are:

- 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 VET qualification 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 programmes, easily modified for labour market needs;
- uniform, centrally organised external vocational examinations;
- vocational qualification courses allowing adults to acquire qualifications;
- validation of non-formal and informal learning via extramural examinations.

Challenges and policy responses

The main challenges for VET are:

- raising the attractiveness of VET in society;
- increasing employer engagement in practical training, identifying and forecasting labour market needs for skills and qualifications, 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;



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Poland, 2020.

- providing high quality infrastructure for VET schools to ensure teaching and training in line with labour market needs;
- further developing training programmes.

New measures introduced in November 2018 strengthen mechanisms involving employers in VET and systematically adapting VET to labour market needs, particularly in such areas as:

- practical training and teacher professional development in enterprises via 40-hour workplace training cycles;
- expanding work-based learning in VET;
- annual forecasts of the demand for employees in VET occupations;
- directing more funds to high demand occupations;
- strengthening quality assurance;
- enhancing the accreditation system for CVET providers;
- organising shorter forms of vocational courses for adult learners;
- introducing the student apprenticeship (*staż uczniowski*) for learners in vocational upper secondary and first-stage sectoral programmes who are not juvenile workers;

- building a monitoring system to track the educational and professional trajectory of graduates.

Several other education ministry initiatives address the main challenges for VET:

- enabling non-statutory CVET qualifications to be included in the integrated qualifications register;
- strengthening school guidance and counselling;
- introducing new VET core curricula developed by the public sector, the Centre for Education Development (ORE), employers and stakeholders;
- setting-up new sector skills councils giving a voice to stakeholders regarding competence demands;
- launching the national Integrated skills strategy, developed and adopted in 2019 covering all education levels, and providing coherent policies on skills development;
- identifying VET professions having particular significance for national culture and heritage.

VET in Portugal



The current VET system in Portugal is the result of a 2007 large-scale reform, which reorganised VET into a single system (*Sistema Nacional de Qualificações*, SNQ). This was done under the joint supervision of the Ministry of Education, the Ministry of Labour, Solidarity and Social Security, and in connection with the Ministry of State, Economy and Digital Transition. The main objectives of the SNQ are to ensure that VET qualifications better match labour market needs, promoting the competitiveness of enterprises, and to reinforce the recognition, validation and certification of competences (RVCC). It also aims to guarantee scholarly and professional progression of citizens in 43 sectoral areas of education and training. Permeability between general and VET programmes is possible.

Approximately 40% of upper secondary education learners attend VET programmes which grant double certification: education (nationally referred to as school) and professional certification. They comprise four components: general, scientific, technological training and work-based learning (WBL).

The main VET programme types are:

- at lower secondary level, education and training programmes for young people (CEF, ISCED 254; EQF 2) are school-based and include practical training. They target those aged 15+ who completed the first cycle of basic education (four years) and who are at risk of early leaving from education and training. Progression to upper secondary education is possible;
- at upper secondary level, the VET programmes (ISCED 354, EQF 4) are:
 - three-year professional programmes; approximately 33% of learners at upper secondary education attend such programmes. WBL is provided in the form of a traineeship carried out in an enterprise or a public organisation;
 - three-year specialised artistic programmes including visual arts and audiovisual, and dance programmes;
 - specific curriculum programmes granting autonomy to schools to diversify their education and training provision: designing a curriculum that combines elements of general and VET programmes. WBL takes place as traineeship in companies or other host entities, in periods of variable duration;
 - apprenticeship programmes are for young people up to age 25. A training contract between the apprentice, the training provider and the enterprise must be signed;
- 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. Through agreements with higher tertiary institutions, CET graduates are credited up to 90 ECTS points;
- 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 degree).

Adult learning includes the following programmes:

- education and training programmes for adults (EFA, ISCED 100, 254 and 354); these target learners who want to complete lower or upper secondary education and/or obtain a professional qualification at EQF 1 to 4;
- certified modular training (ISCED 100, 254 and 354), based on short-term training units (UFCD) of 25 or 50 hours, allowing learners to select an individual learning path offering them greater flexibility in obtaining a qualification. These learning paths can lead to a certification at EQF 1 to 4;
- RVCC (ISCED 100, 244, 344) is a process, leading to the certification of formal, non-formal and informal 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 (EQF 1 to 4). Adults lacking competences required for a qualification are guided to relevant training programmes to acquire them.

Distinctive features of VET

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 type and duration of programmes for adults.

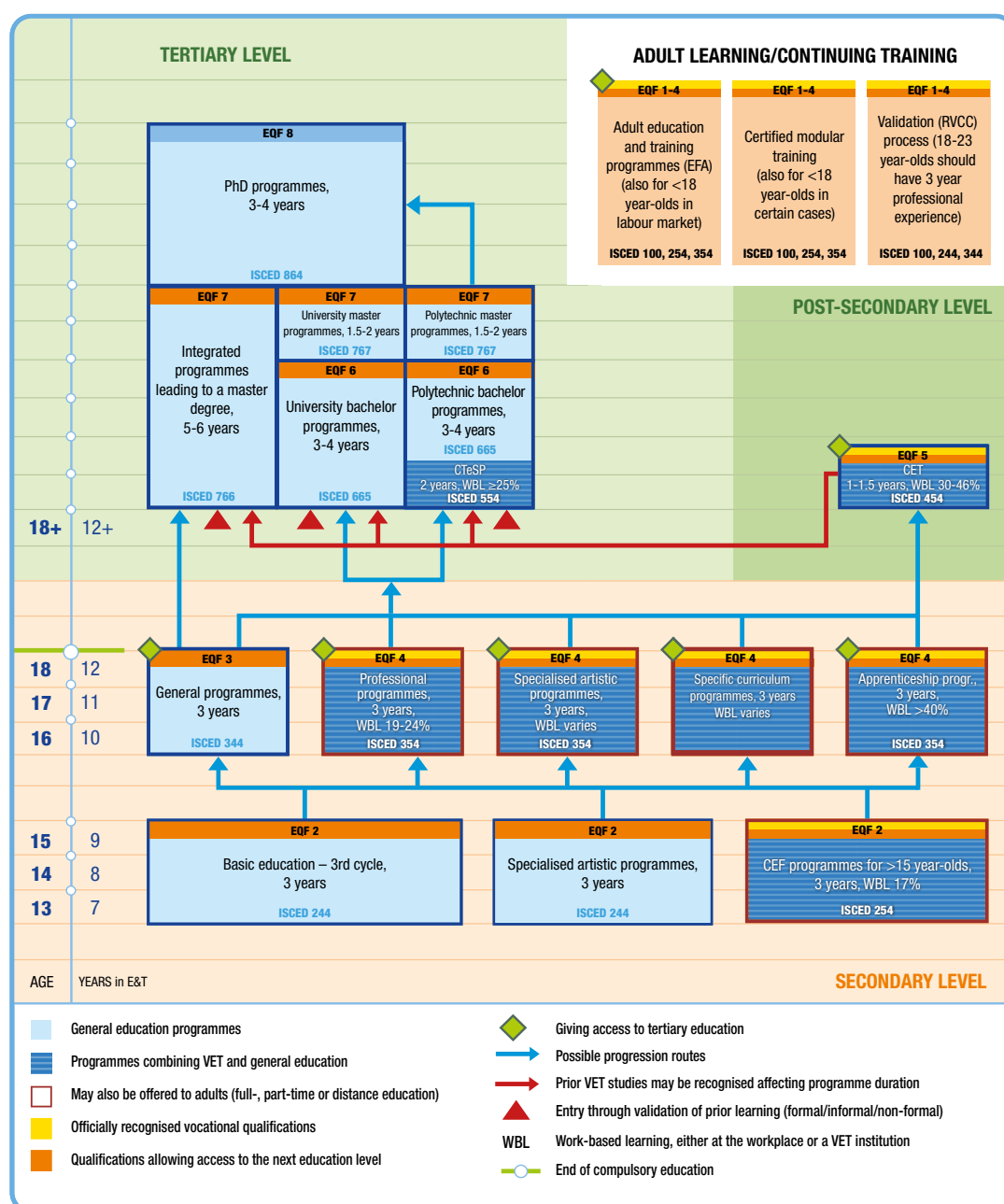
Accrediting publicly funded VET providers and trainers, along with external evaluation, ensures VET quality.

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

- the eight-level national qualifications framework (QNQ), designed in line with the EQF;
- 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 designing learning programmes, provide a reference framework for the RVCC process, promote the transparency and efficiency of public funding, and modularise the training offer;
- the *Qualifica* passport, an instrument for guidance and individual record of qualifications and competences;
- the System for anticipating qualification needs (SANQ), evaluates the relevance of qualifications to the labour market and monitors trends in qualified human resources supply;
- the National credit system for VET, which allocates credit points to VET qualifications.

Challenges and policy responses

Several issues are high on the policy agenda: increasing participation in LLL (in 2019 this was 10.5%, slightly below the EU average); modernising VET provision by introducing new training methods and diversified VET programmes; strengthening



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Portugal, 2020.

the alignment of VET with labour market needs; and upskilling and reskilling vulnerable groups. Although early leaving is significantly reduced (10.6% in 2019), it remains a priority. Further, VET should respond to the profound transformations caused by digitalisation.

The Government, through the preliminary version of the Recovery and resilience plan (2020), has identified areas that future policy interventions will focus on. It draws attention to the share of active population with a low-level qualification (approximately 50%). It sets objectives for the education and training system to modernise VET: promote quality VET; support the transition towards a digital and greener economy by offering learners the necessary skills and competences; develop skills for innovation and industrial renewal in liaison with the

world of business; and attract more learners to higher education, particularly from VET. The plan also aims to expand the network of adult education and training providers in cooperation with the *Qualifica* centres to attract more adult learners to VET programmes. The recently launched (2020) *Ativar.pt* initiative aims to address the challenge of increasing unemployment by promoting up- and reskilling of the unemployed, focusing on young adults, for instance in areas related to digital, green and social economy.

In the current economic context, where the socioeconomic effects of the pandemic crisis are apparent, VET should be a crucial tool in fostering employability, social inclusion and the development of the economy.

VET in Romania



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

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

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

Initial VET

At upper secondary level there are:

- three-year school-based VET programmes (ISCED-P 352), providing graduates with a professional qualification at EQF level 3 (such as cook). Programmes are offered by ‘professional schools’, cooperating with employers who provide compulsory in-company training for learners as part of work-based learning (WBL). WBL is also offered in schools, at an average of 50% per programme. Learners who interrupted their studies after completing lower secondary education may enrol in programmes up to age 26, free of charge. Since 2017/18, a dual form of VET is available, provided at the request of companies that participate in training provision. The share of learners in dual VET is 4.4% of the total VET population at upper secondary level. The programmes open access to the labour market. Graduates can also enrol in the third year of EQF level 4 technological programmes;
- four-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;
- short VET programmes (ISCED-P 352), providing learners who completed two years of a technological programme (completed grade 10) with a professional qualification at EQF level 3 (such as cook) via 720 hours of work-based learning. The programmes are coordinated by VET schools and are provided mainly by employers. Young and adult early leavers from education and training can also access these programmes after completing a ‘second chance’ programme;

- four-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 one- to three-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.

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

Distinctive features of VET

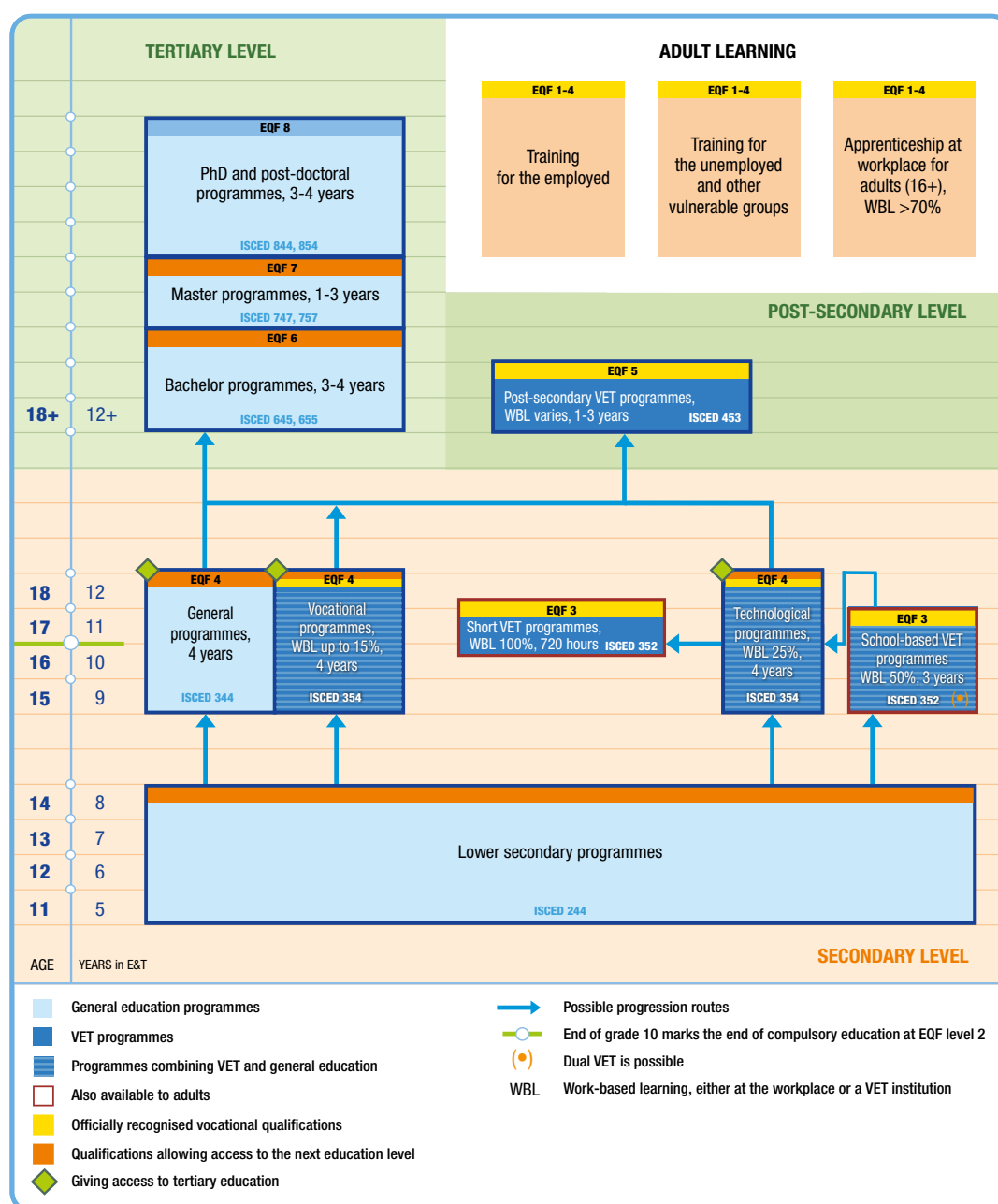
Distinctive features of initial VET are its inclusiveness and flexible pathways. Reflecting the double role of VET in promoting economic as well as social development, initial VET’s main goals are to ensure:

- 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 NAQ, 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.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Romania, 2020.

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 CNDIPT 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.

The VET Strategy 2016-20 supported by an ESF-funded project involves national authorities to help develop mechanisms for:

- monitoring VET and HE graduate insertion,

- anticipating labour market skills needs,
- evaluating and monitoring public policies on active measures and VET.

CVET also faces challenges such as unemployment and the lowest rates in lifelong learning participation in EU. The ministry of labour addressed them by:

- developing an elementary occupations list in November 2018, giving unskilled adults access to participate in six-month apprenticeship programmes leading to EQF level 1 qualifications;
- 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.

VET in Slovakia



Despite growing interest in general education, secondary vocational education and training (VET) remains a strong pillar of the education system. In 2020, 68% of secondary education students graduated from VET; 76% of them attended programmes entitling continuation in higher education. In 2020/21, 444 approved VET programmes could be offered by secondary schools; 25 of these were under the responsibility of the health and interior ministries. The education ministry has overall responsibility for initial VET (IVET). Secondary VET schools are, as a rule, maintained by self-governing regions and all schools including private and church-affiliated are financed equally from the State budget. 'Dual VET' has been implemented since 2015. From 2018/19, school-based and 'dual VET' are based on the same national curricula, opening the door for all secondary programmes to be offered as school-based or as 'dual VET'. Schools can offer the following IVET programmes at secondary education level:

- four-year school-based (occasionally five-year) programmes (in total 155 programmes; ISCED 354). These are mainly theory-focused and lead to a *maturita* school leaving certificate confirming level of education and VET qualifications attained;
- four-year (occasionally five-year) programmes (60 in total; ISCED 354) with extended practical training. They lead to a VET qualification, certified by a *maturita* school leaving certificate, and to a certificate of apprenticeship, provided that they include at least 1 400 hours of practice;
- three-year (occasionally four-year) programmes (112 in total; ISCED 353). These lead to a VET qualification (nationally referred to as a certificate of apprenticeship);
- two- or three-year programmes (16 in total; ISCED 253) for low achievers without completed lower secondary education. In individual cases, a certificate of apprenticeship is awarded. These learners can also enrol in a one-year bridging programme (ISCED 244), which gives access to upper secondary education.

Programmes of conservatories (20), specific art education programmes and a sports management programme are not regulated by the Act on VET, despite offering a VET qualification.

Special education schools also offer VET programmes tailored to students with special education needs.

Post-secondary non-tertiary VET programmes comprise:

- two-year follow-up study programmes (ISCED 454) for VET graduates (ISCED 353) leading to a *maturita* school leaving certificate (33);
- two-year qualifying programmes (ISCED 454) leading to a second VET qualification certified by a *maturita* and, in some cases, also to a certificate of apprenticeship (17 together with refresher programmes);
- refresher programmes (ISCED 454) with a minimum six-month duration ending with a post-*maturita* exam;
- two-year specialising programmes and three-year higher professional programmes (ISCED 554) leading to a non-university diploma and title DiS (31); some of the latter are offered as 'dual VET'.

Tertiary education currently does not include universities of applied science. Practice-oriented bachelor programmes are newly under development.

Continuing VET provision is semi-regulated: according to the Lifelong Learning Act, all programmes for adults without a relevant qualification who are interested in starting a business regulated by the Trade Licensing Act must be approved by the accreditation commission of the education ministry. Some qualifications are regulated by sectoral authorities. Many training programmes offered by companies, and adult education per se, are not regulated. The labour ministry regulates labour market training via the central and district labour offices.

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 dramatically since EU accession. A share of population aged 30 to 34 with ISCED 3 to 4 levels of education was 81.0% in 2004 and 50.5% in 2019, while the data for the same cohort and years for ISCED 5-8 levels were 12.9% and 40.1%.

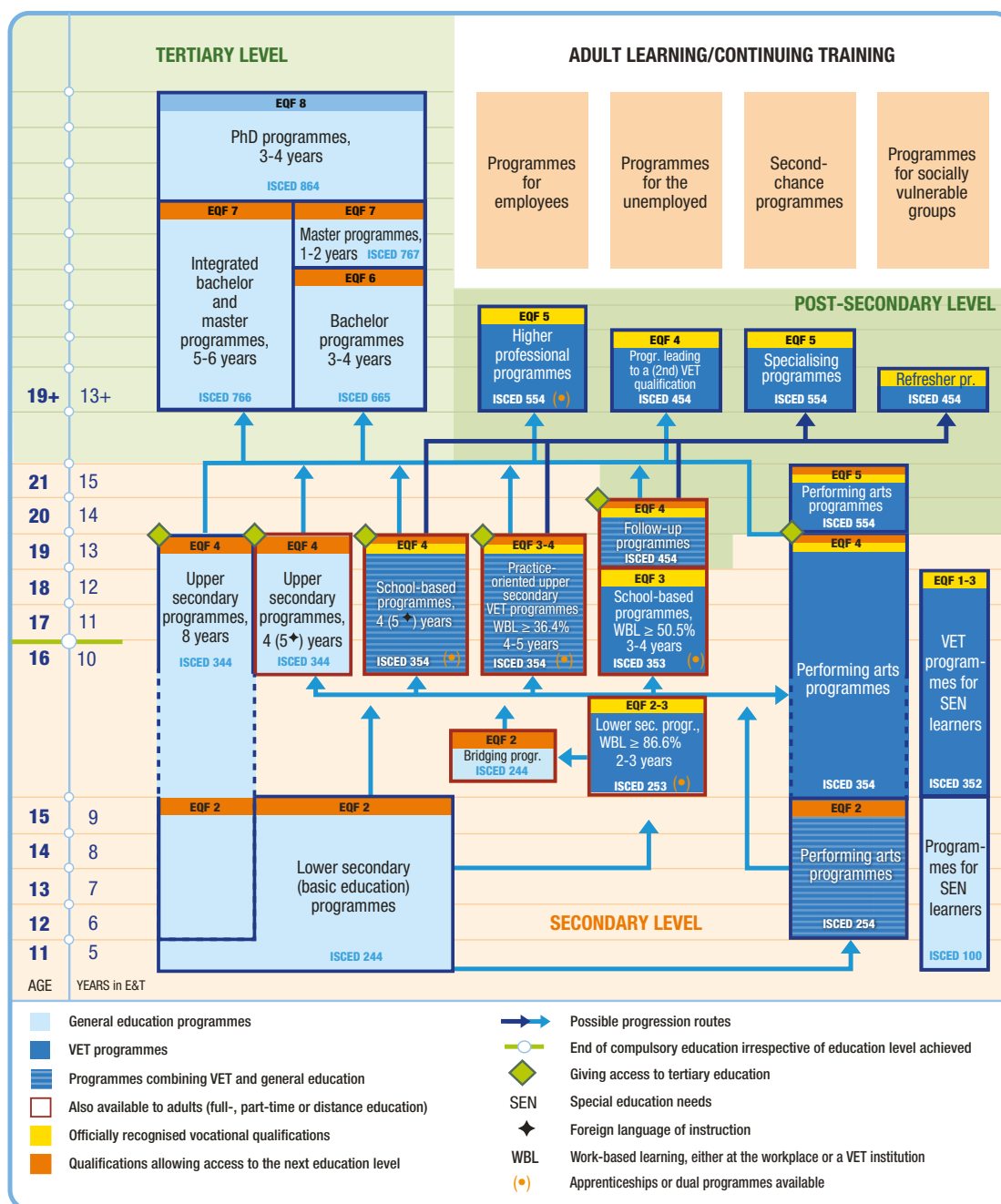
Ties between VET schools and the business world loosened during the economic transformation in the 1990s. Since 2015, specialised legislation supports the involvement of companies in the provision of 'dual VET' via direct financing from the State budget; it explicitly sets the rights and duties of professional 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.

Ten-year compulsory education generally guarantees that learners should attend at least one year of upper secondary education after completing nine-year integrated primary and lower secondary general education. Despite a negative trend, this contributes to preventing early leaving from education and training. There has been a slight improvement (8.3% in 2019) but this remains over 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

Deterioration compared to the past in many international indicators calls for action:

- 2018 PISA results indicate that the number of 15-year-old students who are underachievers in reading, maths or science is above the EU-27 average; this negatively affects participation in VET programmes, leading to a shortage of supply of technically skilled graduates in the labour market;
- early leaving from education and training in Eastern Slovakia has been above the EU 2020 target of 10% for a long



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Slovakia, 2020.

- time; this indicates the need to complement formal education by alternative ways to acquiring qualifications;
- participation in lifelong learning is well below the EU-27 average (3.6% compared to 10.8% in 2019); this led to the agreement to introduce individual learning accounts in support of adult learning.

The 2020 Council country-specific recommendations have recommended strengthening digital skills and ensuring equal access to quality education. This also corresponds to difficulties encountered during the Covid-19 pandemic hampering replacement of face-to-face education by distance learning.

A shortage of equipment and digital skills particularly affected learners from disadvantaged backgrounds. It is necessary to invest in schools' technological infrastructure and provide learners with devices and access to high-speed internet services. The pandemic also confirmed the insufficient provision of digital educational content at all levels of education, particularly in VET. Well-organised repositories of open educational resources, appropriate also for individual offline learning, are urgently needed. Retraining of teachers to cope with the inevitable digital transformation of schools and with the increasingly diversified needs of individual learners is also an important challenge.

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, VET students can enrol in the following upper secondary programmes:

- technical upper secondary programmes (ISCED 354): four-year programmes that lead to vocational *matura* (two general and two vocational – theoretical and practical – exams, partly external). These programmes consist of 40% general subjects and at least eight weeks of in-company work-based learning;
- vocational upper secondary programmes (ISCED 353): for the three-year labour-market-oriented programmes there are two paths:
 - school-based path: approximately 20% (at least 24 weeks) of the programme is undertaken at an employer and the rest at the school (consisting of general subjects and VET modules);
 - apprenticeship path: a minimum 50% of the programme is undertaken at an employer, while at least 40% – general subjects and VET modules – is delivered in school. Changing paths midway is possible. After final exams, students from both school and apprenticeship paths can enter the labour market or enrol in two-year vocational technical education programmes at ISCED 354 that lead to vocational *matura*;
- short vocational upper secondary programmes (ISCED 353): two-year programmes that qualify learners for less demanding occupations (at assistant level) or continuing education in vocational programmes.

In the school year 2019/20, 35% of students enrolled in general upper secondary programmes and 65% in upper secondary VET programmes: 41.8% in technical programmes, 16.8% in vocational programmes, 1.5% in short VET programmes and 4.9% in vocational-technical education.

Graduates with a vocational *matura* can enrol in two-year higher vocational programmes (ISCED 554) or First-cycle professional education (ISCED 655) and, under special conditions, also in First-cycle academic education (ISCED 645).

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 pro-

cesses. In 2019/20, 14% 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 such programmes is not covered by legislation. Many activities to support adult education are organised by adult education centres.

The recognition of non-formal and informal learning is possible within the national vocational qualifications (NVQ) system that has been in place since 2000. In 2020, an NVQ certificate can be obtained for approximately 172 qualifications. Candidates must prepare a personal portfolio and take part in a validation procedure.

Distinctive features of VET

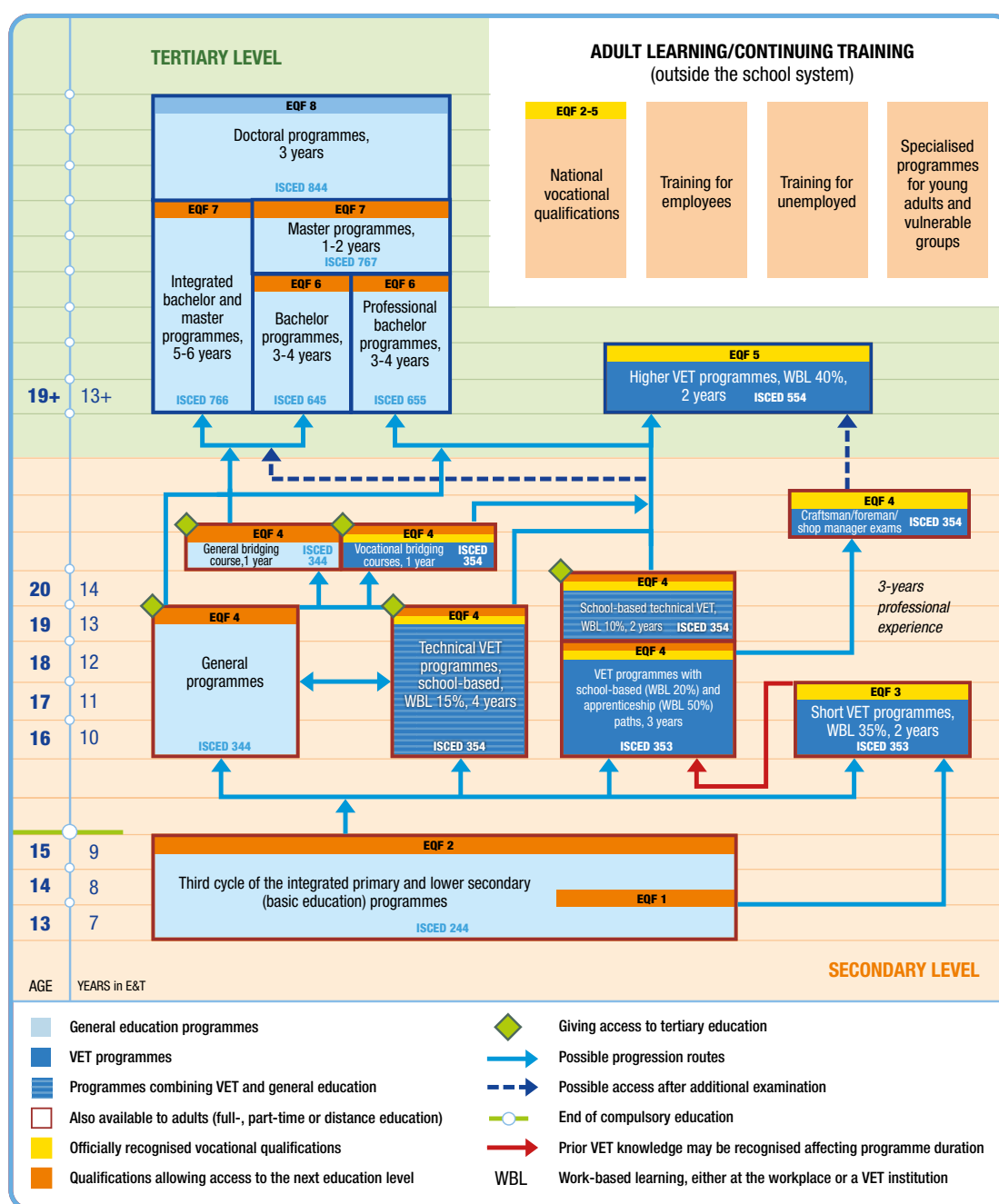
VET in Slovenia is characterised by the following main features:

- occupational standards form the basis for competence-based VET programmes and for the NVQ;
- vocational and technical programmes are offered in all professional fields, all VET programmes combine general subjects with vocational 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 programme. Students are trained in modern inter-company training centres and companies, in selected vocational programmes, as well as in apprenticeship form;
- upper secondary school autonomy: framework curricula are set on a national level, while VET schools are responsible for design curricula. They adapt 20% of the curricula (open curricula) to the local company's needs.

Slovenia has one of the lowest rates of early leavers from education and training in the EU. In 2019 the percentage of NEETS aged 18-24 with a maximum of primary education was less than 5%. The reasons are the traditionally high value of education in society, availability of State scholarships, progression opportunities, and a well-developed guidance system in schools provided by the school counsellors 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 quality of WBL and competence-based assessment remain a challenge.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Slovenia, 2020.

Development of career guidance services and promoting more flexible and individualised paths are current priorities.

With the adoption of the new Apprenticeship Act in 2017, implementation of the apprenticeship path in 12 vocational programmes (ISCED 353) has started. Along with companies and schools, chambers have a significant role in assessing suitability of training places, approving apprenticeship agreements and monitoring companies. Companies are financially supported to train apprentices. CPI has carried out four evaluations of the apprenticeship system as a basis for further development. The new training programme for in-company mentors is in preparation.

Development of accredited CVET programmes for upskilling specific vocational competences is another response to labour

market needs. It offers training to SME employees to develop their competences and acquire new or in-depth specialisation. The first programmes have been prepared.

In an effort to create quality jobs and full employment, the labour ministry is preparing a competence forecasting platform project. This will build on and improve the current short-term competence forecasts methods and tools – the Occupational barometer and the Employment forecast – and provide medium-term (3 to 5) and long-term (up to 10 years) predictions.

VET in Spain



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

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

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

Initial VET offers upper secondary (basic and intermediate) and higher VET qualifications as part of the education system. Programmes last two years (2 000 hours) and 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, to learners aged 15 or 16. They allow students at risk of leaving education without qualifications to develop their basic skills, prepare for an occupation (such as agro-gardening) and obtain a basic VET qualification. Students may move on to upper secondary VET and, in some cases, also attain the compulsory secondary qualification opening up the general education path;
- intermediate programmes can begin at age 16, after compulsory education. These lead to technician qualifications at ISCED 354 (such as cookery and gastronomy). Access to higher VET in the same field of study is possible, via an admission procedure;
- at tertiary level, higher programmes (ISCED 554) lead to an advanced technician qualification (such as logistics coordinator). Graduates can progress to bachelor programmes through an admission procedure.

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

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

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

Adults can enrol in the same VET programmes as young people. Those older than 16 can also attend VET programmes leading to a professional certificate corresponding to an occupational profile. Programmes are delivered by authorised VET providers and may include an apprenticeship contract. No access requirements apply for entering level 1 professional certificate programmes (ISCED 254) and learners can move on to the next level in the same field. Level 2 (ISCED 351) and level 3 (ISCED 453) programmes are also accessible to those having completed, respectively, compulsory and upper secondary, or

equivalent, level studies. Duration varies according to the learning outcomes at each level (from 180 to 1 110 hours); access to the next level is possible in limited professional fields. All three levels comprise a compulsory on-the-job training module, of variable duration.

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

Non-formal VET includes a wide range of courses, designed for different needs and skill profiles, allowing upskilling or re-skilling. It may be financed through public funds (mainly from company and worker contributions to social security). Publicly funded programmes (specialties) not linked to the national register (CNCP) are included in a catalogue of training specialties of the State Public Employment Service and providers have to be registered as such.

Distinctive features of VET

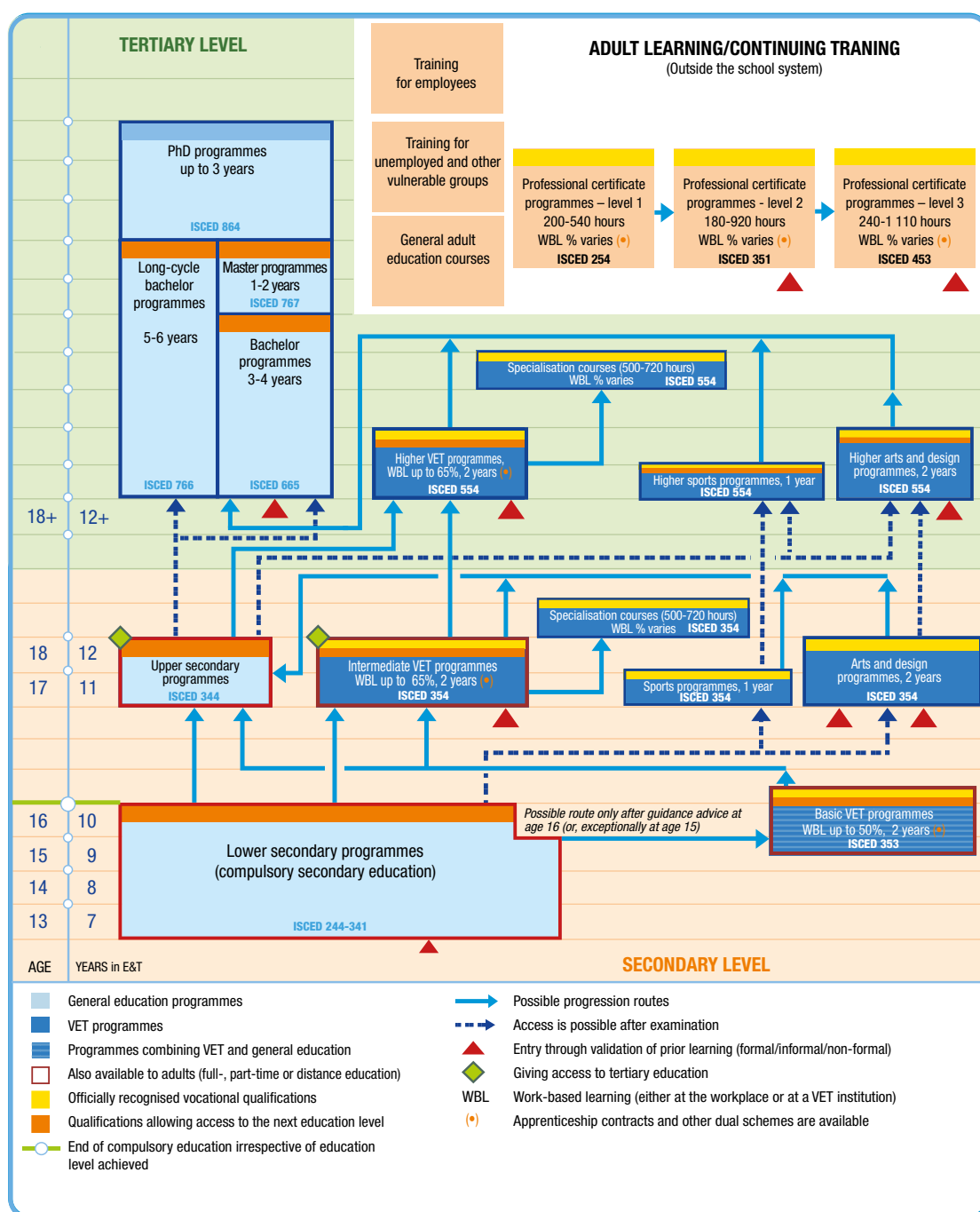
The national system for qualifications and vocational training is the umbrella for VET programmes in and out the education system, leading to qualifications awarded by the education authorities. VET and professional certificate programmes take as reference the occupational standards of the national catalogue (*Catálogo Nacional de Cualificaciones Profesionales*, CNCP), allowing mutual recognition of some parts of the training (modules).

VET programmes are modularised, allowing partial certification and re-engagement from a lifelong learning perspective, and include compulsory workplace learning at the end of, or during, studies. Learners need to pass all modules to obtain the relevant qualification. VET programmes using online or virtual learning environments and platforms are increasing to ease access to VET.

Adults may have their skills recognised or acquire a formal qualification through training. There are common regulations for validating skills acquired through non-formal and informal learning and work experience. These procedures empower citizens to engage in further learning and acquire full qualifications. Regional authorities can initiate public calls for validation of non-formal and informal learning depending on company needs, social partner requests or minimum qualification requirements from sectoral regulatory bodies. Key competences tests have been developed for higher VET programmes and professional certificate access.

Challenges and policy responses

Vocational Training is at the core of policy measures in the education, labour and economic spheres. The strategic Plan for the modernisation of vocational training, presented in 2020, aims to improve VET standards and make VET more attractive to young people by introducing flexible learning paths in secondary ed-



NB: ISCED-P 2011. The Spanish education system is not referenced to EQF levels.

Source: Cedefop and ReferNet Spain, 2020.

education and VET programmes and upgrading and developing new programmes to meet the demands of the future of work.

The reform of vocational training for employment within the labour sphere (2015) aimed to increase continuing VET quality and improve management of public funds. It gave rise to ensuring the accreditation of VET providers offering training leading to formal qualifications and the implementation of the register of training specialties, introducing better monitoring of training outcomes and fostering transition to employment. Social part-

ners and regional authorities are involved in continuous quality assurance of VET.

Current VET policy focuses on the modernisation and continuous updating of vocational training to ensure learning opportunities for the entire population through a unified, flexible, and easily accessible VET system; improving qualification levels and employability; driving innovation and entrepreneurship in VET; enhancing dual VET; and assessing the VET system to improve its quality and efficiency.

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 one to three years.

Upper secondary VET programmes are three-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 one- or two-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 2019, 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.

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 level. 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.

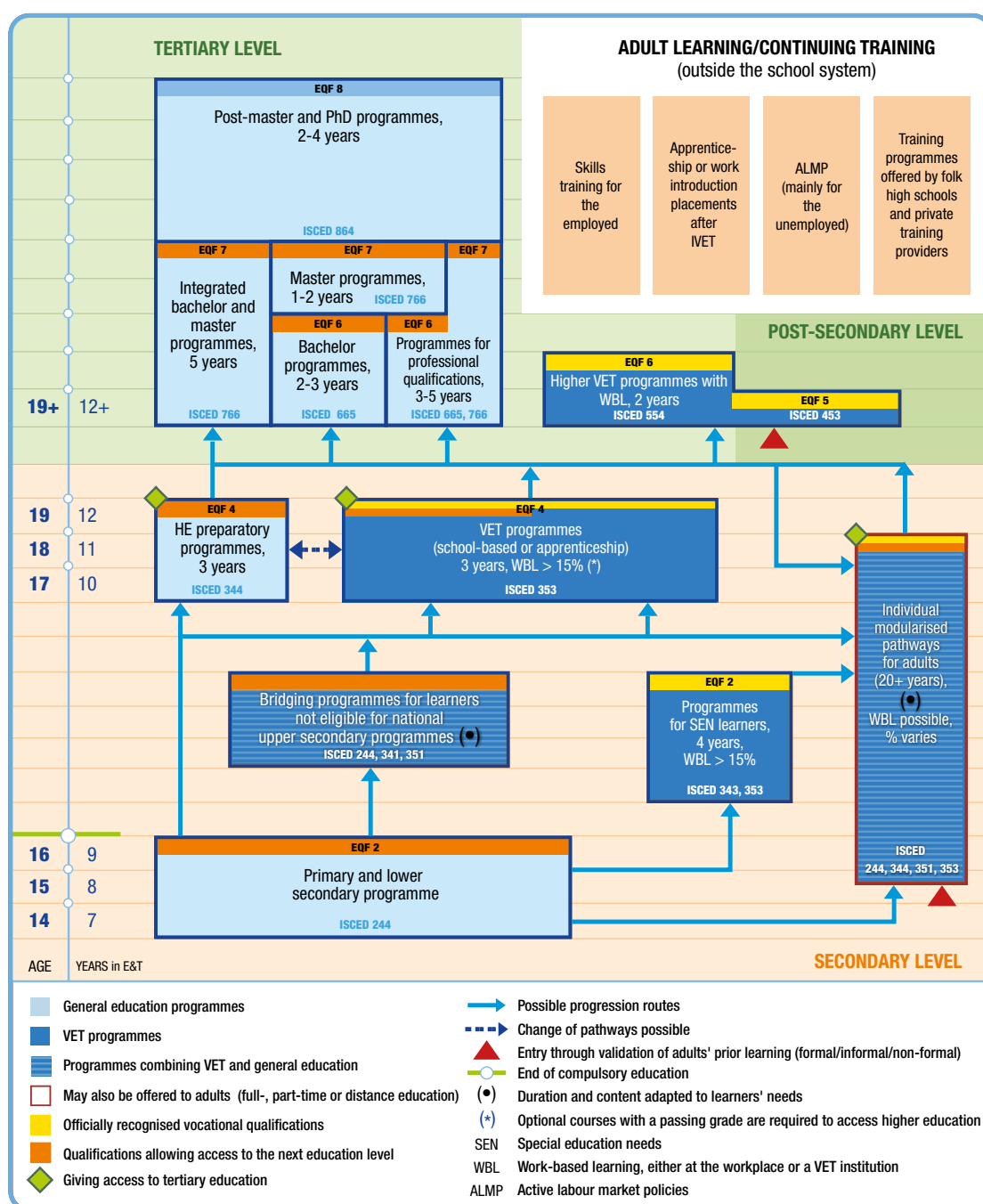
Strong social partner involvement

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 student choice have increased competition among them, leading to inflated costs and risks of skill mismatch. Proposals have been made to assign an authority for planning and dimensioning of upper secondary education provision to the regions, to secure the skills supply, demanded on the regional and national labour market, streamline the use of resources and improve access to a comprehensive and wide range of high-quality education.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Sweden, 2020.

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. In consequence, many new VET pathways were introduced allowing for partial qualifications. To reduce the time from arrival to first job entry, the government has started consultations 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.

ReferNet

Cedefop's European network of expertise on VET

Austria

ibw – Institut für Bildungsforschung der Wirtschaft
öibf – Österreichisches Institut für Berufsbildungsforschung
www.refernet.at

Belgium

IBFFP – Institut Bruxellois Francophone pour la Formation Professionnelle (Bruxelles Formation)
www.refernet.be

Bulgaria

НАΠОО – Национална агенция за професионално образование и Обучение
www.refernet.bg

Croatia

ASOO – Agencija za strukovno obrazovanje i obrazovanje odraslih
www.refernet.hr

Cyprus

ΑνΑΔ – Αρχή Ανάπτυξης Ανθρώπινου Δυναμικού Κύπρου
www.refernet.org.cy

Czechia

NÚV – Národní ústav pro vzdělávání
NVF – Národní vzdělávací fond
www.refernet.cz

Denmark

Professionshøjskolen Metropol
www.kp.dk/nationalt-center-for-erhvervspaedagogik/refernet/

Estonia

HTM – Haridus- ja Teadusministeerium
www.hm.ee/et/refernet

Finland

OPH – Opetushallitus/Utbildningsstyrelsen
www.oph.fi/tietopalvelut/kansainvalinen_koulutustieto/cedefop/refernet

France

Centre Inffo – Centre pour le développement de l'information sur la formation permanente
www.centre-info.fr/refernet

Germany

BIBB – Bundesinstitut für Berufsbildung
www.refernet.de

Greece

ΕΟΠΠΕΠ – Εθνικός Οργανισμός Πιστοποίησης Προσόντων & Επαγγελματικού Προσανατολισμού
<https://refernet.eoppep.gr/>

Hungary

NSZFH – Nemzeti Szakképzési és Felnőttképzési Hivatal
<http://site.nive.hu/refernet/index.php/hu/>

Iceland

Menntamálastofnun – The Directorate of Education
www.refernet.is

Ireland

SOLAS – An tSeirbhís Oideachais Leanúnaigh agus Scileanna
www.solas.ie/refernet

Italy

INAPP – Istituto Nazionale per l'Analisi delle Politiche Pubbliche
<https://inapp.org/it/refernet>

Latvia

AIC – Akadēmiskās informācijas centrs
<https://refernet.gov.lv/?lang=en>

Lithuania

KPMPC – Kvalifikacijų ir profesinio mokymo plėtros centras
www.kpmc.lt/refernet

Luxembourg

INFPC – Institut national pour le développement de la formation professionnelle continue
www.refernet.lu

Malta

Ministry for Education and Employment
<http://education.gov.mt/en/refernet/Pages/main-page.aspx>

Netherlands

ECBO – Expertisecentrum Beroepsonderwijs
www.refernet.nl

Norway

Diku – Direktoratet for internasjonalisering og kvalitetsutvikling i høyere utdanning
<https://diku.no/ressurser-og-verktoey/refernet>

Poland

IBE – Instytut Badań Edukacyjnych
www.refernet.ibe.edu.pl

Portugal

DGERT – Direcção-Geral do Emprego e das Relações de Trabalho
www.refernet.pt

Romania

CNDIPT – Centrul Național de Dezvoltare a Învățământului Profesional și Tehnic
www.refernet.ro

Slovakia

ŠIOV – Štátneho inštitútu odborného vzdelávania
www.refernet.sk

Slovenia

CPI – Center RS za poklicno izobraževanje
www.refernet.si

Spain

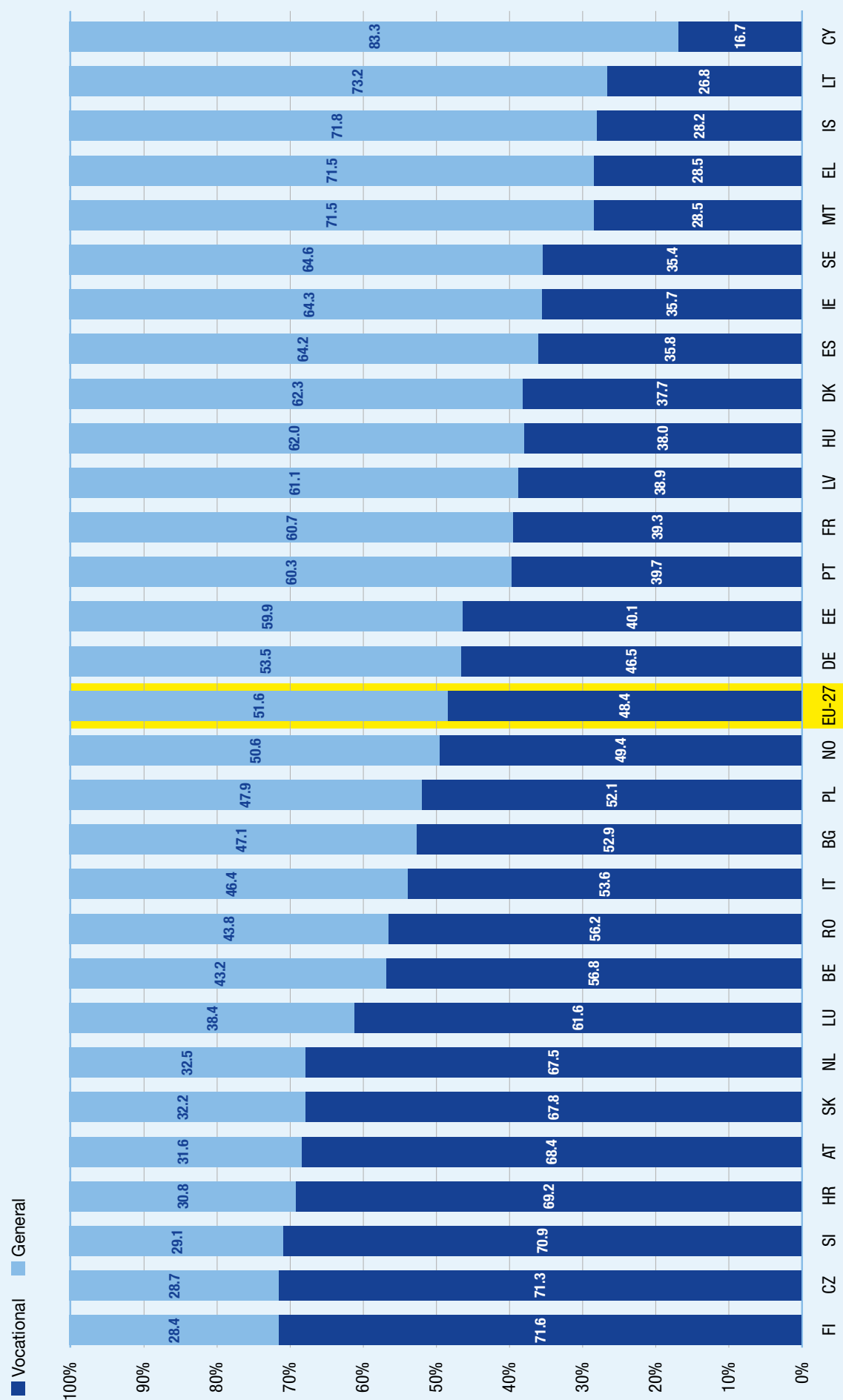
Fundae – Fundación Estatal para la Formación en el Empleo
<https://www.refernet.es/>

Sweden

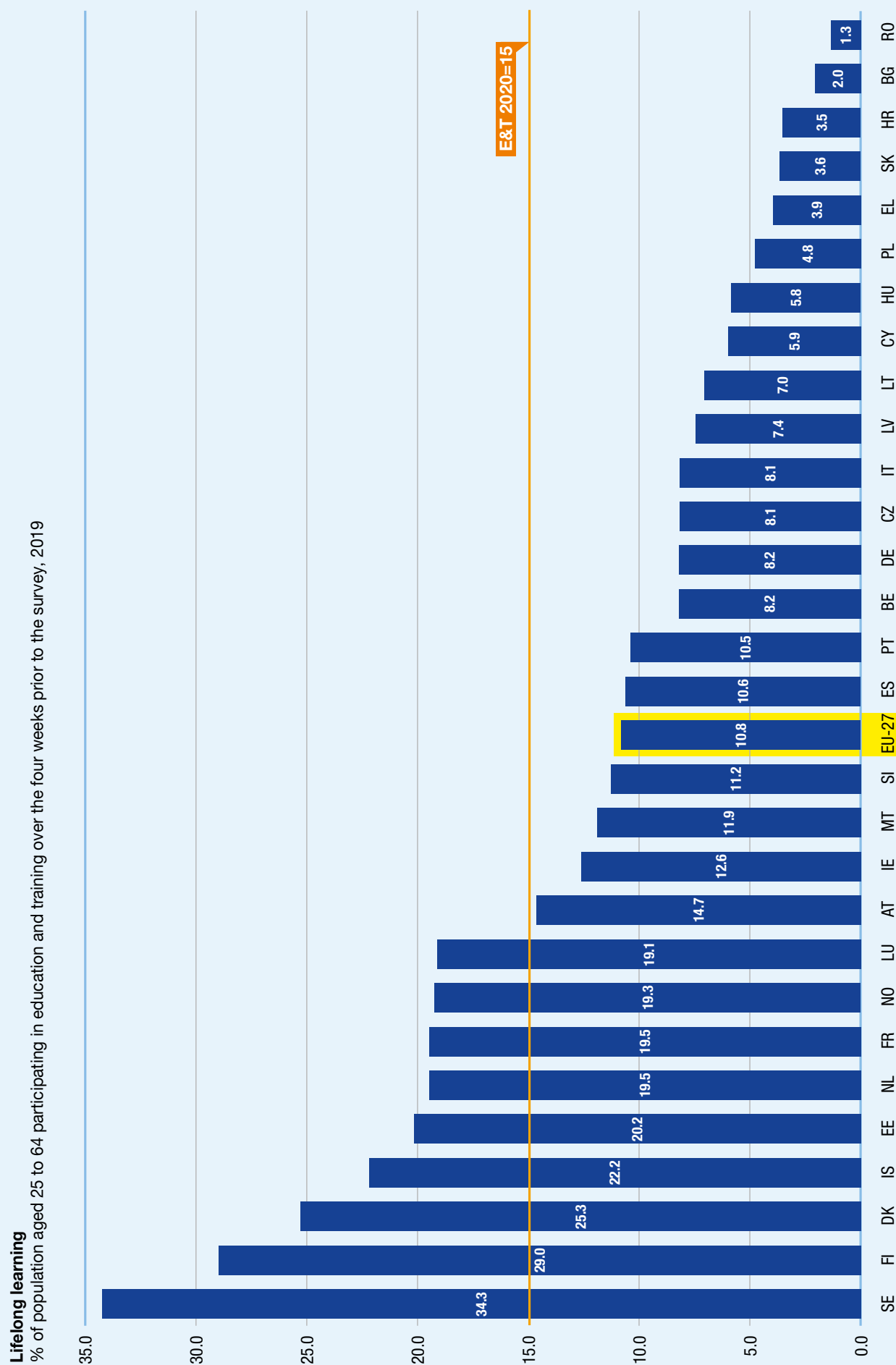
SKOLVERKET – Statens Skolverk
www.skolverket.se/refernet

Education and training in figures

Upper secondary students (ISCED 2011 level 3) enrolled in vocational and general programmes
% of all students in upper secondary education, 2018



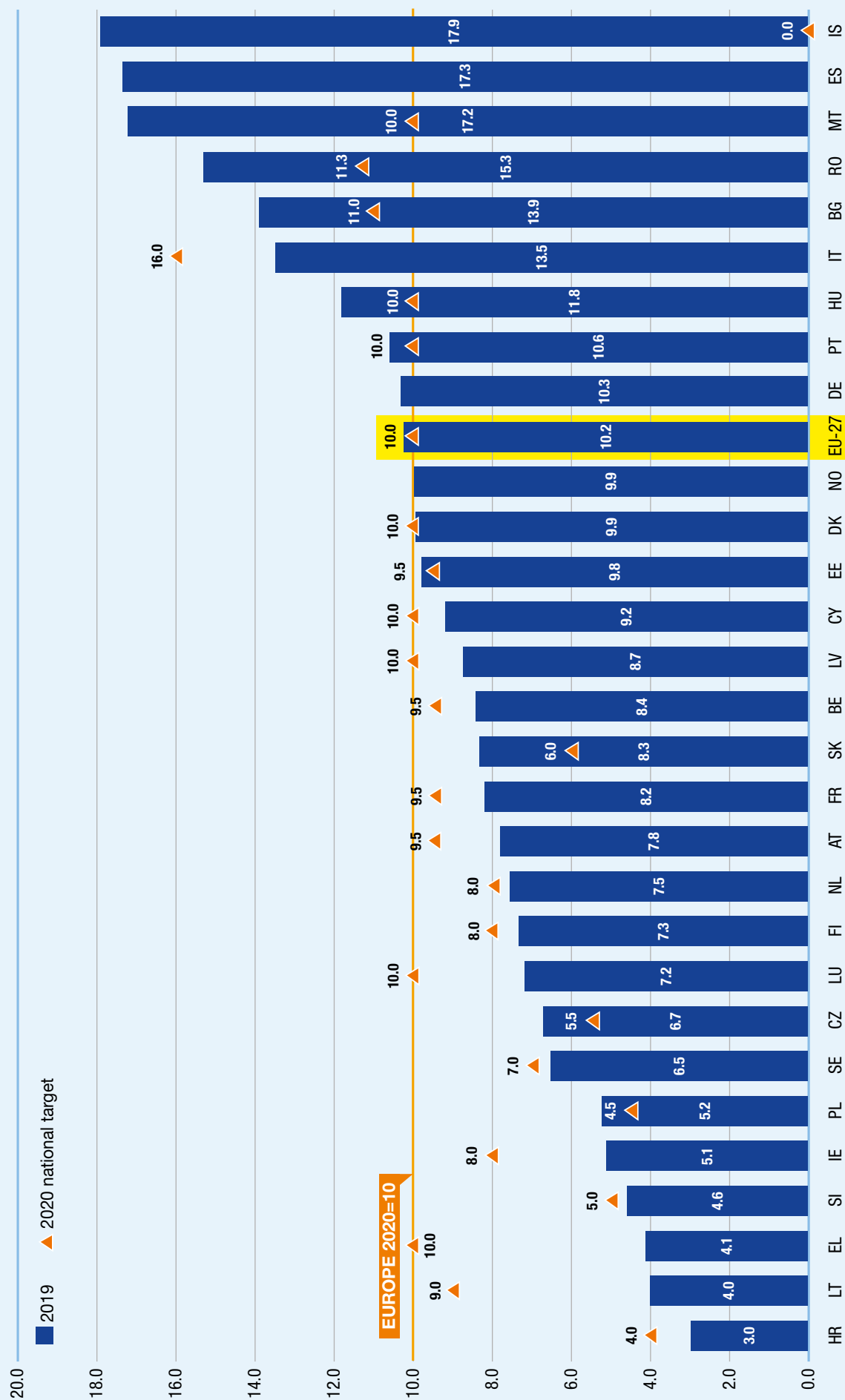
NB: EU-27 value is based on Cedefop calculations. AT: for five-year VET (BHS) the value only covers enrolment in the first three years, as the last two are assigned to ISCED 5. IE: while there are programmes with a vocational dimension in Ireland at ISCED level 3, these are considered general programmes. Source: Cedefop calculations, based on Eurostat, UOE data collection on education systems. Date of extraction 12.2.2021.



Source: Eurostat, EU labour force survey. Date of extraction 12.2.2021.

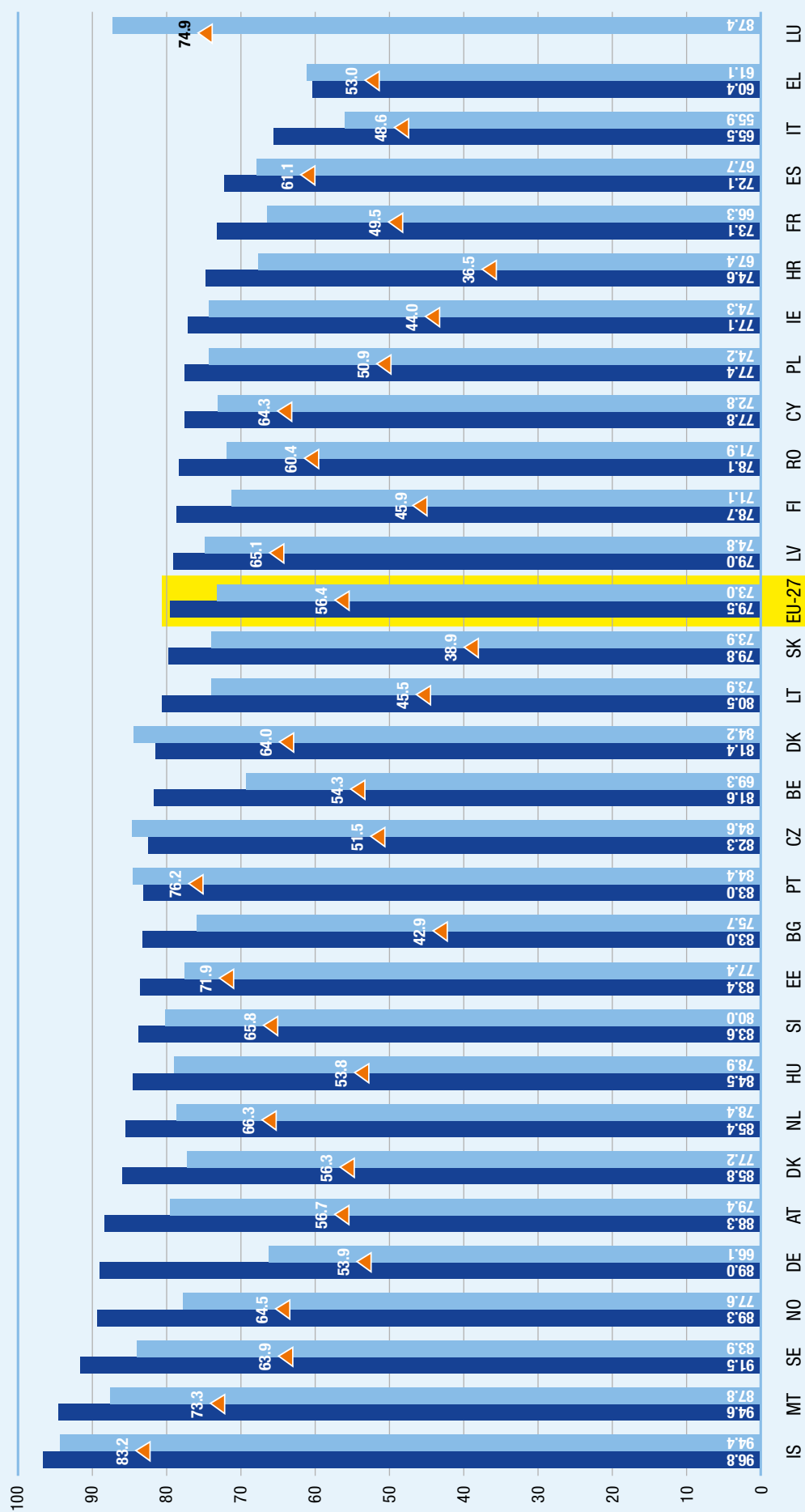
Early leavers from education and training

% of the population aged 18 to 24 with lower secondary education at most, and who were not in further education or training during the last four weeks prior to the survey, 2019



NB: 2020 national target values were not available for IS and NO. Low reliability of data for Croatia.
Source: Eurostat, EU labour force survey. Date of extraction 12.2.2021.

Employment rates of young vet graduates
% of 20 to 34 year-olds no longer in education and training, 2019



■ Upper vocational secondary and post-secondary non-tertiary education (levels 3 and 4)
■ Upper general secondary and post-secondary non-tertiary education (levels 3 and 4)
▲ Less than primary, primary and lower secondary education (levels 0-2)

NB: Break in time series for NL values. IS: upper secondary and post-secondary non-tertiary education (levels 3 and 4) – vocational value was not available.
Source: Eurostat, EU labour force survey. Date of extraction 12.2.2021.

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