



# Spotlight on VET

**2018 compilation**

Vocational education  
and training systems  
in Europe





# Spotlight on VET

## 2018 compilation

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**The European Centre for the Development  
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# Foreword

Concise, clear and concrete pictures of countries' vocational education and training systems: this is what the Cedefop Spotlight on VET series offers. Building on individual country Spotlights, this publication brings together the main features and data of VET in the EU, Iceland and Norway.

In a rapidly changing world, equal access to lifelong quality skill development for all and the best educational outcomes are essential to EU citizens, its economy and social fabric. Comprehensive lifelong skills strategies need to be underpinned by easier access to VET and more flexible routes to qualifications for all. This is one of the current priority areas for joint work on excellent and inclusive VET.

Besides its long-standing reporting, analysing and monitoring activities to support countries' joint work on VET, Cedefop increasingly aids and organises policy learning.

While countries share goals and challenges, their VET systems are diverse, shaped by socioeconomic contexts and traditions. Information on VET's main features, its role and status, are a prerequisite to understanding developments and learning from another country. Purpose and target group determine the type and extent of information required. With its different reporting formats, studies, interactive databases and toolkits for specific VET features and VET-related policies in Member States, Cedefop serves various information needs, purposes and stakeholders.

Like the previous edition published in 2015, this compilation addresses all those who need a quick overview of essential features of VET in Europe. Clarifying the place of VET in countries' overall education and training systems, it presents 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. The approach and terminology used for the systems charts and descriptions aim for a balance between national and international readers' understanding and for some comparisons between systems. This overview confirms trends that Cedefop identified in its policy monitoring: work-based learning has been strengthened, notably in form of apprenticeships; formal VET is opening up to different age groups to allow people to progress and upgrade their qualifications.

We believe that this publication will be a useful starting point for work by 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 and beyond Europe.

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The country sections were prepared by: Silke Gadjji, Dmitrijs Kulss, Jelena Letica, Vicky Oraiopoulou, Iraklis Pliakis, and Aristos Theocharous, members of Cedefop's VET policies and systems team coordinated by George Kostakis.

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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 opt for a VET path at the end of compulsory education. The last year (year 9) of compulsory education and the first of upper secondary education coincide. School-based VET and apprenticeships (dual track training) coexist. They cover nearly all economic sectors and lead to different qualification levels (either EQF 4 or 5). 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 pre-VET and VET options in different occupations/sectors:

- different types of one- or two-year pre-VET (PTS, ISCED 341; BMS, ISCED 351): learners acquire general education, key competences and basic vocational skills preparing them for further school-based VET, apprenticeships and simple jobs on the labour market;
- three- to four-year school-based VET (BMS, ISCED 354, EQF 4): learners strengthen their general education and acquire the respective occupational competences and qualifications to perform medium-level jobs. Those who complete an add-on programme or take the *Berufsreifeprüfung* (exam for people whose initial VET does not automatically qualify them for entry into higher education) also obtain general access to higher education studies;
- five-year school-based VET (BHS, ISCED 354-554, EQF 5): combining theory and practice, these programmes 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*);

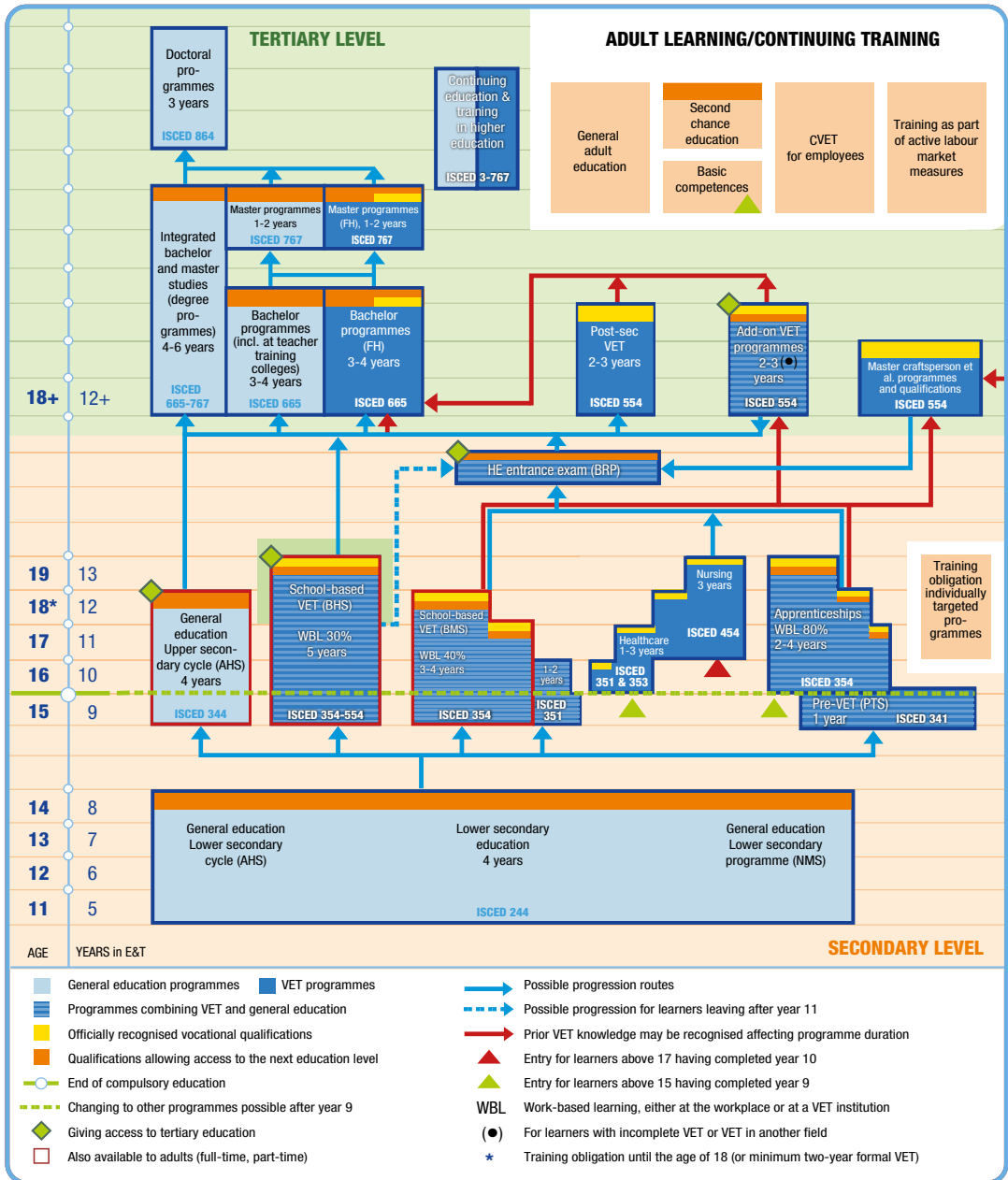
- apprenticeships (dual track training) (ISCED 354, EQF 4) in some 200 occupations for learners from age 15 onwards, after compulsory education. They lead to qualifications at medium level. Graduates can progress to qualify, for instance, as master craftsperson or, following additional exams, access tertiary level training in a related field. By completing the *Berufsreifeprüfung* or an add-on programme they can also obtain general access to higher education;
- training for occupations in the health sector: access to programmes preparing for care and medical assistant professions (ISCED 351 and 353) and other occupations in the health sector (ISCED 351) requires completed compulsory education, being of minimum age, and/or a specific qualification. Training to become a specialist and general care nurse (ISCED 454) is being upgraded to bachelor level. This process will be completed by 2023.

## Tertiary level

Universities of applied sciences (FH) provide practice-oriented bachelor (EQF 6) and master programmes (EQF 7) in different fields. Several of these include a mandatory work placement. Many are open to, or cater for, people in employment. Some are based on the dual principle, where theory and practice in enterprises alternate. University studies are generally pre-professional; some, such as medicine, law or engineering/technology, have a strong vocational focus. Initial training for primary and secondary school teachers is a joint responsibility of universities and teacher education colleges.

## 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.



NB: Simplified. ISCED-P 2011.

Source: Cedefop and ReferNet Austria.

## 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 Communities). 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. This, as defined in the 2017 national reform programme, aims to reduce early leaving from education and training, increase lifelong learning participation, increase access to and value of qualifications, and reduce inequalities within each Region. 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 6 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 as full-time secondary education): general education and VET. The latter comprises:

- technical school-based programmes that lead both 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. They 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.

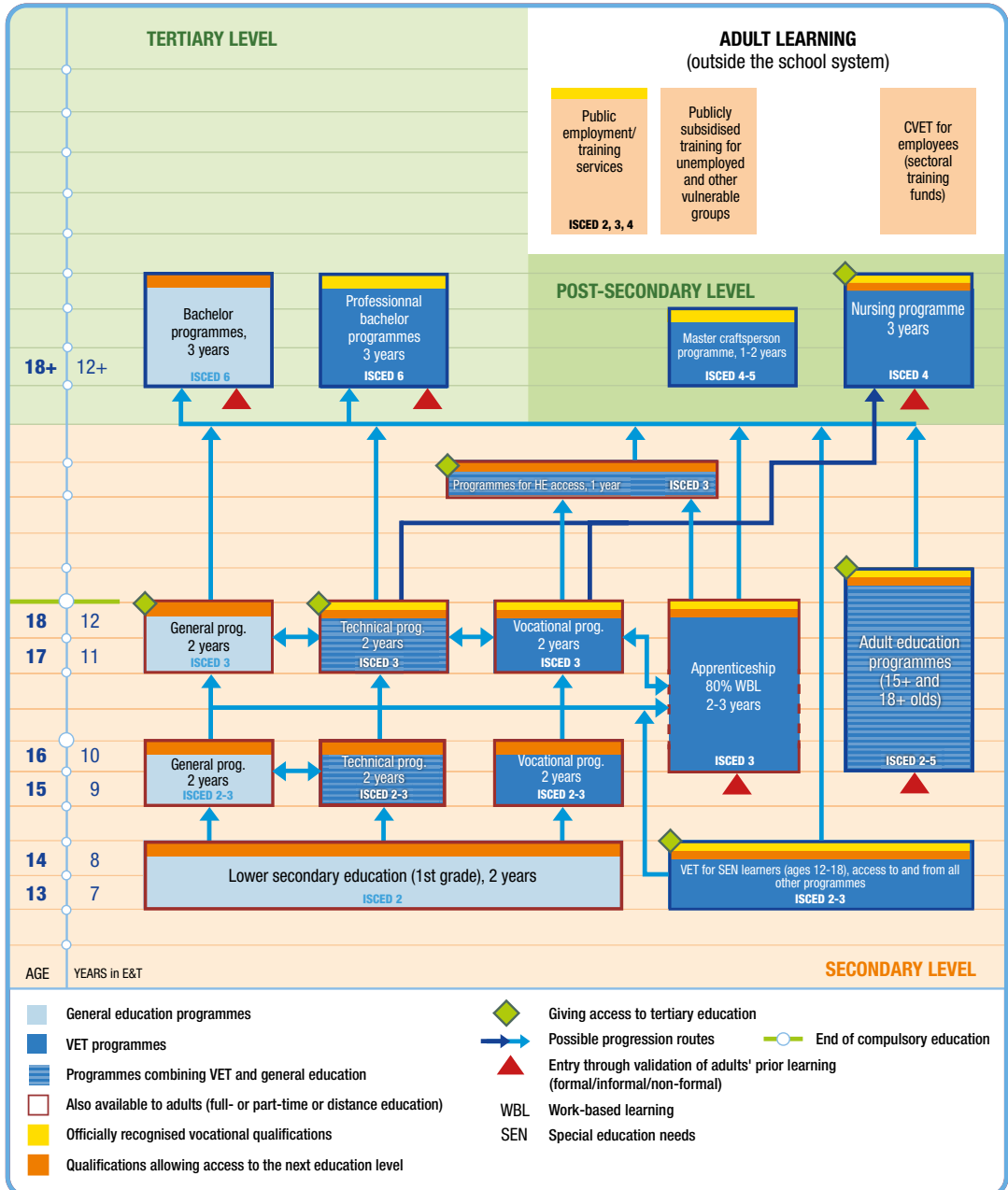
Graduates with a certain level of professional experience can follow a one- to two-year master craftsman programme at post-secondary level, which qualifies them to become self-employed professionals and train apprentices themselves.

Apprenticeship programmes are very popular, socially highly recognised, and supported by many stakeholders.

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 but 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 get trained in specific subject areas such as language learning. Such training mainly targets job-seekers 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 and ReferNet Belgium.

## 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 Communities). 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. The Belgian 2017 national reform programme defines common goals: reducing early leaving from education and training, increasing lifelong learning participation, increasing access to and value of qualifications, and reducing inequalities within each Region. 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 6 to 18. Formal upper secondary education starts at age 14, lasts four years and is offered in two branches, general education and VET. The latter comprises:

- technical school-based programmes (nationally referred as full-time education), 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. These can be delivered as school-based programmes (also referred as full-time education). After successful completion of an additional year (follow-up vocational programme), an upper secondary education diploma is awarded;
- from age 15 onwards VET programmes can also be delivered as programmes combining company and school-based learning (referred to as part-time education or apprenticeship-type programmes). The latter are organised by schools and are based on a contract with the company involved. Another apprenticeship scheme is organised by the regional SYNTRA training centres. In these apprenticeship programmes, learners follow general and technical courses at school or at a SYNTRA training centre (one or two days per week).

The other days (three or four days), they do 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 25 years old.

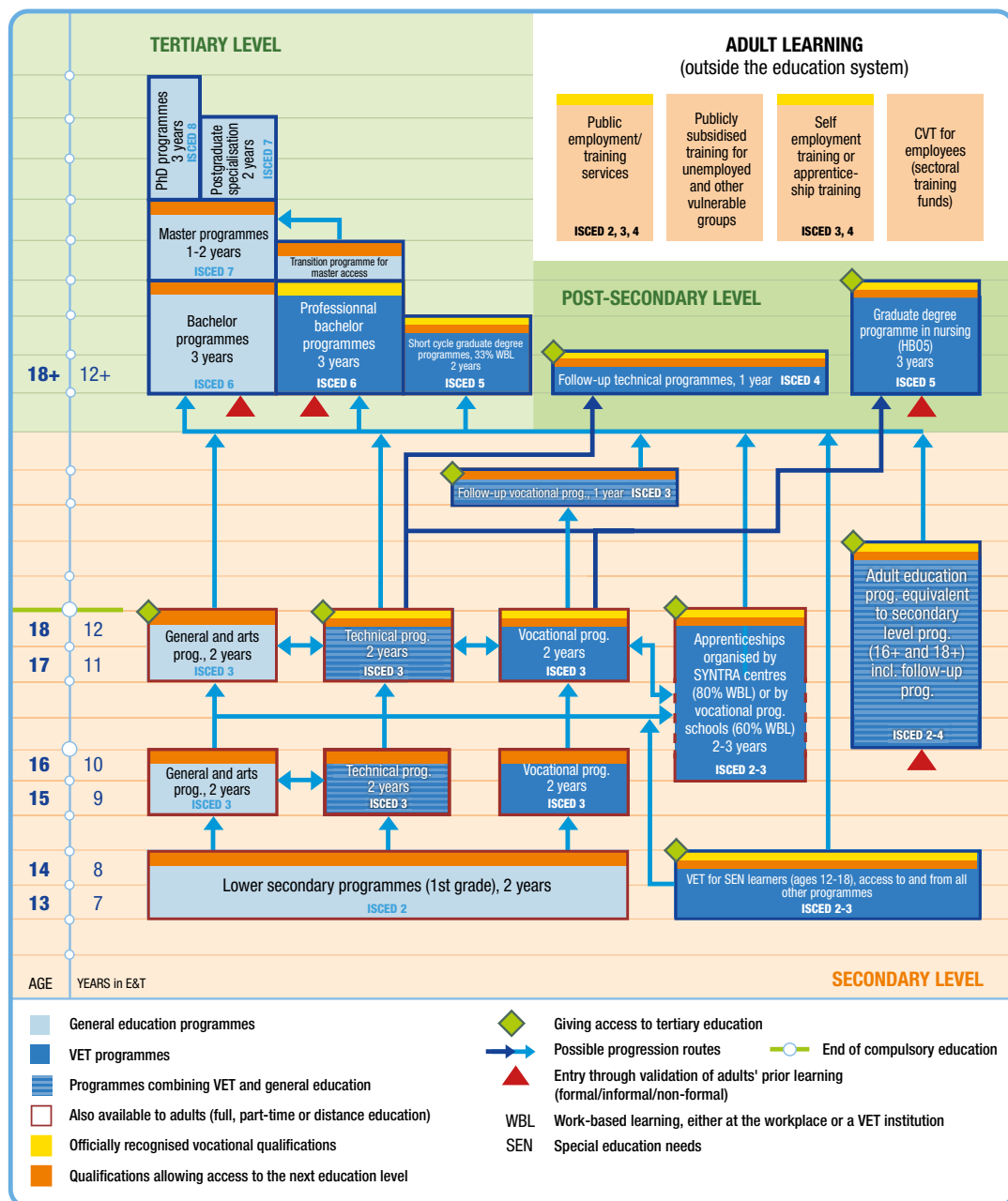
A new apprenticeship pathway called 'dual learning' has been formally adopted and will be fully implemented in Flanders from September 2019. It will replace the two current apprenticeship schemes and encompass selected professional fields which are now covered in technical and vocational upper secondary education programmes.

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, such as the training centres of SYNTRA, which also offer 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 programme 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 job-seekers, employees and entrepreneurs. It 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 who also organise some training in cooperation 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 and ReferNet Belgium.

## 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 Communities). 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 6 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 (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 and can upgrade their VET qualification by following one-year technical follow-up programmes (called seventh year) at post-secondary level;
- vocational qualification programmes are more practice-based and aim at direct employment. They lead to a VET qualification such as electrician/industrial installer. Graduates can follow one-year post-secondary programmes (called seventh year), providing 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 to learners aged 15 to 25. These programmes follow the alternance 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 alternance 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.

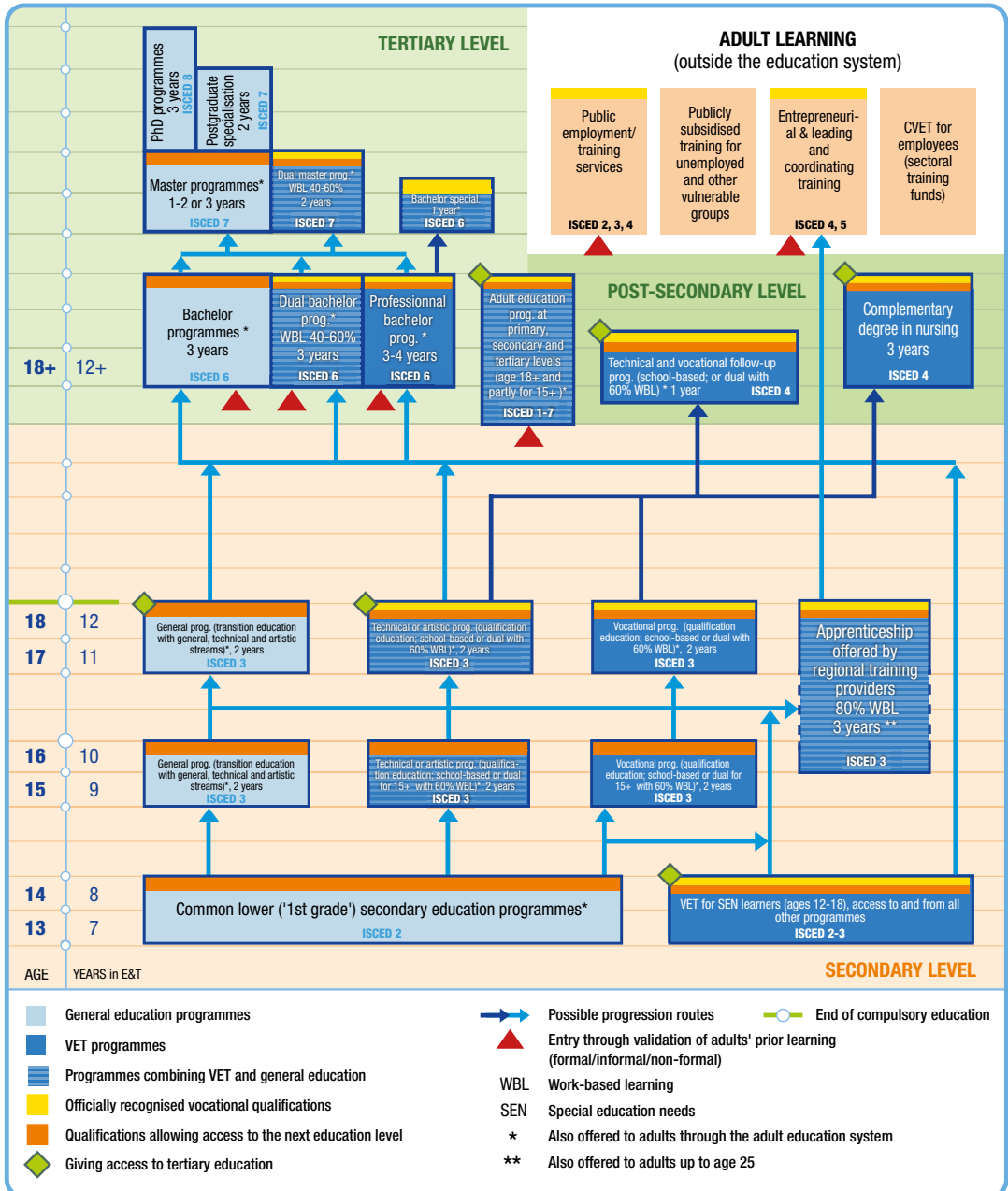
Regional public employment and/or vocational training services organise vocational training for the unemployed and employees. This leads to partial or full qualifications, or relates to specific subject areas, such as language learning. The public services are:

- 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 job-seekers 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 and ReferNet Belgium.

## 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.

The Pre-school and School Education Act (2015) and amendments to the VET Act (2016) rearranged the VET school network and increased the share of work-based learning in VET. It also introduced a more flexible two-stage secondary education.

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.

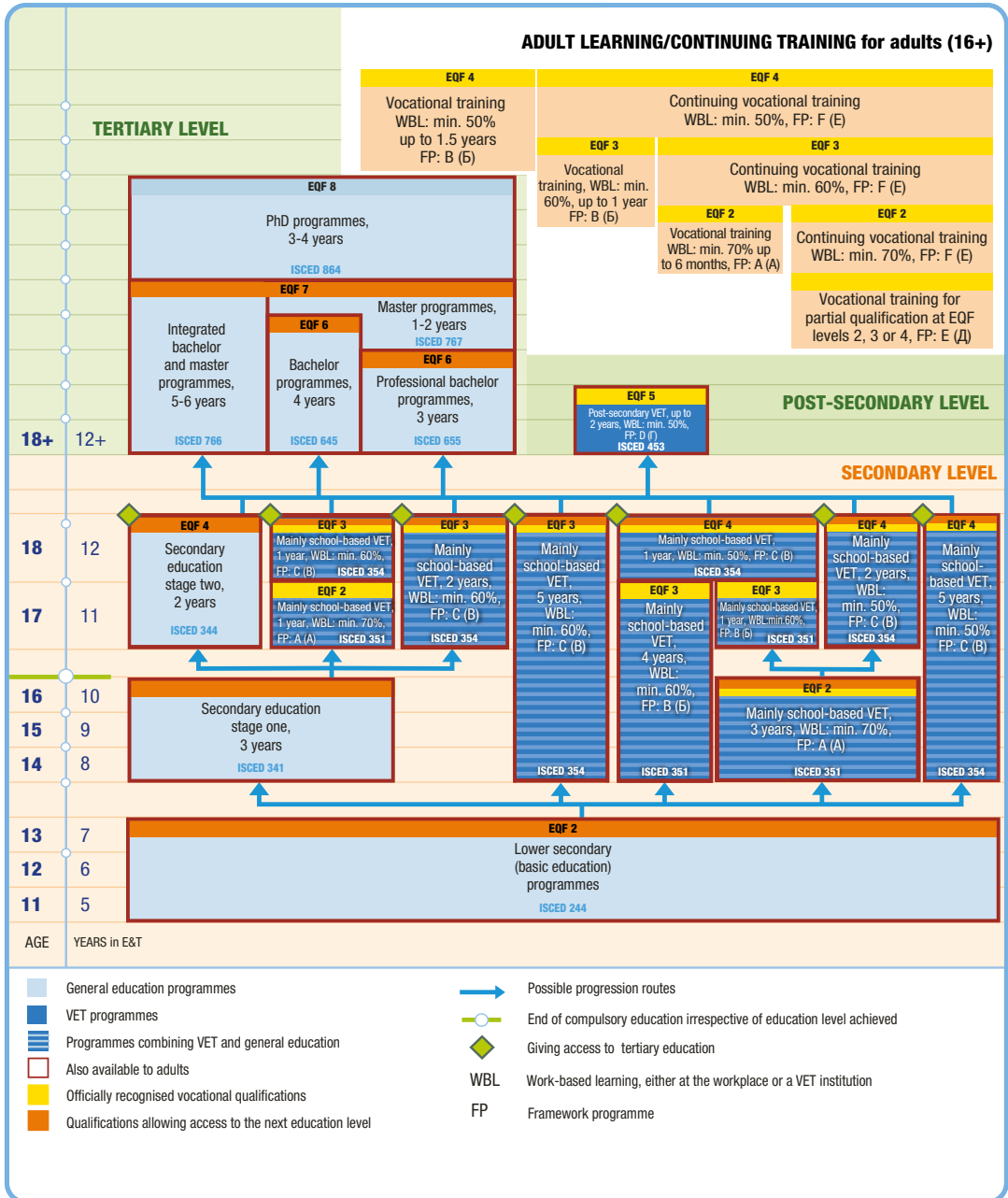
The main VET providers are the State, municipal or private schools, vocational gymnasiums, art and sports schools, VET colleges, and licensed vocational training centres. State education standards specify the content of VET qualifications. Four national VET qualification levels are referenced to the 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 educational form, content and duration.

- A (A): ‘second chance’ IVET programmes lead to EQF level 2 qualifications at schools and training centres. For school-age learners they last one or three years; for adults up to six months.
- 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 and they give access to higher education, provided learners have passed final matriculation exams.

- D (Γ): 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 (Δ): 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 qualifications already acquired. The programmes are provided by schools and training centres and duration is defined by training providers.

Work-based learning forms a substantial part (50% to 70% or more) of all VET programmes. Most is offered by schools, with the share of work-based learning decreasing with programme level. Since 2014, dual VET has started to evolve. 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. While legislation encourages dual VET, its implementation is still mostly project-based.

Social partners have decision-making and advisory roles in shaping VET through the economic and social council, as well as other national councils. Employers are actively involved in designing and updating State education standards, a process coordinated by the National Agency for VET. Representatives from employers’ organisations and trade unions are members of examination boards set up by VET providers.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Bulgaria.

## VET in Croatia

Vocational education and training (VET) plays a prominent role in Croatia. Overall responsibility for VET 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 sector skills councils and in the VET Council, which proposes measures for the development of VET in Croatia. A network of regional competence centres is foreseen in the near future; they will serve as centres of excellence in VET, offering work-based learning, professional guidance and continuous professional development and training for professionals, VET teachers and in-company mentors.

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 among different VET programmes.

VET is provided at upper secondary, post-secondary and tertiary levels. Learners start VET on completion of compulsory education at age 14 or 15.

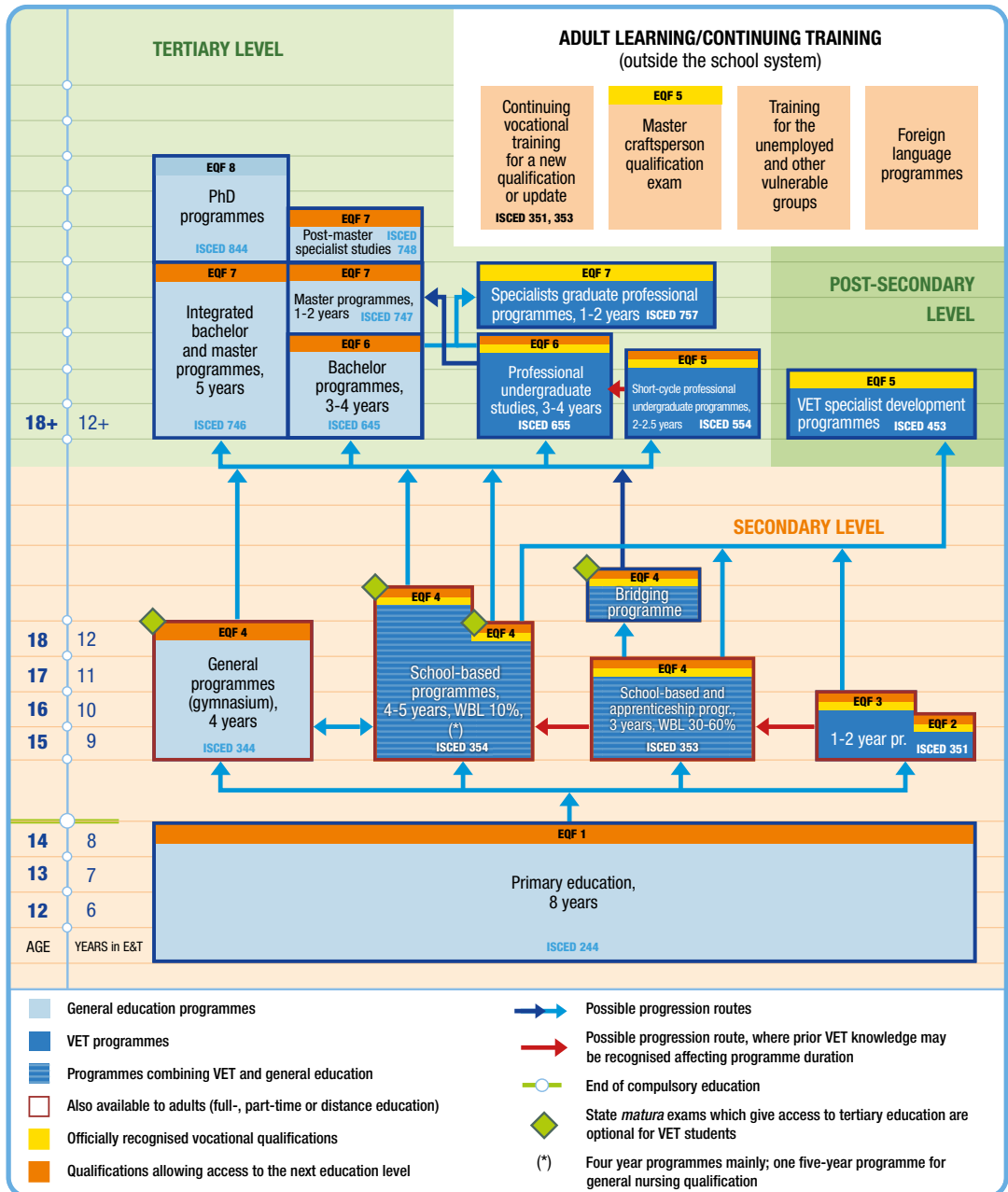
At upper secondary level, about 70% of learners participate in IVET. Around two thirds of VET learners are in four-year school-based programmes, with one third in three-year programmes. The four-year, mostly school-based VET programmes, with a WBL share of around 10%, lead to qualifications at CROQF level 4.2/ EQF level 4 and allow progression to tertiary education, after completing external *matura* exams, administered by the National Centre for External Evaluation of Education (NCVVO). In the 2016/17 school year, 84% of four-year VET graduates took *matura* exams and 63% enrolled in higher education. The three-year VET programmes give access to the labour market and lead to qualifications at CROQF level 4.1/ EQF level 4; they have a significant share of work-based learning, ranging from 30% for programmes for industrial occupations to 60% for programmes for crafts, which includes apprenticeship. On completion of the three-year programme for crafts, graduates take the journeyman exam. They can also enter an optional one- to two-year bridge programme corresponding to the fourth year. If successful, they can take *matura* exams to qualify for higher education access.

Only a small number of learners take part in one- to two-year VET programmes. These programmes lead to VET qualifications without completing upper secondary education. Graduates can progress further only at the discretion of their schools.

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

At tertiary level, VET is offered in different forms. 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 equally continue their studies in university programmes subject to successful completion of additional exams and other requirements established by individual higher education institutions. 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 (for people over 16) covers a broad range of options, mainly in the form of short (re)training programmes, which range from basic or technical skills courses to complete formal secondary education and training. If adult education providers want to issue formal certificates at secondary education level, the education ministry has to approve their programmes. Tax deductions are available to employers, partially covering adult education and training costs. Measures for modernising VET and increasing participation in adult education and lifelong learning are strongly supported through European Structural and Investment funds.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Croatia.

## VET in Cyprus

Having played a significant role in recovering from the 2012-15 economic crisis, the vocational education and training (VET) system of Cyprus has been further developed, introducing new programmes of studies and upgrading existing ones, to respond better to the needs of the labour market.

The Ministry of Education and Culture 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 students in 2015/16) are offered by lyceums, including evening lyceums; VET programmes (16.7% of students in 2015/16) are offered by technical schools, including evening technical schools. Horizontal and vertical movement across upper secondary education is possible, provided students succeed in specific examinations.

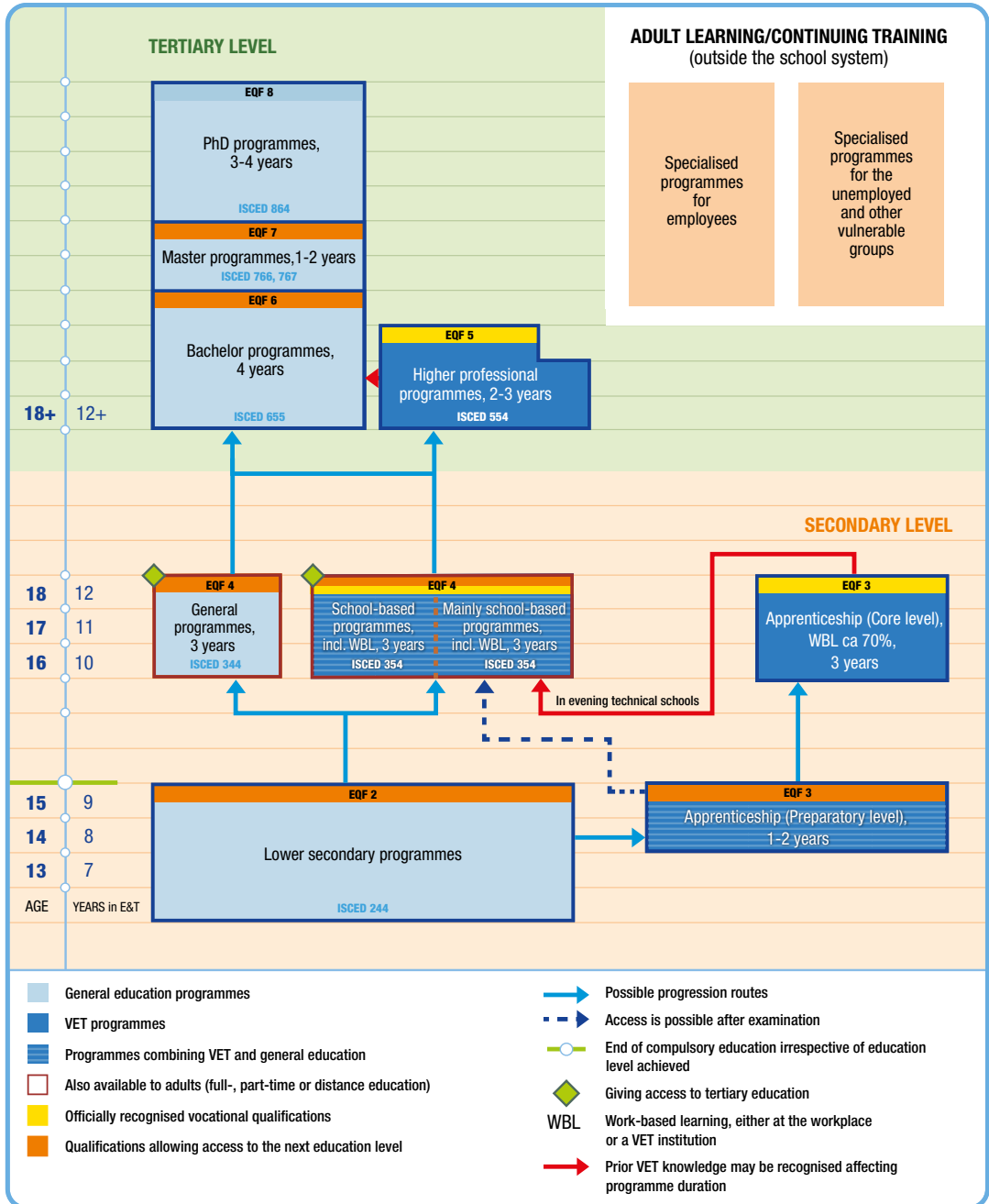
Technical schools offer two types of three-year programme, theoretical and practical, leading to EQF 4 school-leaving certificates, equivalent to those of secondary general education schools. Students select their specialisation in the first year. Graduates are eligible for admission to universities 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 learners 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 students. Young people aged between 14 and 16, who have not completed lower secondary programmes, may participate. After completing the preparatory apprenticeship, students 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 four. 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 acquisition.

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.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Cyprus.

# VET in the Czech Republic

Vocational education and training (VET) has always represented a fundamental part of the Czech education system. Benefiting from a long tradition of quality, it has developed intensively over recent decades.

The main body responsible for IVET is the Ministry of Education, Youth and Sports. Most VET schools are public and founded by regions. IVET is school-based, with a large proportion of practical training (at schools, in workshops, practical training centres and companies) and/or work placements.

Representatives of employers are involved in sector skill councils and field groups that set occupational and qualification standards.

## Upper secondary VET

VET predominantly begins following completion of compulsory education, usually at age 15. Practical IVET programmes (EQF 2-3) are a small part of secondary VET, as they are designed primarily for students with special needs. Upper secondary level vocational and technical programmes (EQF 3-4) last three to four years. The following options exist:

- three-year vocational 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 (such as bricklayer, hairdresser). Graduates of these programmes can follow a two-year follow-up programme (EQF 4) and pass a matura examination, which enables access to higher education;
- four-year technical programmes (completed with a matura examination, EQF 4) enable graduates to continue learning in higher education or perform mid-level technical, business, service, health and other similar jobs (such as civil engineering technician, travel agent);
- lyceum programmes with a high proportion of general education (up to 70% of the curricula) prepare their graduates for studies at higher education institutions;
- programmes offered by conservatories have a different setup, preparing for performance in demanding music, dance, singing and drama activities. Studies are either completed with a matura (secondary education, EQF 4) or an absolutorium (tertiary professional education, EQF 6).

- learners who have already completed upper secondary education have an option to acquire a (second) qualification in another field in so-called shortened programmes. Those with a matura (EQF 4) can acquire a VET certificate or another matura 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 especially suitable for adults and last one to two years.

## VET at tertiary level

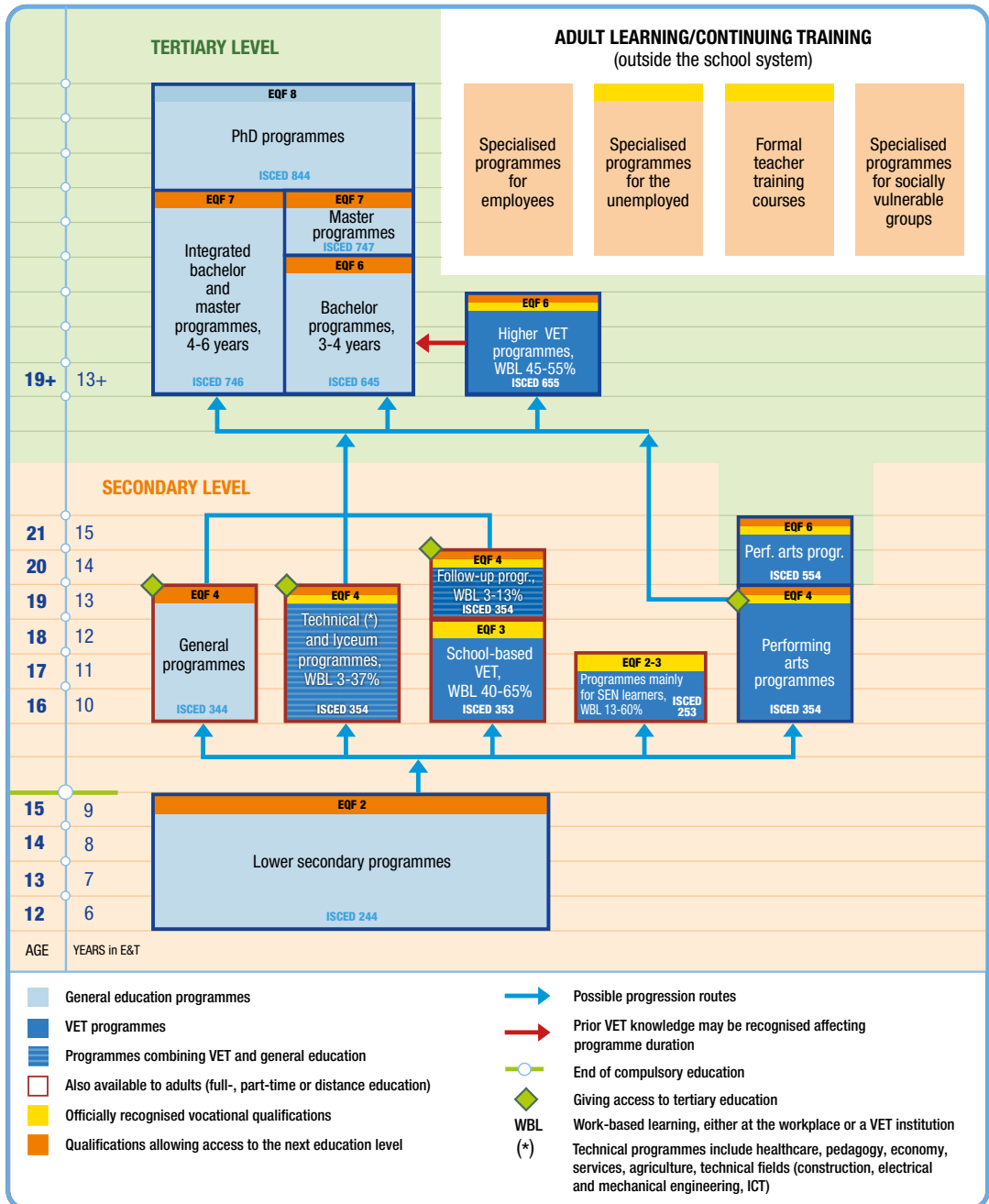
Tertiary professional programmes prepare secondary school graduates (with a matura certificate) for demanding professional tasks (such as nutritionist, dental assistant). Studies last three to three-and-a-half years and are completed with an absolutorium (EQF 6). These programmes provide practically 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, on completion of their studies, continue in bachelor programmes at universities, may have some of their subjects and exams from tertiary professional school recognised.

## Adult learning

Any adult can study any VET programme in the formal school system. Many programmes are designed to be combined with working life. Validation of non-formal and informal learning outcomes is possible.





NB: ISCED-P 2011.

Source: Cedefop and ReferNet Czech Republic.

## 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. An inclusive and flexible initial VET system helps ensure that all young people have the opportunity to acquire competences to aid smooth transition to the labour market. Adult education and continuing training respond to structural and technological changes in the labour market and provide the workforce with new and updated skills.

Danish education and training features a mainstream system providing qualifications at all levels, from compulsory schooling to doctoral degrees, and a parallel adult education and continuing vocational training (CVT) system. Adult education and CVT are designed to meet the needs of adult learners, for example through part-time courses. The two systems offer equivalent qualifications at various levels, enabling horizontal permeability.

VET jurisdiction is with the Ministry of Education, which maintains close dialogue with social partners to respond to labour market needs. Initial VET 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;

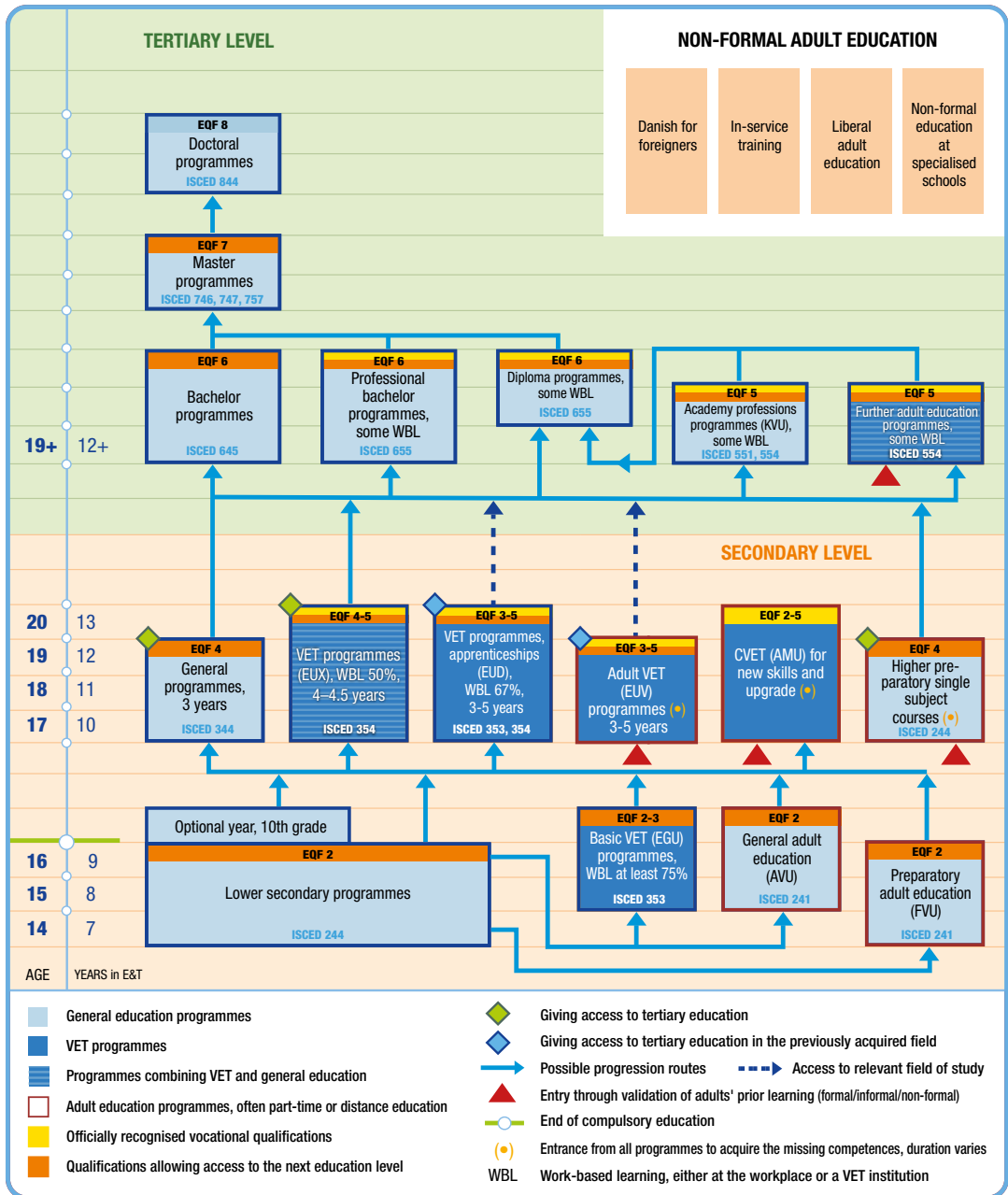
- ‘new apprenticeship’<sup>(1)</sup> (*Ny Mesterlære*) programmes, where the entire training takes place at a company instead of partly at a VET college. Students with a practical approach to learning benefit from these programmes;
- combined post-compulsory education for people aged 15 to 24 who do not possess the necessary vocational, personal or social skills to complete a VET programme;
- basic VET (EGU) 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 become 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 (*arbejdsmarkedsuddannelser*, AMU) provides participants with skills and competences relevant to the labour market and is primarily geared to specific sectors and jobs. The programmes help learners either deepen their existing knowledge in a particular field or develop new knowledge in related fields. AMU programmes (around 3 000) last one week on average and 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.

(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.

## 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, capable of adapting to changes in the labour market. Professional standards in the eight-level Estonian qualifications framework are all outcomes-based and are the basis for VET curricula. Social partners are involved in VET policy development and implementation, helping respond to labour market needs. They participate in national professional councils and are involved in drafting VET-related legislation, including curricula. At school 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. The VET infrastructure has recently been upgraded.

VET institutions offer both initial and continuing programmes. Initial VET is offered at the second, third, fourth and fifth levels of the Estonian qualifications framework (and the European qualifications framework, EQF). Learners can choose between full-time studies (autonomous learning is less than one half of the study volume) and those where the emphasis is on self-study and contact hours are fewer (referred to as 'non-stationary' studies in the national context). Full-time studies are available as school-based tracks, with up to 70% work-based learning, and as apprenticeship. Financial assistance is available for VET learners to guarantee equal access to education regardless of their socioeconomic circumstances.

There are no minimum admission requirements at second and third levels but learners must be at least 17 years old to enrol. Curricula are designed to meet labour market needs in elementary occupations. Entry to fourth level studies usually requires completed basic education but there are exceptions <sup>(2)</sup> for those over 22 without basic education. Programmes at this level give learners the skills needed to perform more complicated jobs.

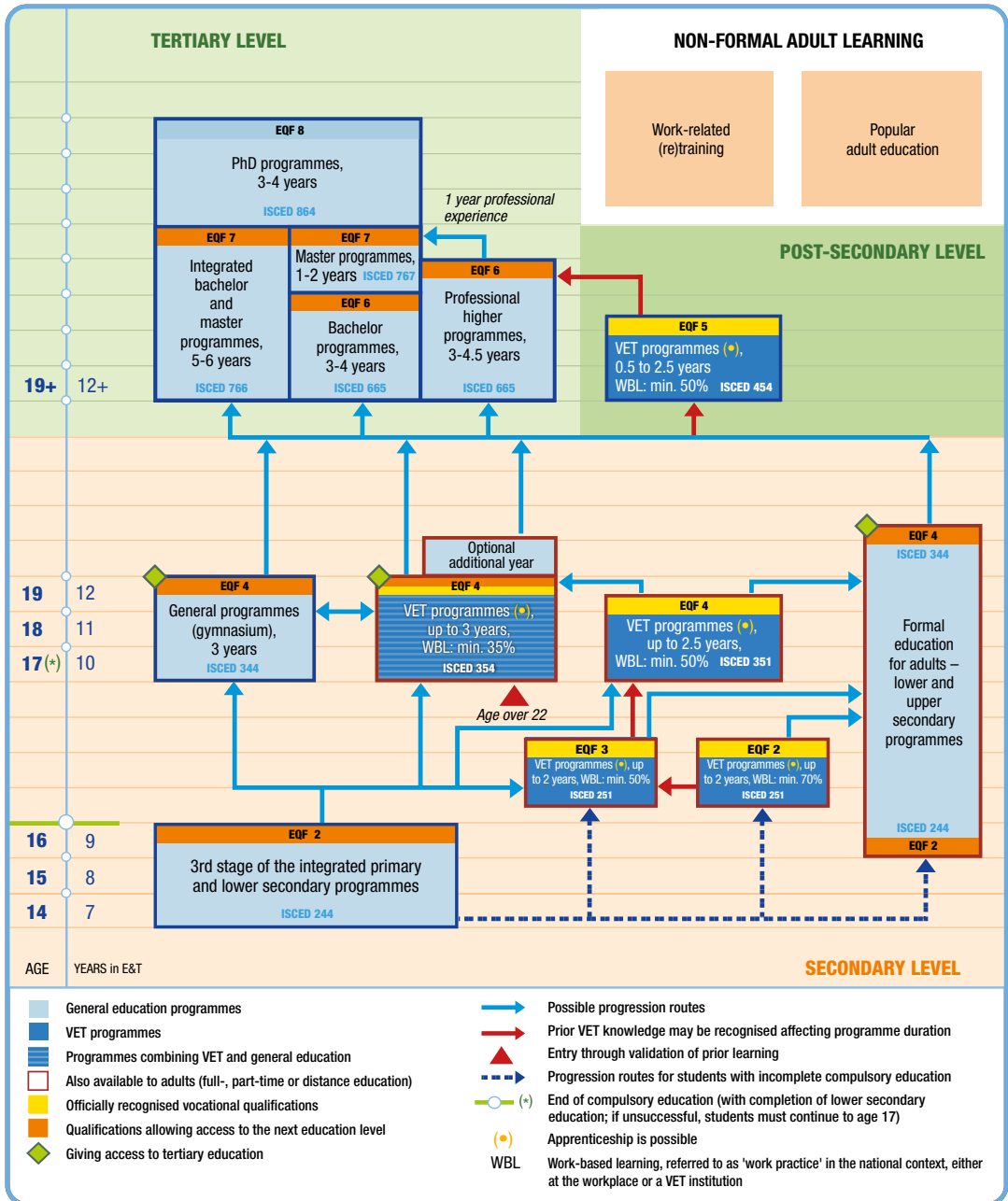
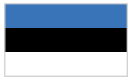
It is possible to follow vocational programmes at ISCED levels 351 and 354, the latter referred to as upper secondary vocational education. The qualification achieved in vocational secondary education gives graduates access to higher education, provided they meet entry requirements. This may require learners to pass State examinations that are compulsory for general upper secondary education graduates: an optional additional year of general education is available for vocational secondary education graduates (ISCED 354) to help prepare. 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, 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 both general and vocational secondary education, as well as graduates of post-secondary VET.

Non-formal continuing VET is part of adult learning regulated by the Adult Education Act. Its forms, duration and content vary. Learners or employers usually cover the costs, though ESF-financed adult courses are free for learners. Participation in these is approximately 50% higher. Training can be provided by VET institutions appointed via public procurement.

<sup>(2)</sup> For ISCED 354 programmes.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Estonia.

## VET in Germany

Vocational education and training (VET) in Germany is based on 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 and steering role for all training occupations in cooperation with the respective ministries. The BMBF also works closely with the Federal Institute for Vocational Education and Training (BIBB), which conducts research and advises the Federal Government and VET providers. The *Länder* (federal states) are responsible for school-based parts of VET and have VET committees with employer and employee representatives.

The apprenticeship programme (dual system) at upper secondary level (EQF level 4) is the main pillar of VET and also attracts upper secondary graduates: more than one in four apprentices had achieved a higher education entrance qualification before enrolling in apprenticeship. Programmes usually last three years and combine two learning venues, companies and vocational schools (work-based learning share approximately 75%). There are no basic access requirements for participating in the dual VET programme, but an apprenticeship contract must be concluded between learner and company. Enterprises bear the costs of company-based training and pay learners a wage. Those successfully completing training are qualified to be employed as skilled workers. Progression is possible through various VET programmes offered at post-secondary and tertiary level.

Parallel to the apprenticeships are school-based VET programmes at upper secondary level (EQF level 2 to 4), which differ in terms of access, length, types and levels of qualification they lead to. These include:

- programmes at full-time vocational schools (*Berufsfachschule*, duration one to three years depending on the type and level of qualification), leading, for example, to a qualification as nurse or childcare worker. The minimum entrance requirement is the lower secondary general school certificate (*Hauptschulabschluss*);
- general upper secondary programmes with a vocational component, which usually lead to the general higher education entrance qualification (*Berufliches Gymnasium/Fachgymnasium*, duration two to three years). Entrance requirement

is the intermediate level certificate (*mittlerer Schulabschluss*).

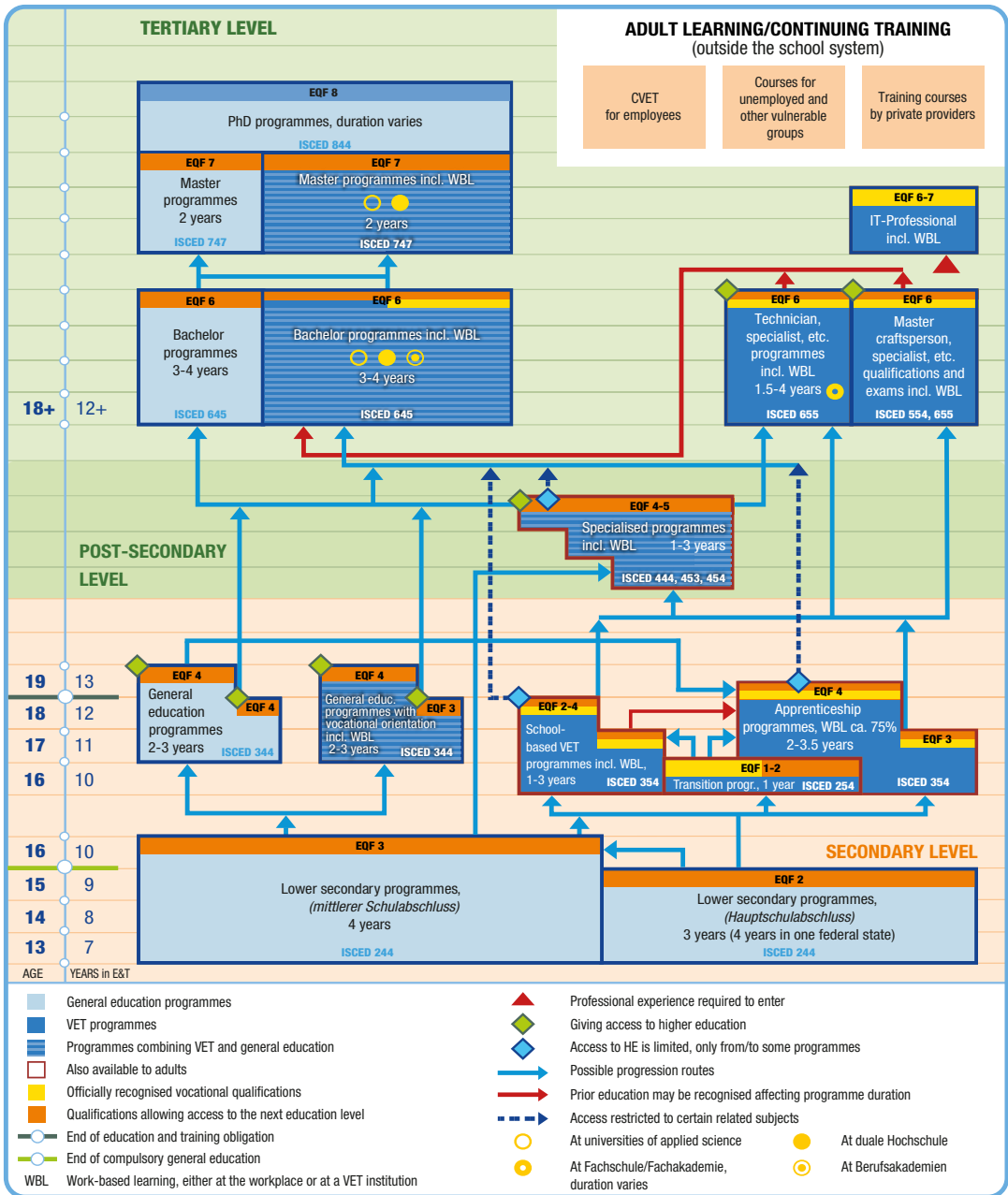
Young people with social disadvantages, learning difficulties or handicap, or insufficient German language skills (migrants) have the possibility to qualify further through different transition programmes: the pre-vocational training (secondary school leaving certificate can be acquired) or basic vocational training year.

At post-secondary level, specialised programmes (*Berufsoberschulen* and *Fachoberschulen*) build on the intermediate school leaving certificate (*mittlerer Schulabschluss*) or initial VET and impart deeper occupational knowledge. They last one to three years and lead to entrance qualifications for universities of applied sciences or universities.

At tertiary level, vocationally qualified applicants can access advanced vocational training (AVT) leading to qualifications at EQF level 6, including master craftsperson, technician, and specialist (*Meister, Techniker, Fachwirt*). AVT confers the right to exercise a trade independently, to hire and train apprentices and to enrol in subject-related bachelor programmes. It also facilitates the acquisition of middle management qualifications in companies. AVT is a major factor contributing to the attractiveness of the VET pathway. Courses to prepare for these AVT qualifications are offered by chambers or schools (*Fachoberschulen*, master craftsperson schools). Access to the respective assessment generally requires several years of practice in the related occupation.

Practice-oriented learning is also an important element of higher education (EQF levels 6 to 7). Dual study programmes provide a blend of vocational and academic training, offered by universities of applied sciences (bachelor programmes) and other higher education institutions (*Berufsakademien, duale Hochschule*). Some of them lead to double qualifications (vocational qualification and bachelor or master degree). Enterprises bear the costs of company-based training and pay learners a wage based on a contract.

Continuing training is playing an increasingly important role in improving employability. It is characterised by a wide variety of training providers and a low degree of State regulation.



NB: ISCED-P 2011. This is a simplified chart, based on the unified approach used for the spotlights on VET in all EU-28 countries plus Iceland and Norway.

Source: Cedefop and ReferNet Germany.

## VET in Greece

Vocational education and training (VET) is State-regulated and, until recently, was mostly offered through a school-based approach. Overall responsibility is with the education ministry in cooperation with the labour ministry where appropriate.

Compulsory schooling lasts until age 15 and completion of lower secondary education programmes (*Gymnasio*). VET is offered at upper secondary and post-secondary level. A 2018 law foresees that universities can create VET centres (KEE).

There are two main routes at upper secondary level: general education (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 (WBL). According to the 2016 reform, these programmes consist of:

- year one: common for all learners (general education);
- year two: learners choose among nine sectors;
- year three: specialisation year.

EPAL graduates can take part in a designated national examination for admission to tertiary education programmes. They have at least a 20% quota for technological bachelor and higher professional programmes. A 2018 law provides for an increase to 5% admission quota to bachelor programmes, reinforcing VET permeability.

EPAL programmes are also offered at evening classes to 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 three formats:

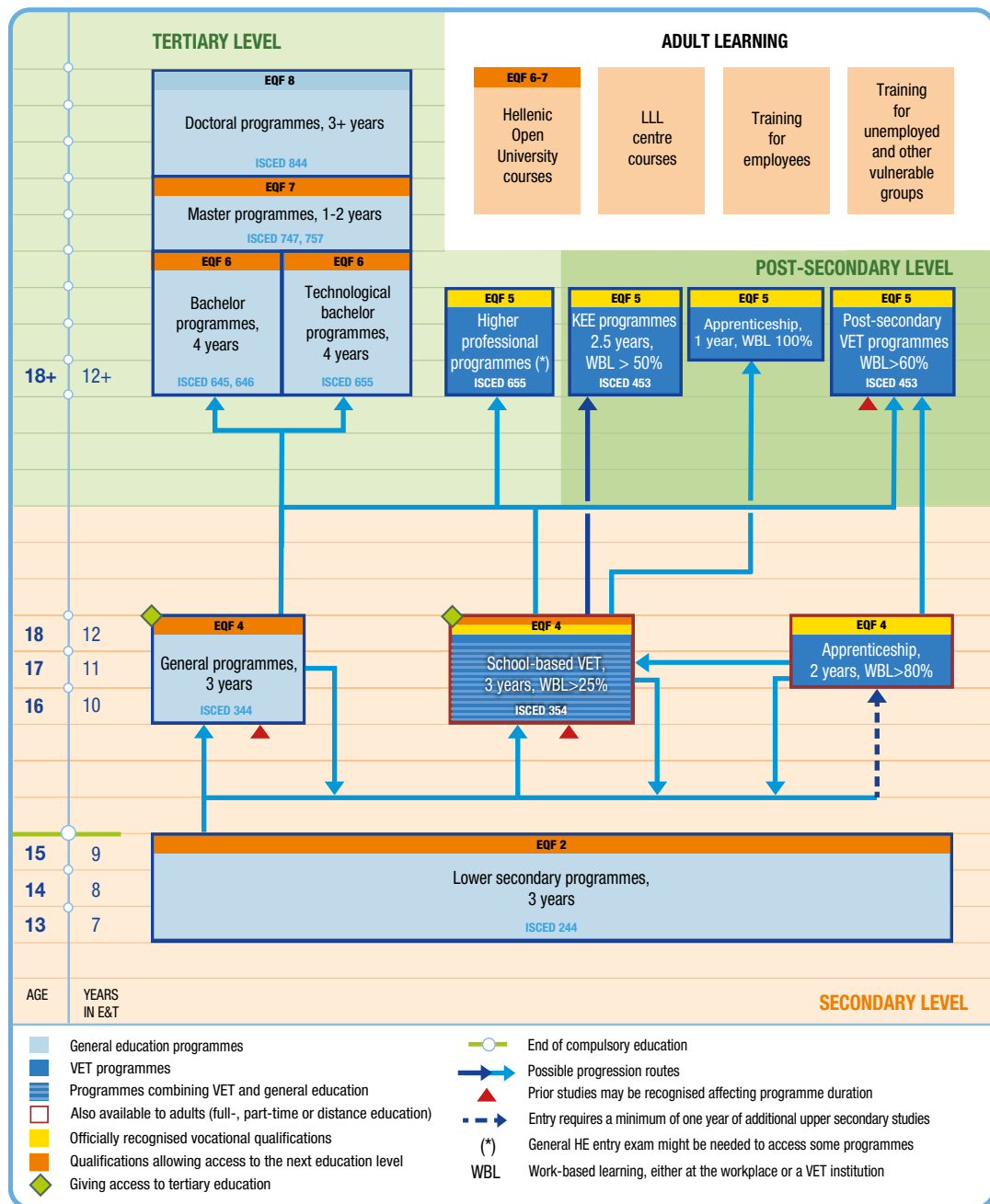
- one-year apprenticeship programmes (EQF level 5, WBL 100%), introduced in 2016, offered by EPAL schools in cooperation with the Manpower Employment Organisation. This programme is offered only to those who hold an upper secondary school leaving certificate and an EPAL specialisation degree.
- two-and-a-half-year 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-and-a-half-year KEE programmes leading to a certificate at EQF level 5 (WBL > 50%, including traineeships) introduced in 2018/19. They are approved by the National Education and Human Resource Development Council to match labour market needs. Access to KEE is foreseen only for EPAL graduates.

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 can be either equivalent to technological bachelor (EQF level 6) in the case of merchant navy academies <sup>(3)</sup>, or are considered non-university tertiary level diplomas (EQF level 5), as with dance and theatre schools.

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

<sup>(3)</sup> Not yet referenced to EQF.





NB: ISCED-P 2011.

Source: Cedefop and ReferNet Greece.

## 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, the qualifications structure and core subjects are determined by the government.

Authorisations to provide VET are granted by the MoEC. They cover VET fields, qualifications, number of students, language of instruction, locations, special educational 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. They organise training in their areas, matching provision with local labour market needs. They decide independently on issues such as type of education and training provided, and ways of completing studies, within the limits of their authorisation from MoEC.

More than 40% of students who completed basic education start initial VET (IVET) immediately after; most of these obtain their VET qualifications at vocational institutions. Vocational qualifications are available for both young students and adults.

There are 52 vocational qualifications (EQF 4) and nearly 110 further vocational qualifications (EQF 4) and specialist vocational qualifications (EQF 5) in different fields. The most popular fields are technology, communications and transport, and social services, health and sports. Half of the students are female, though the proportion varies greatly from field to field.

Admission to IVET programmes is based on a lower secondary education (basic) certificate; for CVET it is on a case-by-case basis, taking work experience into consideration.

An initial vocational qualification requires 180 competence points (cp). Nominal duration is three years depending on the individual personal competence development plan. In addition to vocational units, vocational qualifications include 35 cp of common units (of the 180) such as communication and language skills, mathematics, citizenship and skills needed in working life. Further vocational qualifications require 120, 150 or 180 cp and specialist vocational qualifications 160, 180 or

210 cp, consisting mainly of vocational units. All include work-based learning.

All qualifications can be obtained in apprenticeship training which also includes courses at vocational institutions. The share of work-based learning is 70% to 80%. Most apprentices are adults.

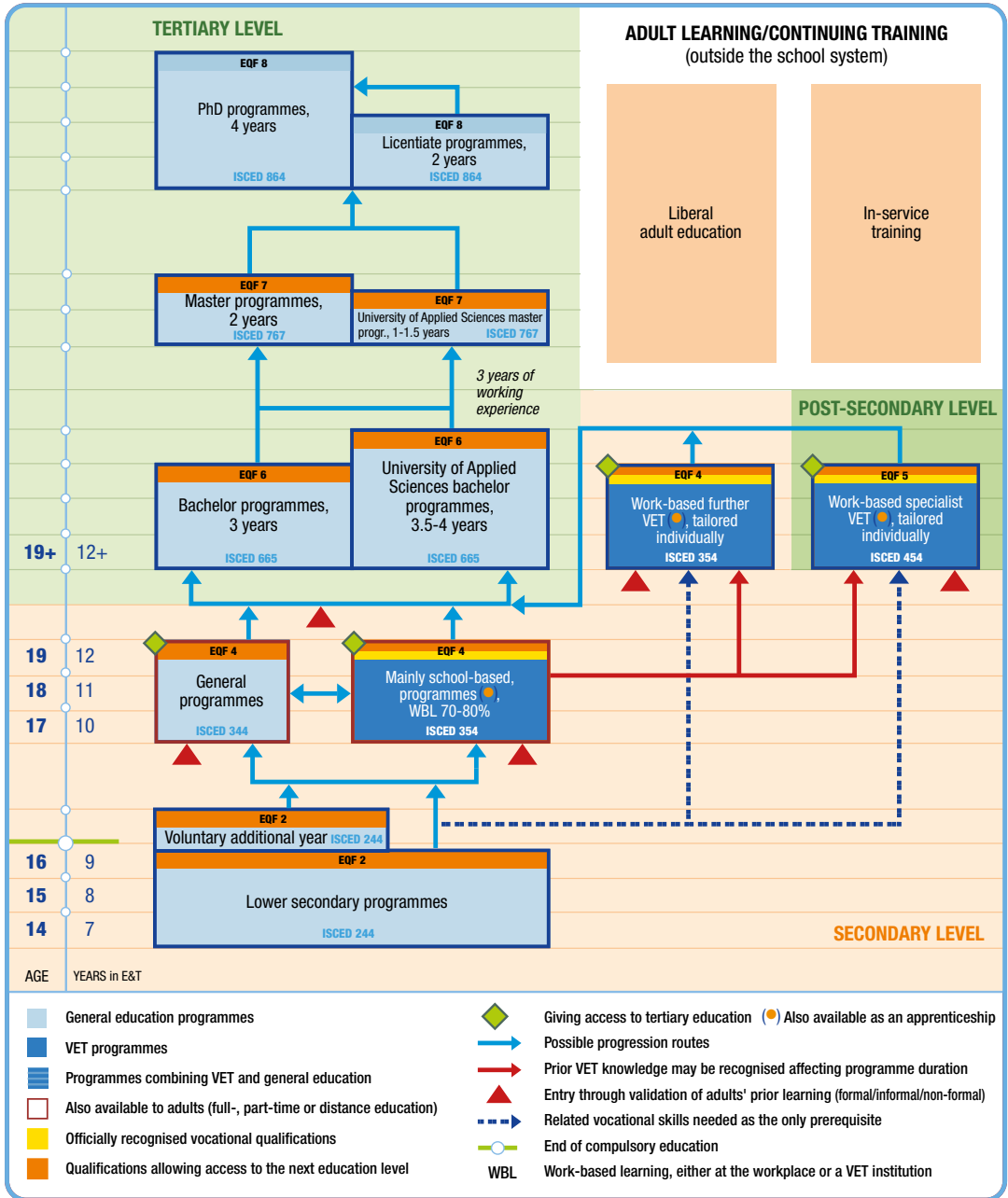
All VET programmes ensure eligibility for higher education studies.

National qualification requirements ensure standardised vocational competence; they are the basis for evaluating learning outcomes. The Finnish National Agency for Education (EDUFI) develops them in broad cooperation with stakeholders (employers' organisations, trade unions, the Trade Union of Education, and student unions). Representatives from enterprises contribute to development of national qualification requirements; they also organise and plan training at workplaces and competence tests, as well as assessing the tests.

Flexibility and personalisation have become means to respond to changing labour market requirements and individual student needs. Modularisation allows for a degree of personalisation of qualifications; for example, students can choose modules from other vocational qualifications (including both further and specialist vocational qualifications) or universities of applied sciences degrees.

The VET system was reformed as of 2018, with the following focus:

- students may apply for studies at any time of the year;
- VET for young people and adults is in the same framework and regulated by a single act on VET;
- there is a single competence-based method of completing qualifications;
- each student's prior learning is accredited and a personal competence development plan drafted. This defines the skills still to be acquired for obtaining the qualification;
- VET providers are encouraged to organise more learning at workplaces;
- one coherent funding system is applied for IVET, CVET, apprenticeship training and labour market training leading to qualification.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Finland.

## 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.

A major reform of the vocational training system is under way. It aims to improve VET attractiveness and responsiveness to the labour market by restructuring its governance, funding mechanisms, and apprenticeship provision. Reforming the upper secondary vocational path started in May 2018; it is part of the national skills strategy and will be developed in line with the regional development strategy.

### 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 (ISCED 344) and technological (ISCED 344) three-year programmes leading to a 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 leading to a vocational baccalaureate (ISCED 354) in three years or a professional skills certificate (ISCED 353 - 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 (ISCED 554)

The *lycée*-based higher technician curricula provide a two-year programme leading to the higher technician certificate (BTS). Universities offer a two-year technological university diploma (DUT) 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 at EQF level 6 and progress to master level for a qualification at EQF level 7. Higher education (tertiary level) provides general courses and technical and vocational courses within universities and public or private higher colleges of excellence (*grandes écoles*).

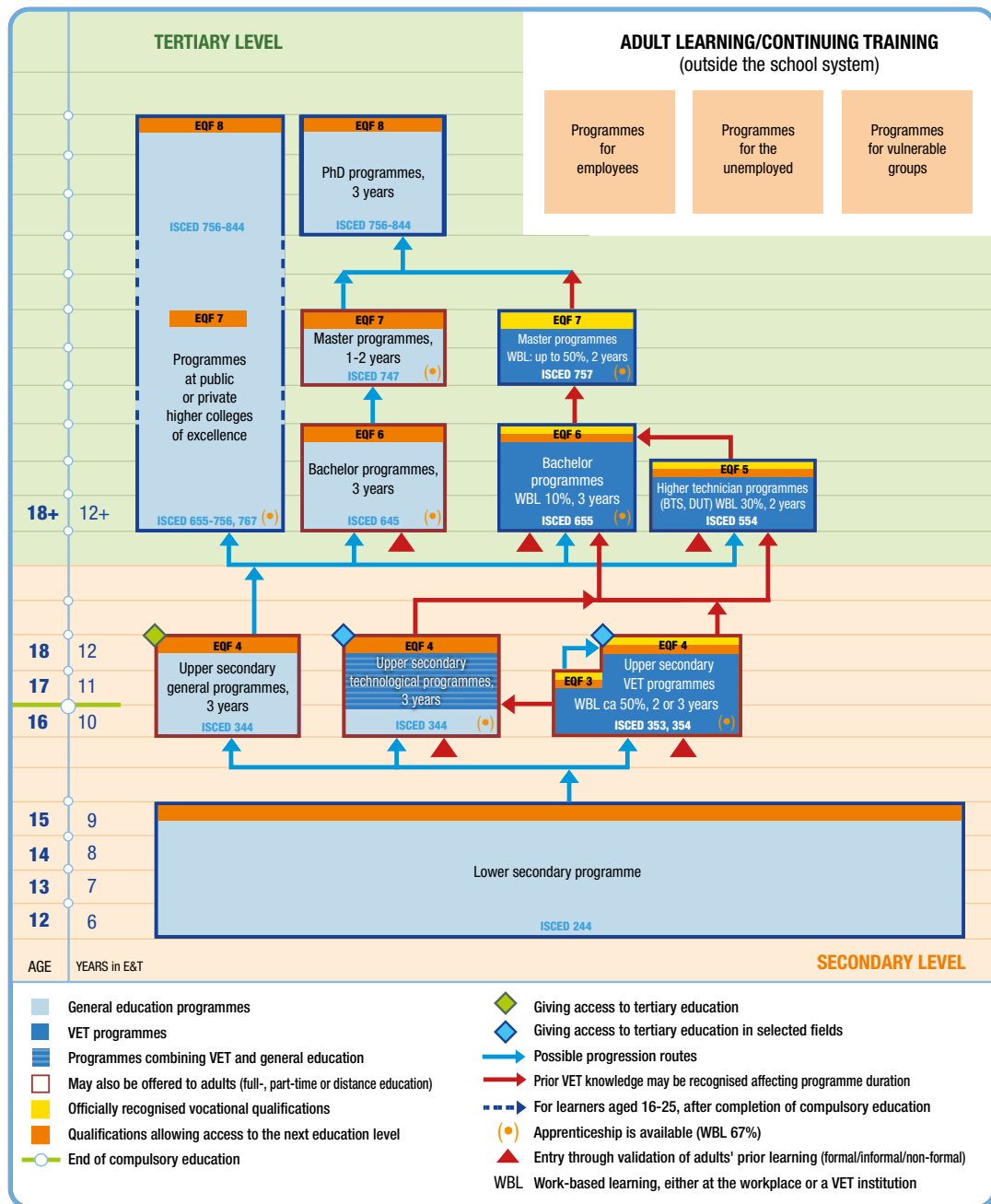
### Apprenticeship

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. Young people on an apprenticeship contract (from one 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 governed by the State (legislation), the regional councils (policy setting) 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, the regional councils (bonuses on recruitment, apprenticeship subsidies) and companies (apprenticeship tax).

### Continuing VET (CVET)

CVET applies to those entering the world of work or already in work, both young and adults. The objectives of CVET include promoting professional integration or reintegration; maintaining people in work; and upskilling.

Access and funding procedures for courses vary according to individual status, either as 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. The training market is open, with 68 500 training providers and 24.9 million people trained in 2014. Funding for CVET activities (including apprenticeship) represented 1.1% of the national GDP in 2015.



NB: ISCED-P 2011. The French qualifications framework is not linked to European qualifications framework levels 1 and 2.

Source: Cedefop and ReferNet France.

## VET in Hungary

The education system has undergone substantial transformation in recent decades; governance of schools has been centralised (2013) and VET schools have been integrated into a network of 44 vocational centres (2015). The centres coordinate education and training activities of the schools and help them offer training better aligned with labour market needs.

IVET and adult training are led by the Ministry for Innovation and Technology, which is responsible for qualifications standards in the national qualifications register (NQR) and, together with the Ministry of Human Capacities, for framework curricula. The National Office of VET and Adult Learning, supervised by the Ministry for Innovation and Technology, ensures coordination and implementation of national VET and adult learning policies.

The Chamber of Commerce and Industry has an important role in VET in policy advice, qualifications development, accreditation and supervision of practice providers, and apprenticeship contracts. Social partners shape VET policy through participation in advisory bodies. A total of 18 sectoral skills councils came into operation in July 2018.

### VET for young people

Learners may enter VET at age 14. VET is offered at upper secondary, post-secondary and tertiary levels and includes work-based learning in different forms:

- four-year programmes (five in bilingual courses) (*szakgimnázium*) combining vocational and general education. Learners acquire an upper secondary school leaving certificate (ISCED 344) giving access to higher education and a basic vocational (ISCED 353) NQR qualification (such as waiter). This is a possibility for learners as an option which aims to strengthen individual training paths. Learners can continue with one additional VET year at post-secondary level to acquire a higher level VET qualification (ISCED level 454) (such as chemist technician);
- three-year practice-oriented VET programmes (*szakközépiskola*) leading to ISCED 353 qualification (such as electrician). These include an increased share of practical training. Learners can enrol in two-year follow-up programmes to obtain the upper secondary school leaving certificate, allowing progression to higher education;
- one- or two-year post-secondary VET programmes leading to a technician qualification (ISCED 454) (such as chemist technician);
- two- or four- year VET programmes (*szakiskola*) for SEN learners, leading to a full or partial NQR qualification (ISCED 243, 253, 353) (such as pastry maker, carpenter);
- VET bridging programmes for learners who have completed at least two, but not all four years of lower secondary education, leading to a partial vocational qualification listed in the NQR at ISCED 352, 353 (such as pipeline fitter) and giving access to upper secondary VET programmes.

Higher education VET is provided by higher education institutions. Programmes require an upper secondary school leaving certificate and award ISCED 554 vocational qualifications (such as network information technology engineer assistant). Graduates can transfer credits to a bachelor (BA/ BSc) programme in the same field.

Practical training can also be delivered as dual VET (apprenticeship training contract) and/or through a cooperation agreement between the company and the VET institution. In higher education, dual VET is possible in five study fields (technical, informatics, economic sciences, natural sciences and agriculture). In 2017, almost one in four VET students concluded an apprenticeship contract, most of which (69%) were enrolled in three-year upper-secondary VET programmes.

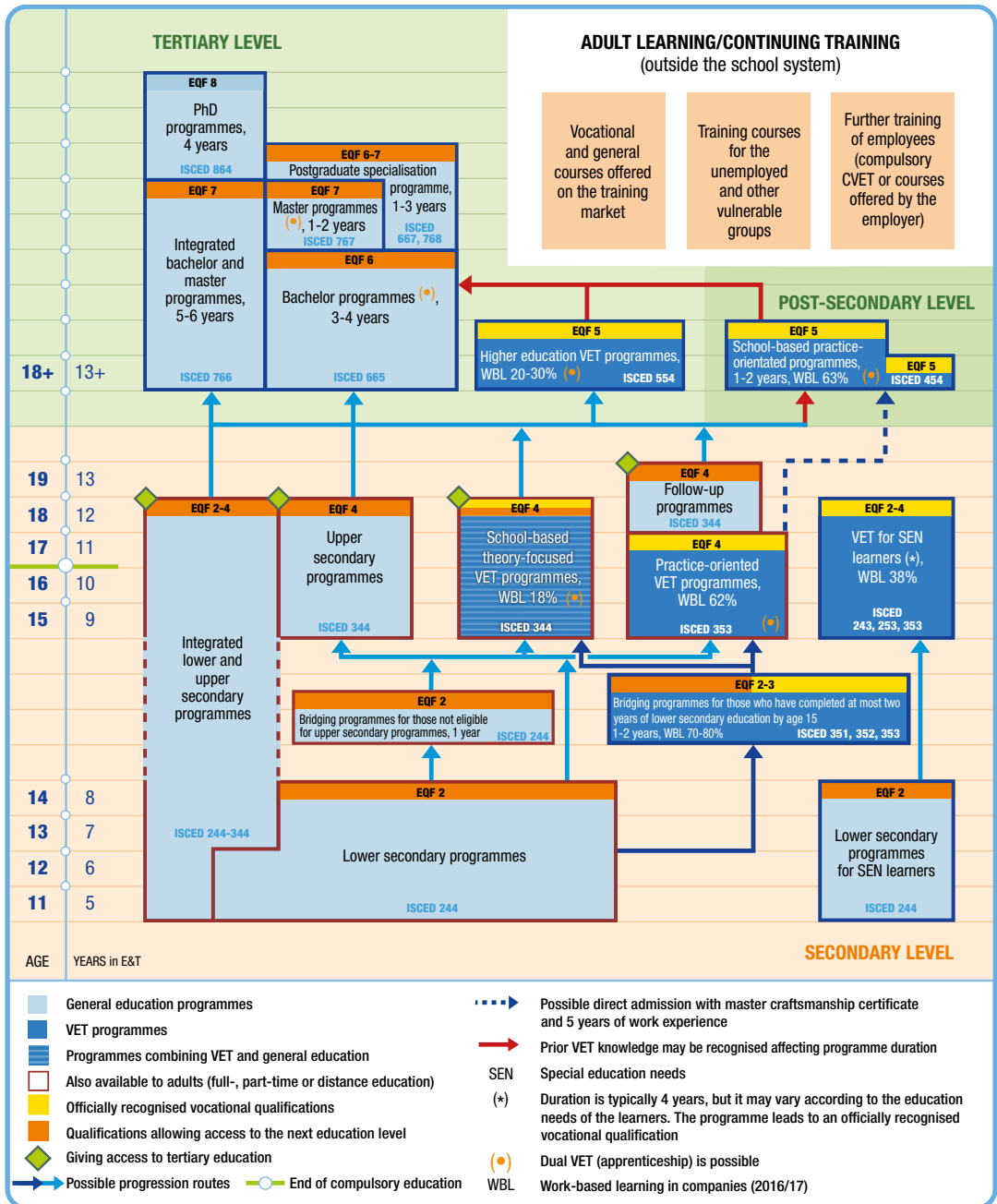
There are scholarship schemes in programmes for deficit occupations.

### VET for adults

VET programmes are open to adults in full-, part-time or distance learning. Adult training by providers outside the school system includes: courses preparing for master craftsperson exams (run by economic chambers); mandatory further training programmes for a given occupation; courses for the unemployed and other vulnerable groups; training programmes leading to NQR qualifications or registered (SZPK) by the chamber.

The State provides financial support for training vulnerable groups and SMEs. Financial incentives (tax deductions) for companies offering in-company training are in place.

The prerequisite for enrolling in adult training is that a contract be signed between the VET provider and the learner; for NQR qualification programmes the content of the programme must be formally approved by the State.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Hungary.

## 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 training is still of great importance and the journeyman's exam is centred on demonstrating skills learners have acquired at a workplace.

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

Several qualifications are offered at upper secondary level (ISCED 3), some of which 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 (ISCED 4), 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.

Students 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 students can move relatively easily between study programmes. They can finish upper secondary

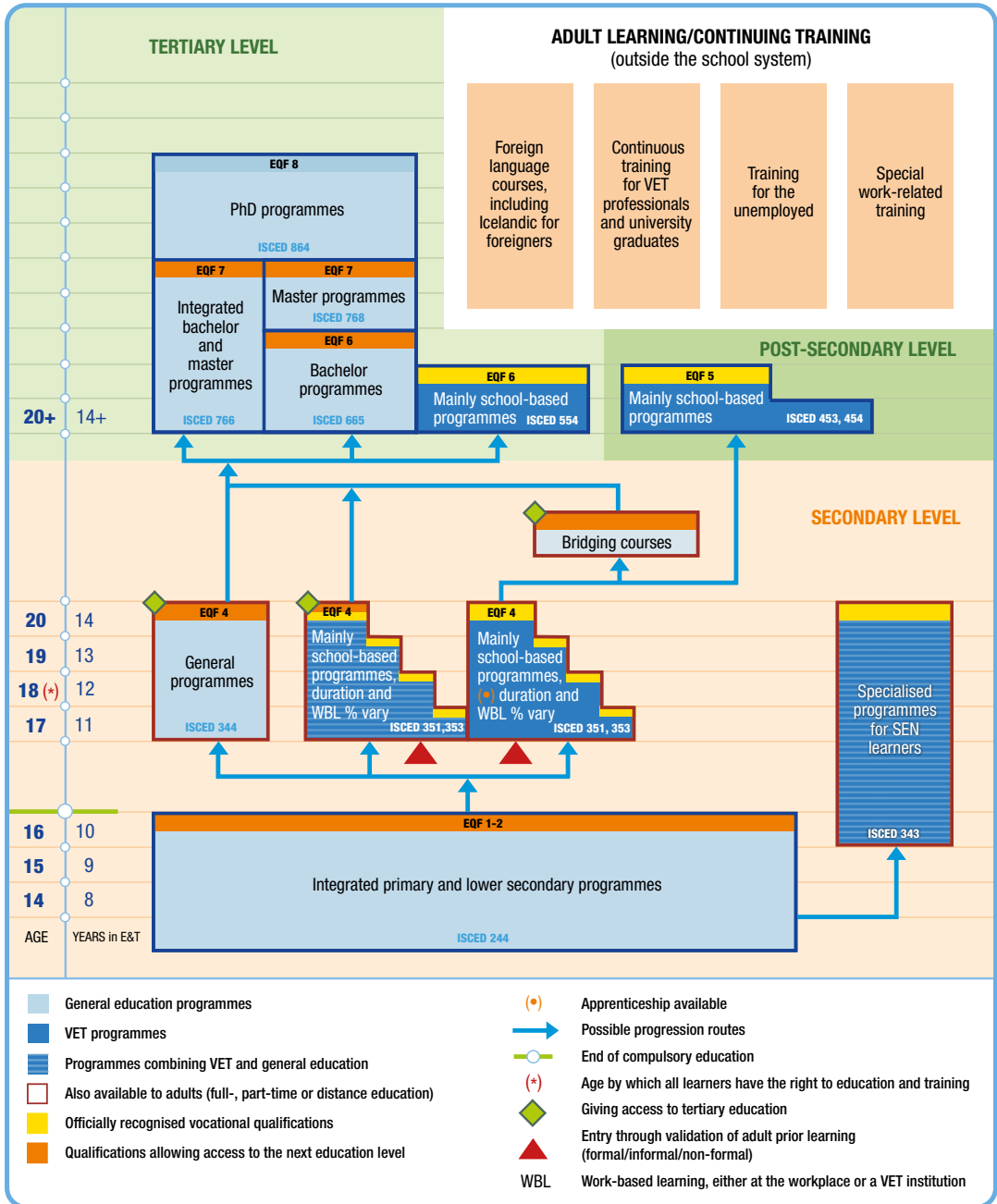
school with a vocational and a general degree (matriculation exam), the prerequisite for higher education. VET students who have not passed the matriculation exam can attend further general education to qualify.

Courses which give study points at upper secondary schools must be approved by an official validation body, according to standards approved by the Ministry of Education, Science and Culture.

Upper secondary schools need to submit descriptions of new study programmes to the Ministry of Education, Science and Culture. 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 (23.6% in 2017). 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.





NB: ISCED-P 2011.

Source: Cedefop and ReferNet Iceland.

## VET in Ireland

Most vocational education and training (VET) occurs within the State sector, although private providers also play a role. Ireland's education and training system is divided into four sectors: primary, secondary, further education and training (FET), and higher education. Until 2016, VET occurred mostly within the FET sector. However, following reform of the FET sector and a review of the apprenticeship system, higher education providers have, since late 2016, offered a limited number of apprenticeship courses, with the number of programmes and learners expected to increase in the medium term.

**Within the FET sector**, the main providers of VET are 16 education and training boards (ETBs) countrywide. Responsibility for funding, planning and coordinating FET programmes at ETBs lies with SOLAS, Ireland's Further Education and Training Authority. Other statutory providers include BIM (seafood industry training) and Teagasc (agricultural training). These bodies are publicly funded. Some programmes are jointly financed by the European Social Fund.

**Within the higher education sector**, VET programmes are the responsibility of the Higher Education Authority (the statutory planning and policy body for higher education). VET is provided by institutes of technology and, to a lesser extent, by universities and other higher education providers.

Most learners undertake VET courses on completion of upper secondary education. While it is possible to enter some apprenticeship training with NFQ level 3/EQF level 2 qualifications, most pupils attain upper secondary awards at NFQ level 4/5 (EQF 3/4).

VET programmes within FET include:

- apprenticeship training, combining off-the-job training (in ETBs and institutes of technology) and on-the-job training (with an employer). Training leads to awards at either NFQ level 5 or 6 (EQF 4 or 5). Traditionally, apprenticeships in the FET sector were concentrated in the construction/engineering sectors. However, new post-2016 apprenticeships have been extended to include other sectors (such as hospitality, transport, retail, ICT and finance);
- traineeship, an occupational skills development training model designed to meet the needs of local employers. Training takes place both on- and off-the job and leads to awards spanning

NFQ levels 4 to 6 (EQF 3 to 5). Partial awards are also made. Trainees may include school leavers, older learners, the employed and the unemployed;

- post leaving certificate courses (PLCs), delivered in ETB colleges or second-level schools; they comprise general and/or vocationally oriented education. Typically, training is in areas such as technical knowledge, personal/core skills and some work experience; PLCs lead to an NFQ level 5 or 6 award (EQF 4 or 5). Partial awards are also made.

**VET at tertiary level:** apprenticeship courses in this sector were formally introduced in 2016. They combine off-the job training (including online) with on-the job training with an employer. Training occurs in a variety of sectors, including financial services, engineering, and hospitality. On completion, learners can achieve awards spanning NFQ levels 6 to 9 (EQF 5 to 7). Expansion to NFQ 10 (EQF 8) is due in 2019 in the engineering sector.

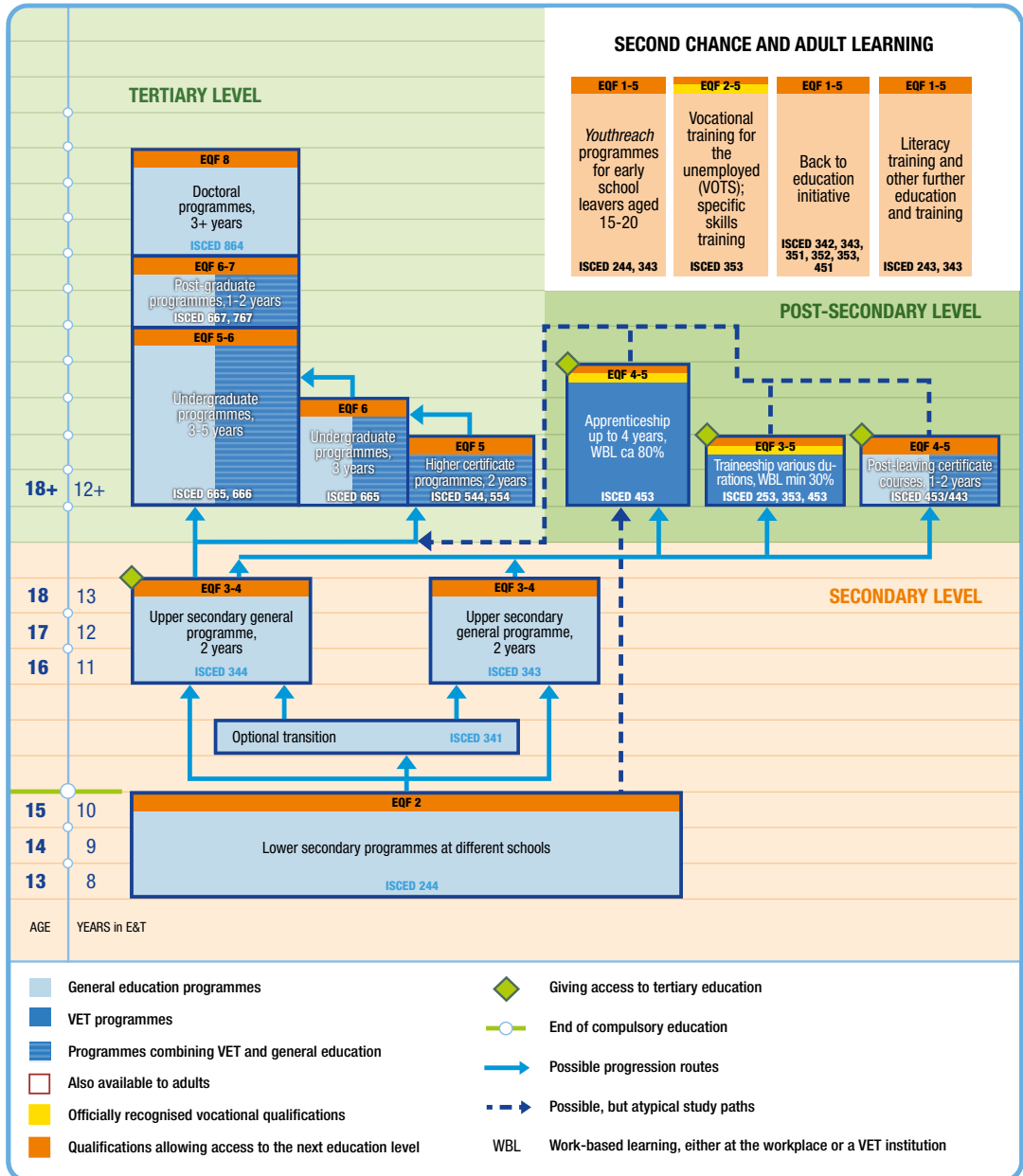
VET programmes are also offered for second chance education and training.

- VTOS (vocational training for the unemployed) and specific skills training for the unemployed in a vocational skill (such as computer hardware maintenance) are delivered by ETBs. Full and partial awards are made, at NFQ levels 3 to 6 (EQF 2 to 5).

- *Back to education* initiative (part-time for adults). This programme offers a mix of general and VET courses, with full and partial awards spanning NFQ levels 1 to 6 (EQF 1 to 5).

Other education and training programmes are also provided in second chance education, with full and partial awards at NFQ levels 1 to 6 (EQF 1 to 5); they are delivered mainly by ETBs.

- *Youthreach* (for early school leavers aged 15 to 20).
- Literacy training and other further education and training.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Ireland.

## 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.

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);

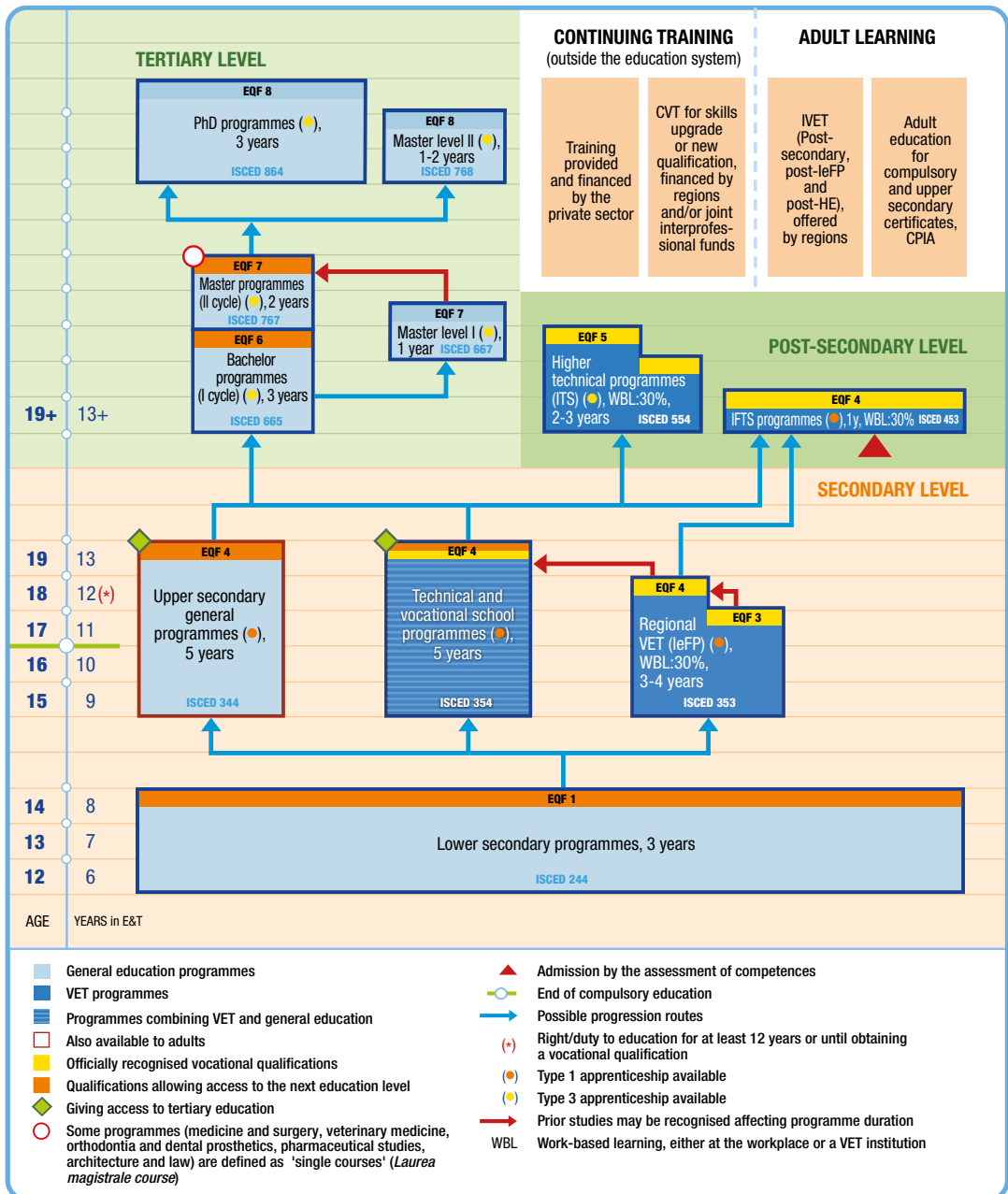
- higher technical institute programmes (*istituti tecnici superiori*; ITS): two- to three-year post-secondary non-academic programmes which lead to a high-level technical diploma (*diploma di tecnico superiore*, EQF level 5).

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

Apprenticeship is available at all levels and programmes and is always defined as an open-ended employment contract. Type 1 apprenticeship is offered for all programmes at upper secondary level and the IFTS programme. Type 3 apprenticeship (higher training/education apprenticeship) is offered in ITS programmes and all tertiary education level programmes leading to university degrees, HTI diplomas, and doctoral degrees corresponding to the tertiary level. Type 2 apprenticeship does not correspond to any education level, diploma or qualification, but leads to occupational qualifications recognised by the relevant national sectoral collective agreements applied in the hiring company. Type 1 and Type 3 apprenticeships are associated with a formal education and training programme, while Type 2 is not.

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 joint inter-professional funds managed by the social partners.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Italy.

## VET in Latvia

Vocational education and training (VET) in Latvia is offered at three <sup>(4)</sup> levels: integrated primary and lower secondary (called ‘basic’ nationally); 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. To acquire a VET qualification at EQF levels 2 to 4, 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 (2017/18 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 40% of learners in:

- three-year programmes (ISCED 353) leading to a qualification at EQF level 3 and involving 4% of VET learners. To enrol in higher education graduates should attend an additional one-year bridging programme;
- four-year programmes (ISCED 354) leading to a secondary VET qualification at EQF level 4 and involving 73% of VET learners. Graduates take four State exams in general subjects; if successful, they are also awarded a certificate of general secondary education 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 21% of VET learners and focus on vocational skills, so they are shorter.

Professional higher education programmes are provided at two levels:

- first-level college 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;

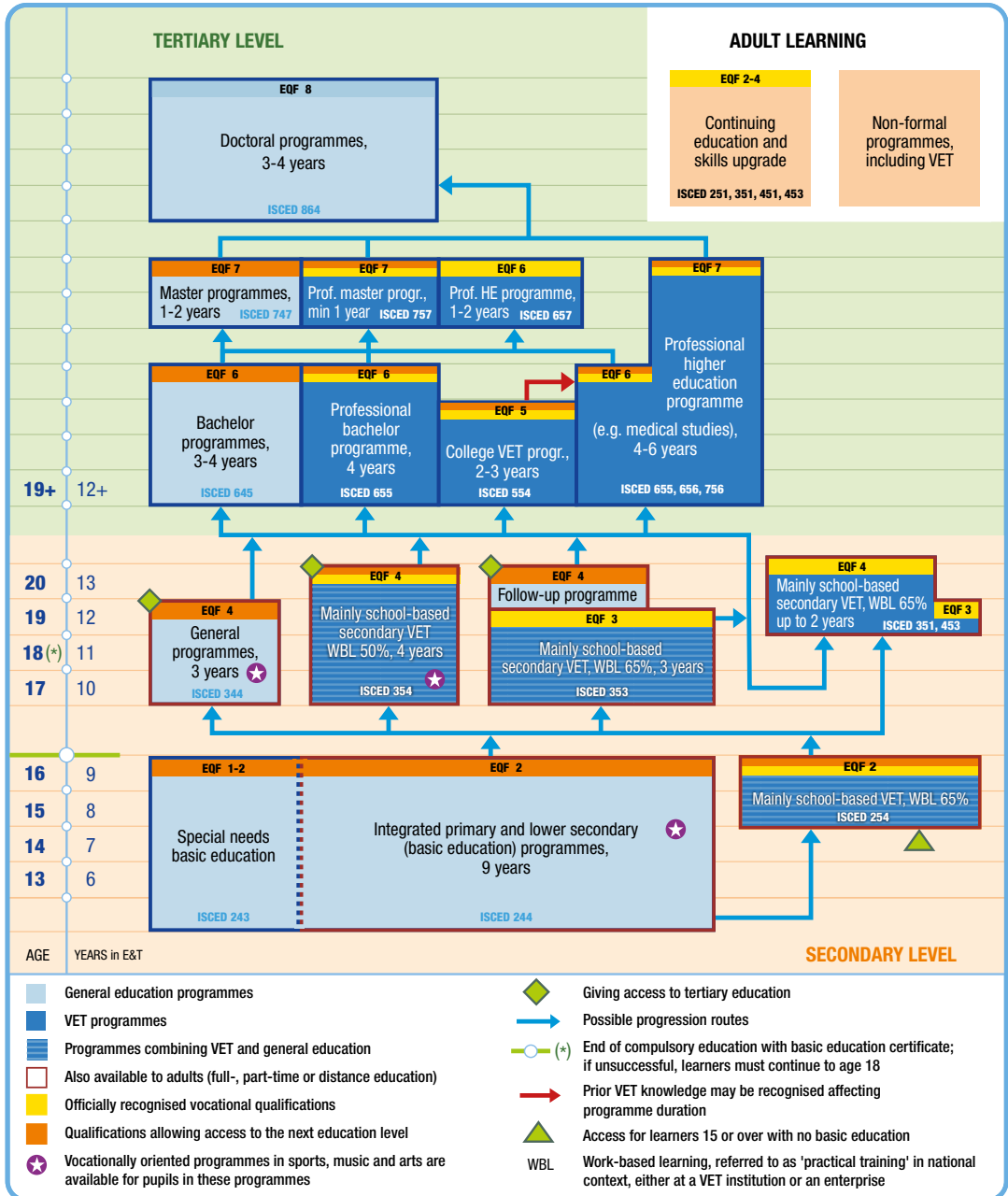
- second-level higher education programmes (two to six years) (ISCED 655, 656, 657, 756 and 757, EQF 6 and 7) leading to a professional qualification and either professional bachelor or master degree or a professional higher education diploma.

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 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, founded in 2000 by the State, employer and employee representatives. Since 2011, 12 sectoral expert councils have ensured that vocational education 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.

<sup>(4)</sup> Arts, culture and sports programmes (referred to as ‘vocationally oriented education programmes’ nationally) are also 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.

## 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. Following the new VET Law, in force since February 2018, the Research and Higher Education Monitoring and Analysis Centre (MOSTA) ensures the monitoring framework for VET and higher education, research and innovation. It plans human resources and forecasts new qualification requirements in line with national policies and the needs of the economy.

Vocational education and training in Lithuania is offered from lower secondary 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. VET-oriented programmes in higher education lead to a professional bachelor degree (ISCED 655); they are provided by colleges, a type of higher education institution.

Lower secondary level VET programmes (two 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:

- two- to three-year programmes (ISCED 352) lead to a VET qualification at EQF level 3 and prepare students for entering working life;
- three-year programmes (ISCED 354) lead to a VET qualification at EQF level 4 and a *matura* diploma giving access to higher education and post-secondary ISCED 454 programmes. 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 (one to two years, ISCED 454) lead to a VET qualification at EQF level 4 in specific fields. Implementation of EQF level 5 programmes is under discussion.

Formal continuing VET (CVET) is for learners who want to improve an existing qualification, acquire a new one or gain a competence needed to do jobs specified in regulations. CVET is designed for people with different education attainment levels, from primary to post-secondary; in some cases, a vocational qualification or work experience is a prerequisite. CVET programmes last no longer than one year and lead to qualifications at EQF levels 2 to 4, recognised by the State.

Non-formal CVET for the self-employed and employee training are organised in various settings. Some companies have their own training units and qualifications frameworks or apply internationally recognised sectoral qualifications and programmes.

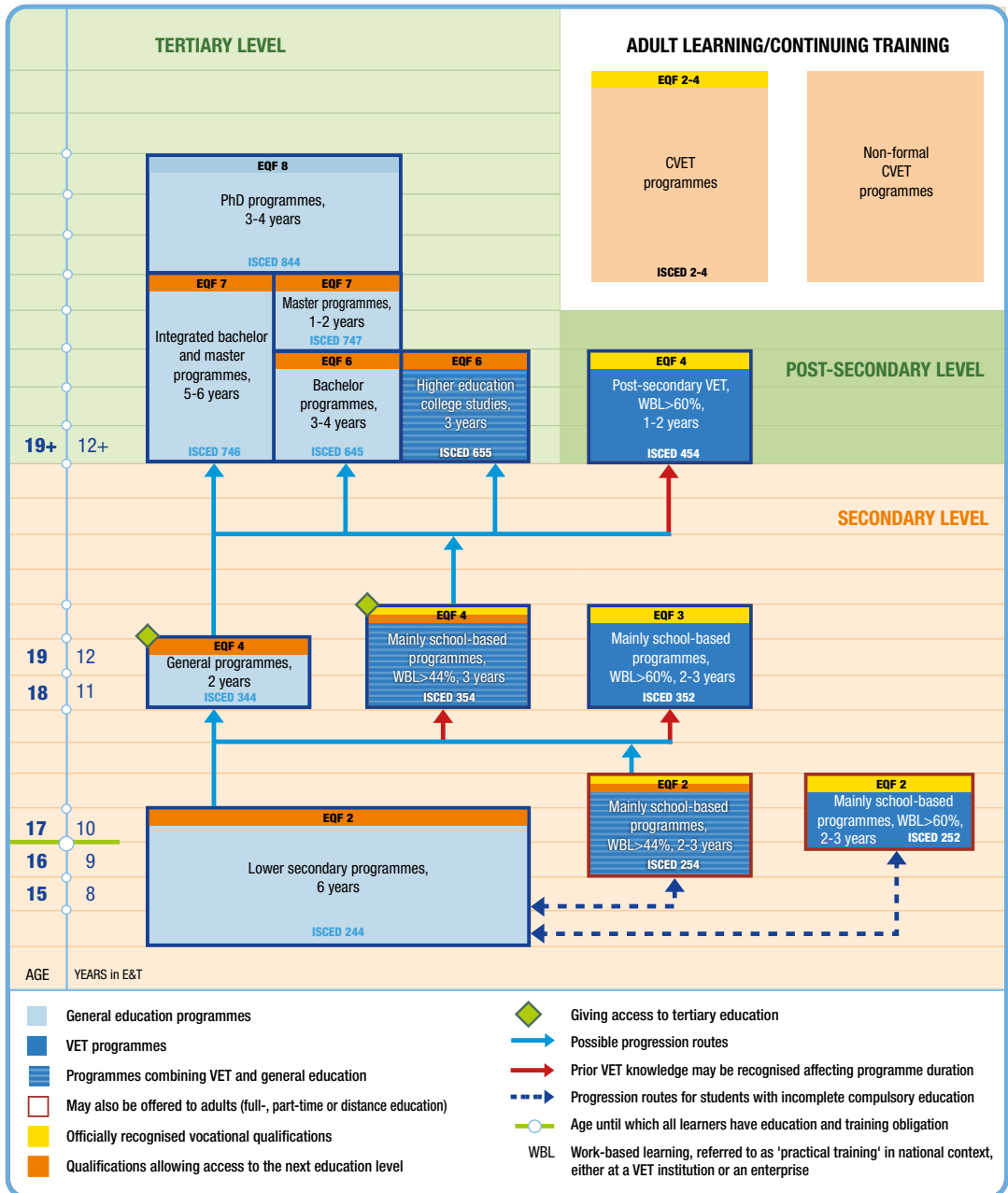
Although VET in Lithuania is school-based, work-based learning (WBL), in workshops at school and at a workplace, is a significant part. In IVET, WBL takes place in school settings, with 8 to 15 weeks preferably spent in a company. To improve the quality of WBL in a school environment, 42 sectoral practical training centres have been established. In CVET, WBL corresponds from 60% to 80% of the programme, half of it preferably taking place in companies. 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 qualifications, standards and VET programmes: the 2018 VET law boosted the role of sectoral professional committees in shaping VET qualifications and planning future apprentice intake.

Reforming VET management, financing schemes and quality assurance mechanisms are part of policy priorities and developments in progress to raise the prestige of VET and its attractiveness to VET stakeholders.





NB: ISCED-P 2011.

Source: Cedefop and ReferNet Lithuania.

## VET in Luxembourg

Luxembourg's administration is centralised. The Ministry of National Education, Children and Youth is responsible for 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. The 2008 VET reform strengthened links to the labour market and introduced a competence-based, modular approach.

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 and support in choosing a career. Afterwards, learners have the opportunity to acquire a qualification for a profession 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. Learners can choose between two types of programme that lead to different qualifications:
  - the vocational capacity certificate (CCP), attesting that the holder has acquired semi-skilled worker's skills. This scheme is designed for learners who are less likely to cope with other programmes. Basic vocational training includes practical training leading to this professional qualification. On successful completion, graduates can progress to the second or third year of a vocational aptitude programme (DAP) in the same field;
  - the vocational aptitude diploma (DAP) provides access to the labour market as a skilled worker. Graduates can progress to the third year of technician or general programmes or become a master craftsperson. If they complete preparatory modules, they can also pursue higher technical studies.
- technician four-year programmes, which are school-based and include a job placement of 12 or more weeks; some programmes can be carried out under an apprenticeship contract. The technician programmes offer in-depth and

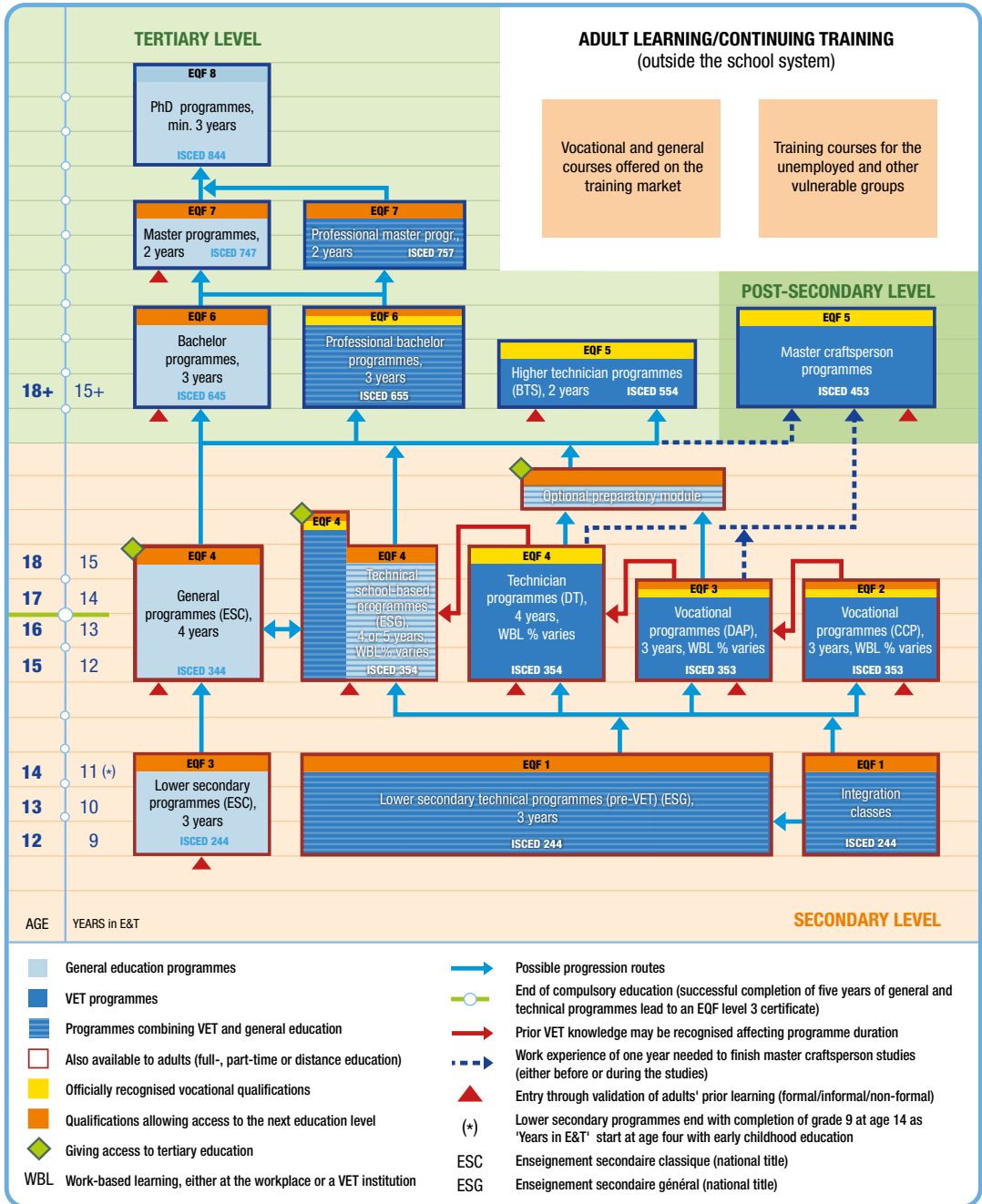
diversified competences and more general education than DAP programmes. They aim at a high professional level and lead to a technician diploma (DT). Graduates can enrol in the third year of a technical (ESG) programme or, after completing preparatory modules, pursue higher technical studies;

- technical four- to five-year programmes, leading to the technical secondary school leaving diploma (*Diplôme de fin d'études secondaires générales*, DFESG) in different strands: administrative and commercial, general technical, arts, in healthcare and social professions. The curriculum includes general and technical education (theory and advanced practical training). Graduates can enter the labour market or continue with higher education. Following amendment of the Education Law on 29 August 2017, general secondary education is nationally referred to as classical (*éducation secondaire classique* – ESC) while technical secondary is referred to as general (*éducation secondaire générale* – ESG).

At tertiary level, VET is offered as short-cycle (two-year) studies leading to a higher technician certificate (BTS). Depending 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, regardless of age, have access to formal and non-formal learning, as well as guidance services; they also have education and employment status. 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, professional chambers, sectoral organisations, private training centres and other organisations. The public employment service organises vocational training for job-seekers. Non-regulated CVET often leads to sectoral rather than formal qualifications.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Luxembourg.

## VET in Malta

Overall responsibility for vocational education and training (VET) in Malta lies with the Ministry for Education and Employment (MEDE). 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 higher VET institutions offering VET qualifications at EQF levels 1 to 7 free of charge. The number of private VET providers has been increasing.

The 2014-24 education strategy highlights the increasing role of VET in providing education pathways to address learners' employability skills. Complementing the strategy, a new Education Act was drafted. MCAST and the ITS will each have its own dedicated legislative framework.

VET is available from compulsory, lower secondary level (locally called secondary education) onwards. From 2015 all compulsory education students aged 14 to 16 have the added option to choose two VET subjects from a wide selection of elective subjects. The VET areas offered are agribusiness, hospitality, IT, health/social care and engineering. After leaving compulsory education, one in three 17-year-olds chooses VET.

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 theory (both increasing with level). The following VET programmes are available:

- for learners without a qualification: introduction and foundation certificate programmes including work experience leading to EQF levels 1 or 2, giving access to programmes at the next EQF level in the same field;
- two-year college-based programmes leading to EQF level 3 for foundation certificate holders and those with an EQF level 2 compulsory education qualification. They include different forms of work-based learning (WBL) and give access to programmes at the next level;
- one- to two-year apprenticeship schemes leading to EQF level 3, following foundation programmes. Contracts between learners,

employers and MCAST govern the schemes. The amount of workplace learning varies by field of study and is set by the college. Apprentices receive remuneration for the on-the-job training from employers and a stipend from the government. The act regulating work-based learning and apprenticeship became law in March 2018;

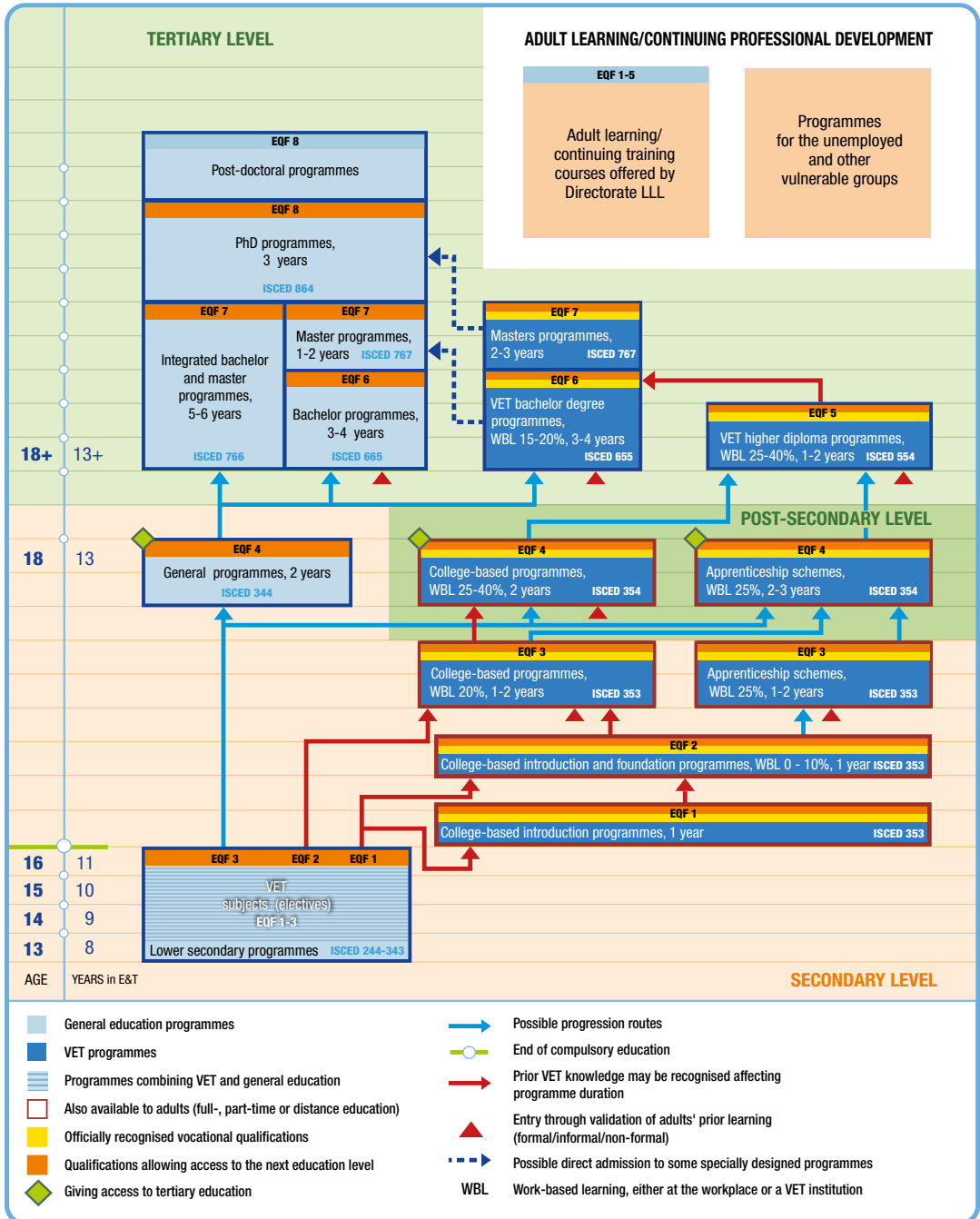
- EQF level 4 programmes (either college-based, two years; or apprenticeship schemes, two to three years) for learners with a general or VET EQF level 3 qualification;
- two-year college-based programmes leading to a VET higher diploma (EQF level 5).

Higher VET also includes three- to four-year bachelor programmes leading to EQF level 6, which open up progression opportunities to academic master programmes. Holders of VET higher certificates can enter the third year of VET bachelor programmes. From September 2017, the ITS has also been offering vocational bachelor degrees in tourism and hospitality-related areas. ITS students with an EQF level 5 qualification can also pursue a bachelor degree in tourism at the University of Malta. VET degree programmes are also provided by the university's Faculty of Health Sciences.

Continuing VET is mainly provided by MEDE's Directorate for research, lifelong learning and employability, MCAST and the ITS. Most courses are part-time and take place in the evening. Some of the awards they lead to are not full qualifications, while others lead to a full degree at EQF levels 6 and 7. Pegging CVET courses to the MQF allows them to be rated at EQF levels 1 to 7, valuing all learning.

Adult learning is mainly provided by MEDE's Directorate for research, lifelong learning and employability, MCAST and the university. The latter two admit individuals as regular students based on the maturity clause<sup>(5)</sup>. Besides targeting the unemployed, Jobplus (PES) is increasingly refocusing courses towards reskilling and upskilling employees to meet the demand for new skills in emerging economic sectors and to improve their employability and career prospects.

<sup>(5)</sup> In the case of MCAST, the maturity clause applies to adults applying for full-time or part-time full vocational qualifications but not for accredited awards (i.e. not full vocational qualifications) or hobby courses.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Malta.

# 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 2017, 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 45% of students in the third year of secondary education took part in one of these programmes in 2017.

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). 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 and the highest level (leading to EQF 4) gives access to higher professional bachelor programmes offered by universities of applied sciences;
- 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 60% 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.

In upper secondary VET, the desired 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.

## Post-secondary VET

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

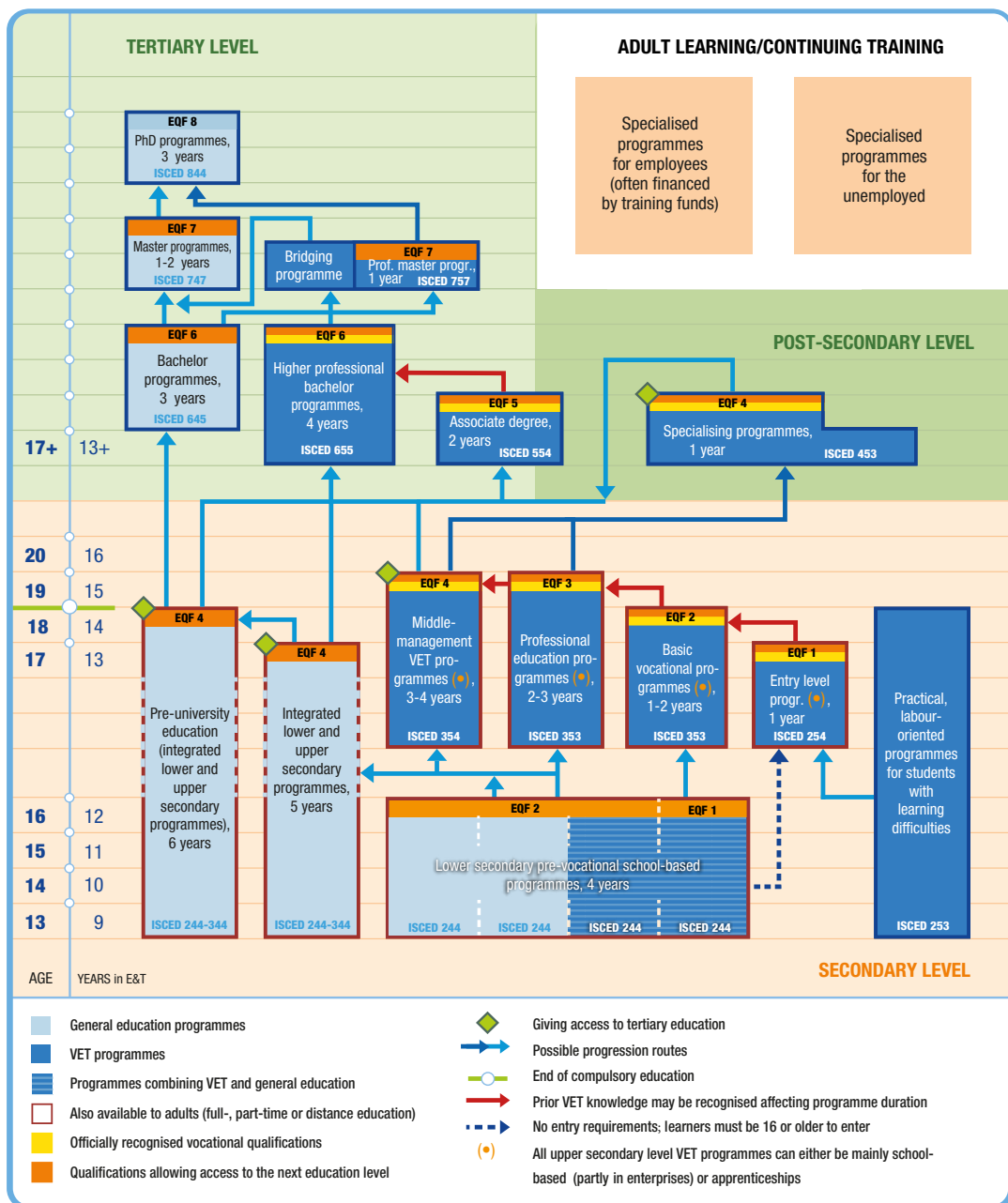
## Tertiary VET

Higher professional bachelor programmes (HBO) are open to all EQF level 4 graduates. Around 39% of graduates of middle management VET programmes enter HBO programmes; 61% 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), also open to all EQF level 4 graduates, have recently been developed. Graduates can continue to HBO programmes; their 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. In 2017, there were 85 such funds. Most approach and finance training from an employability perspective. 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.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Netherlands.

## VET in Norway

The Ministry of Education and Research has overall responsibility for education and training at all levels. In upper secondary 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, both formal and informal, between education and training authorities and the social partners. The social partner representatives hold the majority of seats in all advisory bodies in the decision-making system for upper secondary VET. This enables technological and labour market changes to be continuously communicated to decision-makers; the overall aim is to provide relevant VET skills.

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 eight VET programmes.

Upper secondary VET is conducted both in schools and in public and private enterprises. The county authorities must approve training establishments. The standard two-plus-two model normally 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 area. During the second year, VET students choose specialisations and courses are more trade-specific but core subjects are also included. Some crafts follow varying models with three years in school or one year in school followed by three years of formalised apprenticeship.

Upper secondary VET is completed with a practical-theoretical trade or journeyman's examination (*Fag- eller svenneprøve*) leading to an EQF level 4 qualification: a trade certificate (*Fagbrev*) for industrial and service trades or a journeyman's certificate (*Svennebrev*) for traditional crafts. The eight programme areas offer about 190 different certificates.

There are many possible routes to higher education via upper secondary VET.

With a trade or journeyman's certificate, the options 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's certificate are:

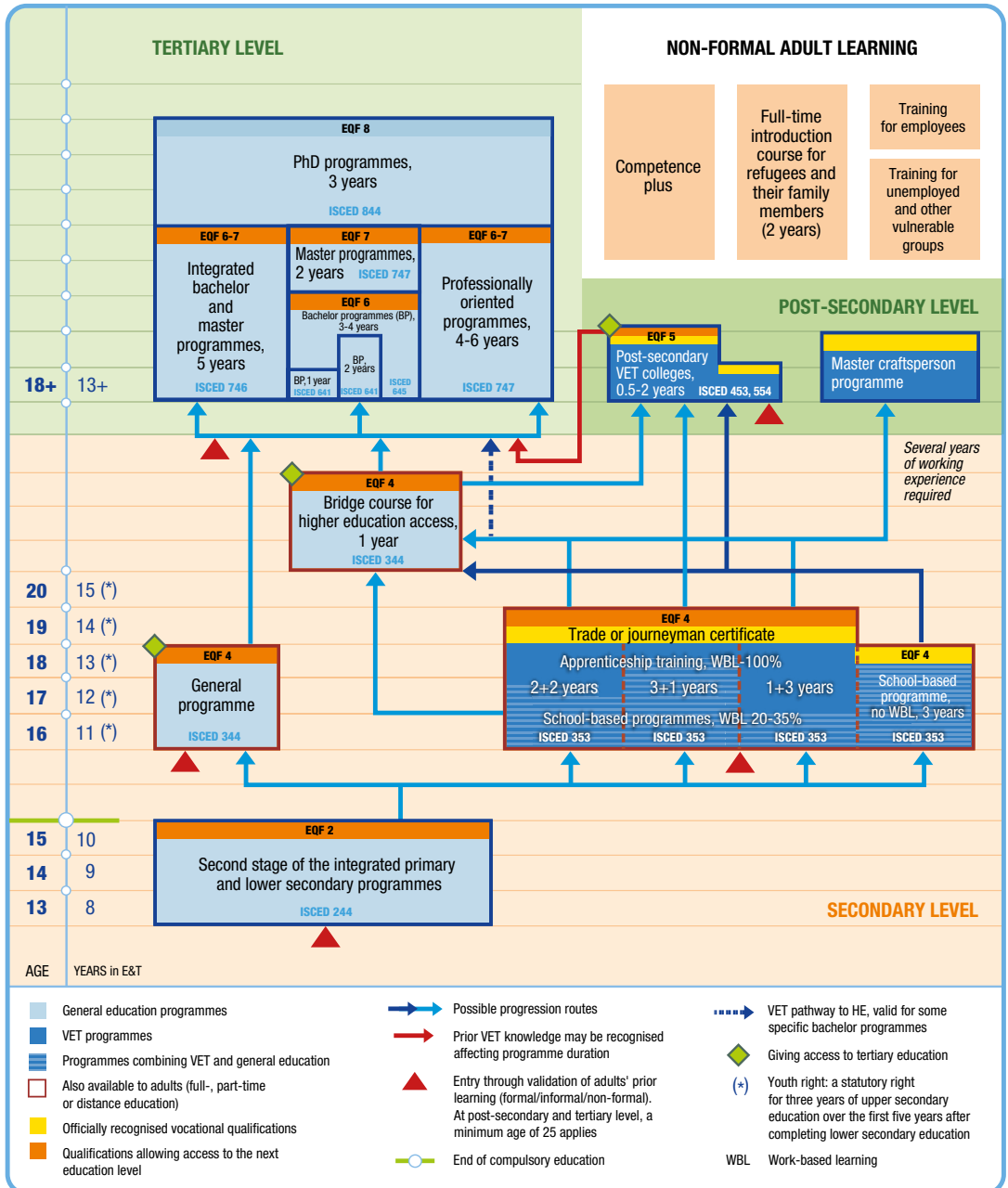
- five years' experience gained in work and/or education and passing a course in core subjects (for those aged 23 or older);
- recognition of relevant formal, informal and non-formal learning for people aged 25 or older who do not meet general entrance requirements;
- completing the bridge course in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

Legal rights shape adult VET and contribute to making vocational skills visible. People 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's 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.

Master craftsperson programmes are for holders of a relevant trade or journeyman's 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. VET colleges also offer a range of vocational programmes (EQF level 5) for students with upper secondary education.

The comprehensive higher education system has no formal or other distinction between vocational and non-vocational education; they are equal for higher education admission.





NB: ISCED-P 2011.

Source: Cedefop and ReferNet Norway.

## 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 National Education is in charge of VET policy at secondary level, supported by other ministries responsible for particular occupations. The Ministry of Science and Higher Education is responsible for higher VET. Social partners advise policy-makers on necessary changes in VET.

Since September 2017 the Polish education system has been undergoing substantial restructuring, which will be finalised in the 2022/23 school year. Key elements of the reform include: restructuring the current six-year primary education into eight years, divided into two four-year programmes (basic and lower secondary level); phasing out the lower secondary school (*gimnazjum*), and extending the general upper secondary school (four instead of three years) and the technical upper secondary school (five instead of four); and introducing a two-level 'sectoral vocational school'.

VET is provided at upper secondary and post-secondary levels that are mainly school-based. Upper secondary programmes combine general and vocational education. Learners can acquire vocational qualifications in the following:

- three-year sectoral programmes (*szkoły branżowe I stopnia*, ISCED 353). Graduates can enrol in general education programmes bridging VET and higher education. For graduates of these programmes, the reform foresees introduction of new two-year programmes that will give access to tertiary education from 2020/21;
- five-year upper secondary technical programmes (*technika*, ISCED 354). Graduates can also 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 learners with special education needs (SEN), leading to a certificate of job training;
- work preparation classes, available for SEN learners already at lower secondary level in primary schools at age 15 and above (*oddziały przysposabiające do pracy*, ISCED 243).

At post-secondary non-tertiary level, vocational qualifications can be acquired in one- to two-and-a-half-year school-based programmes (*szkoły policealne*, ISCED 453). These programmes are strictly vocational and do not include general education. Basic or upper secondary education is required to enrol.

Work-based learning (WBL) is compulsory for all VET-oriented programmes. WBL takes place in school workshops, at continuing education centres, practical training centres, as contract-based practical training organised by an employer and as in-company training from 4 to 12 weeks, depending on the occupation. The last of these is compulsory for upper secondary technical and post-secondary VET programmes.

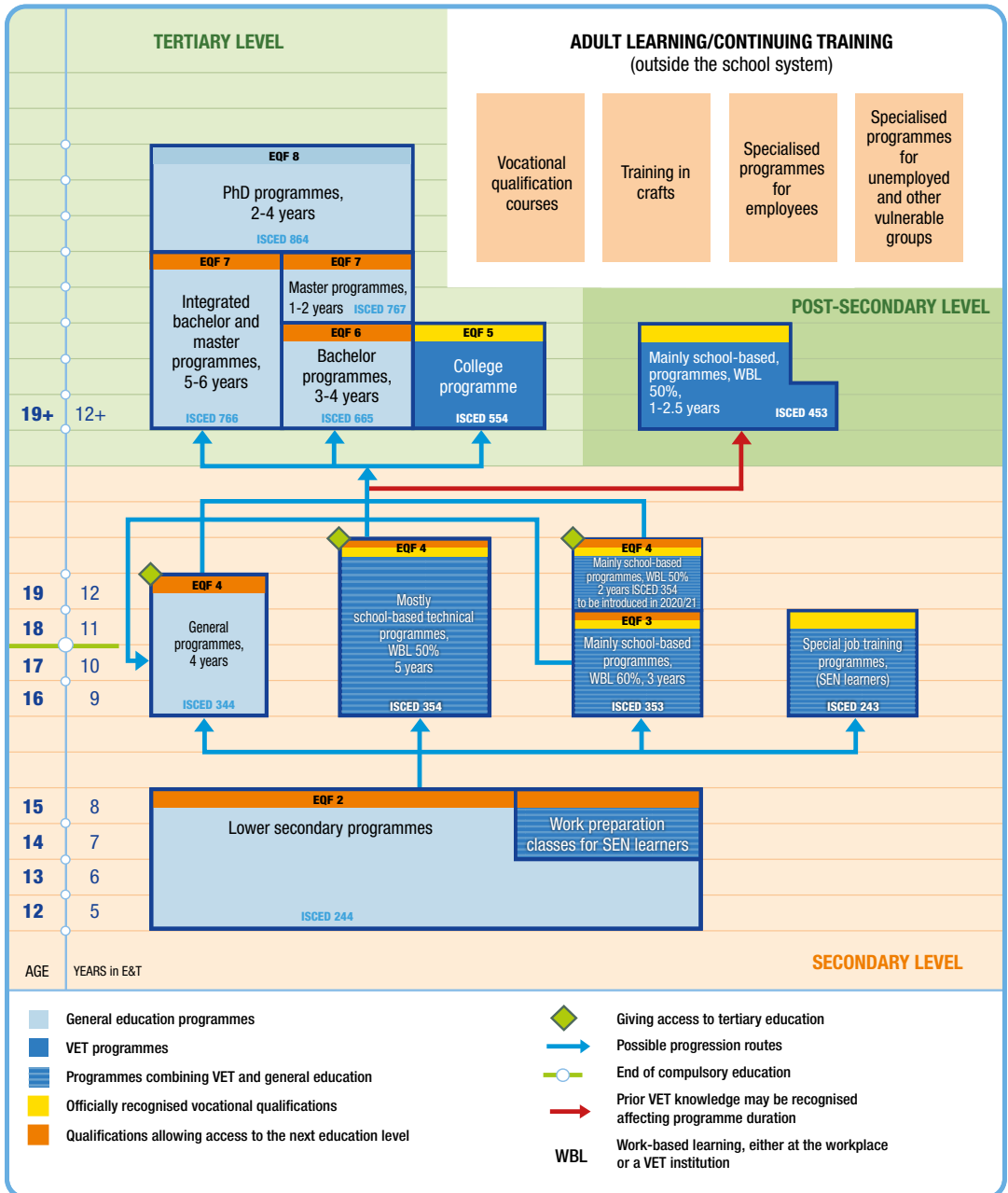
### Adult learning and CVET

Adult learning and continuing VET is available in continuing education centres, practical training centres, further training and professional development centres, and initial VET schools.

These offer:

- vocational qualification courses based on curricula for a qualification in a given occupation; learners can take the State vocational examination and attain a vocational qualification certificate;
- vocational skills courses based on the core VET 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;
- courses for juvenile employees in the crafts sector.

Adults, including the unemployed, may also undertake vocational training through courses provided by training companies and other non-formal education institutions. Since 2016, qualifications based on the curricula of such courses can be included in the national qualifications framework.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Poland.

## VET in Portugal

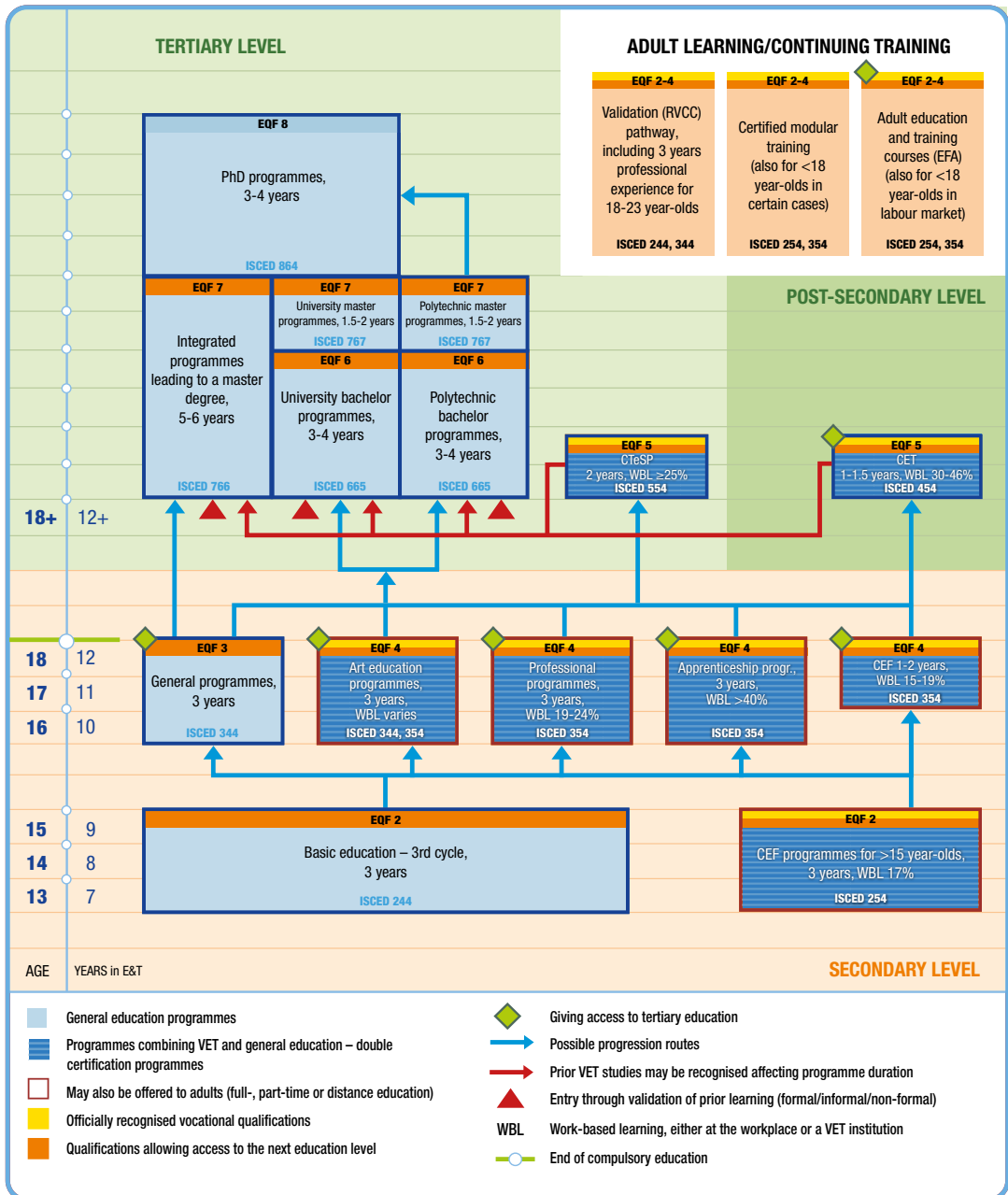
Vocational education and training (VET) is under the remit of the ministries of education and labour. The national qualification system (*Sistema Nacional de Qualificações*, SNQ) reorganised VET into a single system. It ensures scholarly and professional progression of citizens through a double certification training, comprising the national catalogue of qualifications (*Catalogo Nacional de Qualificações*, CNQ), and the recognition of prior learning (recognition, validation and certification of competences, RVCC).

Permeability between general and VET programmes is ensured. Young people can choose among different types of VET programme, provided that they meet admission requirements in terms of age and education achieved. All VET programmes grant double certification: an education certificate and a professional qualification. Apart from those at lower secondary level, VET programmes combine general education, science and technological training with 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. Progression is possible to upper secondary education;
- at upper secondary level, VET programmes (ISCED 354, EQF 4) lead to employment or further studies, including higher education. School-based VET programmes are:
  - three-year vocational programmes (nationally referred to as professional);
  - one- to two-year CEF programmes;
  - three-year art education programmes;
- apprenticeship programmes are for young people up to age 25. Programmes include 40% WBL. A training contract between the apprentice and the enterprise (training provider) must be signed;
- at post-secondary level, technological specialisation programmes (CET, ISCED 454; EQF 5) last from one to one-and-a-half years and incorporate 30% to 46% WBL. Through agreements with higher tertiary institutions CET graduates are credited up to 90 ECTS points.
- at tertiary level, two-year high professional technical courses (CTeSP, ISCED 554; EQF 5) are offered by polytechnics (internship lasting at least 25% of study time). Graduates are credited 120 ECTS points and receive a high-level technician diploma.

Over the past decade, policy developments have aimed at upskilling adults by offering the following programmes:

- adult education and training programmes (EFA, ISCED 254 and 354) are training schemes for learners who want to complete lower or upper secondary education and/or obtain a professional qualification at EQF 2 to 4;
- certified modular training is based on short-term training units (UFCD) and allows learners to select an individual learning path. Some of these learning paths can lead to a double certification at EQF 2 to 4.
- RVCC (ISCED 244, 344) is a process based on the lifelong learning (LLL) principle, which comprises the identification of formal, non-formal and informal competences developed throughout a lifetime. The two RVCC paths (academic and professional) can lead to either a lower or upper secondary education certificate at EQF 2 to 4 or a professional qualification. Adults lacking competences required for a qualification are guided to relevant training programmes to acquire them.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Portugal.

## VET in Romania

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. To enrol in upper secondary education and training, including VET (grade 9), learners need to present 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 National Education. The National Centre for TVET Development coordinates the creation of training standards for qualifications validated by sectoral committees (coordinated by the National Authority for Qualifications) and approved by the ministry. Social partners participate in the committees and support VET implementation. Continuing VET development is under the responsibility of the Ministry of Labour and Social Justice.

### Initial VET

At upper secondary level there are:

- three-year school-based programmes (ISCED 352), providing graduates with a professional qualification at EQF level 3 (such as cook). Programmes are offered by 'professional schools', cooperating with employers which provide compulsory in-company training for learners as part of work-based learning (WBL). WBL is also offered in schools, with average share of 50% per programme. Learners who interrupted their studies after completing lower secondary education may enrol in the programmes until age 26, free of charge. Since 2017/18, a dual form of VET has also been available, provided at the request of companies that participate in training provision. The share of learners in dual VET is 1.5% 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 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 352) offering a professional qualification only;

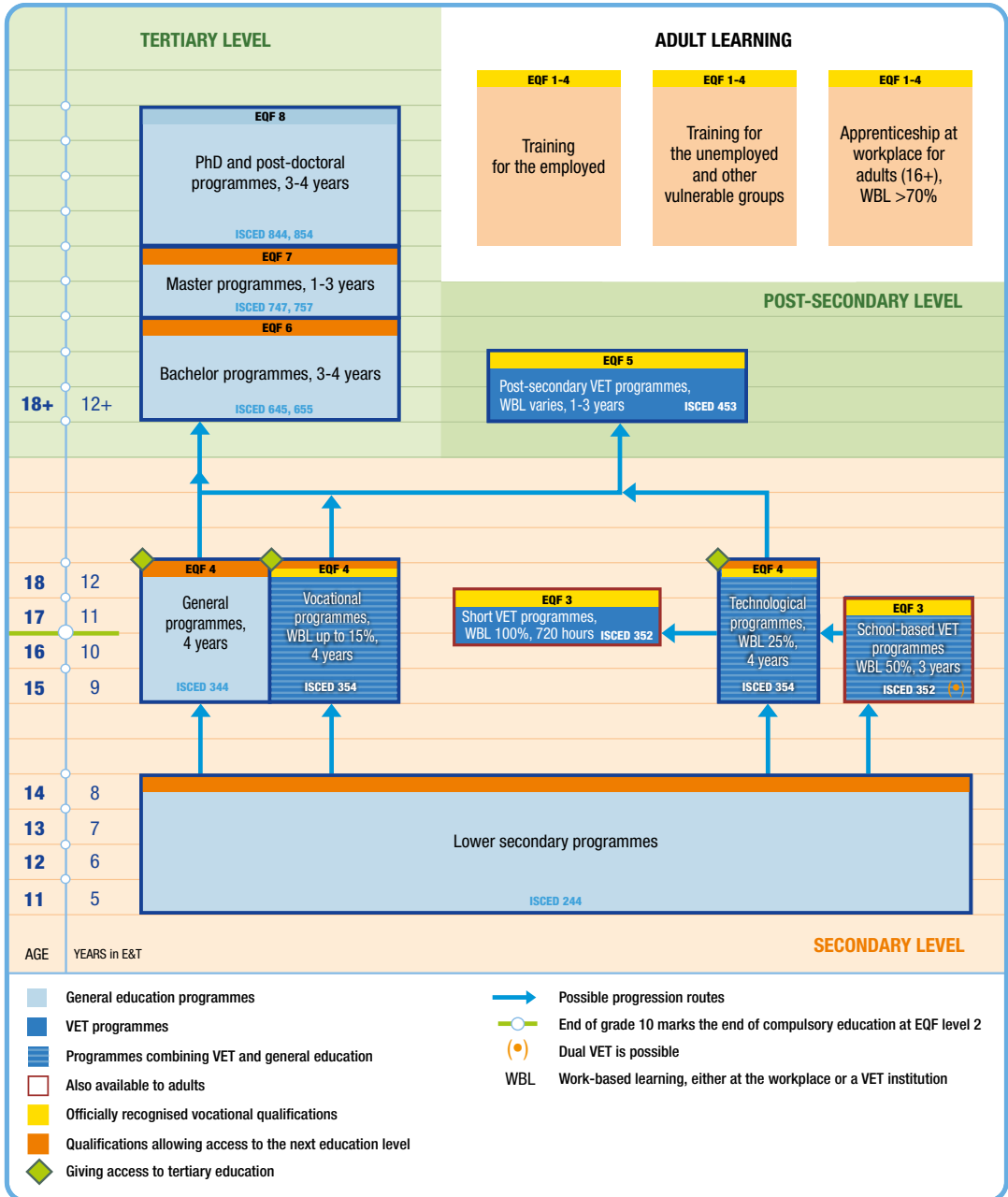
- short programmes (ISCED 352), providing learners who completed two years of a technological programme (completed grade 10) with a professional qualification at EQF level 3 (such as cook) via 720 hours of work-based learning. The programmes are coordinated by VET schools and are provided mainly by employers. 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 354, EQF level 4), providing graduates with a professional qualification in 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 453), leading to a professional qualification at EQF level 5 (such as optician); they are organised by technological schools or colleges/universities at the request of companies or based on learner interest. They provide secondary school graduates with an opportunity to advance in their qualifications (such as nursing and pharmacy technician).

### Continuing VET

Adult vocational training is offered by authorised private and public providers considering the needs of employers and basic skills needs of adults.

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 nationally recognised qualification certificate of the same value as in initial VET. Theory and practical training (WBL at least 70%) is provided mainly by companies, in cooperation with authorised professional training providers.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Romania.

## VET in Slovenia

Formal vocational education and training (VET) in Slovenia starts at upper secondary level and is provided mainly by public schools. 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 vocational standards. 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). These programmes consist of 40% general subjects and at least 8 weeks of work-based learning. After passing the vocational *matura*, students can either enrol in higher vocational education (ISCED 554), in first-cycle professional education (ISCED 655), or enter the labour market;
- 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 in schools.

Changing paths midway is possible. After final exams, students from both 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 2016/17, 35.1% of students enrolled in general upper secondary programmes and 59.8% in upper secondary VET programmes (41.7% in technical programmes, 16.7% in vocational programmes, and 1.4% in short VET programmes).

Learners with vocational or general *matura* can enrol in two-year higher vocational programmes (ISCED 554), which are provided by public vocational schools and private providers. These programmes include 40% of work-based learning in companies.

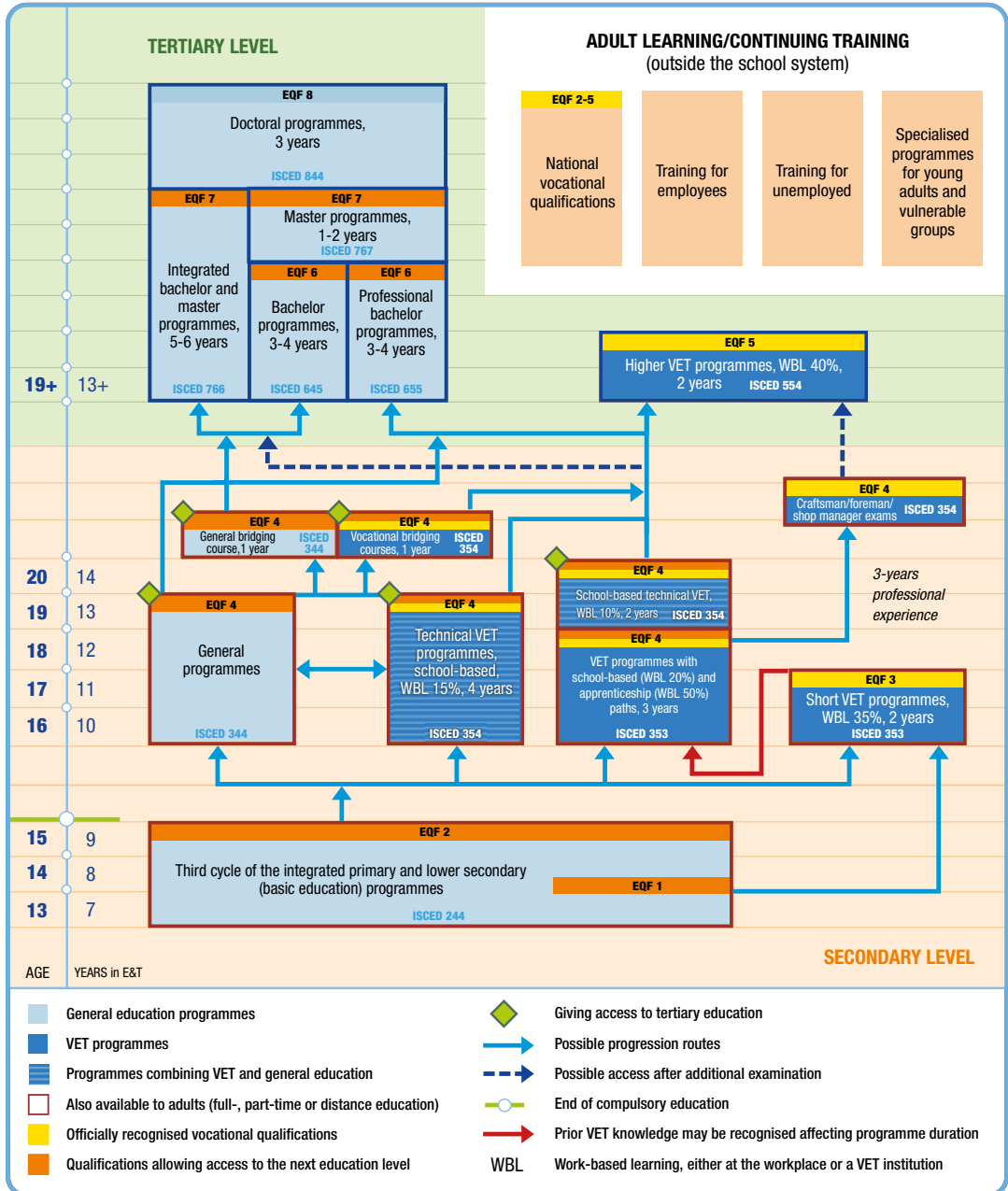
### Adult learning and CVET

Adults can enrol in the same formal VET programmes as young people. Organisation and means of assessing knowledge are adjusted to suit an adult learner (such as the use of modules and allowing exemptions). Adults can also participate in continuing VET, offered by public and private providers; regulation of provision of such programmes is not part of legislation. Many activities to support adult education are organised by adult education centers.

In the school year 2016/17, 5.0% of adult learners enrolled in general upper secondary programmes, while 95% enrolled in upper secondary VET programmes (61.3% in technical programmes, 33.0% in vocational programmes and 0.7% in short VET programmes).

The national vocational qualifications (NVQ) system is intended for adults over 18 who would like to verify knowledge gained outside formal education. The system has been in place since 2000.





NB: ISCED-P 2011.

Source: Cedefop and ReferNet Slovenia.

## VET in Slovakia

Vocational education and training (VET) has traditionally been a strong pillar of the education system. Despite growing interest in general education, participation in secondary VET programmes offering access to higher education (ISCED 354) is still among the highest in the EU.

### IVET

Initial VET (IVET) usually starts at age 15. It is mainly school-based, with periods of work-based learning (WBL) defined by institutional contracts between secondary VET schools (SOŠ) and companies. Since 'dual IVET' was introduced in 2015/16, it has allowed companies to sign individual training contracts with learners for in-company practical training, complemented with an institutional contract between SOŠ and companies. Learners are considered VET students and not employees.

In 2017/18, 461 approved VET programmes could be offered by secondary schools. Changes in legislation will introduce a new type of art education school (*škola umeleckého priemyslu*) and secondary sports school to operate from 2019/20.

Secondary IVET programmes comprise:

- school-based four-year (occasionally five-year) 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 (ISCED 354) with extended practical training. These can be offered as school-based or 'dual VET' and 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. From 2018/19 school-based and 'dual VET' will be based on the same national curricula (the same will apply for ISCED 353 programmes);
- three-year (occasionally four-year) programmes (ISCED 353). These lead to a VET qualification (nationally referred to as certificate of apprenticeship) and can also be offered as 'dual VET';
- two- or three-year programmes (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.

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

Conservatories offer six- and eight-year programmes for performing arts students, leading to an ISCED 5 non-university diploma and title (specialist in arts diploma, DiS art).

Post-secondary non-tertiary VET programmes comprise:

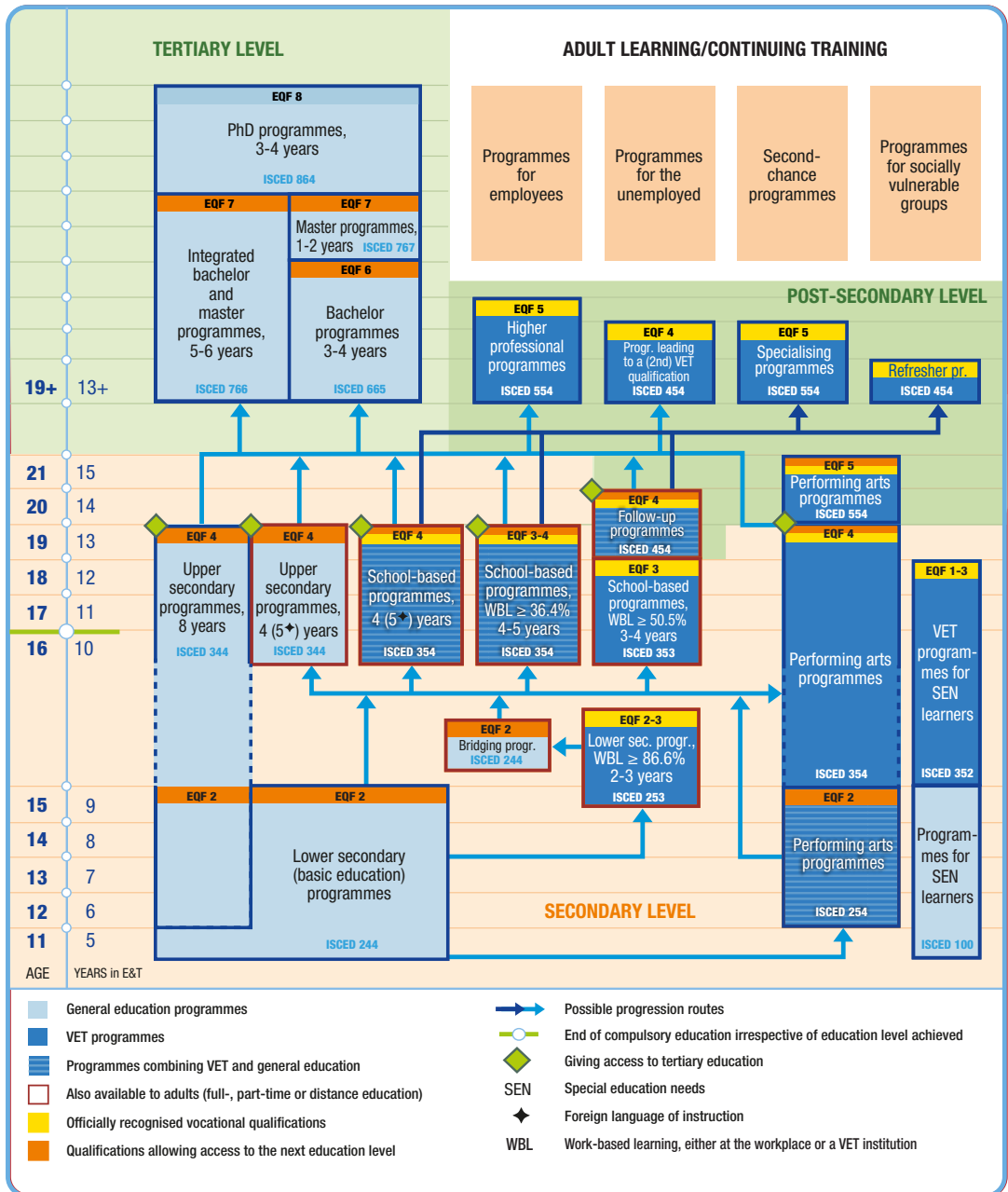
- two-year follow-up study programmes (ISCED 454) for three-year VET programme graduates (ISCED 353) leading to a *maturita* school leaving certificate;
- refresher programmes ending with a post-*maturita* exam (minimum six months, ISCED 454);
- programmes leading to a second VET qualification (qualifying programmes, ISCED 454, minimum two years) leading to a second *maturita* with a specific vocational component and, in some cases, also to a certificate of apprenticeship;
- specialising programmes (ISCED 554, minimum two years, nationally considered post-secondary) leading to a non-university diploma and title (DiS);
- three-year higher professional programmes (ISCED 554, nationally considered post-secondary) leading to a non-university diploma and title (DiS).

Tertiary education currently does not include universities of applied science. A practice-oriented bachelor programme, designed in cooperation with the automotive industry, was offered for the first time in 2017/18. The national programme for the development of education, adopted by the government in June 2018, promotes development of professionally oriented bachelor programmes and the expansion of 'dual VET' into tertiary education.

### CVET

Continuing VET (CVET) 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 its central office and district labour offices.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Slovakia.

## VET in Spain

Vocational education and training (VET) is mainly the responsibility of education and employment authorities. The national system for qualifications and vocational training is the umbrella for VET programmes, leading to formal qualifications awarded by either the education or employment authorities.

The General Council for Vocational Training is the national government advisory body on VET policy; it comprises representatives of national and regional public authorities as well as the social partners (enterprises and trade unions). Stakeholders are involved in designing and updating VET qualifications in line with labour market needs. They develop occupational standards in all sectors of the economy, which make up the national register (CNCP) and are used as reference for designing and updating VET programmes and qualifications.

Education authority VET offers upper secondary (basic and intermediate) and higher VET qualifications. All programmes last two years (2 000 hours) and include work-based learning in a company and at a VET school:

- basic VET 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 and prepare for an occupation (such as kitchen assistant, agrogardening) 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 VET programmes can begin at age 16, after the end of compulsory education. These lead to technician qualifications at ISCED 354 (such as cookery and gastronomy, emergencies and civil protection). Access to higher VET in the same field of study is possible, via an admission procedure;
- at tertiary level, higher VET programmes (ISCED 554) lead to an advanced technician qualification (such as logistics coordinator, 3D animations and games). Graduates can progress to bachelor programmes through an admission procedure.

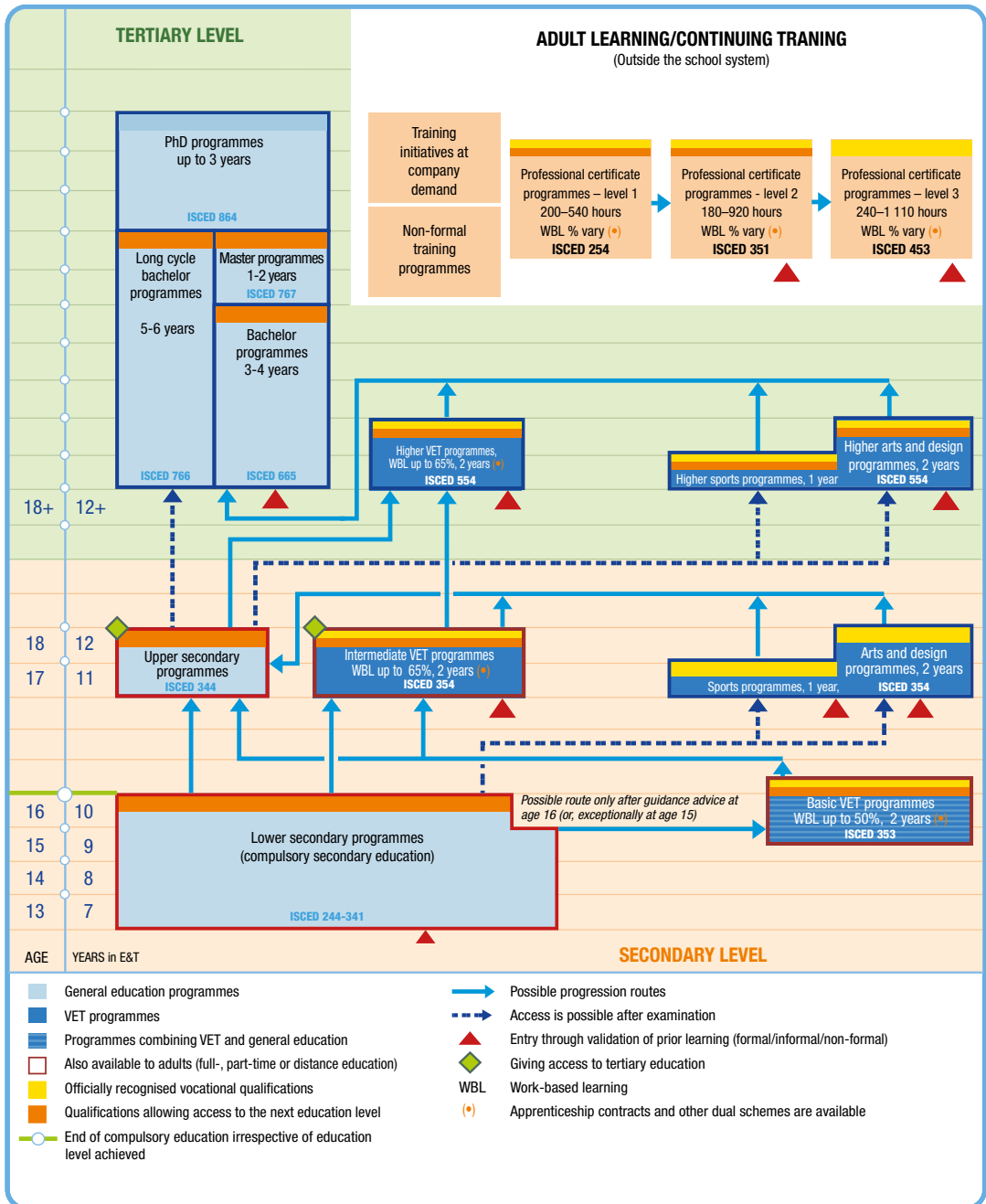
It is possible to acquire VET qualifications through dual VET (apprenticeship contracts or other alternance schemes). In such cases, the programme duration may be up to three years with a minimum of 33% of training spent at the company.

Specific training programmes in arts and design and in sports are offered at ISCED levels 354 and 554.

Adults can enrol in the same VET programmes as young people. Those older than 16 can also attend employment authority VET programmes to obtain a professional certificate corresponding to an occupational profile. Programmes are delivered by authorised VET providers and may include an apprenticeship contract. No formal 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 to be achieved 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.

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.

CVET includes a wide range of courses designed for different needs and skill profiles, allowing people to upgrade their skills and acquire a (partial) professional certificate. It may be financed through public funds (mainly company and worker contributions to social security). Training is offered by private and public institutions accredited by labour authorities as providers of professional certificates and by other VET training centres.



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

Source: Cedefop and ReferNet Spain.

## 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. Alternatively they can follow individualised introductory programmes, giving access to upper secondary programmes or to the labour market. Depending on the programme type and the students' performance, they 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% and in apprenticeship the minimum is 50%. Upper secondary schools are run by municipalities, county councils, the State and private training providers.

An upper secondary diploma and sufficiently high grades in particular modules (such as Swedish, English and mathematics) are required to access higher vocational education. All learners in VET programmes are entitled to study those modules or can do so at a later stage for free in municipal adult education.

At post-secondary and tertiary VET levels, one- or two-year higher VET programmes are offered, leading to a diploma or advanced diploma in higher vocational education at EQF levels 5 and 6. They combine school-based learning with training at the workplace. To obtain an advanced diploma in higher vocational education, at least a quarter of the programme must be carried out as workplace training. The training providers are chosen by the Swedish Agency for Higher Vocational Education (MYH) and can be municipalities, private providers, counties or universities.

Adult education has a long tradition in Sweden. Participation in lifelong learning was above 30% in 2017, making it the highest in the European Union (Eurostat), and it is provided in many forms. Municipalities offer formal adult education where learners can also acquire an upper secondary vocational diploma. Individual modularised

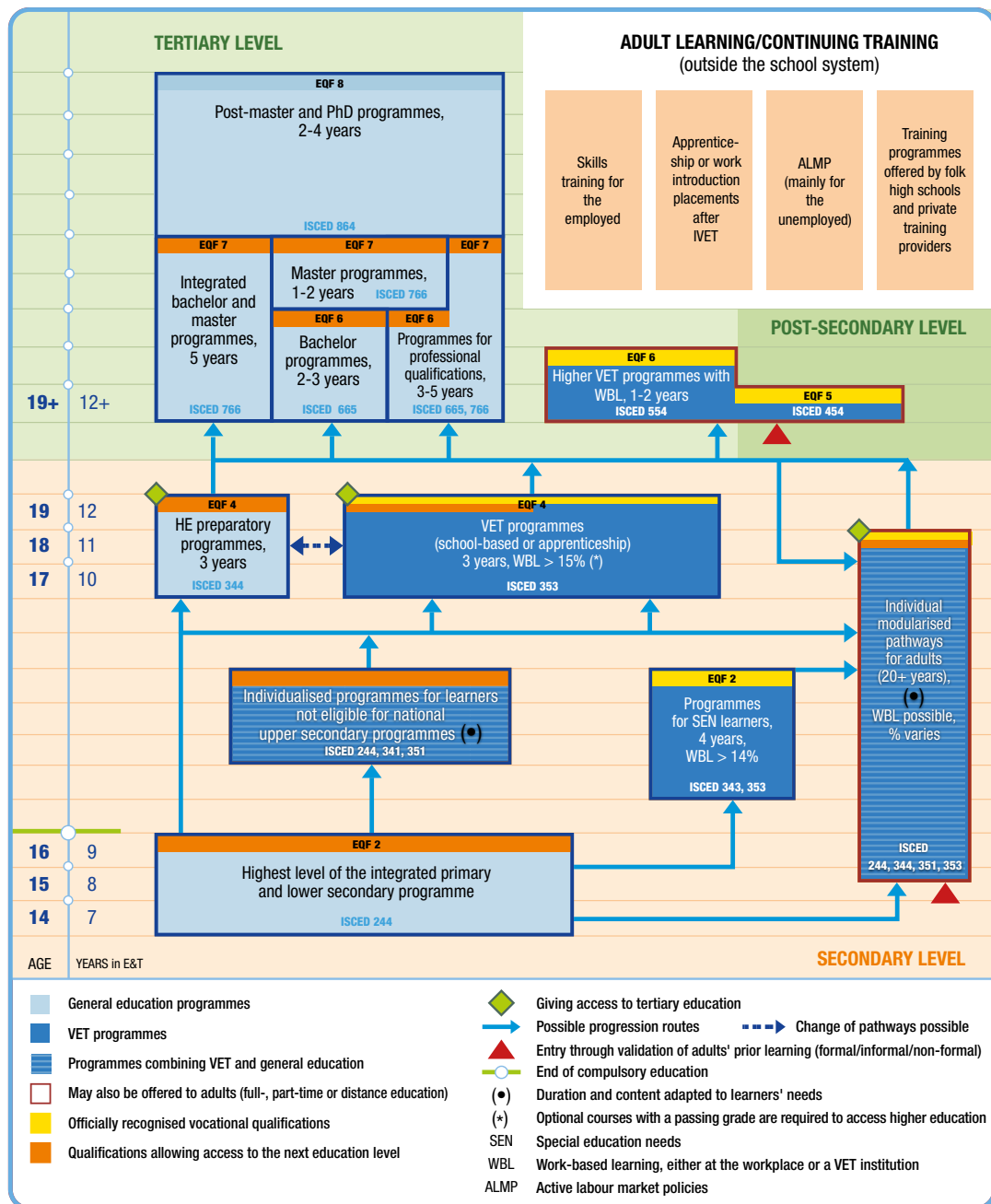
pathways for adults, set up according to the specific required needs, are the most common way to gain a qualification in a new field or study the courses required to access higher vocational or higher general education. At a non-formal level, folk high schools and private training providers offer various courses for adults. Several active labour market policy programmes (ALMP) for the unemployed are also vocationally oriented or feature different forms of work placement. Courses and programmes are financed through fees or by companies and organisations, with public grants also provided.

Since 2016, non-formal and private sector 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. Social partners, industry representatives and sometimes also public authorities are members of these councils.

The MYH is in charge of higher VET, approving training providers who then cooperate with the world of work to develop and deliver programmes. The government needs to give their final approval to the introduction of any new higher VET programme.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Sweden.

## VET in the United Kingdom

Vocational education and training (VET) is available at secondary and higher education levels through public and private providers. VET qualifications exist in a wide variety of sectors and prepare learners for work and further study. Education or training is compulsory up to age 16 (18 in England). For learners up to 18, VET is funded by government agencies. Adult learners are eligible for grants and, in some parts of the UK, also loans.

Predominantly school-based programmes, combining general academic study with VET elements, exist alongside broad VET programmes and specialist occupational programmes. Work-based learning may take place both in a VET provider setting and a workplace.

Most VET programmes can be accessed from age 15/16, although learners can be introduced to VET earlier. VET is offered full- and part-time; students may attend training on a block- or day-release basis from employers, or attend evening or weekend learning. Programme duration varies by subject area and type of learning and is between one and four years.

Apprentices are employed and are taught core, transferable skills. Technical and occupational learning take place on and off the job. A national qualification is awarded on completion. Demand for apprenticeships is rising and competition for the best apprenticeship places is increasing. More apprenticeships are being developed at higher education level in response to current labour market needs.

There is a well-established system for VET learners in the UK to progress to higher education. Candidates holding an EQF level 4 VET qualification, or a combination of VET and general qualifications and subjects, may access selected first-cycle university programmes at institution discretion depending on the subjects' relevance to future studies. However, there is no automatic right to progression from one qualifications framework level to the next as education providers and awarding organisations can set entry requirements for individual qualifications.

Across the UK there are also good articulation options for progression from higher VET programmes (EQF level 5) to the second or third year of a bachelor degree in a related field.

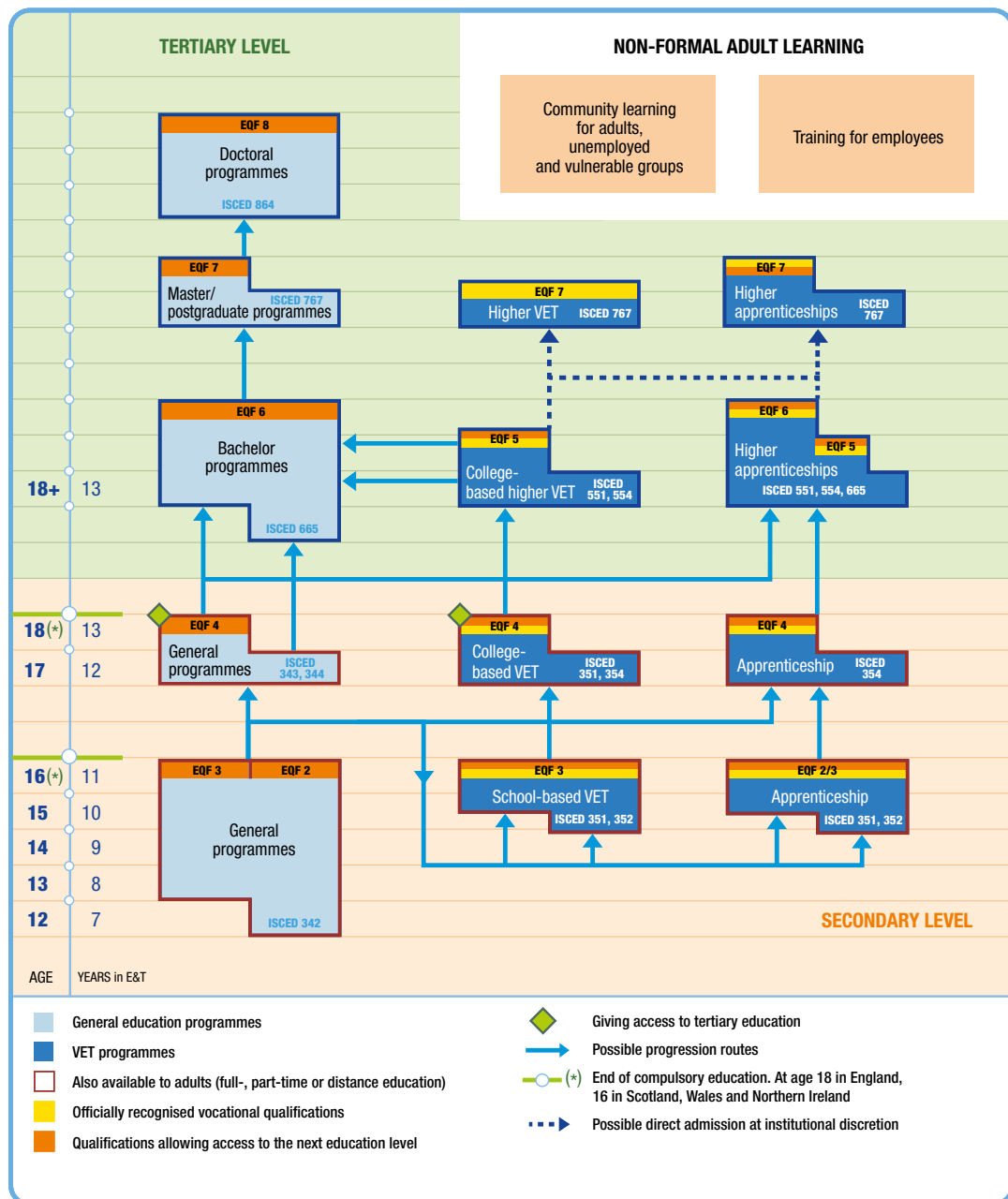
The UK government has devolved decision-making powers in several areas of policy, including governance of VET, to the administrations in Scotland, Wales and Northern Ireland. While there are similarities between education and training systems in England, Wales and Northern Ireland, reforms are creating greater divergence. Qualifications and the qualifications framework levels are different in Scotland from the rest of the UK.

The qualifications market in the UK is jointly driven by government policies and private interests, increasingly through direct employer engagement in VET qualifications design. This has led to a large choice of qualifications and awarding organisations. Qualifications are designed and issued by independent awarding organisations. Some offer a large variety of qualifications, often both general and vocational; smaller ones often specialise in a specific professional area.

VET providers include secondary schools, school sixth forms, sixth form colleges, further education colleges, higher education institutions, private training providers, and employers. The regulated qualifications framework for England and Northern Ireland has, from 2015, removed prescriptive unit and credit requirements to give awarding organisations increased freedom and flexibility to develop VET qualifications that meet labour market needs. Qualifications frameworks in Scotland and Wales have retained their unit and credit structure.

Many VET learners are adults. Adult and continuing education is part of the formal education system, but is also offered as non-formal training by employers and training providers. Trade unions, employer organisations, sector skill councils and other social partnerships are involved in providing adult education, developing learning resources and anticipating labour market needs.





NB: ISCED-P 2011. ISCED classification based on the 2015 mapping of UK classifications by the Department for Education.  
 Source: Cedefop and ReferNet UK.

# ReferNet

Cedefop's European network of expertise on VET

## **Austria**

ibw – Institut für Bildungsforschung der Wirtschaft

öibf – Österreichisches Institut für Berufsbildungsforschung

[www.refernet.at](http://www.refernet.at)

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## **Belgium**

IBFFP – Institut Bruxellois Francophone pour la Formation Professionnelle (Bruxelles Formation)

[www.refernet.be](http://www.refernet.be)

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## **Bulgaria**

НАΠОО – Национална агенция за професионално образование и Обучение

[www.refernet.bg](http://www.refernet.bg)

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## **Croatia**

ASOO – Agencija za strukovno obrazovanje i obrazovanje odraslih

[www.refernet.hr](http://www.refernet.hr)

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## **Cyprus**

AvAD – Αρχή Ανάπτυξης Ανθρώπινου Δυναμικού Κύπρου

[www.refernet.org.cy](http://www.refernet.org.cy)

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## **Czech Republic**

NÚV – Národní ústav pro vzdělávání

NVF – Národní vzdělávací fond

[www.refernet.cz](http://www.refernet.cz)

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## **Denmark**

Professionshøjskolen Metropol

[www.phmetropol.dk/refernet](http://www.phmetropol.dk/refernet)

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## **Estonia**

HTM – Haridus- ja Teadusministeerium

[www.hm.ee/et/refernet](http://www.hm.ee/et/refernet)

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## **Finland**

OPH – Opetushallitus/Utbildningsstyrelsen

[www.oph.fi/tietopalvelut/kansainvalinen\\_koulutu\\_stieto/cedefop/refernet](http://www.oph.fi/tietopalvelut/kansainvalinen_koulutu_stieto/cedefop/refernet)

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## **France**

Centre Inffo – Centre pour le développement de l'information sur la formation permanente

[www.centre-inffo.fr/refernet](http://www.centre-inffo.fr/refernet)

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**Germany**

BIBB – Bundesinstitut für Berufsbildung  
[www.refernet.de](http://www.refernet.de)

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**Greece**

ΕΟΠΠΕΠ – Εθνικός Οργανισμός Πιστοποίησης Προσόντων & Επαγγελματικού Προσανατολισμού  
[www.refernet.gr](http://www.refernet.gr)

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**Hungary**

NSZFH – Nemzeti Szakképzési és Felnőttképzési Hivatal  
[www.refernet.nive.hu](http://www.refernet.nive.hu)

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**Iceland**

Menntamálastofnun – The Directorate of Education  
[www.refernet.is](http://www.refernet.is)

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**Ireland**

SOLAS – An tSeirbhís Oideachais Leanúnaigh agus Scileanna  
[www.solas.ie/refernet](http://www.solas.ie/refernet)

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**Italy**

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

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**Latvia**

AIC – Akadēmiskās informācijas centrs  
<http://www.refernet.lv>

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**Lithuania**

KPMPC – Kvalifikacijų ir profesinio mokymo plėtros centras  
[www.kpmpc.lt/refernet](http://www.kpmpc.lt/refernet)

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**Luxembourg**

INFPC – Institut national pour le développement de la formation professionnelle continue  
[www.refernet.lu](http://www.refernet.lu)

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**Malta**

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

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**Netherlands**

ECBO – Expertisecentrum Beroepsonderwijs  
[www.refernet.nl](http://www.refernet.nl)

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**Norway**

Diku – Direktoratet for internasjonisering og kvalitetsutvikling i høyere utdanning  
[www.siu.no/ReferNet](http://www.siu.no/ReferNet)

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**Poland**

IBE – Instytut Badań Edukacyjnych  
[www.refernet.ibe.edu.pl](http://www.refernet.ibe.edu.pl)

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**Portugal**

DGERT – Direção-Geral do Emprego e das Relações de Trabalho  
[www.refernet.pt](http://www.refernet.pt)

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**Romania**

CNDIPT – Centrul Național de Dezvoltare a Învățământului Profesional și Tehnic  
[www.refernet.ro](http://www.refernet.ro)

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**Slovakia**

ŠIOV – Štátneho inštitútu odborného vzdelávania  
[www.refernet.sk](http://www.refernet.sk)

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**Slovenia**

CPI – Center RS za poklicno izobraževanje  
[www.refernet.si](http://www.refernet.si)

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**Spain**

Fundae – Fundación Estatal para la Formación en el Empleo  
[www.refernet.es](http://www.refernet.es)

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**Sweden**

SKOLVERKET – Statens Skolverk  
[www.skolverket.se/refernet](http://www.skolverket.se/refernet)

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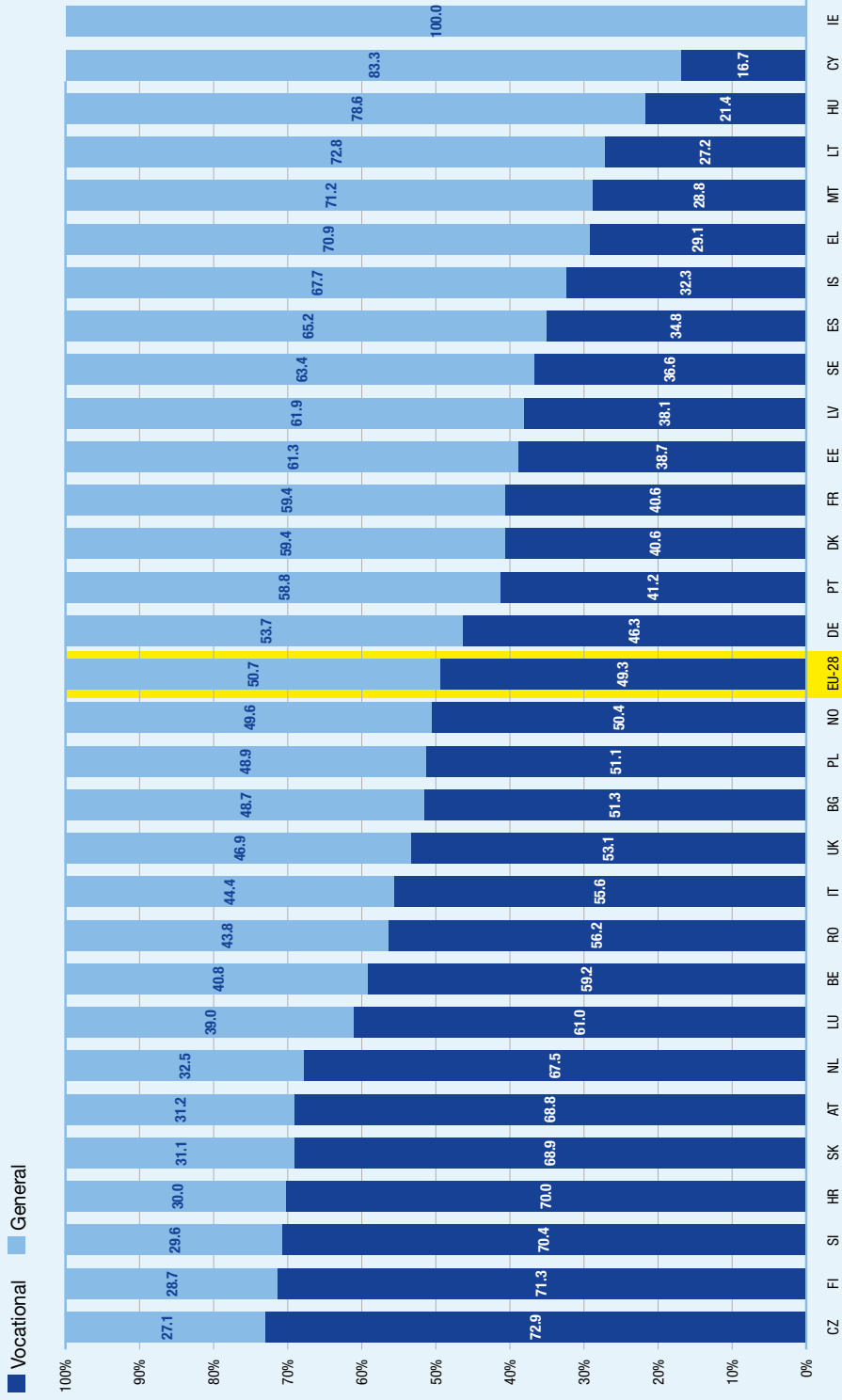
**United Kingdom**

ECCTIS Ltd  
[www.refernet.org.uk](http://www.refernet.org.uk)

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# 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, 2016

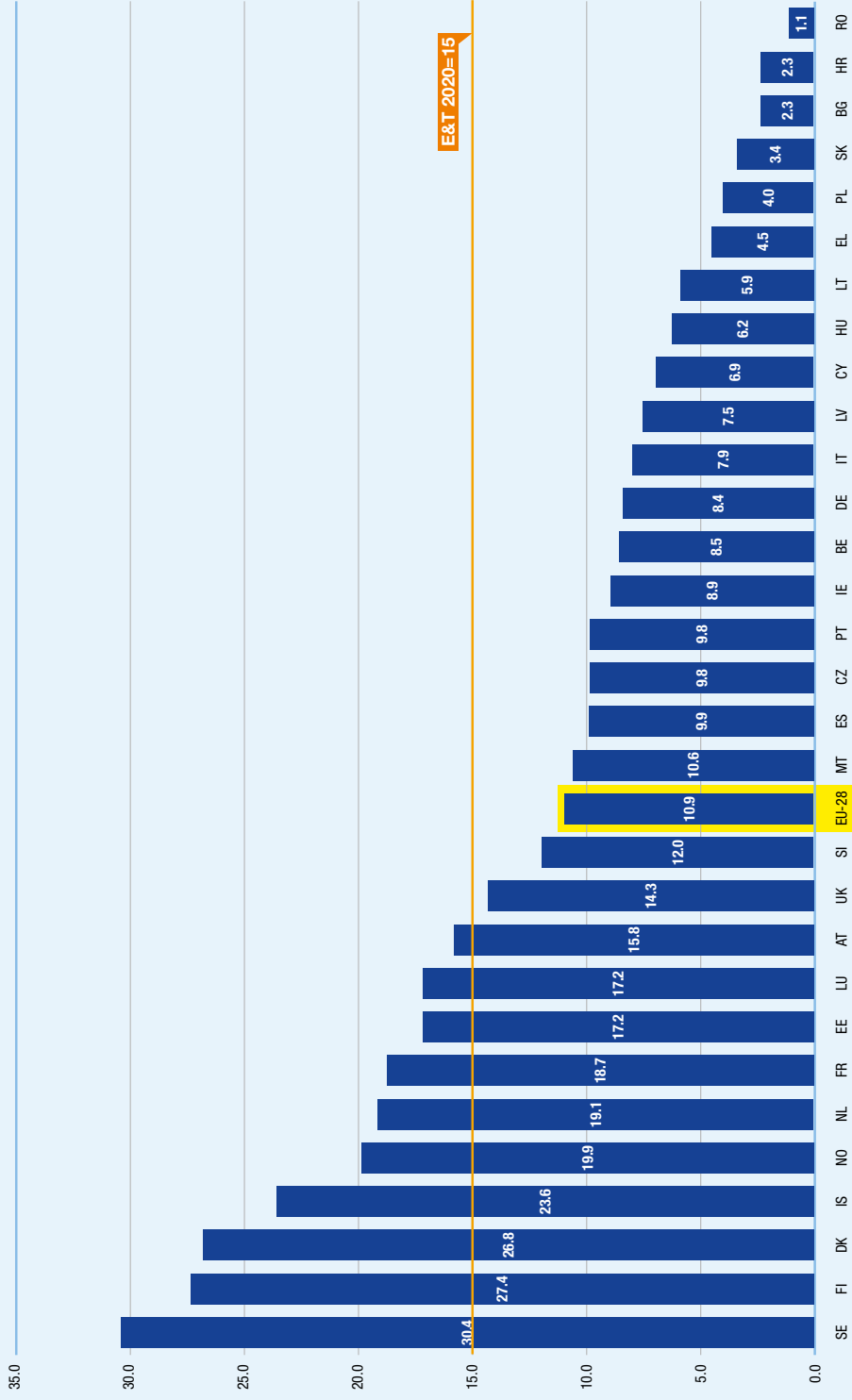


NB: EU-28 value is based on Cedefop calculations. AT: for five-year VET (BHS) the value only covers enrollment in the first three years; as the last two are assigned to ISCED 5. IE: while there are programmes with a vocational dimension in Ireland at ISCED level 3, these are considered general programmes.

Source: Cedefop calculations, based on Eurostat, UOE data collection on education systems, date of extraction 11.12.2018.

## Lifelong learning

% of population aged 25 to 64 participating in education and training over the four weeks prior to the survey, 2017

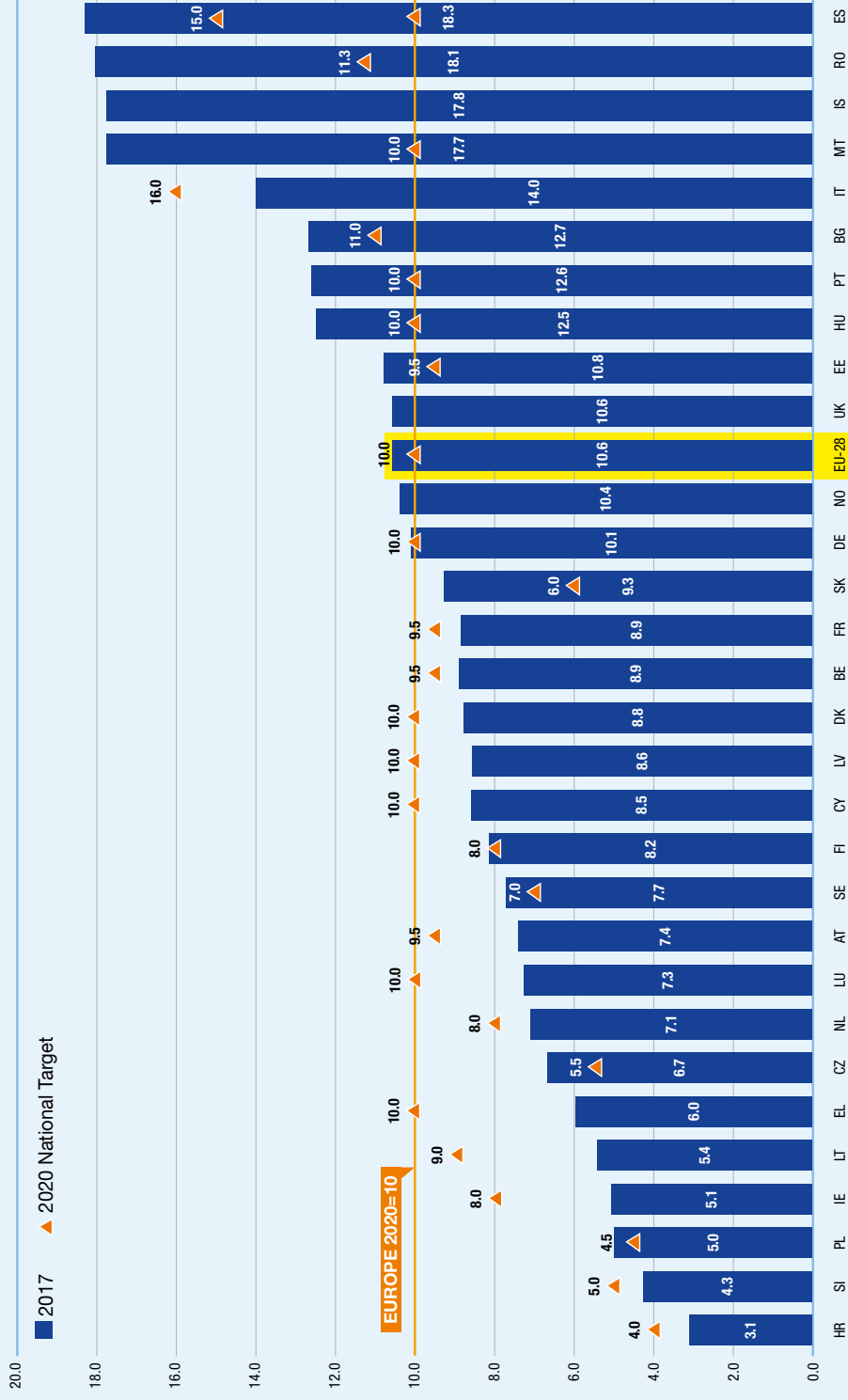


NB: Break in time series for BE, DK, IE and MT values in 2017.

Source: Eurostat, EU labour force survey, date of extraction 11.12.2018.

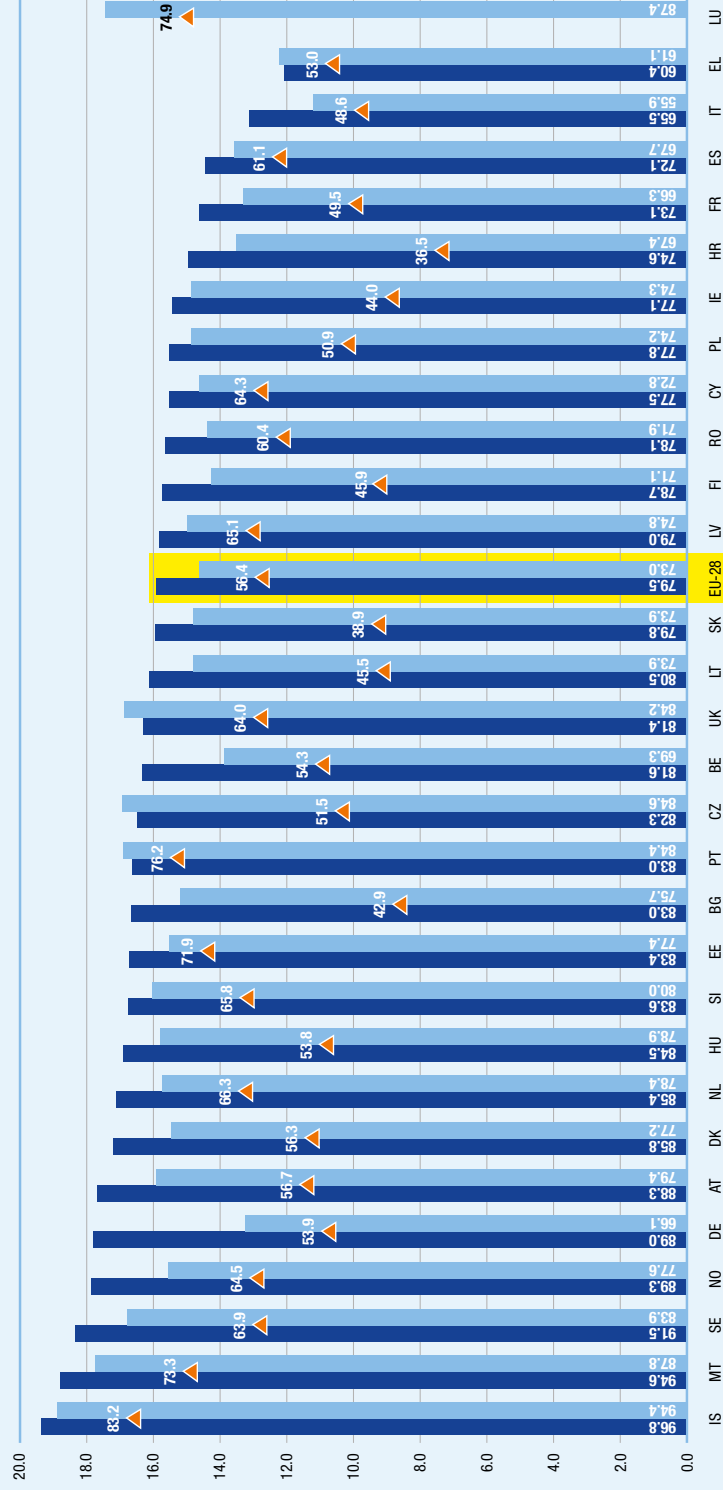
### Early leavers from education and training

% of the population aged 18 to 24 with at most lower secondary education and who were not in further education or training during the four weeks prior to the survey, 2017



NB: Break in time series for BE, DK, IE and MT values in 2017. 2020 national target values were not available for IS, NO and UK. Source: Eurostat, EU labour force survey, date of extraction 11.12.2018.

## Employment rates of young graduates % of 20 to 34 year-olds no longer in education and training, 2017



■ Upper vocational secondary and post-secondary non-tertiary education (ISCED levels 3 and 4).

■ Upper general secondary and post-secondary non-tertiary education (ISCED levels 3 and 4).

▲ Less than primary, primary and lower secondary education (ISCED levels 0-2).

NB: Break in time series for BE, DK, IE and MT values.

LU upper vocational secondary and post-secondary non-tertiary education (ISCED levels 3 and 4) value was not available.

Source: Eurostat, EU labour force survey, date of extraction 11.12.2018.







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