



Spotlight on VET

ANNIVERSARY EDITION



Vocational education
and training systems in Europe

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We provide information on and analyses of vocational
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Message from the Director

This anniversary publication presents a concise picture of essential features of VET in Europe. Reporting on and analysing vocational education and training (VET) has been a Cedefop core activity throughout its 40-year history.

Modernising VET to ensure its outcomes empower learners to find and maintain jobs and advance in their educational careers, has been at the heart of European cooperation for more than a decade. Cedefop is at the forefront of monitoring countries' progress towards set VET priorities. It also supports cross-country policy learning and, increasingly, individual Member States and social partners in their joint work on modernising VET.

While Cedefop's core task has remained the same, approaches and methods have changed over the years. An early focus was on producing comprehensive information on VET systems and their features. Today, there is a wealth of reports and studies by Cedefop, the European Commission and other organisations on specific VET features and VET-related policies in Member States. In recent years, VET has (again) moved high up on the policy agenda. Demand for country-specific information has increased. Different reporting formats are needed to serve various purposes and stakeholders.

In response to these needs, Cedefop, in cooperation with its ReferNet, publishes a *Spotlight on VET* for each EU Member State, Iceland and Norway. Spotlights present essential VET features of all 30 countries using comparable system charts based on each country's VET programmes, rather than schools or institutions. This approach inevitably involved simplification and use of common terminology. The information presented in the system charts is therefore not exhaustive but aims to illustrate main differences and similarities between the 30 countries at a glance. More detailed national information provided by ReferNet is available in *VET in Europe* country reports and thematic articles on Cedefop's web portal.

I trust that this anniversary publication will prove to be a useful starting point for discussions in national, regional European and international VET forums.

Finally, I should particularly like to acknowledge contributions from ReferNet partners who provided the information on VET in their countries. Without their commitment, this publication would not have been possible.

James Calleja
Cedefop Director

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VET in Austria

Vocational education and training (VET) plays an important role; 75% of all learners who have completed compulsory schooling are in a VET programme. Young people can choose from a wide range of mainly school-based and dual track (apprenticeship) programmes (about the same shares in both). These upper secondary programmes cover all economic sectors and lead to different qualification levels (from EQF 3 to EQF 5). School-based VET starts in the last year of compulsory schooling (year 9), and apprenticeship usually in year 10, as the minimum age is 15. While most school-based VET comes under the responsibility of the education ministry, governance of apprenticeship is shared by the ministries of economy and education, the social partners and the *Länder*. There is also a variety of tertiary level VET programmes. Outside formal education, learners can acquire different qualifications through continuing VET (CVET).

The major VET programmes include:

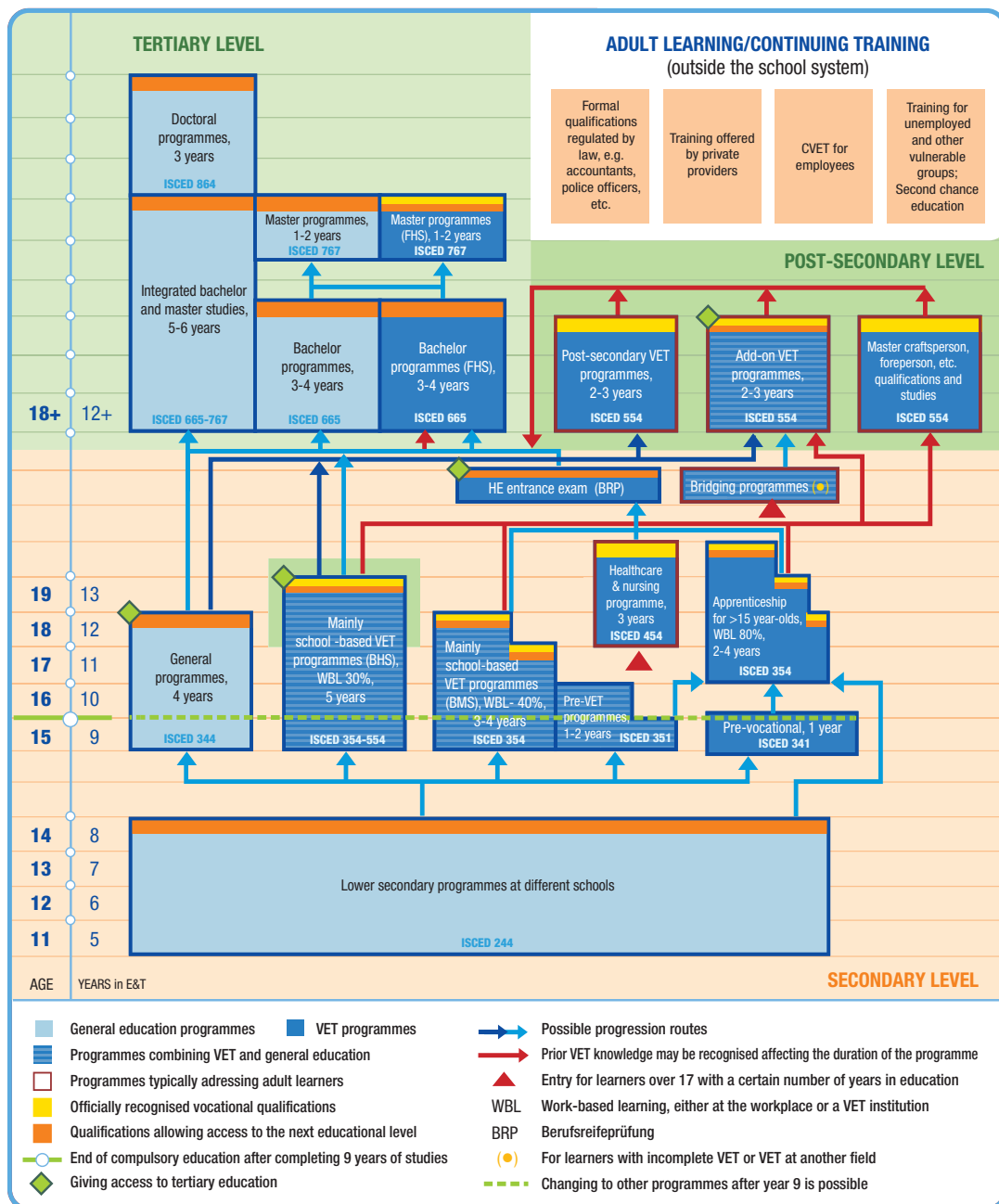
- three- to four-year (mainly) school-based programmes (BMS, 14-18 years, ISCED-P 354) leading to qualifications to exercise the respective occupation(s) and have access to regulated activities immediately after the final exam. Those who complete the *Berufsreifeprüfung* (exam for people whose initial VET does not automatically qualify them for entry into higher education) also have general access to tertiary level studies;
- five-year (mainly) school-based programmes (BHS, 14-19 years, ISCED-P 354-554), which lead to double qualifications for senior positions in business and general access to higher education at the same time (*Reife- und Diplomprüfung*). As with graduates of BMS, access to regulated trades is possible. More than 50% progress to higher education;
- dual track (apprenticeship) training (from 15 years onwards, ISCED-P 354) in some 200 apprenticeships. Training takes place at a company and at vocational school. In-company training is based on a training regulation valid throughout Austria, which is within the remit of the Federal Ministry of Economy, but largely shaped by the social partners. The school-based part comes under the responsibility of the education

ministry (curricula) and the *Länder*. Graduates can obtain further qualifications, such as the master craftsperson exam or *Berufsreifeprüfung*; those at universities of applied sciences (FHS, from 18 years onwards, ISCED P-665/767): these programmes are tailored to specific occupation fields and award academically founded professional qualifications at higher education level (bachelor-master). A period of work placement is a mandatory part of the curriculum. FHS programmes are not only open to learners who hold higher education entrance qualifications but can also be undertaken by people with VET qualifications relevant to the field of study.

Adult learning/CVET: within the formal education and training system, (young) adults can acquire qualifications open to youth through specific programmes which build on initial qualification/prior learning (for those with a VET background as well as those from general education). There are also exam preparation programmes for master craftsperson/ foreperson and similar qualifications.

VET outside schools and higher education institutions is often available at CVET institutions. The CVET landscape is characterised by a high degree of institutional diversity (social partners' institutions are the key providers) and an associated wide range of available courses. There are also programmes that award legally regulated qualifications.

Progression opportunities from general to VET strands are possible at different stages. Horizontal mobility between general education and VET or among different sectors and types of VET may be challenging, given the substantial share of work-based learning and occupation-related theory required for vocational qualifications. Upper secondary VET graduates can progress to tertiary level studies either immediately following graduation or after completing additional examinations (such as *Berufsreifeprüfung*), depending on the type of programme undertaken.



NB: This is a simplified chart based on a common format for all countries in EU-28+Norway and Iceland.
ISCED-P2011. EQF levels are being discussed.

Source: Cedefop and ReferNet Austria.

VET in Belgium

Belgium is a federal State comprising three regions (Flanders, Wallonia and Brussels) and three communities (Flemish community – BEFL, French community – BEFR, and German-speaking community – BEDG) ⁽¹⁾. Despite multiple authorities responsible for education and training and diverging education and training systems, there is a political coherence which, as defined in the 2014 national reform programme, aims to reduce early leaving from education and training, increase rates of participation in lifelong training, as well as increase and value qualifications, and reduce inequalities within each region. At all levels, vocational and educational training (VET) policies closely involve social partners in a tradition of social dialogue.

VET systems cover compulsory education, higher education, adult education programmes, programmes alternating work and learning, and vocational training organised by public authorities for job-seekers, employees and entrepreneurs. The three communities for education and regions for vocational training and employment organise these systems.

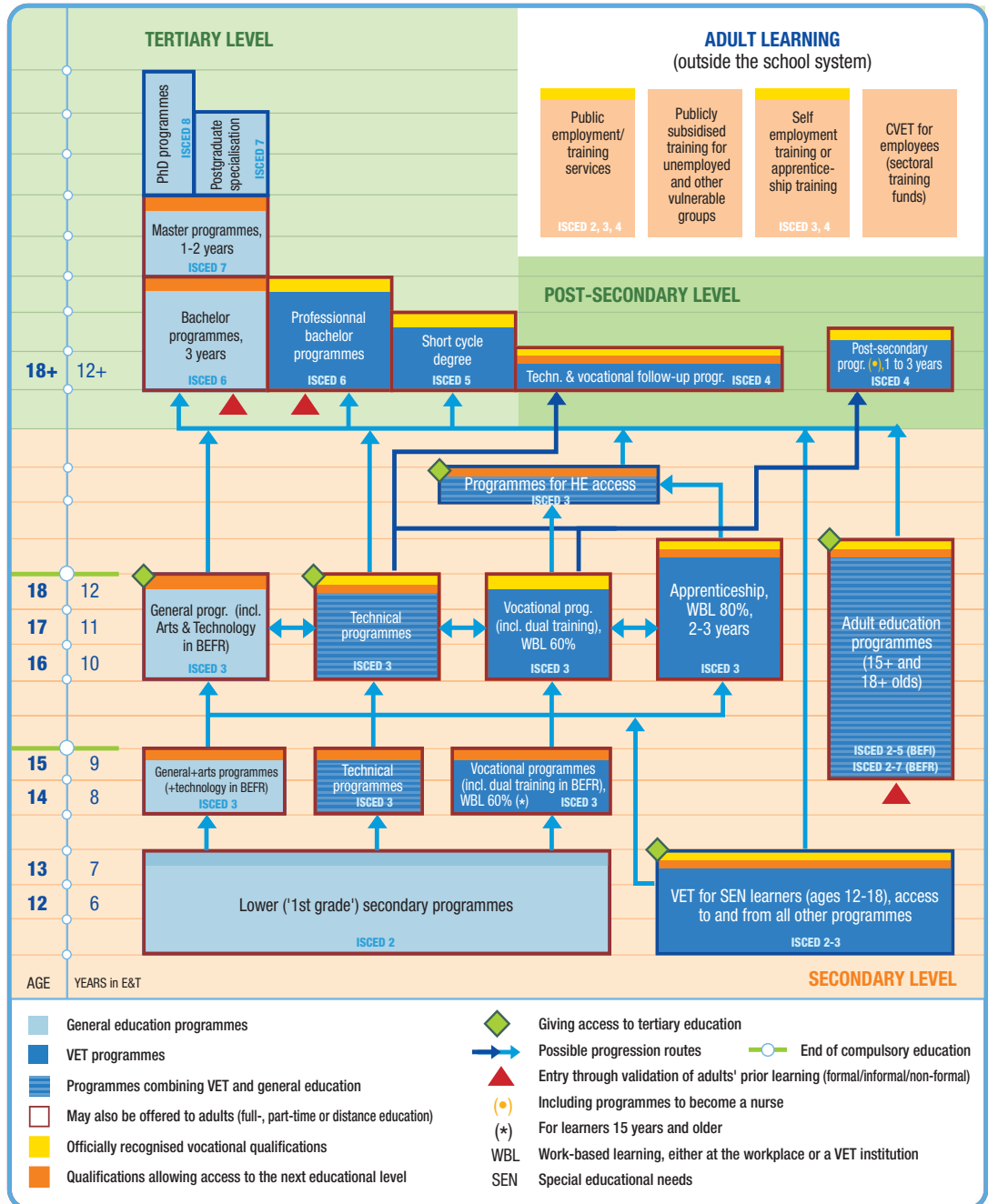
- Compulsory education covers learners aged 6 to 18 years. VET pathways exist for those aged 14 and over. These take the form of technical or vocational secondary education programmes. Technical secondary education programmes prepare students for accredited training and/or high-level technical education with award of a higher secondary education diploma. Vocational secondary education programmes focus on practice to prepare learners for labour market entry. Both types of programmes lead to a qualification certificate (after the sixth year) or a higher secondary education diploma following successful completion of a seventh year in the vocational track.
- Learners aged 15 or over can also opt for part-time programmes, alternating work and learning, organised either by schools or by public training centres. The first type of work-based learning is organised by centres (schools) for part-time education. In these programmes, learners follow general and technical courses at school two days

a week and work in a company the three other days. The second type of work-based learning concerns apprenticeships and entrepreneurial training programmes managed by Syntra Vlaanderen (Vlaams Agentschap voor Ondernemersvorming) in BEFL, the IFAPME (Institut wallon de formation en alternance et des indépendants et petites et moyennes entreprises) in Wallonia; the SFPME (Service formation pour les petites et moyennes entreprises) in Brussels and the IAWM (Institut für Aus- und Weiterbildung im Mittelstand und in kleinen und mittleren Unternehmen) in BEDG. In these programmes, learners acquire general and occupation-related knowledge and practical skills at the training centre for one to one-and-a-half days and the rest of the week training in a company. The system is oriented towards becoming skilled workers and preparing for self-employed professions. Over 18 years-old, learners have access to entrepreneurship programmes.

- From 18 years onwards, individuals have a wide range of programmes to choose from, offered by the education system and by public or private VET providers. To continue in higher professional, technical or academic education, it is, however, necessary to hold a higher secondary education diploma. People who have failed to obtain this diploma can follow adult education programmes which lead to secondary education qualifications, and in some cases also to higher professional qualifications (mostly bachelor level in BEFR or associate degree in BEFL).

Vocational training offered by public authorities leads to partial or full qualifications, or relates to specific subject areas, such as language learning. It is offered by the VDAB (Vlaamse Dienst voor Arbeidsbemiddeling en beroepsopleiding) in Flanders and Brussels, the FOREM (Office wallon de l'emploi et de la formation) in Wallonia, Bruxelles Formation (Institut bruxellois de la formation professionnelle) in Brussels and the ADG (Arbeitsamt der DG) in BEDG. Training is organised by their own services or in cooperation with public or private VET centres, subsidised or not.

⁽¹⁾ In the text the three communities will be referred to by these acronyms.



NB: ISCED-P 2011, only one digit is used, as this is a simplified chart representing VET in the three regions.

Source: Cedefop and ReferNet Belgium.

VET in Bulgaria

The Ministry of Education and Science coordinates national policy on vocational education and training (VET), while other ministries are in charge of schools in the areas they are responsible for (art, sports, etc.). The main VET providers are VET schools (VET secondary schools, art schools, sports schools), VET colleges and licensed private and public continuing vocational training (CVT) centres. Framework programmes regulate acquisition of VET qualifications by setting age and entry level requirements and specifying content and duration. There are six framework programmes:

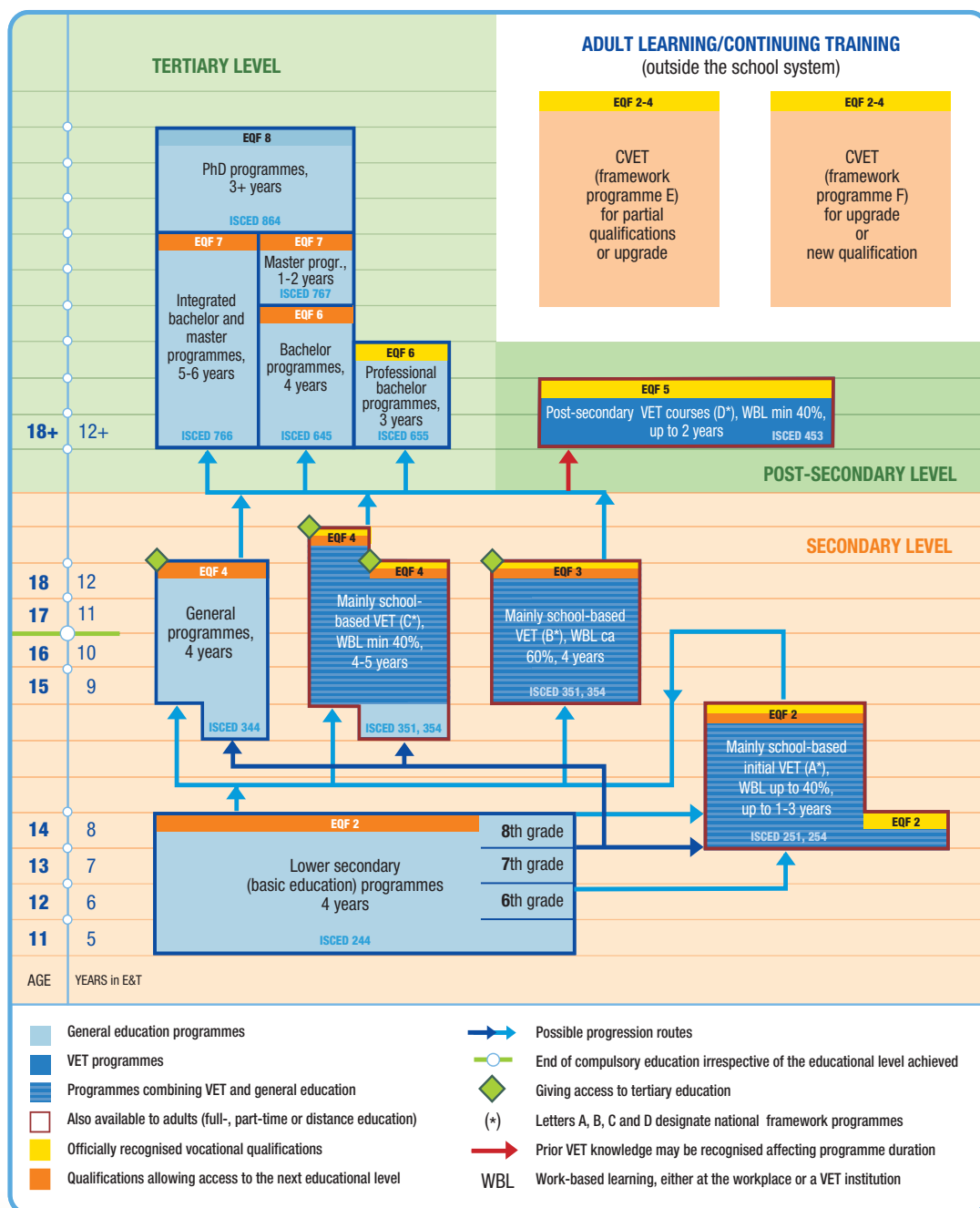
- school-based initial VET (IVET) programmes 'A' leading to first national level VET qualifications (EQF 2), can be accessed at age 13 at the earliest, after completing at least the sixth year of lower secondary education. The duration of these programmes is one to three years and varies with learners' previous educational backgrounds;
- school-based IVET programmes 'B' leading to second level VET qualifications (EQF 3) can be accessed after completing lower secondary education. These programmes give access to higher education (HE);
- school-based VET programmes 'C' for second and third level VET qualifications (EQF 4) can be accessed after completing lower secondary education and give access to HE. They are available after a one-year introductory programme to learners completing the seventh year of lower secondary school;
- school-based post-secondary non-tertiary VET programmes 'D' leading to fourth level VET qualifications (EQF 5) are offered by VET colleges;
- CVT centres offer workplace-based IVET programmes 'E' (apprenticeships) for individuals over 16. Usually, these programmes are short-term training courses for partial qualifications or courses enabling people to upgrade their VET qualifications;
- CVT programmes 'F' update or broaden professional qualifications and/or lead to first, second or third level VET qualifications. CVT centres offer these programmes for individuals over 16.

Qualification levels reflect complexity and what is expected from learners, ranging from the first level, which involves learning/ performing routine activities carried out in stable conditions, to the fourth level, which encompasses performing complex activities in changing conditions, combined with management responsibilities. In school-based programmes, at least 40% of compulsory VET subjects are taught through practical training. All framework programmes are available to adults.

VET qualifications are acquired after completing training and passing State exams that correspond to national educational standards for VET qualifications. Examinations are conducted by committees appointed by heads of each educational institution. Members of these committees include representatives of educational institutions, employers and employees.

In addition to assessing learning outcomes of VET graduates at institutional level, social partners are involved in designing and approving national educational standards coordinated by the National Agency for VET, before they are embedded in legislation. Helping shape VET policy, social partners are also active in the economic and social council, as well as other national councils.

Adult participation in lifelong learning is low. For many unemployed people, especially from disadvantaged groups, training at CVT centres is the only opportunity to enter the labour market, and for employees, to retain their jobs. These training courses are predominantly financed through active labour market policy schemes supported by the European Social Fund (ESF).



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Bulgaria.

VET in Croatia

Vocational education and training (VET) plays a major role in Croatia. Overall responsibility for VET lies with the Education Ministry supported by the Agency for VET and Adult Education (ASOO). The agency's remit is to develop, organise, monitor and evaluate VET. It is responsible for developing VET curricula (collaborating with the Education and Teacher Training Agency for the general education element), professional development of VET teachers, and quality assurance. Its management board is appointed by the ministry and includes social partner representatives. The 2009 VET Act made stakeholder cooperation mandatory. This implies that ministries of labour and entrepreneurship and crafts, social partners, chambers of economy, trades and crafts, the employment service, and professional associations are involved in VET development. Several of these stakeholders are represented in the VET council, established under the VET Act that proposes new or revised programmes and develops recommendations and strategies. The VET Act also established 13 sector skills councils which analyse skill needs, identify the demand for qualifications and develop VET standards. Since the 2013 Act on the national qualifications framework (CROQF) the number and scope of sector skills councils has increased and they now cover general, vocational and higher education at all levels. Further developing the CROQF is the task of the newly established human resource development council. To encourage human potential development, stimulate competitiveness and achieve Croatia's strategic goals, the council assesses, validates and coordinates educational, employment, and lifelong professional guidance policies and regional policy.

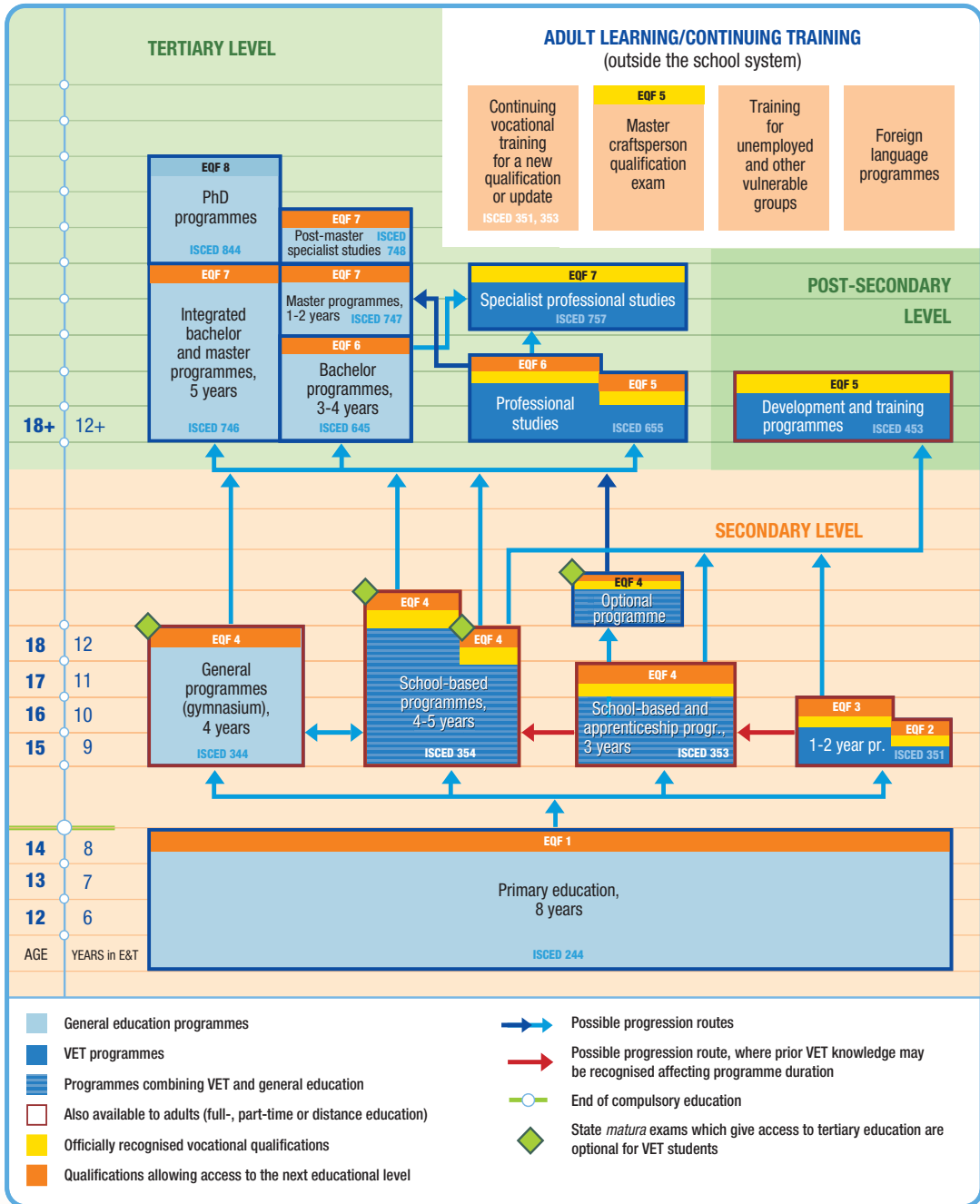
All VET programmes combine professional and general competences, to varying degrees; most include mandatory work experience (duration varies among different types of VET programmes). Learners from lower-level programmes can progress to higher levels at the discretion of their schools. Initial VET is publicly financed and free of charge for the learner.

Approximately 70% of learners at upper secondary level participated in IVET in 2013/2014. Two thirds of VET learners were in four-year school-based programmes, one third in three-year programmes. Some learners participated in shorter, 1-2 year VET.

- The four-year school-based VET programmes (five years for nurses) at ISCED-P 354 lead to qualifications at CROQF level 4.2/EQF level 4. These 'technician' programmes allow progression to tertiary education, after completing optional external *matura* exams, administered by the national centre for external evaluation of education (NCVVO). Most students in four-year VET programmes use this opportunity.
- The three-year VET programmes (ISCED-P 353) can be school-based or run as apprenticeship schemes, with significant work-based training. They lead to qualifications at CROQF level 4.1/EQF level 4 and give access to the labour market. Since 2014 graduates can enter an optional one- to two-year programme and if successful, take *matura* exams to qualify for higher education access. This programme corresponds to the fourth year of the school-based programme.

VET is provided at higher education level (ISCED-P 655) in the form of short-cycle programmes and at polytechnics with a focus on applied sciences. Learning in these programmes typically involves extensive practical work experience and leads to a qualification at CROQF and EQF levels 5 and 6. Some shorter programmes also exist.

Adult education and training for people over 15 offers a broad range of options, mainly in the form of short (re)training programmes. The offer ranges from basic or technical skills courses to complete formal secondary education and training. Entry requirements for post-secondary adult VET programmes include relevant IVET training and/or professional experience. Adult education providers must be accredited and have their programmes approved by the Education Ministry to be able to issue formal certificates.



NB: ISCED-P 2011.

Source: Cedefop, Croatian Ministry of Science, Education and Sports and ReferNet Croatia.

VET in Cyprus

The vocational education and training (VET) system of Cyprus plays a significant role in dealing with adverse effects of the economic crisis on the labour market, as well as in laying the foundations for future socioeconomic development.

The earliest level where VET is available is upper secondary at technical schools, including evening technical schools, while the unified lyceum provides general upper secondary education. Horizontal and vertical movement across upper secondary education is possible, as students may move between the unified lyceum and technical schools, provided they succeed in special examinations.

Technical schools offer two distinct three-year programmes: the theoretical stream and the practical stream. The first year of studies is common to each stream and students select a specialisation of their choice in the second year. The theoretical stream and the first and second years of the practical stream are completely school-based and combine general education subjects with technological and workshop subjects, while the third year of the practical stream combines a school-based environment with training at the workplace. School-leaving certificates are awarded upon successful completion of either programme and are equivalent to those of secondary general education schools. Therefore, certified secondary technical and vocational education school-leavers are eligible for admission to universities and other tertiary education institutions in Cyprus and abroad. Qualifications provide access to several regulated occupations, provided all other requirements of relevant legislation are met.

VET is also available through the apprenticeship system, which accepts students who leave formal education between grades 8 and 10. The 'apprenticeship certificate' allows access to several regulated occupations, provided all other requirements of relevant legislation are met.

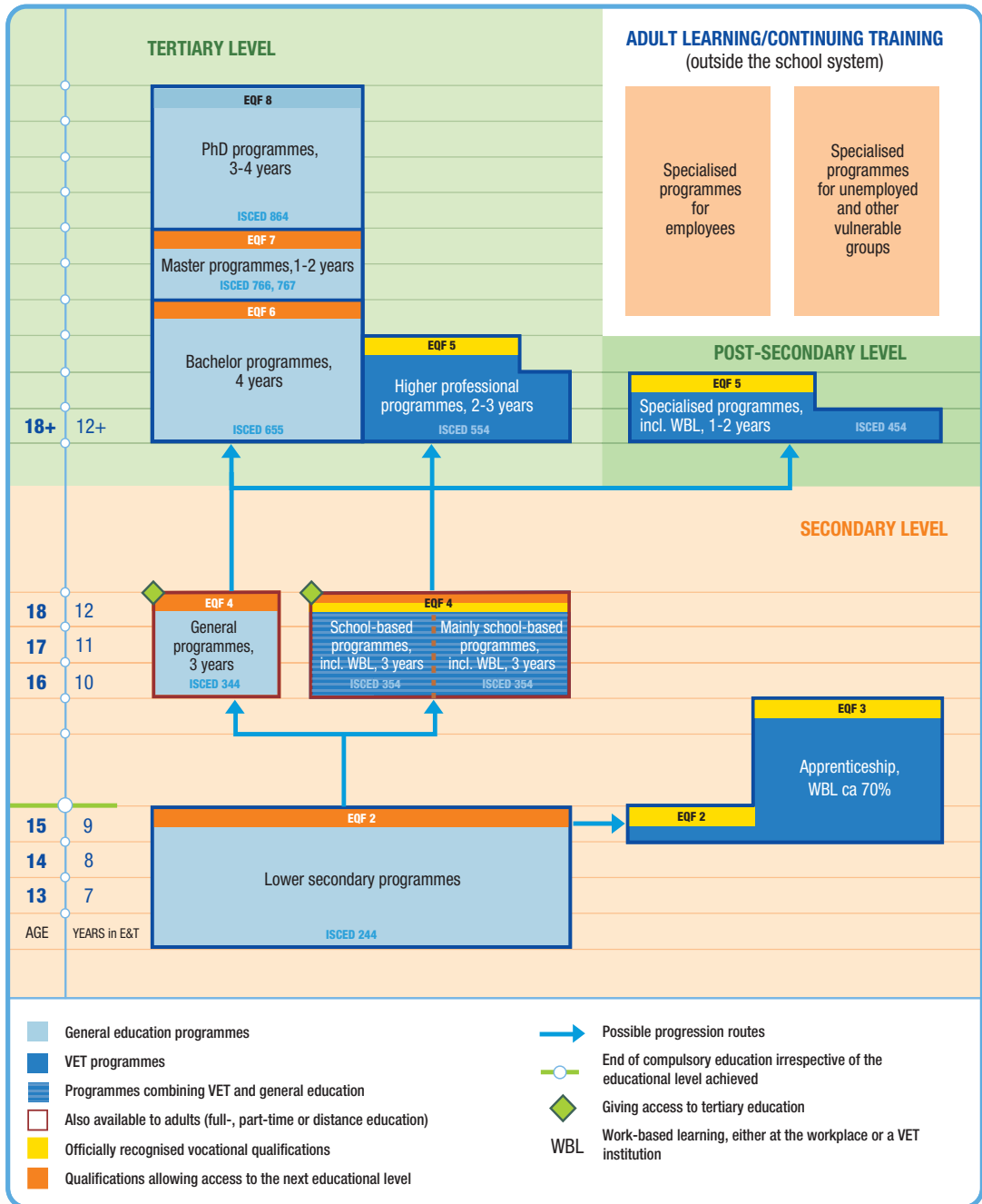
Post-upper secondary VET is provided since the 2012/13 academic year at post-secondary institutes of technical and vocational education and training. These institutes provide Cypriot citizens, especially young people, with two-year courses to acquire, improve, or upgrade their qualifications and skills.

By acquiring a post-secondary technical qualification, they are better prepared for the labour market.

VET at tertiary non-university level is provided at four public institutes/colleges and at several private institutes. Successful completion of the programme, which lasts for two-to-three years, leads to a diploma or higher diploma awarded by the institution.

Vocational training for adults is extensively available in Cyprus for employees, the unemployed, other vulnerable groups and adults in general, through a mixture of public and private provision such as colleges, training institutions, consultancy firms and enterprises. Employees usually participate in training programmes which address job-specific skills deriving from company needs, while the unemployed acquire both horizontal and job-specific skills, to improve their employability. Training schemes targeted at the unemployed combine training with either employment in an enterprise or job placement to acquire work experience. However, the percentage of 25 to 64 year-olds participating in education and training is lower than the EU average.

The Ministry of Education and Culture has overall responsibility for developing and implementing educational policy. The Ministry of Labour, Welfare and Social Insurance has overall responsibility for labour and social policy and the Human Resource Development Authority plays an important role in vocational training.



VET in the Czech Republic

VET has always represented a fundamental part of the Czech education system. Besides gaining from a tradition of quality, it has developed intensively over the last decades. Within the past five years curricula have been reformed and modernised. VET predominantly begins following completion of compulsory education usually at age 15 and is mainly provided at upper secondary and tertiary levels.

Structure

The main body responsible for IVET is the Ministry of Education (MŠMT). 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 authorised companies) and/or work placements. Representatives of employers are involved in sector skill councils and field groups that set occupational and qualification standards.

Lower secondary level IVET programmes (EQF 2-3) represent a marginal segment of secondary VET, as they are designed primarily for students with special needs. These programmes are provided by secondary vocational schools (SOU) or practical schools.

Upper secondary level vocational and technical programmes (EQF 3-4) are provided by schools offering three- or four-year programmes:

- three-year vocational programmes at EQF 3 (completed by a final examination leading to 'apprenticeship certificate') enable graduates to enter directly the labour market and perform manual work and similar occupations (such as bricklayer, hairdresser). They are usually provided by SOU. Graduates of a three-year programme can undergo a two-year follow-up programme (EQF 4) and pass a *maturita* examination, which opens a path to higher education. SOU may also provide a small number of four-year programmes completed by *maturita* (EQF 4);
- four-year technical programmes (completed by a *maturita* examination, EQF 4) are usually provided by secondary technical schools (SOŠ)

and entitle their graduates to apply for higher education or perform mid-level technical, business and other similar jobs (such as civil engineering technician, IT system administrator). SOŠ also offer lyceum programmes with a high proportion of general education (up to 70% of the curricula) preparing their graduates for studies at higher education institutions;

- conservatories are a specific type of secondary school with a different regime, preparing students for performing demanding artistic activities in music, dance, singing and drama. Studies are either completed by *maturita* (secondary education – EQF 4) or by *absolutorium* (tertiary professional education – EQF 6).

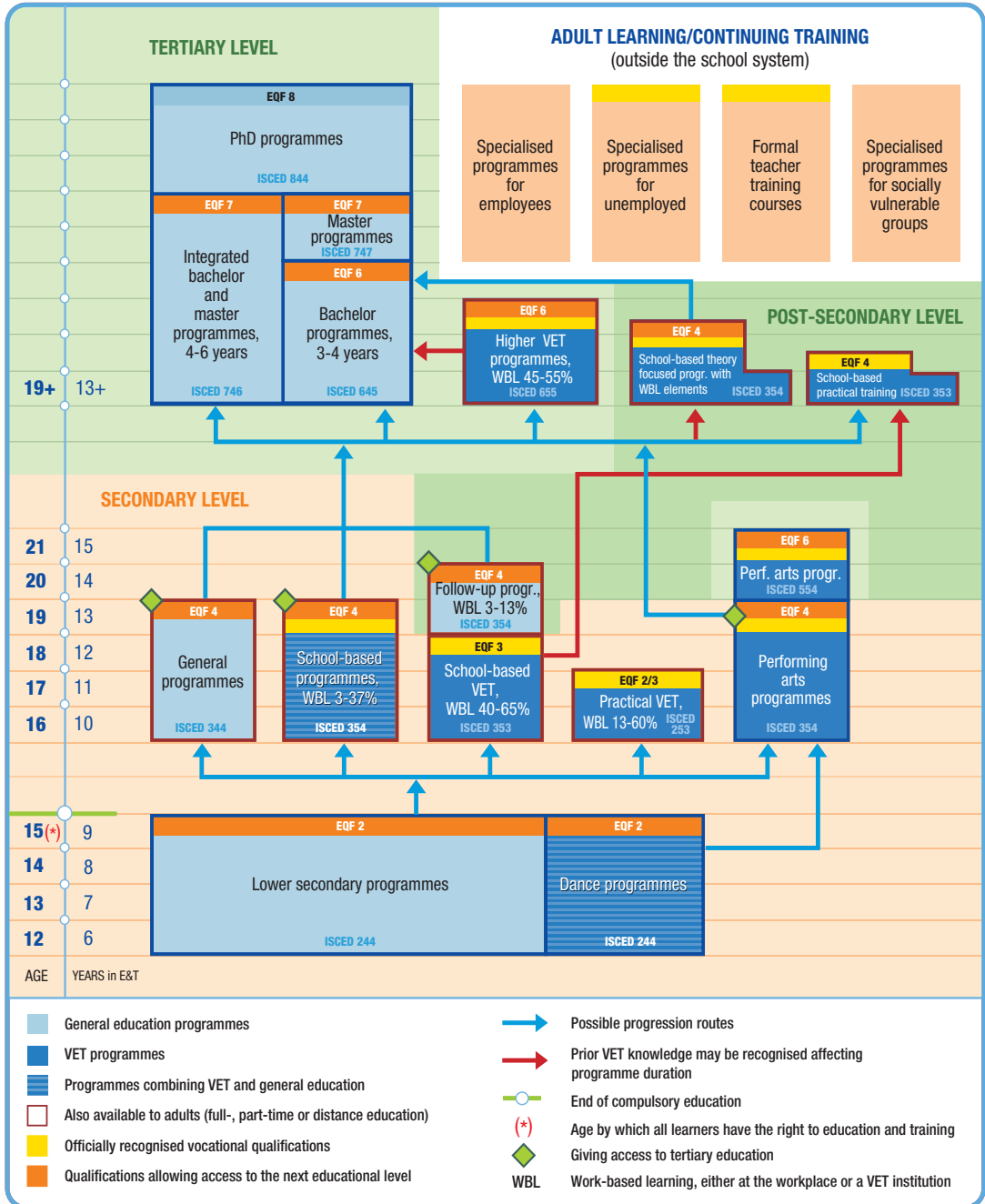
VET at tertiary level

Tertiary professional schools (VOŠ) provide education to secondary school graduates (with a *maturita* certificate) and prepare them for qualified performance of demanding professional tasks (such as nutritionist, dental assistant). Studies last three to three-and-a-half years and are completed by *absolutorium* (EQF 5-6).

Higher education institutions provide education to school graduates (with a *maturita* certificate) in three types of programme: bachelor (EQF 6), master (EQF 7) and doctoral (following on from master programmes – EQF 8).

Continuing VET (CVET)

Any adult can study any VET programme in the formal school system. There are also many programmes designed to be combined with working life. The wide variety of CVET programmes provided outside the formal school system is not generally regulated and is subject to the free market; nevertheless, a system of validation of non-formal and informal learning outcomes has been gradually developing since 2007.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Czech Republic.

VET in Denmark

Vocational education and training (VET) plays a key role in Danish strategy for lifelong learning and meeting the challenges of globalisation and technological change. An inclusive and flexible initial VET system helps ensure that all young people have an opportunity to obtain relevant competences for 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.

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

VET is under the Ministry of Education's jurisdiction, which maintains close dialogue with the social partners to respond to labour market needs. Initial VET is organised into 12 broad entry routes and includes technical, agricultural, commercial, social and healthcare programmes.

Programmes are organised according to the dual principle, alternating between periods of college-based learning and work-based learning (apprenticeship training) in enterprises. A typical IVET programme (EUD) lasts three-and-a-half years with a 2:1 split between workplace and college-based training, although there is considerable variation between programmes. Individual study plans are compiled for all students, with VET colleges and the social partners sharing the responsibility for developing curricula to ensure responsiveness to local labour market needs. Qualifications at this level can provide access to relevant fields in academy profession (KVU) programmes or professional bachelor programmes at tertiary level.

Alternative routes to VET qualifications include:

- combined vocational and general upper secondary education, EUX programme (new academic preparation programme) – a relatively

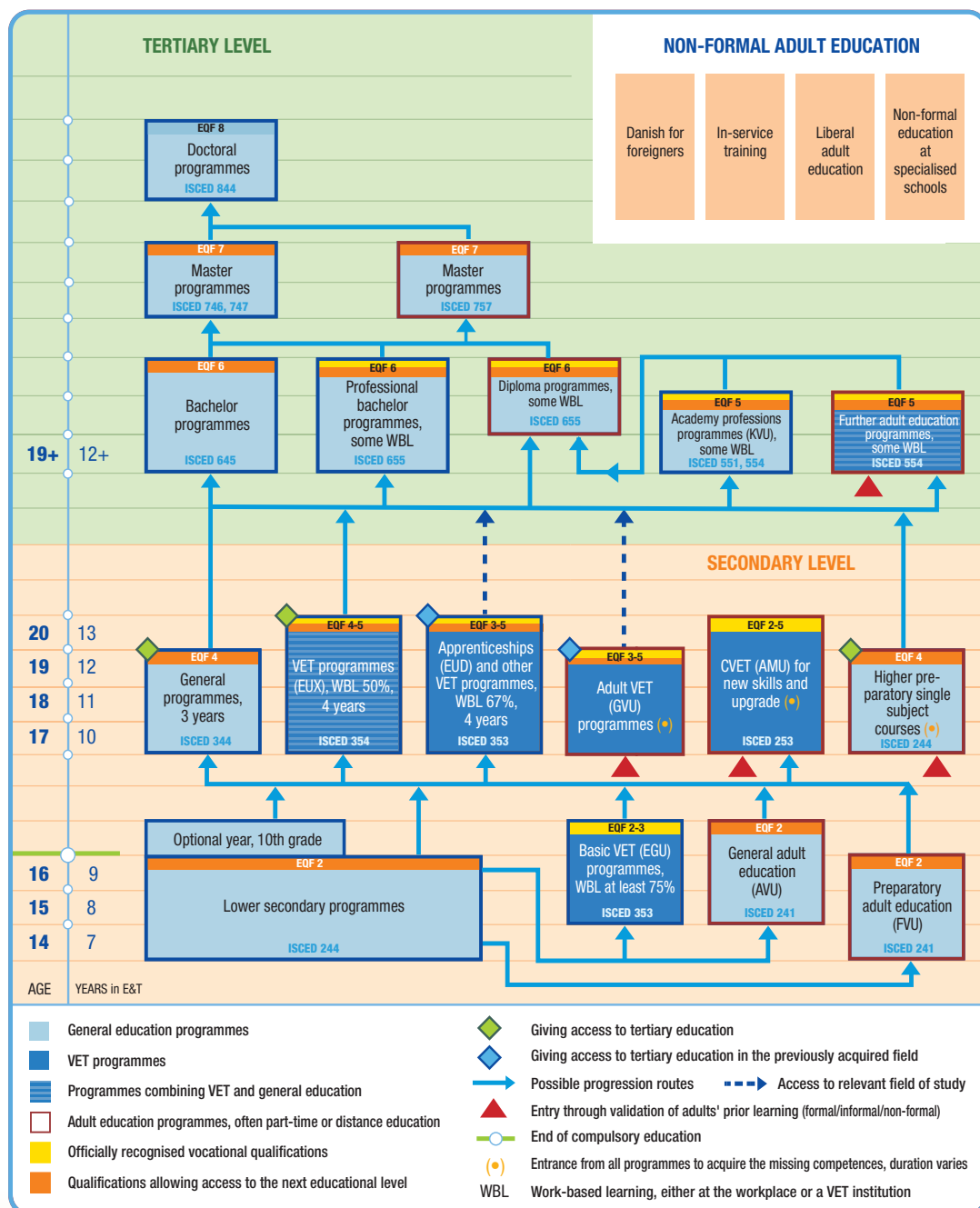
new pathway, which lasts around four years, attended by highly-motivated students aiming at obtaining access to higher education along with a vocational qualification;

- 'new apprenticeship' (*Ny Mesterlære*) programmes, where entire training is at a company instead of partly at a VET college. These programmes are attended by students with a practical approach to learning;
- individual VET programmes, attended by very few students, consist of single subject courses and elements from EUD programmes;
- basic vocational education and training (EGU), attended by lower secondary graduates with a practical approach to learning. The programme caters for young unemployed, and lasts for three to four years, with work-based learning (WBL) being at least 75%.

Adult learning

Basic adult education (*grunduddannelse for voksne*, GUV) provides qualifications equivalent to IVET. GUV is aimed at adults (minimum 25 years old) with at least two years relevant work experience, but without formal qualifications. Individual study plans, which recognise prior learning, are used. GUV study plans can comprise elements from other adult education programmes.

Adult vocational training (*arbejdsmarked-suddannelser*, AMU) provides participants with skills and competences relevant to the labour market and is primarily directed towards specific sectors and jobs. Programmes may either deepen a participant's knowledge in a particular field or extend it to related fields. AMU programmes (around 3 000) last an average of one week 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.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Denmark.

VET in Estonia

Vocational education and training (VET) in Estonia is key to ensuring a flexible and skilled workforce is able to adapt to changes in the labour market. VET is under the Ministry of Education and Research's jurisdiction. To respond better to labour market needs the social partners are closely involved in VET policy development.

According to new legislation (September 2013) both initial (IVET) and continuing (CVET) vocational education curricula are used in formal VET. IVET is provided at second, third, fourth and fifth levels of the Estonian qualifications framework, which corresponds to the European qualifications framework (EQF). At each level, students acquire learning outcomes (knowledge, skills and attitudes) in accordance with qualifications at the appropriate EQF level. At second and third levels there is no minimum education requirement for access. Curricula are designed for direct access to elementary labour market occupations.

Generally, completion of lower secondary education is a prerequisite to start studies at fourth level. At this level, it is possible to do vocational studies (ISCED-P 351) or study VET together with upper secondary general education (ISCED-P 354) to obtain a certificate which allows access to higher education. Studies lead to qualifications necessary to work in more complicated jobs.

The precondition for access to fifth-level IVET (ISCED-P 454) is completion of upper secondary education. Graduates can be technicians or associate professionals. CVET programmes are offered at fourth and fifth levels of the EQF. CVET aims to help individuals raise their qualifications or acquire new specialisations. CVET studies usually last up to one year.

Most VET studies are school-based. However, for some specialities apprenticeship training is also available. In school-based VET, practical training is half of the study volume and is usually divided equally between workplace training in enterprises and practical training at school. For apprenticeships, practical training in enterprises is at least two thirds.

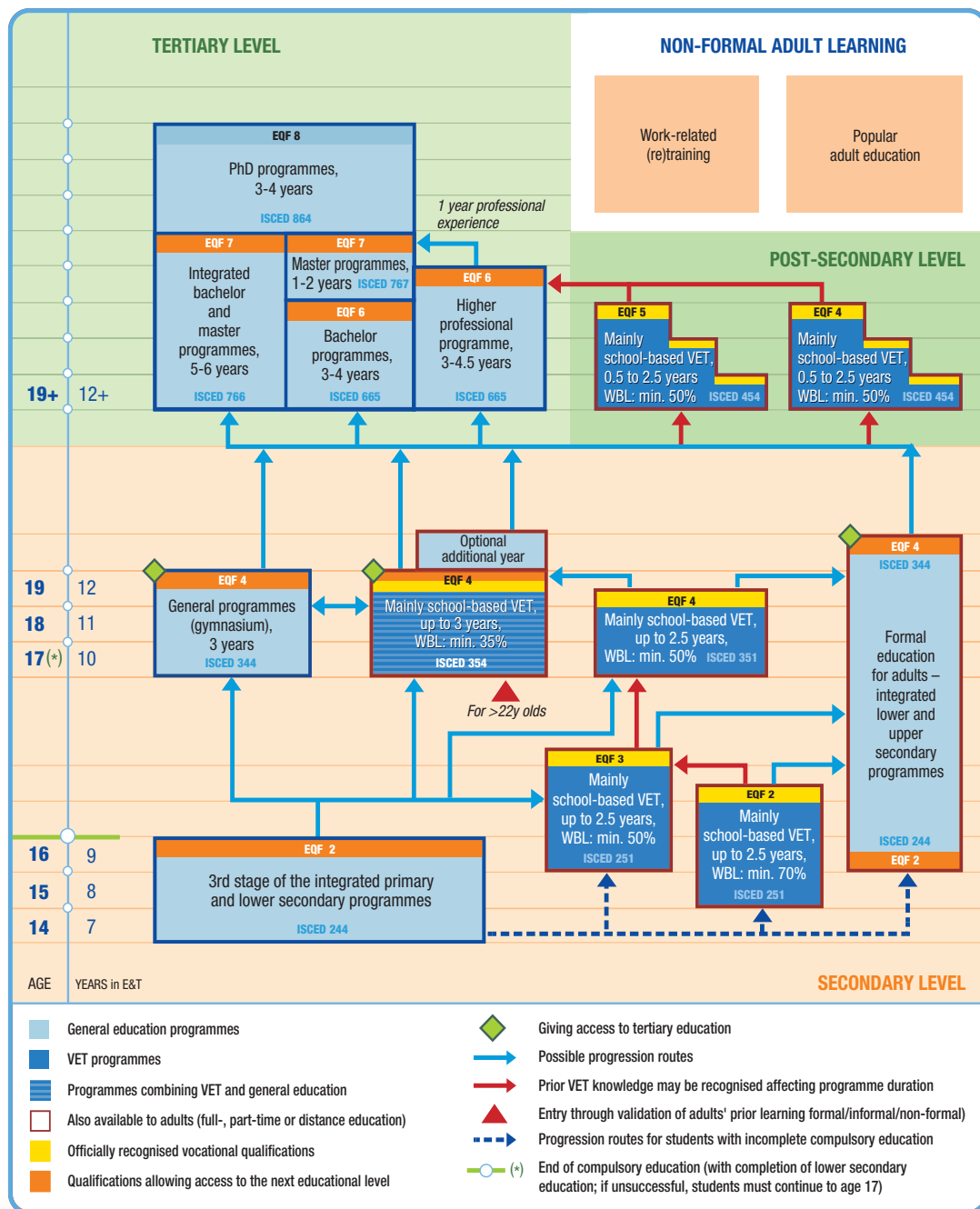
To graduate from a VET institution one has to achieve learning outcomes of a particular speciality and to pass a professional examination,

administered by a VET school or by the occupational qualifications awarding body.

Higher education takes place at EQF levels 6 to 8 and the first level of tertiary education has both an academic (BSc) and a professional branch (applied higher education); it is accessible to all graduates of both general and vocational upper secondary education, as well as graduates of post-secondary VET. To meet specific entrance requirements at some universities, vocational upper secondary graduates have an option to study general education subjects of their choice for an additional 35 study weeks following completion of VET studies.

Adults can obtain general, vocational and higher education in the formal education system. Outside formal education there are training courses available for employees, as well as for the unemployed and other vulnerable groups, to improve their professional skills and support employability. Training providers are mainly VET and higher education institutions, private training centres, enterprises and other public or private institutions. Adult training is funded by employers, the State or by participants themselves.

The adult population's participation rate in lifelong learning has been steadily increasing and was 12.9% in 2012, which is higher than the EU average. During the past five years the following measures have had a major impact on increasing participation rates in adult education: provision of State-funded study places, a voucher system for training the unemployed and grants to enterprises for training their employees, as well as incentives for individuals such as study leave and tax exemptions on training costs.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Estonia.

VET in Finland

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

More than 40% of the relevant age group start upper secondary VET studies immediately after basic education; most of these obtain their VET qualifications at vocational institutions. All qualifications include at least six months' on-the-job learning. The most popular fields are technology, communications and transport, and social services, health and sports.

In addition to school-based upper secondary VET, vocational qualifications can be obtained in apprenticeship training or as competence-based qualifications:

- apprenticeship training includes courses at vocational institutions. The share of work-based learning (WBL) is 70-80%. Most apprentices are adults;
- competence-based qualifications are usually completed by adults. In addition to the 52 vocational qualifications offered, there are nearly 300 further and specialist qualifications in different fields. Vocational and further vocational qualifications are at upper secondary level and may be obtained through competence tests, independent of how vocational skills were acquired. The specialist vocational qualification is at post-secondary, non-tertiary level.

Authorisations to provide VET are granted by the ministry. 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 develop and serve the world of work.

VET providers are responsible for organising training in their areas, for matching provision with local labour market needs, and for devising curricula based on national qualification requirements. They also decide independently on issues such as type of education and training provided and the method for completion of studies, within the limits of their authorisation from the

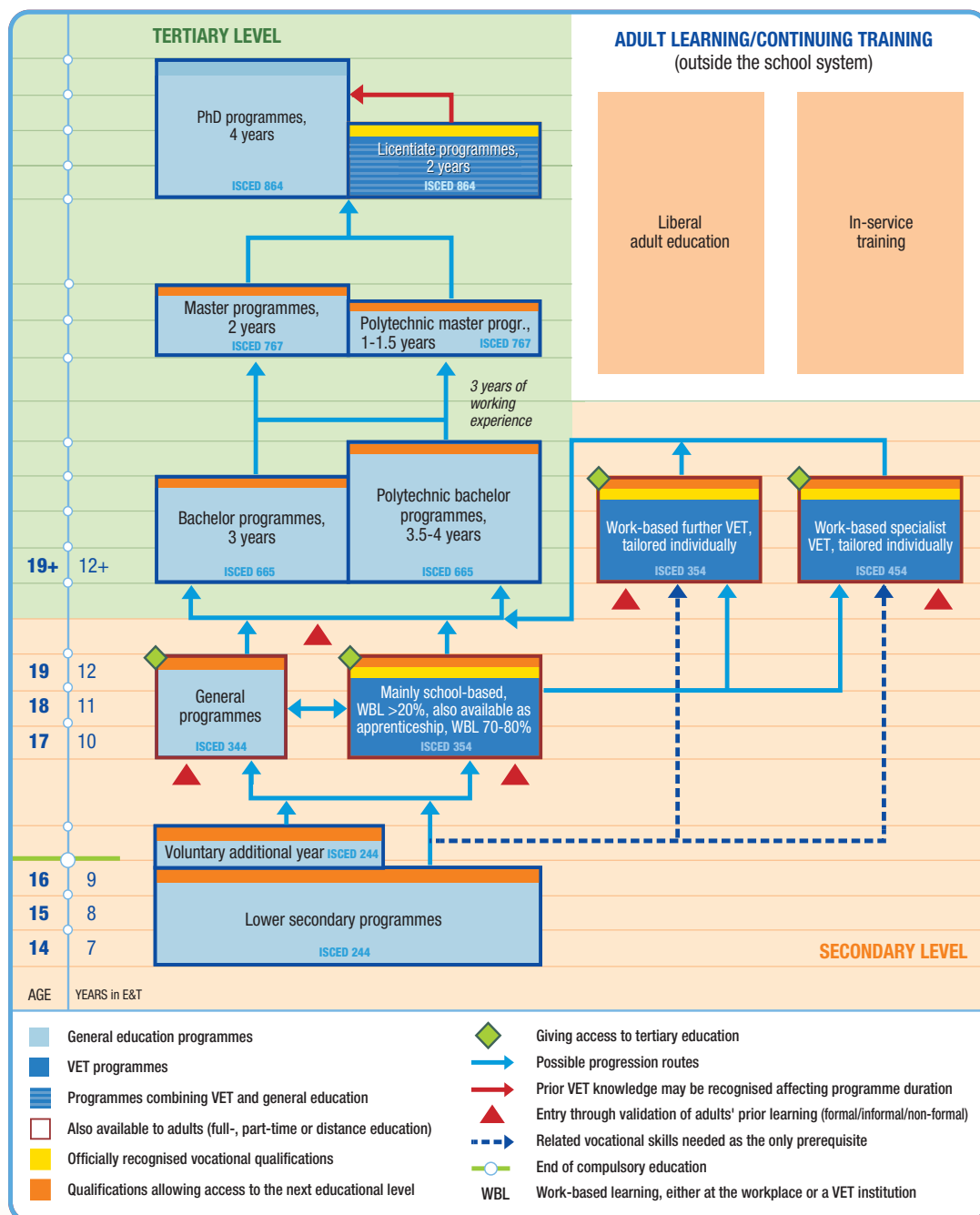
Education Ministry. A VET provider may be a local authority, municipal training consortium, foundation or other registered association or State company.

National qualification requirements ensure nationally uniform vocational competence; they function as the basis for evaluating learning outcomes. These requirements are drawn up by the Finnish National Board of Education in the context of broad cooperation with stakeholders (employers' organisations, trade unions, the Trade Union of Education, and student unions).

Cooperation with the world of work is considered essential. In addition to contributing to national qualification requirements, representatives from enterprises participate in work on local curricula, organise and plan training and skills demonstrations, and are part of regional committees. They also assess both skills demonstrations in upper secondary qualifications and competence tests in competence-based qualifications.

Flexibility and individualisation have become a means to respond to changing requirements of the world of work. Studies in upper secondary VET are based on individual study plans, comprising both compulsory and optional modules. Modularisation allows for a degree of individualisation of qualifications; for example, students can include modules from other vocational qualifications (including both further and specialist vocational qualifications) or polytechnic degrees. Flexibility also enables education providers more effectively to meet the demands of regional and local worlds of work.

There are no dead-ends within the education system. From the late 1990s the vocational track has given eligibility to access polytechnics and universities. With this reform upper secondary vocational education and training became equal to general upper secondary education as a pathway to higher education.



VET in France

Vocational education and training (VET) is, by tradition, central to France's adopted priorities: guilds first appeared in the Middle Ages and apprenticeship in the 19th century. The development of lifelong learning in the early 1970s was based on long-standing and highly diverse adult education practices that are the foundation of continuous education.

Initial VET (IVET)

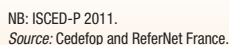
VET at upper secondary level. On leaving lower secondary school (*collège*) at ISCED-P 244, generally at the age of 15, students are steered either towards a general (ISCED-P 344) and technological (ISCED-P 354) upper secondary school (*lycée*), to prepare for a three-year general or technological baccalaureate, or towards a vocational *lycée* (ISCED-P 353, 354), to prepare for a two-year professional skills certificate (CAP) or a three-year vocational baccalaureate. These qualifications are designed to provide direct access to employment and the training always includes in-company internship. However, access to tertiary level VET programmes in related fields is 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-P 554). The *lycée*-based higher technician curricula provide a two-year programme leading to the higher technician certificate (BTS). Universities offer also a two-year technological university diploma (DUT); this is designed for entry into the labour market. Students can also decide, on completion, to go on to a vocational bachelor's programme, which enables them to acquire a vocational qualification at EQF level 6 and progress to master's 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, which 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) have the status and rights of other 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 the young and adults. The objectives of CVET include promoting professional integration or reintegration; maintaining people in work; encouraging the development of skills and access to different levels of professional qualification; and contributing to economic and cultural development and social progress. Access and funding procedures for courses vary according to individual status, either jobseekers or people in employment (private sector employees, public servants, self-employed workers). Training of jobseekers is managed by the regions, with central government intervening only for particular target groups (the illiterate, foreigners, and people with disabilities). Employers (private or public) and the social partners are responsible for training people in employment. The training market is open: in 2011, more than 58 650 training providers earned revenues of EUR 13 billion for 23.8 million training courses.



VET in Germany

VET in Germany is based on cooperation between State, private sector and social partners. The Federal Ministry of Education (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 ministry also works closely with the Federal Institute for Vocational Education and Training (BIBB), which conducts research and advises the Federal Government and vocational training providers. The *Länder* (federal states) are responsible for school-based (parts of) VET and have VET committees with employer and employee representatives. The Ministries of Education in the *Länder* cooperate in a standing conference (KMK) to ensure a degree of uniformity and comparability.

The main pillar of VET is the dual system (apprenticeship). Every person who has completed full-time compulsory schooling has access to apprenticeship training (duration usually three years), which combines two learning venues, companies and vocational schools. Those successfully completing their training are qualified to be employed as skilled workers. Progression is possible through various school-based VET programmes and by acquiring master craftsperson and similar qualifications. There are also programmes based on the dual principle at higher education level.

Parallel to the dual system there is a wide range of school-based programmes (ISCED levels 3-4), which differ in terms of entry requirements, focus, types and levels of qualifications they lead to, such as:

- programmes at vocational schools preparing people for work in many occupational areas (*Berufsfachschule*, duration one to three years depending on the occupational area and specialisation and the type/level of qualification). Where they do not offer a full vocational qualification, attendance can be credited as the first year of training in the dual system if certain conditions are met. Entry requirement is the lower secondary general school certificate or the certificate obtained on completion of year 10 (intermediate level, *Realschule*);
- programmes providing general upper secondary and vocationally-oriented education and usually leading to the general higher education entrance qualification (*Berufliches Gymnasium/Fach-*

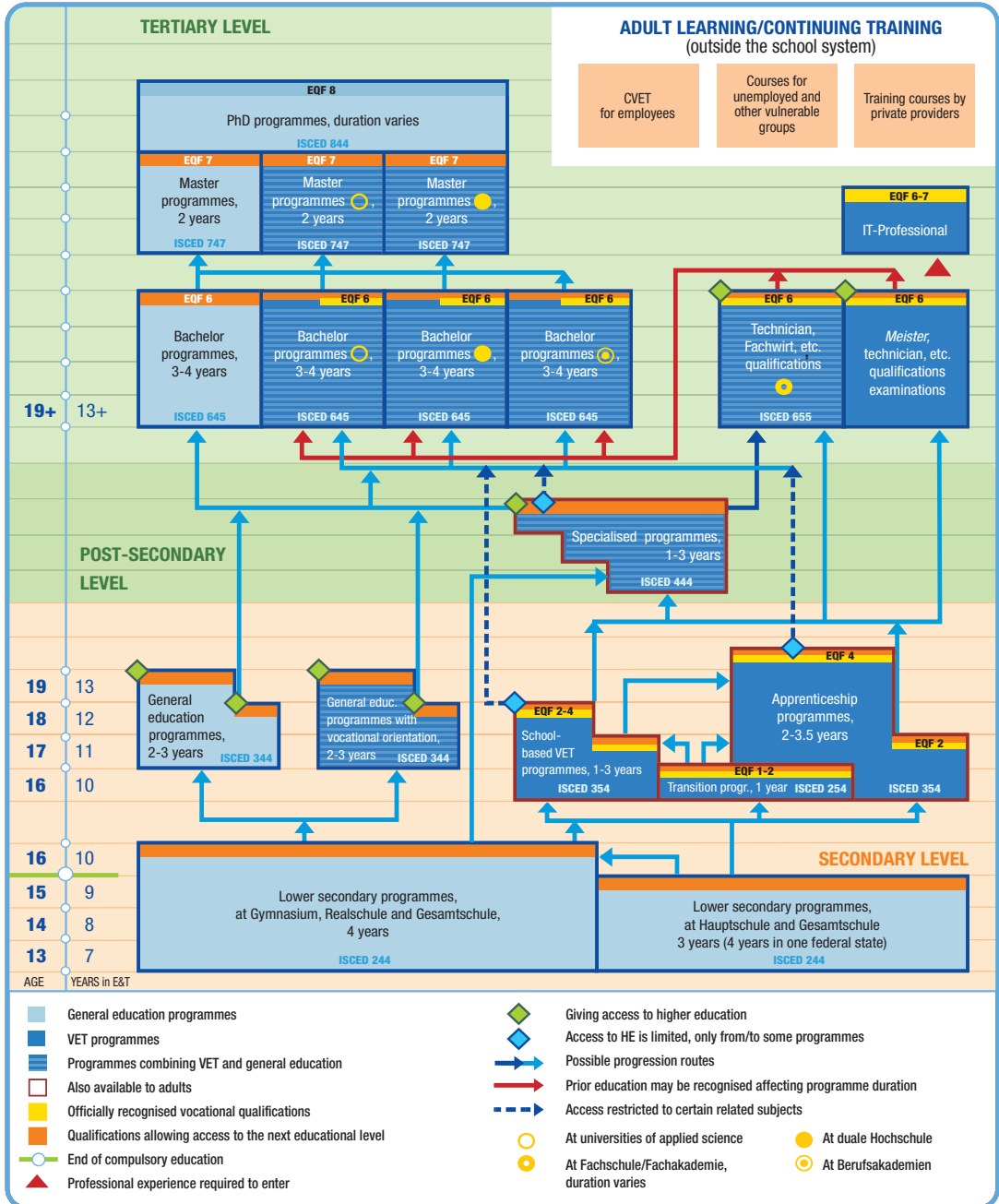
gymnasium, duration is two to three years; four years if learners also acquire a vocational qualification). Entry requirement is the intermediate level certificate;

- specialised programmes that build upon intermediate level certificates or initial vocational training and impart deeper occupational knowledge (duration one to three years). They lead to entrance qualifications for universities of applied sciences or specific fields of study. Under certain conditions, learners may also obtain the general higher education entrance qualification.

VET at higher education level is becoming more important. A blend of vocational and academic training is offered by universities of applied sciences (duration four years) and other higher education institutes (*Berufsakademien, duale Hochschule* in some *Länder*, usually leading to bachelor or in some cases master degrees). Enterprises participating in *Berufsakademie* programmes bear the costs of the company-based training and pay learners a wage.

An important step in widening access to higher education is the 2009 KMK resolution, which defines common access criteria for vocationally qualified applicants without a school-based higher education entrance qualification: advanced vocational qualifications such as those of master craftsperson, foreperson and certified supervisor (*Meister, Techniker, Fachwirt*, see below); completion of relevant IVET lasting two years; three years of relevant occupational experience; passing an aptitude test; or successful completion of a probationary year of studies.

Continuing training is playing an increasingly important role in improving employability. It is characterised by a wide variety of providers (a training market) and a comparatively low degree of regulation by the state. Only a small part of provision leads to formal qualifications regulated by the Vocational Training Act, such as master craftsman/foreman/ certified supervisor, technical engineer, and certified senior clerk qualifications (*Meister, Techniker, Fachwirt*). Courses to prepare for these advanced level qualifications are offered by chambers or schools (*Fachschulen*, master craftsmen schools). Access to the respective assessment usually requires several years of practice in the related occupation.



NB: 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.

ISCED-P 2011. EQF levels have not yet been defined for all qualifications.

Source: Cedefop.

VET in Greece

Following new legislation strengthening its work-based component, vocational education and training (VET) in Greece is in transition. The dual learning approach in VET was reinforced with expansion of apprenticeships at secondary level and more work-based learning opportunities at post-secondary and tertiary levels.

For graduates of lower secondary education, the recent law on secondary education (2013) foresees that those who do not wish to follow general education (Geniká Lykeia, GEL) may choose between the following VET options:

- school-based programmes and specialities leading to a vocational certificate (Apolitirio EPAL, EQF level 4) or a vocational specialisation degree (Ptihió Epaggelmatikís Idikótitas, EQF level 4) at vocational education school (Epaggelmatiká Lykeia, EPAL, three years). Graduates may then enter the labour market, become an apprentice, or proceed to post-secondary VET or tertiary education through general exams (for all types of higher education) or special exams (only for certain technological higher education institutes);
- programmes combining school-based and work-based instruction that lead to a vocational qualification (Ptihió Epaggelmatikís Idikótitas SEK, EQF level 3) at vocational training school (Sholés Epaggelmatikís Katártisis, SEK). After two years of school-based learning, learners enter an apprenticeship year. Apart from the possibility to enter the labour market, graduates may proceed to post-secondary VET but not directly to tertiary education;
- learners who have completed first grade of GEL or EPAL may enter two-year dual learning programmes supervised by the employment service (OAED) at apprenticeship school (Epaggelmatikés Sholés Mathitías, EPAS). Studies are mainly work-based and lead to a vocational qualification (Ptihió EPAS, EQF level 4). Typical programmes are car engineering, electrical engineering and automation, web design and heating and cooling technology.

At post-secondary and tertiary levels, the following VET options are available:

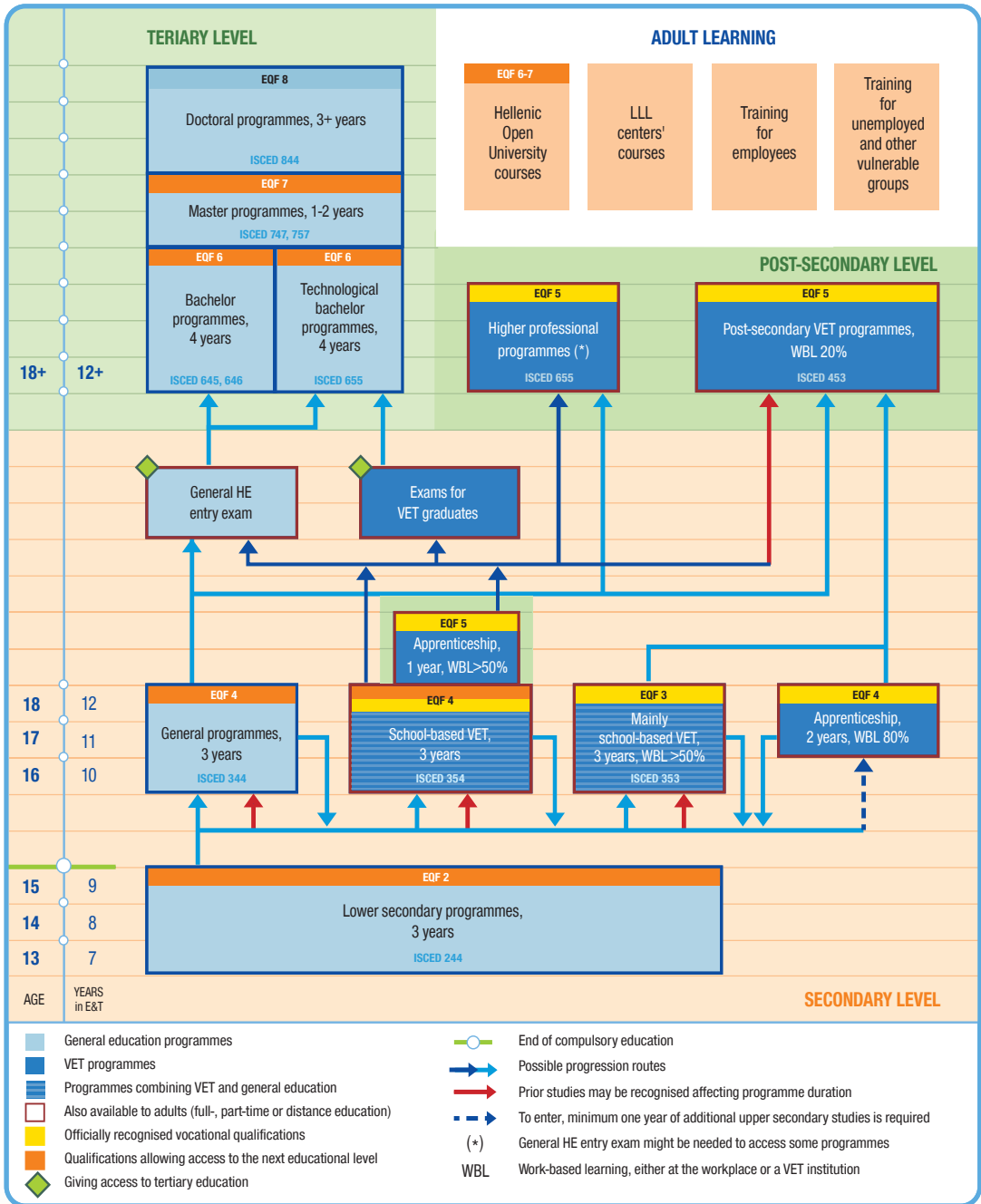
- vocational training programmes offered by IEK (Institúta Epaggelmatikís Katártisis). Studies last

two years (plus an optional semester of practical training) and lead to a post-secondary vocational training diploma (Díploma IEK, EQF level 5) allowing labour market access. Access to IEK is available to graduates of all general and vocational education and training programmes;

- higher professional programmes (in tourism, maritime, army, arts, etc.) offered by higher schools (Anóteres Sholés) have strong work-based elements and lead to a post-secondary VET qualification (Ptihió Anóteris Sholís, EQF level 5). In some cases, access is only granted to graduates of secondary education (GEL/EPAL) who pass entry examinations. Graduates may enter the labour market or access some higher education programmes;
- for EPAL graduates, an apprenticeship year (Étos mathitías) is foreseen (Law on secondary education, 2013). It is based on dual learning and leads to a vocational specialisation degree at EQF level 5. Graduates have the same progression opportunities as EPAL graduates that have not taken part in the apprenticeship year.

Horizontal mobility in the education and training system is possible, but not very common. Students can move between general schools (GEL) and vocational ones and between vocational education (EPAL) and training (SEK).

Continuing VET (CVET) is primarily offered by lifelong learning centres run by regional authorities, municipalities, social partners, chambers of commerce, professional associations, and higher education institutions. These CVET programmes are partially regulated by the National Agency responsible for Qualifications (EOPPEP) and the General Secretariat for Lifelong Learning (GGDVM), but they do not lead to formal qualifications. The Hellenic Open University and post-secondary private colleges provide CVET programmes that may lead to a recognised qualification. Many recent initiatives that involve social partners and local authorities promote vocational training and work placements for the unemployed or aim at retraining/upskilling employees.



VET in Hungary

Recent legislation has led to more centralised vocational education and training (VET) governance. Since January 2013, the State has replaced local government in governance of schools. It has the right to employ head-teachers and pays pedagogical staff's salaries. Central administration of VET (and adult training) is led by the Minister for the National Economy, who shares responsibility with ministries for specific vocational qualifications and with the Minister for Human Resources on learning outcomes and framework curricula. Since the 1990s, business and industry have been involved in national advisory bodies and, increasingly, in decision-making on VET-related issues. The Chamber of Commerce and Industry presently plays a dominant role in shaping VET and adult training.

VET for young people

At age 14, learners decide if they wish to enter VET and what type of VET to choose. Around two thirds choose a VET pathway. Nearly one third of all 14-year-olds enter the track that prepares directly for manual jobs at upper secondary level. Recent legislation has introduced fundamental changes into the structure, governance and funding of upper, post-secondary and tertiary VET, effective from September 2013.

The programmes are:

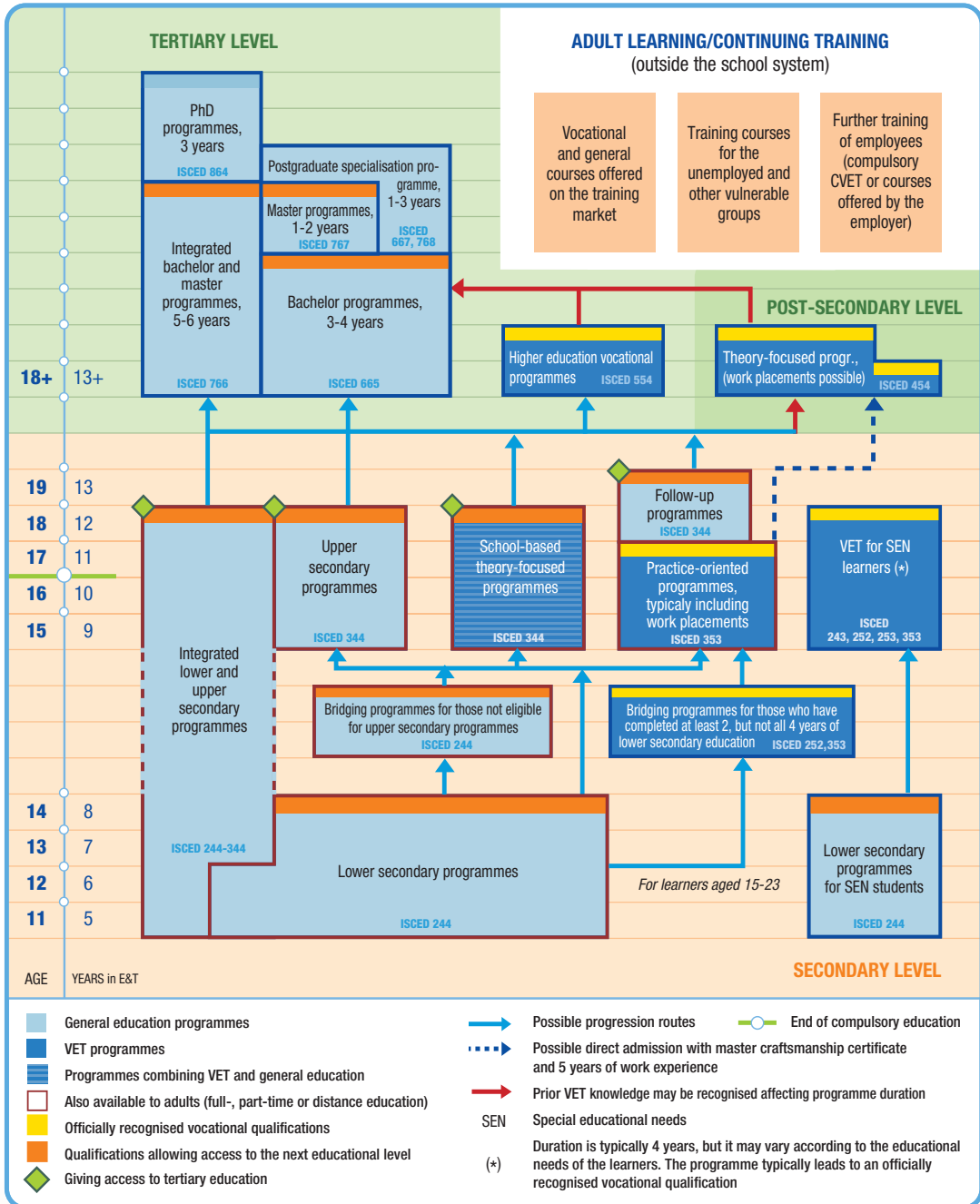
- vocational school (SZI) programmes leading to ISCED-P 353 (or 253) level national qualifications register (OKJ) qualifications. They do not allow direct access to higher education. The new three-year programme is inspired by the 'dual principle'. It combines general education and vocational training throughout the three years and reinforces practical training;
- secondary vocational school (SZKI) programmes span upper and post-secondary level. The programme now combines VET and general education from the start, leading to a 'vocational secondary school leaving examination' (ISCED-P 344) which does not award an OKJ qualification, but allows access to at least one occupation, higher education studies, or

'VET grades' awarding ISCED-P 454 level OKJ qualifications. 'VET grades' are also open to graduates from general upper secondary education. Since 2012, ISCED-P 454 level programmes have been open to students who do not hold a secondary school leaving certificate, but have obtained a master craftsperson certificate and have at least five years' relevant work experience;

- apprenticeships can be offered in all types of VET. Practical training is organised in enterprises and/or school workshops depending on availability of places and learners' and schools' decisions. Currently, most SZI students do (part of) their practical training in an enterprise;
- higher education VET, previously advanced vocational programmes (FSZ), are now exclusively provided by higher education institutions and are regulated by the Higher Education Act of 2011. Programmes require a secondary school leaving certificate and award ISCED-P 554 level higher education vocational qualifications. Graduates can transfer credits to a bachelor (BA/BSc) programme in the same field.

VET for adults

Formal education offers adults the same options as young people, in part-time or distance education. Adult training outside the formal school system comprises, among others: VET programmes which lead to OKJ qualifications; courses run by economic chambers preparing for master craftsperson exams; training awarding other (inter)nationally-recognised qualifications and licences, regulated by legislation; mandatory further training programmes for a given occupation; and other vocational, language and general courses. A new Adult Training Act was passed in 2013. It defines the legal framework for training provision regarding courses that award an OKJ qualification or a language proficiency certificate or those that have been financially supported by national/EU funds. The State supports vulnerable groups' and SMEs' training through grants.



NB: ISCED-P 2011. EQF levels have not yet been defined.

Source: Cedefop and ReferNet Hungary.

VET in Iceland

The Icelandic vocational education and training (VET) system originates from 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 students have learned 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, which are a (growing) 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.

At upper secondary level (ISCED 3) several qualifications are offered, 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), for example tourist guides and captains at the highest level, plus degrees for all masters of trade. 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 students a possibility to continue their education.

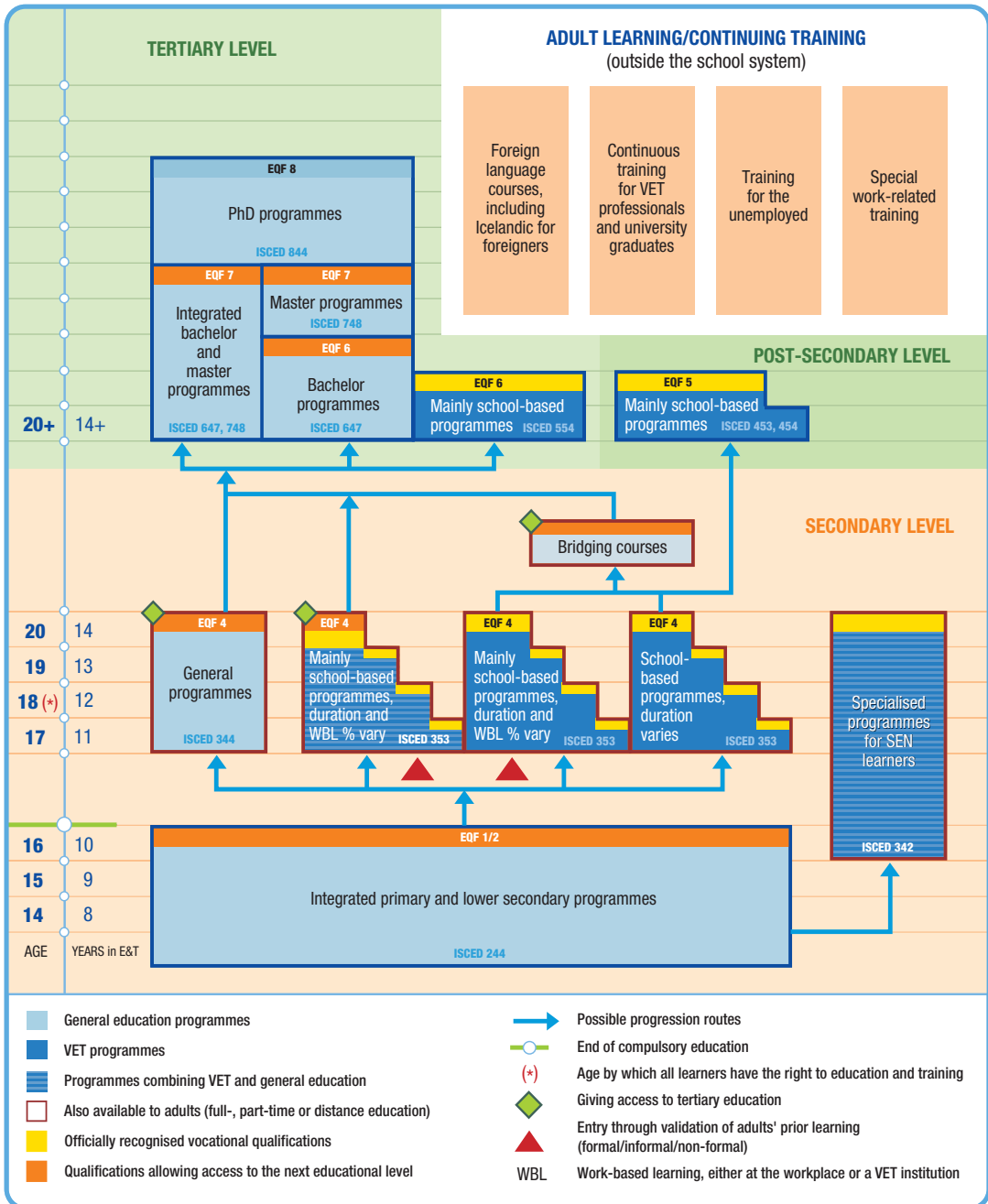
The overall emphasis of the educational system is to keep its structure simple and easily understandable so students can move relatively

easily between study programmes. Thus, students can finish upper secondary school with both a vocational and a general degree (matriculation exam) and access to higher education is open to all who have acquired the necessary number of points.

For those who have not, it is easy to attend further 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 create descriptions of new study programmes and submit them to the Ministry of Education, Science and Culture. Upon approval, programmes become part of the national curriculum guide. When formulating ideas for new study programmes, schools cooperate closely with occupational councils, which form the link between the ministry and the world of work.

Iceland is in third place among 33 European countries in learning among 25 to 64 year-olds. Adult learning is available in upper secondary schools (day classes or special adult evening classes), nine lifelong learning centres, training centres owned and operated by social partners for skilled workers in certain trades, and in numerous private training institutions. For example, two institutions owned by employers' and employees' 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. In connection with labour agreements, from 2000, specific training funds for employees were established, into which both employees and employers pay a certain percentage of all salaries. Both parties can apply for funding towards training.



VET in Ireland

Most vocational education and training (VET) occurs within the State sector, although private providers also play a role. The country's education and training system is divided into four main sectors: primary, secondary, further (post-secondary non-tertiary) education and training (FET), and higher education. VET is provided primarily within the FET sector, with some in higher education.

The main VET providers are 16 education and training boards (ETBs) spread across the country. 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 cofinanced by the European Social Fund. Higher VET programmes are the responsibility of the Higher Education Authority (the statutory planning and policy body for higher education).

Ireland's 10-level national framework of qualifications (NFQ) is referenced to the European qualifications framework (EQF). VET pertains to NFQ levels 5 or 6 (EQF 4 or 5), with some programmes at NFQ 7 (EQF 6). Almost all awards made through the State-funded sector, and many in the private sector, have been placed on the NFQ.

While it is possible to proceed to apprenticeship training following completion of lower secondary education (ISCED 2), most learners (around 90%) continue to complete upper secondary education, which in Ireland is general, rather than vocational, in nature.

Post-secondary non-tertiary programmes are aimed mostly at those who have completed upper secondary education. Training includes:

- apprenticeships: people acquire craftsperson status by combining off-the-job training (in ETBs and institutes of technology) and on-the-job training (with an employer). Training leads to an NFQ level 6 (EQF 5) craft certificate. Partial awards are also made;
- post-leaving certificate courses (PLCs): delivered in ETB colleges or second-level schools; they comprise general or vocationally oriented

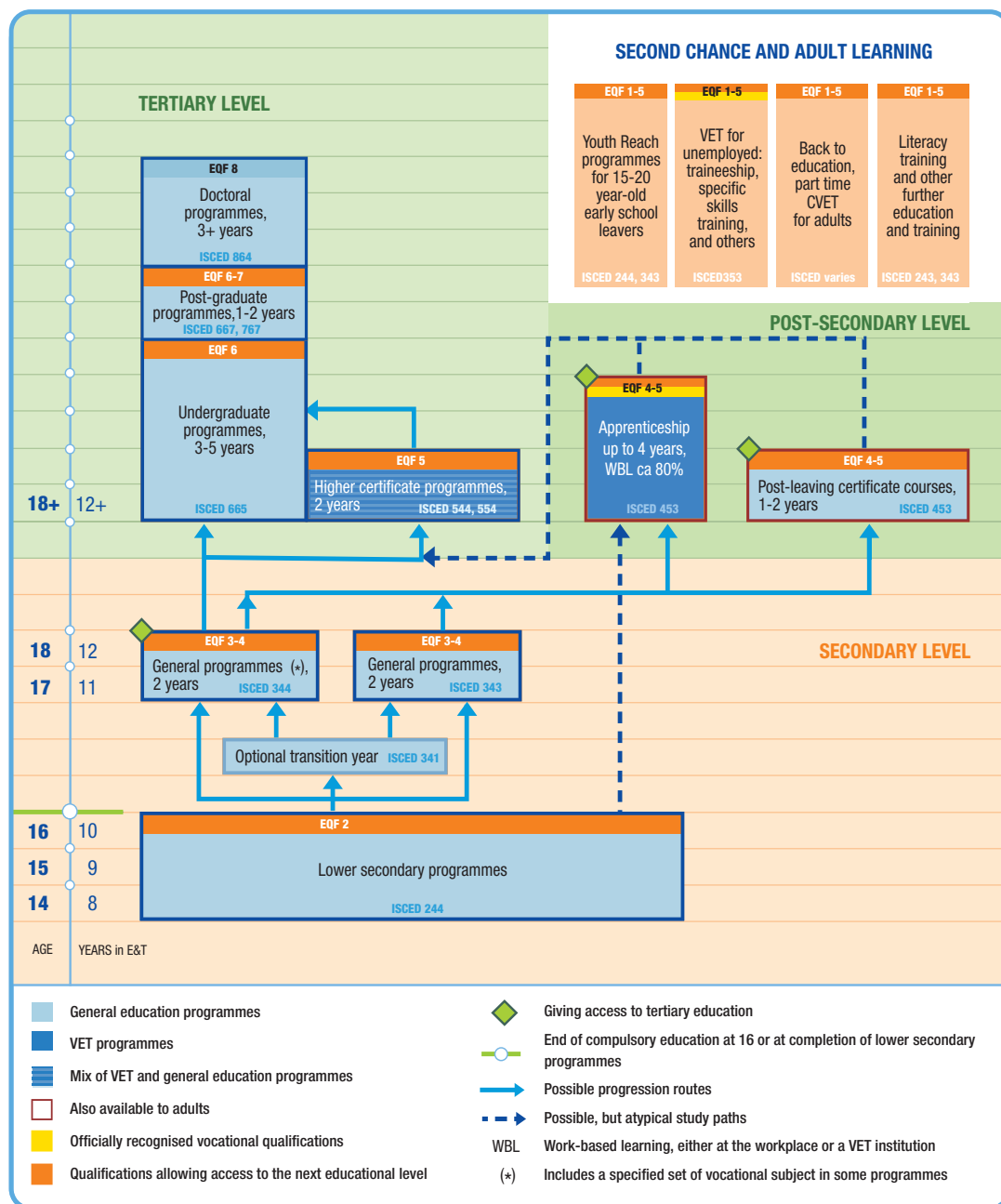
education, or both. Typically, training is in areas such as technical knowledge, personal/core skills and work experience; PLCs lead to an NFQ level 5 or 6 award (EQF 4 or 5). Partial awards are also made;

- training for other occupations: delivered by second-level schools, ETB colleges, private or sectoral providers (e.g. for tourism, agriculture or fishing). Awards, full or partial, are made, usually at NFQ level 5 or 6 (EQF 4 or 5).

VET at tertiary level (ISCED-P 544, 554) is provided mostly by institutes of technology and, to a lesser extent, by universities and other higher education providers. Courses are mainly in business, science and technology and lead to an NFQ level 6 or level 7 award (EQF 5 or 6).

For second chance education and training for the unemployed, VET is also offered in the form of:

- VTOS (vocational training for the unemployed); Youthreach (for early school leavers aged 15-20); and the back to education initiative (part-time for adults). Full and partial awards are made at NFQ levels 1-6 (EQF 1-5);
- traineeships: training for the unemployed for a range of occupations (such as financial advisor assistant, pharmacy sales assistant). It leads to an NFQ level 5 or 6 (EQF 4 or 5) award (full or partial);
- specific skills training: training for the unemployed in a vocational skill (such as computer hardware maintenance), delivered by ETBs (on average, 16 weeks). There is a range of awards, full and partial, at NFQ levels 3-5 (EQF 2-4).



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Ireland.

VET in Italy

In recent years, several reforms have been carried out to make vocational education and training (VET) more flexible and respond better to labour market needs. VET in Italy is characterised by multilevel governance with broad involvement of national, regional and local stakeholders. Ministries of Labour and Education define the general framework and policies. Regions and autonomous provinces are in charge of providing several vocational programmes and most apprenticeship-type schemes.

Compulsory education lasts 10 years, up to age 16. To ensure young people do not leave education and training without a qualification, they have the 'right/duty' (diritto/dovere) to accomplish at least 12 years before they are 18. The choice between general education and VET is usually made at age 14.

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

- (a) five-year programmes at technical schools (istituti tecnici), to prepare for technical and administrative jobs, and at vocational schools (istituti professionali) to prepare for carrying out qualified tasks in the production industry (fields of national interest). They combine general education and VET. Graduates have access to higher education and acquire qualifications at EQF level 4;
- (b) three- to four-year VET programmes organised by the regions (istruzione e formazione professionale, leFP). These modular programmes aim at developing basic, transversal and technical-occupational skills and include on-the-job training (especially internships). Learners can change areas of study through recognition of credits. Qualifications at EQF levels 3 and 4 are recognised nationally;
- (c) a three- to four-year apprenticeship-type scheme offers qualifications at EQF levels 3 and 4. Apprenticeship includes both on-the-job and classroom training. The minimum entry age is 15.

At post-secondary level, there are several options which all include internships or traineeships:

- (a) IFTS programmes (istruzione e formazione tecnica superiore) leading to EQF level 4 offer

higher technical education and training for young people and adults;

- (b) ITS programmes (istituti tecnici superiori) leading to EQF level 5 offer non-academic training at tertiary level in professional areas considered strategic for the country's development;
- (c) post-leFP and other programmes/courses, which provide theoretical, technical and managerial skills, also through practical work and offer regional qualifications. They usually cater for young unemployed people, migrants and disabled people.

VET courses also exist at post-higher education level.

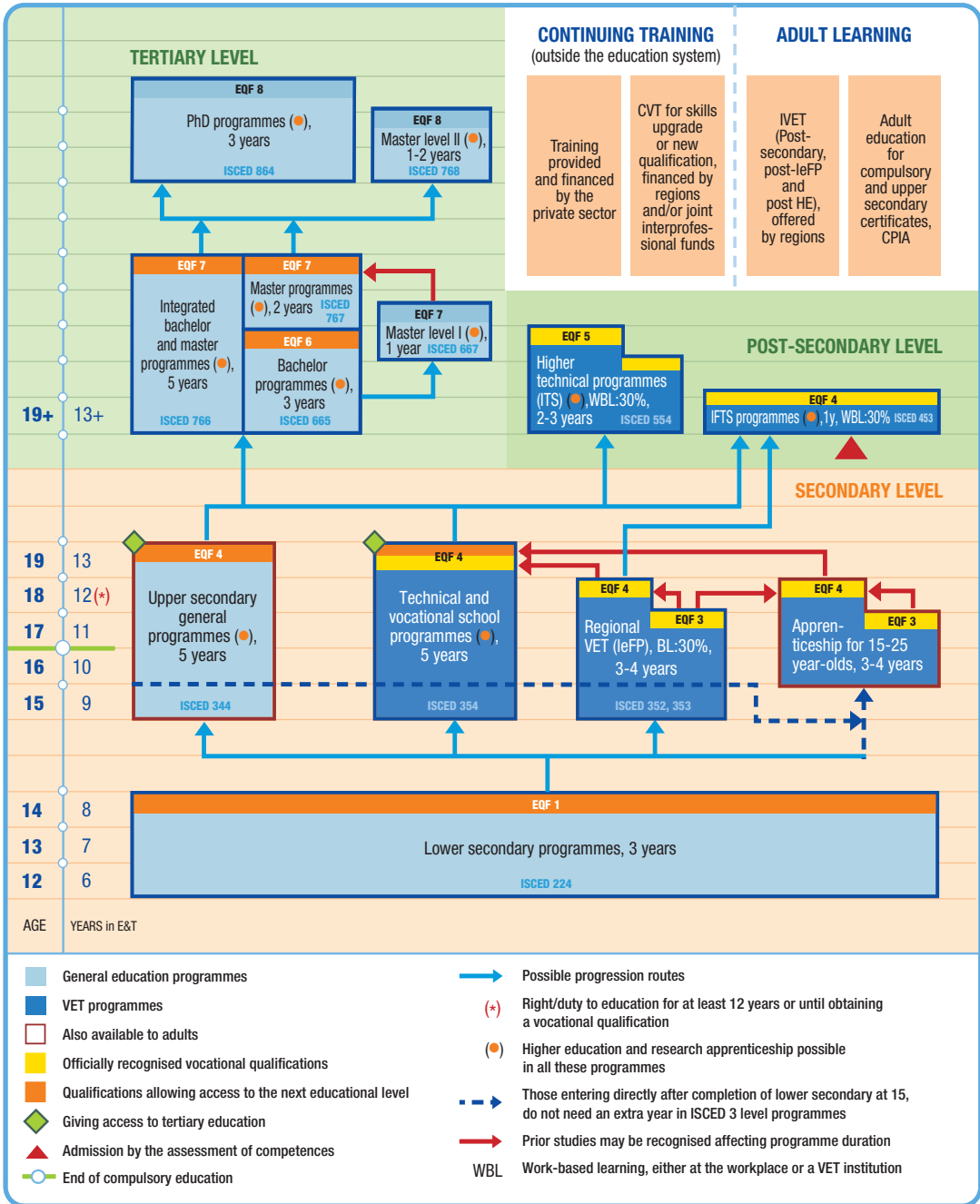
Higher education and research apprenticeships (apprendistato di alta formazione e ricerca) enable 18 to 29 year-olds to acquire qualifications usually offered through school-based programmes at secondary, post-secondary and tertiary levels, including a doctoral degree (EQF levels 4 to 8).

Professional apprenticeships (apprendistato professionalizzante o contratto di mestiere) offer qualifications provided for in collective-bargaining agreements to 18 to 29 year-olds. They last up to three years (five for the crafts sector). Workers affected by restructuring can participate in this scheme to (re)qualify.

VET for adults is offered by a range of different public and private providers. This includes programmes leading to upper secondary VET qualifications to ensure that the low-skilled have progression opportunities.

Continuing vocational training (CVT) to meet enterprise, sectoral and regional needs is supported by joint interprofessional funds managed by the social partners.

For lifelong learning, training is also provided by free universities or universities for the third age, voluntary associations, NGOs, etc.



VET in Latvia

VET in Latvia is offered at three ⁽¹⁾ levels: integrated primary and lower secondary (called ‘basic’ nationally), upper secondary (secondary), and tertiary (professional higher education). VET is mainly school-based, hence the national term refers to ‘vocational education’ that includes practical training at schools and enterprises. To acquire a VET qualification, learners have to take a state qualification exam at the end of the programme.

Basic VET programmes (one to two years, ISCED-P 254) lead to qualifications at EQF level 3. Learners are admitted irrespective of their previous education but not earlier than in the year in which they turn 15. Those without completed basic education are admitted to three-year programmes that include a compulsory basic general education course.

At upper secondary level:

- three-year programmes (ISCED-P 353) lead to a certificate of vocational education but do not give the right to enter higher education. Students who want to continue their studies at higher education level may attend an additional one-year intermediate-level general education programme. Those without completed basic education are admitted to VET programmes that include a compulsory basic general education course;
- four-year programmes (ISCED-P 354) lead to a diploma of vocational secondary education. At the end, students also take four state general subject exams; if successful, they are awarded a certificate of general secondary education, which gives them the right to enrol in higher education;
- one- to two-year programmes that lead to a vocational qualification (ISCED-P 354 and 453) are designed for 17 to 29 year-olds with or without completed upper secondary education. The programmes focus on vocational skills only, so they are shorter.

Professional higher education programmes are provided at two levels:

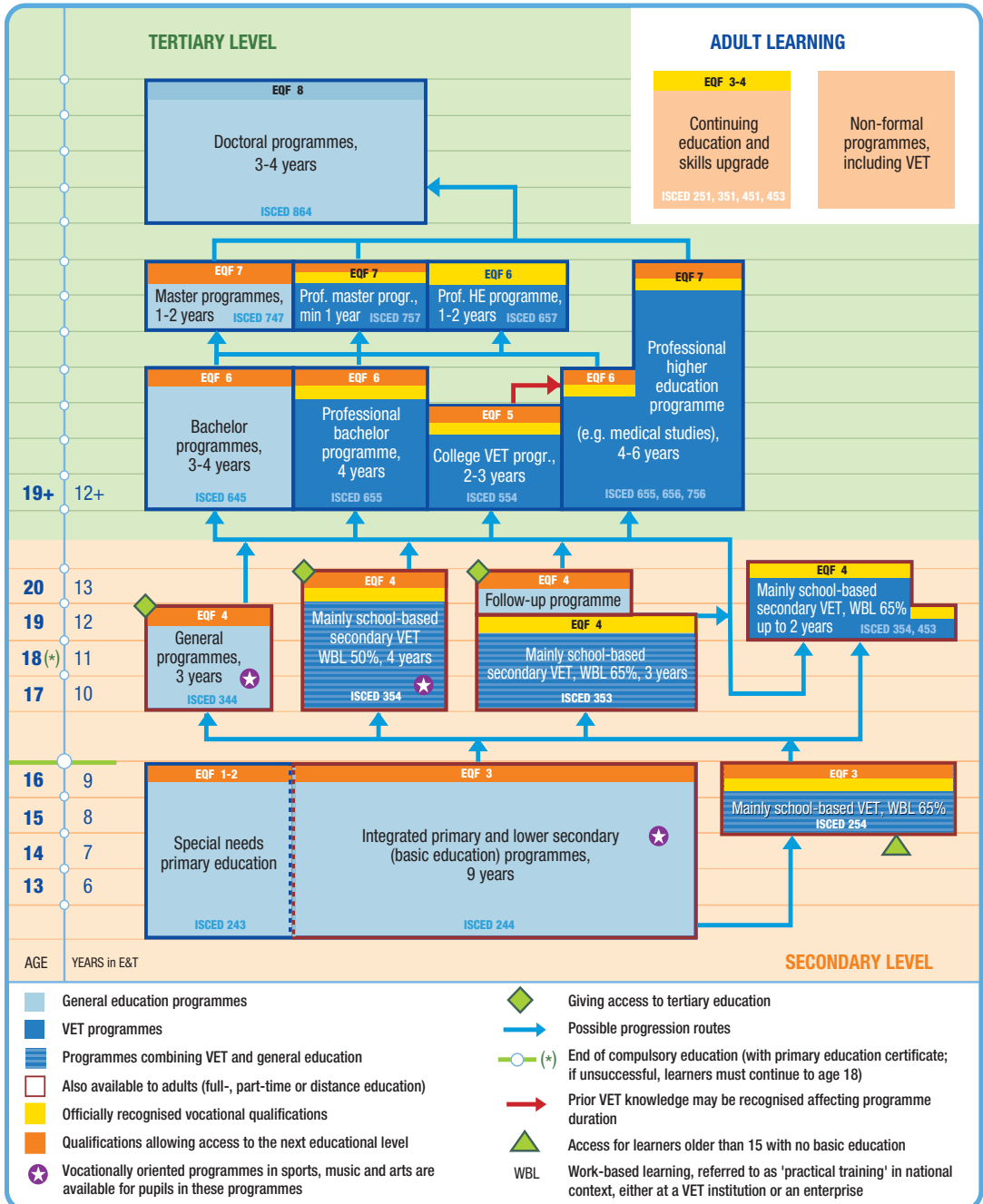
- first-level college programmes (two to three years) (ISCED-P 554) targeted mainly at the labour market, though graduates can continue their studies in second-level professional higher education;
- second-level university programmes (four to six years) (ISCED-P 655, 656, 657, 756 and 757) lead to a professional qualification and professional bachelor, master or a so-called professional higher education degree.

Formal 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 professional knowledge and skills regardless of their age, education and professional background but do not lead to a VET qualification.

Apprenticeship exists on a small scale mainly in the crafts sector. It is separate from other education programmes and there are currently no pathways to formal education.

The Ministry of Education and Science is the main body responsible for VET’s 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, which was founded in 2000 by the State and representatives of employers and employees. Since 2011, 12 sectoral expert councils have ensured cooperation and information exchange.

⁽¹⁾ Arts, culture and sports programmes (referred to as ‘vocationally-oriented education programmes’ nationally) are also implemented concurrently with basic and secondary general education, but they 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 responsible for shaping and implementing vocational education and training (VET) policy. The Ministry of Economy participates in human resources development and VET policy, and organises research on future skill needs. Advisory institutions play an important role in designing and implementing VET policy and the qualifications system. Most important are the VET council and the central professional committee with its sectoral professional committees.

The main priority for VET is to become an attractive and highly valued part of education and lifelong learning. VET programmes are designed for learners of different ages and educational backgrounds. Initial VET (IVET) offers learners over 14 opportunities to acquire a first qualification. Continuing VET (CVET) is designed for learners who want to improve a qualification they have, acquire a new one or gain a competence needed to do specific jobs (perform functions) as specified in regulations.

IVET is offered at lower secondary (ISCED 2), upper secondary (ISCED 3) and post-secondary education (ISCED 4) levels, leading to European qualifications framework (EQF) levels 2 to 4. Learners can acquire a vocational qualification and complete general lower or upper secondary education. Upper secondary-level VET graduates who have obtained a *matura* certificate may apply to be admitted to higher education. When applying for higher non-university education programmes in the same field, they can be awarded additional entrance points.

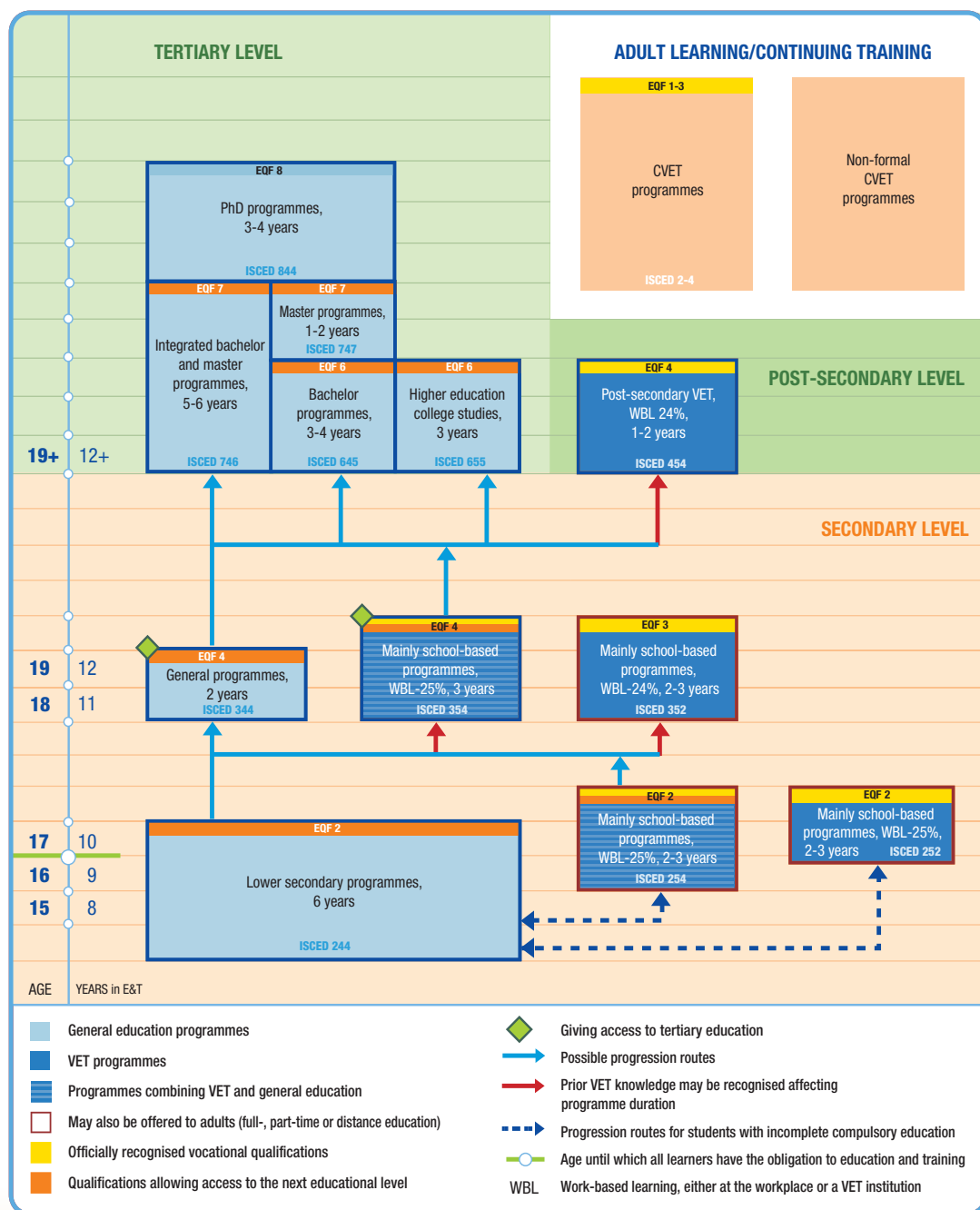
Although VET in Lithuania is school-based, practical training and training in enterprises are a major part. In IVET, practical training comprises 60 to 70% of the total time allocated to vocational subjects, of which 8 to 15 weeks is organised in a company or a school-based workshop simulating working conditions. Progressing implementation of apprenticeship is considered a national priority and policy initiatives are in process.

Formal 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.

Programmes last no longer than one year and lead to a vocational qualification at EQF levels 1-3, recognised by the State. Practical training comprises 60-80% of the programme, half of it preferably taking place at the enterprise. Formal CVT for unemployed and those notified of dismissal is funded by a voucher system, which allows the unemployed to choose the training provider. The provision of training is based on contracts between the local public employment service, the unemployed and, if applicable, the enterprise. After training, the employer undertakes to employ the person for at least six months.

Non-formal CVET for the self-employed and training for employees, initiated by employers, is organised in various settings. Some companies have their own training units and qualifications frameworks or apply internationally-recognised sectoral qualifications and programmes.

Social partners have the right to initiate new qualifications, standards and VET programmes. Since 2003, competence assessment has been detached from the training process and since 2012 has been carried out by accredited institutions. Social partners, enterprises and employers' associations may apply for accreditation. Employer representatives participate in designing and assessing VET programmes according to labour market needs. They are also involved in organising training and may participate in the management of VET institutions and become their shareholders. Currently, social partners, enterprises and municipal authorities participate directly in managing self-governing IVET providers, which comprise a quarter of all VET institutions.



VET in Luxembourg

The Luxembourg administration is centralised. The Ministry of National Education, Children and Youth (MENJE) is responsible for all types of education, including continuing vocational education and training. Initial and continuing higher education is under the Ministry of Higher Education and Research. The Luxembourgish VET system is based on a dual system, where there is a strong relationship between school-based education and work-based learning in enterprises. The recent VET reform aims at strengthening the links between VET and the labour market and focuses on competence-based and modular qualifications.

Initial VET (IVET)

Technical secondary education prepares learners for professional life but also qualifies them for higher education. It is divided into three cycles: the lower cycle (ISCED 2), the medium cycle and the upper cycle (ISCED 3). The lower cycle is dedicated to deepening general education gradually leading learners to an education level or occupation corresponding to their abilities. The medium and upper cycles of secondary technical education offer learners an opportunity to learn a profession for which a certificate or diploma is awarded. There are three types of programmes within these cycles:

- work-based programmes: at the core of these programmes lies an apprenticeship which includes practical training under guidance of a supervisor (an enterprise, recognised as qualified for this purpose). Learners study general subjects such as citizenship education at a technical high school. These programmes offer two types of certificates:
 - vocational capacity certificate (CCP) which prepares learners directly for professional life;
 - vocational aptitude diploma (DAP) which prepares learners for carrying out a profession. It also provides possibilities for further studies to become a master craftsman or, subject to completing supplementary preparatory modules, to pursue higher technical studies;

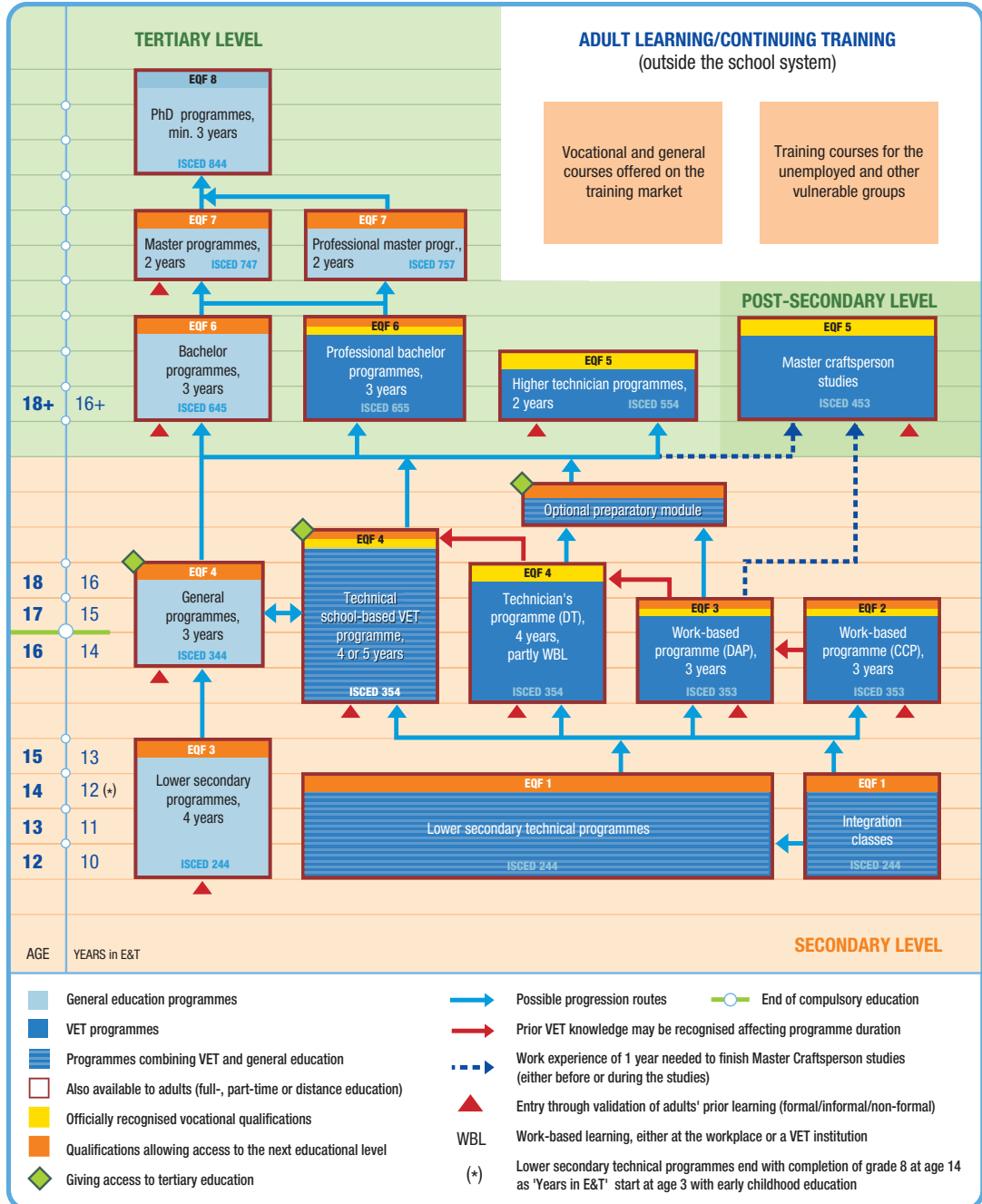
- technician's programmes: these prepare learners for a technician's diploma (DT) in various professional domains. They focus on training for professional life. Thanks to optional preparatory modules, students can also pursue higher technical education;
- technical VET programmes: there are four types (referred to as 'divisions') of programmes:
 - administrative and commercial programmes;
 - health and social care programmes;
 - general technical programmes.
 - arts programmes.

Apart from general subjects, the curriculum of these school-based programmes includes vocational subjects, which comprise theory and advanced practical training. Students completing technical programmes are awarded a technical secondary school-leaving diploma. This diploma confers the same rights as the general secondary education diploma; students can enter the labour market or pursue higher education.

Learners can move from technical to general secondary education and vice versa.

Continuing VET (CVET)

All adults who have left school have access to life-long learning supported by guidance services. They can, at various stages of their lives, obtain a formal qualification, acquire or improve knowledge and know-how, adapt themselves to new technologies, change their careers and experience personal enrichment through learning. There are several actors providing training: the State, professional chambers, sectoral organisations, providers with mixed funding, non-profit organisations and private training centres. The State provides some support for companies and individuals to encourage IVET (financial support on top of apprenticeship pay and for higher education) and CVET (paid training leave, flexible working time arrangements, cofunding arrangements). The Agency for the Development of Employment (ADEM, Luxembourg's public employment service) organises vocational training for job-seekers in close cooperation with MENJE.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Luxembourg.

VET in Malta

Over the past years, Malta has been investing in vocational education and training (VET) and has encouraged students to continue their education beyond school-leaving age. State VET providers are primarily the Malta College for Arts, Science and Technology (MCAST) and the Institute of Tourism Studies (ITS).

MCAST houses several institutes which provide VET in various sectors while ITS provides training mainly in the hospitality sector. MCAST and ITS are regulated by the Education Act. The Employment and Training Corporation (ETC), Malta's public employment service, is regulated by the Employment and Training Services Act. Since 2008, Malta has moved towards industry-led qualifications mostly linked to the NQF (Malta qualifications framework, MQF): VET providers work closely with employers in designing courses meeting labour market needs in a rapidly changing economic landscape.

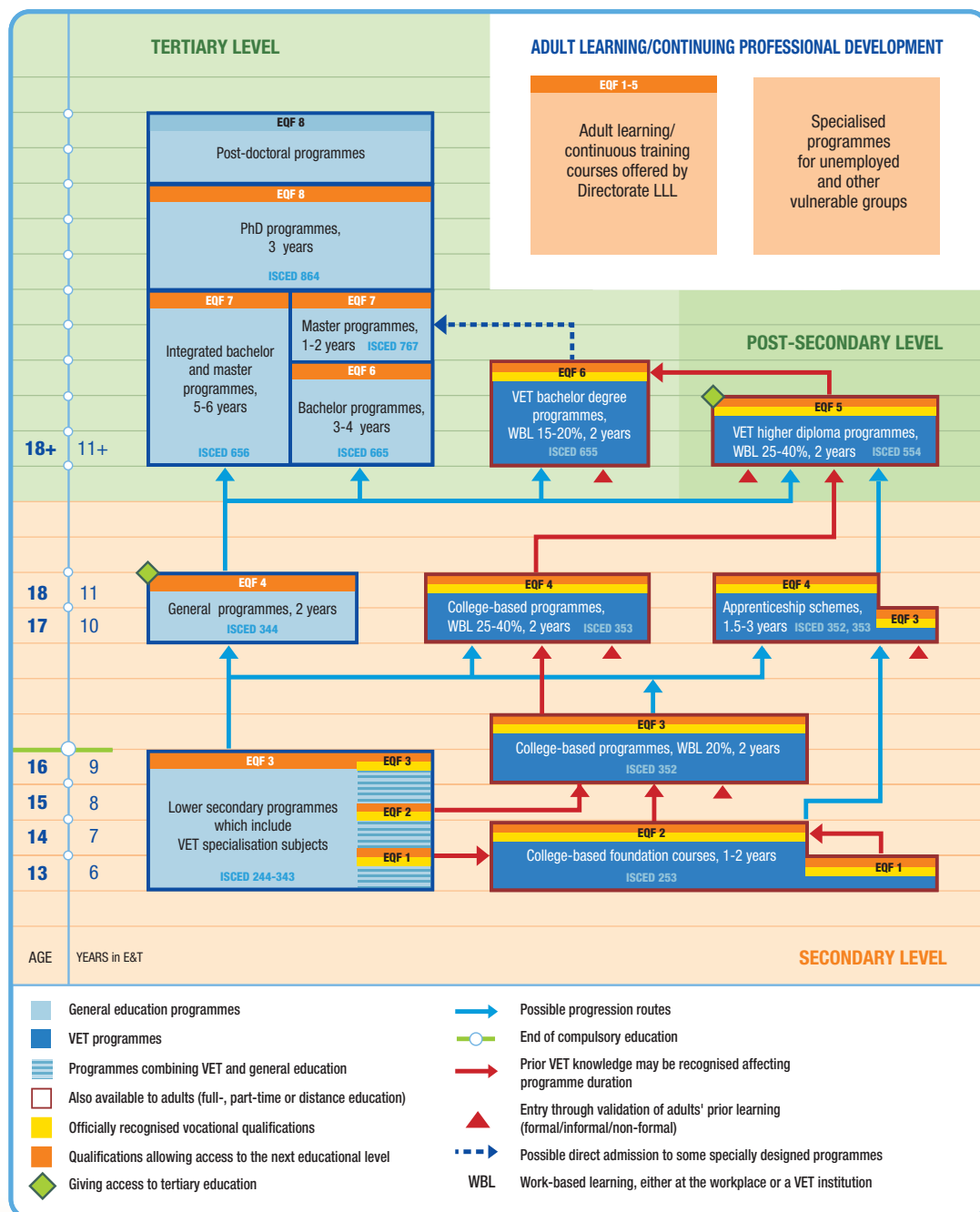
At lower secondary level (called secondary education nationally), VET subjects in hospitality, IT, care and engineering were piloted in 2011 to students aged 14 onwards to raise awareness and interest in VET and to increase mobility between VET and general education. The following VET options are available:

- school-based IVET in college programmes after compulsory education. Programmes leading to EQF levels 3 and 4 (mainly provided by MCAST and ITS for 16 to 18+) have a duration of one or two years. For students who finish compulsory education without a certification, there are introductory courses to specific vocational sectors (programmes leading to an introductory and/or foundation certificate) at EQF levels 1 and 2. Successful completion leads to access to further study in the same field. At post-secondary (non-tertiary) level, two-year college-based programmes lead to a qualification at EQF level 5 (higher national VET diploma) and at tertiary level, two-year programmes lead to a VET bachelor degree (EQF level 6). Students who successfully complete a higher national diploma programme (equivalent to the first two years of a university first degree programme) and who meet all entry requirements can opt for a further year of

study to qualify for a university degree. ITS students can further their studies after an EQF level 5 qualification by enrolling in a bachelor degree in tourism at the University of Malta. Vocationally oriented degree programmes are also provided by the university's department of nursing;

- apprenticeship schemes (work-based learning at an employer's establishment combined with school-based instruction at a college) with a duration of 18 to 36 months are run by the ETC in collaboration with MCAST and ITS. Two types of schemes exist: the extended skills training scheme (ESTS) awarding a journeyman's certificate at craftsman level (EQF level 3) and the technician apprenticeship scheme (TAS) awarding a journeyman's certificate at technician level (EQF level 4);
- continuing VET is offered by MCAST and ITS in evening courses. The ETC also provides adult learning but mainly targeted at the unemployed. The Directorate for Lifelong Learning in the Ministry of Education and Employment organises courses at EQF levels 1 and 2 to develop key competences among adults (lifelong learning in the community), hosted by local councils and financed by the Department for Local Government;
- maturity clauses allow adult learners aged 23 or older to enter programmes at the University of Malta and MCAST. They do not have to comply with entry requirements but are interviewed (and in some cases take a written test) to assess prior qualifications and experience.

While progression opportunities in VET are widely available, there are limited possibilities for mobility between VET and general education. Proposed amendments to the Education Act in 2014 will improve permeability between VET and higher education.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Malta.

VET in the Netherlands

Learners leaving primary education at age 12 go on to various schools in the secondary education category. From the third year at lower secondary level (14 year-olds) onwards, about a quarter of students follow programmes that can be characterised as pre-vocational (part of preparatory secondary vocational education (VMBO)).

For learners not capable of entering pre-vocational education, separate labour-oriented practical training is offered (praktijkonderwijs).

There are two types of programmes at upper secondary level that provide general education: upper secondary general education (HAVO) and pre-university education (VWO).

Upper secondary VET

Upper secondary vocational education (MBO) is also available. Three structural elements determine this type of education: differentiation according to level, programme orientation and learning pathway:

- level: upper secondary vocational education has four levels corresponding to EQF levels 1 to 4. At which level students start depends on what prior education they have and the diploma obtained. There are no minimum admission requirements for level 1 in this type of education. It is possible to move (upwards) within upper secondary vocational education and the highest level 4 (EQF 4) gives access to associate degree or bachelor programmes in higher professional education (HBO) offered by universities of applied sciences;
- programme: vocational training programmes are offered in four sectors; green/agriculture, technology, economics and care and welfare. There are a total of 237 dossiers that describe interrelated qualifications; there are 612 different diplomas;
- learning pathway: upper secondary vocational education has a school-based pathway (BOL) and a dual pathway (BBL). In the school-based pathway, students spend at least 20% of their time on work placement. In the dual pathway, students have jobs that they combine with a course of study (apprenticeship); this often

involves four days' work a week and one day at school.

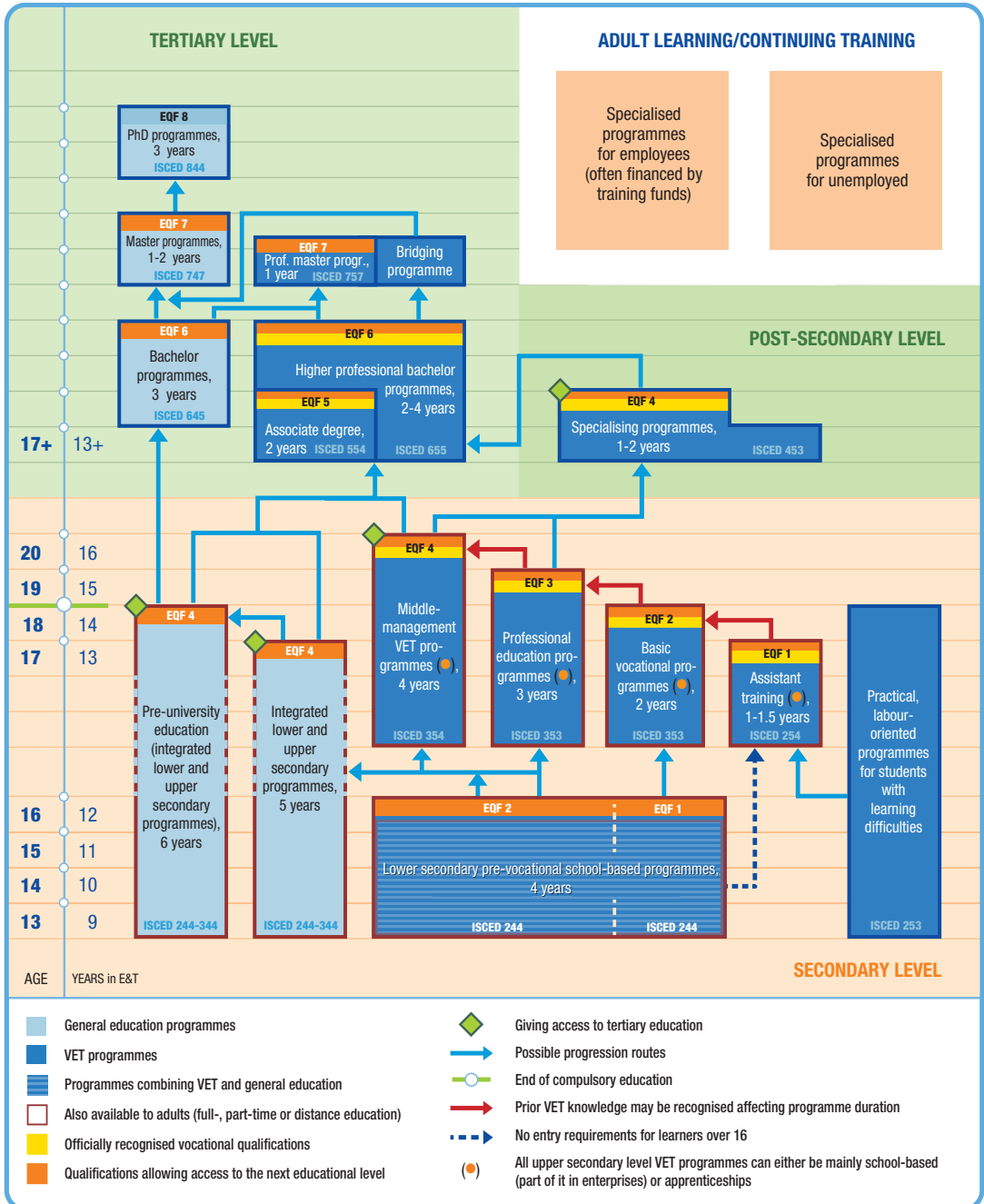
In upper secondary vocational education the national qualification structure defines qualifications' desired outcome. Social partners and education institutions, represented in sectoral bodies, have the legal task to develop and maintain these qualifications. Once determined by the Ministry of Education, Culture and Science/Economic Affairs, schools develop – in cooperation with training firms – curricula based on the qualification profiles.

Tertiary VET

Higher professional education (HBO) is open to students with upper secondary general education diplomas. Transferring to this type of higher education is also possible with a diploma at level 4 of upper secondary vocational education: 50% of students with a qualification at MBO-4 level enter the job market while the other half go on to higher professional education. The majority of these students pursue a four-year professional bachelor degree programme. Moreover, in recent years two-year associate degree programmes have been developed (short-cycle higher education) and students with a bachelor degree can transfer to a professional master degree programme, albeit still to a limited extent.

Continuing VET

There is no institutional framework for continuing vocational education and training (CVET). Provision is market-driven with many suppliers. Social partners can stimulate CVET with help from their branch-specific training and development funds. Publicly-financed part-time/dual initial VET can also function as CVET for adults.



VET in Norway

All young people leaving compulsory school have a statutory right to three years of upper secondary education. They may choose from three general studies programmes and nine VET programmes. Upper secondary education, VET included, is provided by 19 regional county authorities.

Upper secondary VET is conducted both in schools and in public and private enterprises. Training establishments must be approved by the county authorities. 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 consists of general education (the six common core subjects: Norwegian, maths, English, natural sciences, social sciences and history) and 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. VET programmes can also be organised with longer apprenticeship or without apprenticeship.

Upper secondary VET is normally completed by a practical-theoretical trade or journeyman's examination (*Fag- eller svenneprøve*). Successful candidates are awarded a trade certificate (*Fagbrev*) for industrial and service trades or a journeyman's certificate (*Svennebrev*) for traditional crafts. The nine VET programmes lead to about 180 different certificates.

There are many possibilities for transition to higher education (HE) from upper secondary VET:

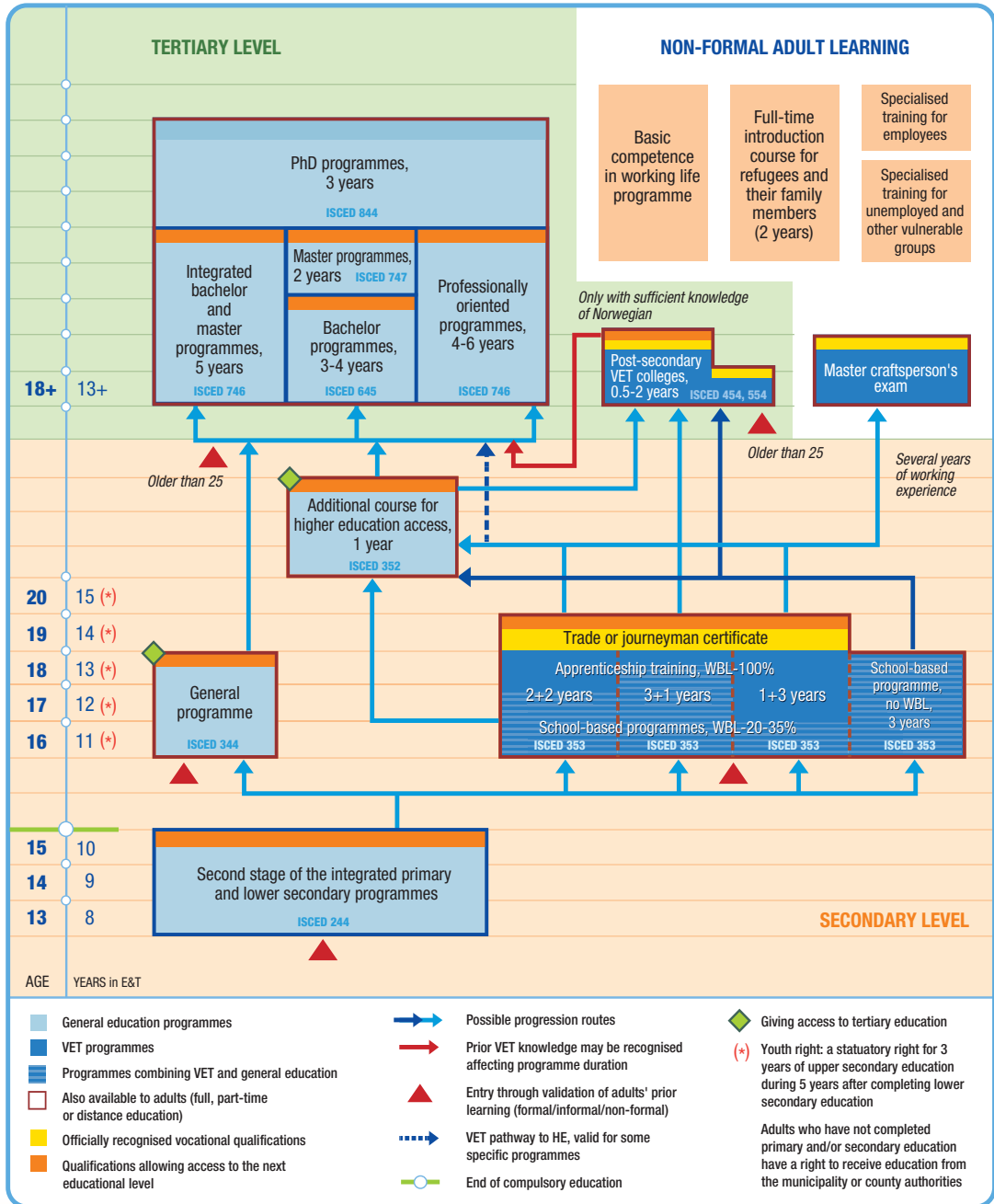
- by completing the third year of supplementary studies qualifying for HE, comprising the core subjects;
- after completion of a trade or journeyman's certificate:
 - (a) one-year course in core subjects;
 - (b) direct admission to certain specially designed programmes (*Y-veien*);
- applicants aged 23 or above with at least five years' work experience and/or education, and who have successfully passed a course in the core subjects;

- based on individual assessment of relevant formal, informal and non-formal qualifications for applicants aged 25 or more, who do not meet general entrance requirements.

Adults over 25 have, on application, a statutory right to upper secondary education and training. Education should be adapted to the individual's needs and life situation. Adults also have a right to have their prior learning assessed towards national curricula, which may result in exemption from parts of training. The experience-based trade certification scheme gives adults the right to sit a trade or journeyman's examination upon proof of long and relevant practice. The candidate must demonstrate comprehensive experience in the trade or craft, normally a minimum of five years.

Master craftsperson education is VET for holders of a relevant trade or journeyman's certificate with several years' work experience. The training, which combines general business management, marketing and vocational theory, is a public certification arrangement under the Ministry of Industry and Trade. Many of these programmes are provided by vocational colleges (*Fagskoler*) at ISCED level 4. Such colleges also offer a range of short VET programmes for students with an upper secondary qualification. Providers design their own courses and curricula. Each programme must be recognised by a national authority for quality assurance. The comprehensive higher education system has no formal or other distinction between vocational and non-vocational education.

The Ministry of Education and Research has overall responsibility for education and training at all levels. For upper secondary VET, curricula and the VET structure are laid down in national regulations, and providers are required to comply with them. The county authorities are responsible for the volume of school and VET provision, dispensing VET financing provided by the State budget (including apprenticeships), and providing apprenticeship placement and supervision.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Norway.

VET in Poland

Management and administration of the VET system in Poland has a three-level structure: national (ministries), partially regional (school superintendents, mainly in pedagogical supervision), and district authorities (governing upper secondary schools). Social partners are involved in developing the VET system by giving opinions on planned changes to VET.

Educational policy at secondary level is governed by the Ministry of National Education, the Ministry of Culture and National Heritage (artistic schools), the Ministry of Agriculture (agricultural schools), the Ministry of the Environment (forestry schools), the Ministry of Justice (inmate education and correctional education) and other ministries responsible for particular occupations. The Ministry of Science and Higher Education is responsible for VET at higher education level.

At upper secondary level, students can gain vocational qualifications at a three-year basic vocational school (ZSZ) or at a four-year upper secondary technical school (*technikum*). Pathways are provided for students to continue education at tertiary level. At post-secondary non-tertiary level, graduates of general and technical upper secondary schools can gain vocational qualifications at post-secondary school (*szkoła policealna*).

Polish VET at technical schools and post-secondary schools is mainly school-based with a share of 50% practical training in VET programmes, while in basic vocational schools the practice and theory proportion is 60% and 40% respectively. Of students at basic vocational schools, 60% undergo practical training in form of apprenticeship organised in small and medium-sized enterprises. It starts after completion of lower secondary education at age 16.

After passing external exam(s) confirming vocational qualification(s), students obtain a relevant certificate. Each occupation comprises one to three qualifications. Only after passing exams confirming all qualifications required for a given occupation may a diploma confirming vocational qualifications be issued.

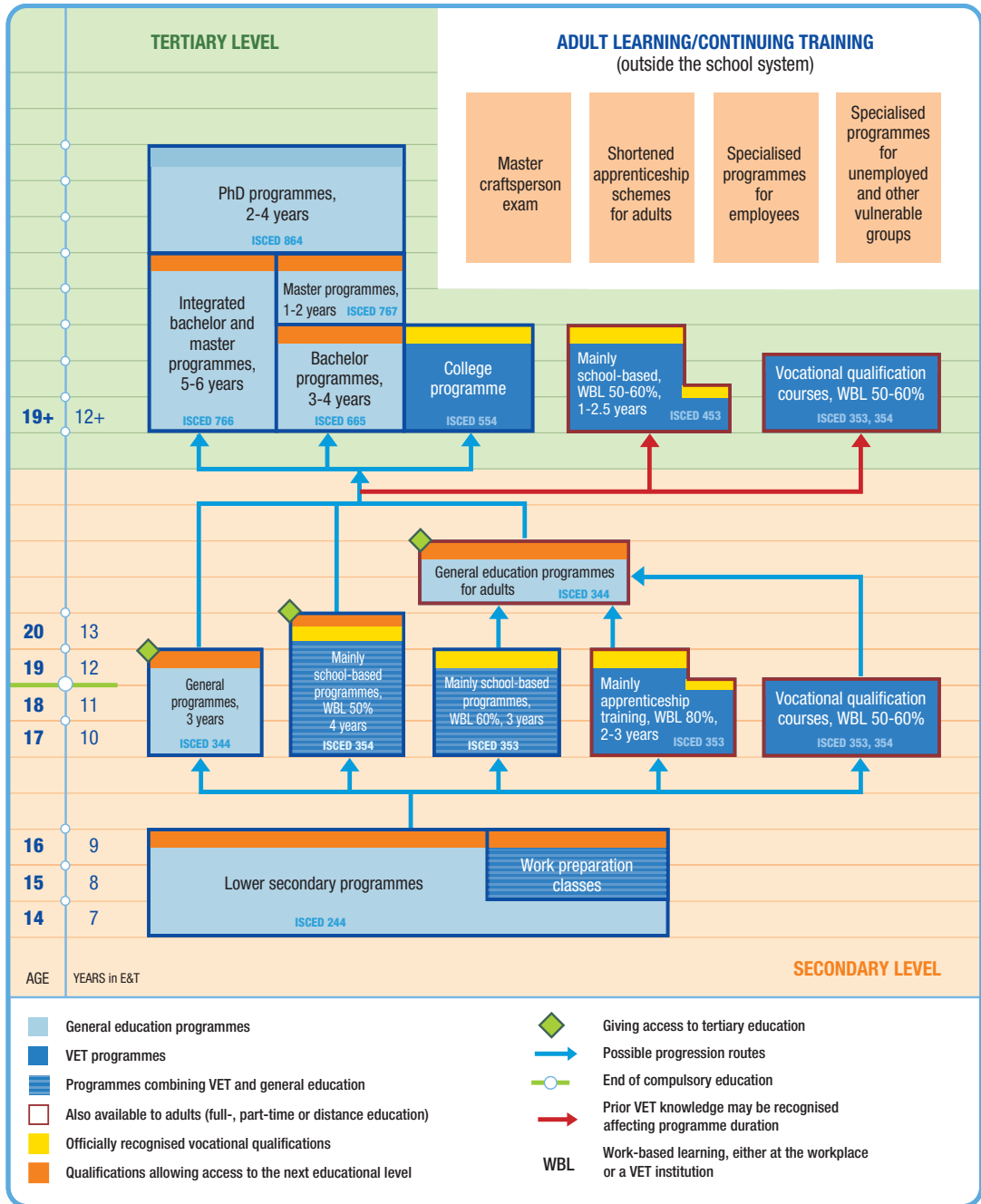
Adult learning and CVET

About 4.5% of the population between 25 and 64 years of age participated in some form of education or training in the four weeks before the survey. Since 1 September 2012, due to more State intervention, basic vocational and technical schools for adults are gradually being replaced by a more flexible system of VET courses, enabling adults to acquire either part or full qualifications. Introducing these types of courses has created a fast track for adults to gain vocational qualifications. IVET schools offering vocational education for youth have expanded their target group to include adults.

VET for adults is organised mainly in out-of-school forms, such as:

- vocational qualification courses. Completing a vocational qualification course allows adults, if they pass an external examination, to confirm a vocational qualification acquired under the same conditions and rules as IVET students;
- occupational skills courses – courses for separate units of learning outcomes specified in a given qualification;
- courses related to classified occupations and specialisations meeting labour market needs, including courses conducted in cooperation with labour offices.

Apprenticeship for adults is the responsibility of the Ministry of Labour and Social Policy. This particular active labour market programme, provided by local labour offices, aims to improve employability of the unemployed and job-seekers by helping them to attest their skills and qualifications formally. Apprenticeship for adults is financed by the labour fund. The apprenticeship for adults programme, consisting of 80% practical training and up to 20% theoretical, has two forms: occupational training, lasting 12 to 18 months, leading to the journeyman exam and training for performing a specific job, lasting three to six months.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Poland.

VET in Portugal

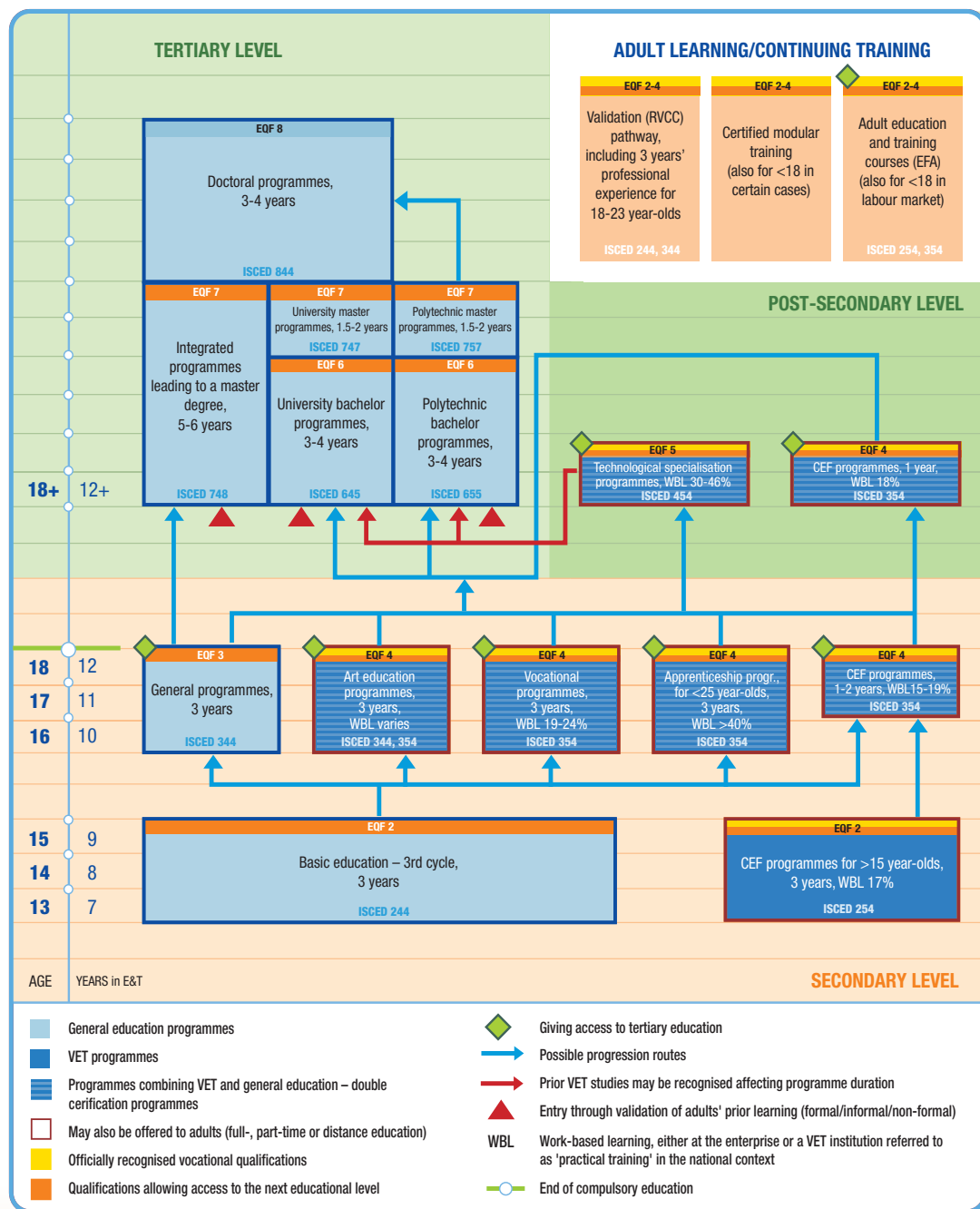
Central government has overall responsibility for education and training. The Ministry of Education is responsible for most types of education, including school-based vocational education and training (VET), while the Ministry of Employment is responsible for the apprenticeship system, CVET and active labour market policies. The ministries share responsibilities for school-based VET and develop key policies, while the respective regional bodies are responsible for implementation. The national qualifications system (SNQ) reorganised VET within the remits of the education and employment authorities into a single system.

Young people can choose different types of VET programmes if they meet admission requirements in terms of age and educational background. Permeability is ensured between general and VET programmes.

- VET programmes at basic education level (VET programmes for young people: cursos de educação e formação de jovens (CEF), ISCED-P 254) are school-based and include work-based learning (WBL, referred to as 'practical training' in the national context). Learners need to be over 15 and should have completed the first cycle of basic education (four years). They award qualifications at level 2 of the national (QNQ) and the European qualifications framework (EQF). They are designed for young people at risk of leaving school early or who have already left the school system before completing their compulsory education; they allow progression to several types of programme, including other CEF programmes available at secondary and post-secondary level. Since 2012, vocational programmes for youngsters aged 13 or older have been introduced in some schools as pilot projects.
- VET programmes at secondary education level (vocational programmes, CEF and art education programmes, ISCED 3) are school-based and include WBL, except for some art education programmes. Learners need to be over 15 and should have completed basic education. Successful learners are granted both a secondary level education certificate and an occupational qualification at EQF level 4, which may lead either to employment or further education, including higher education.
- Apprenticeship programmes (ISCED-P 354) include 40% workplace training. A contract between the enterprise and the apprentice is compulsory. Access is possible for learners below 25 who have completed basic education. Courses are specifically designed to help young people enter the labour market, although they also allow further studies in higher education. Successful learners are granted double certification at EQF level 4.
- Programmes at post-secondary non-tertiary level combine general, scientific and technological training in school with work-based learning. WBL is 30 to 46% in technological specialisation programmes (CET) and 18% in post-secondary CEF. Learners need to be over 18, have acquired EQF level 4 or be in the last year of secondary education or have a higher education diploma. These programmes award qualifications at EQF level 4 (CEF) or 5 (CET) and a technological specialisation diploma and can also be provided in higher education institutions.

Over the past decade, policy developments have aimed at raising adults' qualifications by widening access to VET to increase participation.

- Adult education and training courses (EFA, ISCED-P 254, 354) are flexible training schemes available for people over 18 who wish to complete basic or secondary education and/or obtain an occupational qualification (EQF levels 2-4).
- Certified modular training courses are credit-based and allow learners to select individual units. They generally address people over 18 who have not completed basic or secondary education/training. Upon successful completion of each module, and assessment by a technical committee, a final certificate and diploma are issued (EQF levels 2-4).
- Recognition, validation and certification of competences (RVCC, ISCED-P 244, 344) is based on the principle of lifelong learning and targets people over 18. The two different RVCC processes (general 'academic' and vocational) can lead to either a basic or secondary level education certificate (at EQF levels 2-4) or an occupational certificate (VET qualification at EQF levels 2-4). 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

Initial vocational education and training (IVET) is provided at both upper secondary and post-secondary levels. 'Professional education' is used to denote the 'vocational' and 'technological' routes of upper secondary school, dual learning at professional schools and the 'higher VET programmes'.

General compulsory education includes primary education and lower secondary education. After completing lower secondary education, learners can continue their studies at upper secondary or professional schools. Admission to upper secondary education is based on each learner's portfolio, including graduating diploma and transcript, and on grades acquired in national evaluation exams taken at the end of the eighth grade.

Upper secondary programmes at high schools comprise three routes that lead to upper secondary leaving diploma (*matura*) at EQF level 4, granting access to higher education:

- four-year general programmes ('theoretical route') with two options of study: sciences (mathematics and informatics or natural sciences) or humanities (social studies or philology);
- four-year vocational programmes ('vocational route') with the following fields of study: military, theological, sports, arts and pedagogy;
- four-year technological programmes ('technological route') with the following fields of study: technical (engineering, electrotechnics and electronics, mounting construction), services (trade, public catering), natural resources and environmental protection.

After two years of study in a technological programme, students may opt for an additional 720 hours of workplace training to acquire an occupational qualification at EQF level 3.

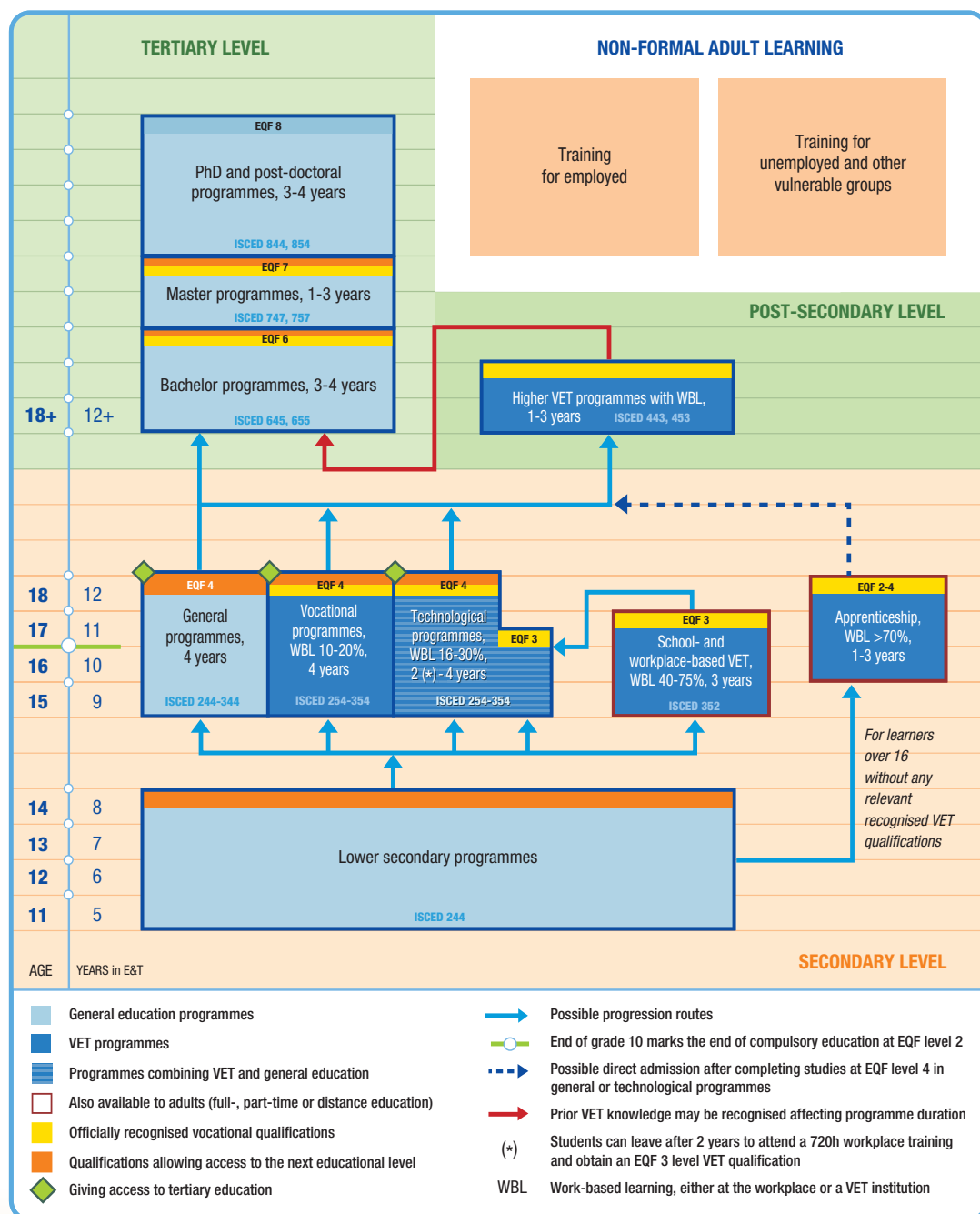
There are also three-year VET programmes in professional schools that lead to an occupational qualification at EQF level 3. Graduates can also continue learning by entering the third year of an ISCED-P 354 level programme (usually theoretical or technological routes). The most popular programmes are transport, engineering, and hospitality (hotels and restaurants).

'Higher VET programmes' are included in professional and technical education and partially financed by the State. They provide an opportunity for advanced vocational training for graduates of secondary schools (with or without a baccalaureate diploma). Most post-secondary schools prepare nurses and pharmacy technicians. These studies last for two years.

Since 2003, the labour code includes provisions for apprenticeship. Apprenticeship contracts have been defined as a special type of labour contract involving both work as well as vocational training at the workplace. The current act adopted in 2007 has seen rather slow application, partially because enterprises willing to apply for apprenticeship schemes were initially required to provide several apprenticeship foremen certified for their formally-acquired knowledge and skills, apart from having professional experience and expertise.

Adult vocational training is provided by legal entities (either private or public), including vocational training centres, or individuals certified as VET providers. Adult vocational training can also be provided through work-based courses organised by employers or through internships and specialisation programmes.

The Ministry of Education is the national authority for formal pre-university education (including IVET) and higher education and is responsible for developing and/or implementing policies related to provision of training and qualifications assessment. The Ministry of Labour is the national authority for CVET policies. Sectoral committees are the bodies responsible for definition and validation of standards and qualifications, and in collaboration with the Ministries of Labour and Education, for CVET policies. The National Authority for Qualifications (ANC) coordinates adult training. Social partners (employers and trade unions) have important responsibilities in continuous training at national and sectoral levels.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Romania.

VET in Slovakia

Initial vocational education and training (IVET) in Slovakia is school-based, with periods of work-based learning based on contracts between secondary VET schools and companies. IVET usually starts at upper secondary level. At the age of 15, pupils choose a VET study field leading to *maturita* school-leaving certificate (ISCED-P 354) that allows graduates to enter higher education, or a training programme with a certificate of apprenticeship (ISCED-P 353). In 2012/13, 451 VET programmes were approved according to the decree on secondary schools, and an additional 55 new programmes were piloted.

Secondary IVET programmes comprise:

- two to three-year ISCED-P 253 training programme for basic school low-achievers ends with a final exam; in exceptional cases there is also a certificate of apprenticeship;
- three to four-year ISCED-P 353 training ends with a certificate of apprenticeship;
- four to five-year ISCED-P 354 study programme with extended number of hours of practical training ends with a *maturita* school-leaving certificate (in most cases also with a certificate of apprenticeship);
- four to five-year ISCED-P 354 study programme, more theory-focused ends with a *maturita* school-leaving certificate.

These programmes are typically offered by secondary specialised schools (SOŠ); similar programmes adjusted for students with special needs and specific IVET programmes for mentally challenged students are offered within the special schools stream. A specific IVET option for performing arts students are six- and eight-year programmes, offered by conservatories.

Post-secondary non-tertiary VET programmes offered by SOŠ and conservatories comprise:

- two-year ISCED-P 454 follow-up study programme intended for ISCED-P 353 graduates ends with a *maturita* school-leaving certificate;
- minimum six-month refresher programmes intended for VET graduates end with a post-*maturita* exam;
- minimum two-year qualifying programmes intended for ISCED-P 344 and 354 graduates end with a *maturita* school-leaving certificate (second *maturita* with a specific vocational component);

- minimum two-year specialising programmes end with an *absolutorium* diploma;
- three-year higher professional programmes end with an *absolutorium* diploma.

Data indicate high vertical permeability. Nevertheless, two weaknesses remain: lack of practice-oriented tertiary VET programmes needed for the labour market; and underdeveloped procedures for validation of prior learning.

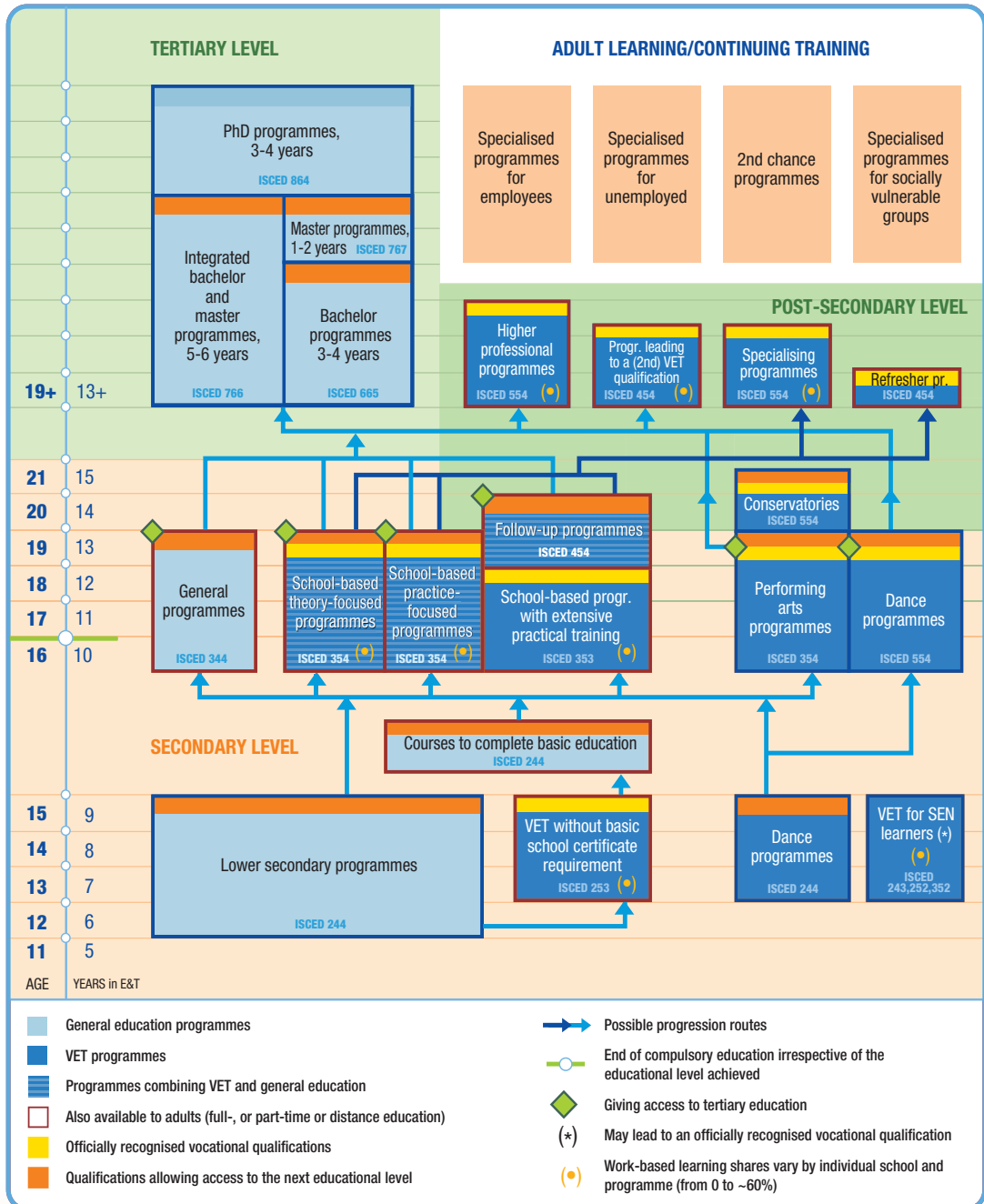
Governance

IVET in Slovakia, with the exception of the health sector and some specific occupations (fireman, police officer), is predominantly regulated by national/regional educational authorities supported by the newly empowered bodies introduced by the Act on VET 2008: the National VET Council, an ultimate coordinating body affiliated with the government discussing all the important VET-related policy and legislative documents; regional VET councils; sectoral VET councils; and 'sectoral assignees' set by legislation as professional counterparts to education authorities and as defenders of employers' interests in the respective fields of study.

The role of the social partners has been strengthened in all phases:

- programming: the mandatory national framework for curricula is discussed to achieve a better match to labour market needs;
- curriculum design: curricula are developed autonomously by schools based on national education programmes, but must be discussed with employers to comply with labour market needs prior to implementation;
- qualifications award: employer representative involvement in school-leaving examination has been reinforced.

There are currently no incentives available to support adult learning. Provision of learning opportunities is not regulated by the State, except for training the unemployed, which is regulated and provided by the Ministry of Labour within its active labour market policy. Unemployed training is cofunded by the European Social Fund.



NB: ISCED-P 2011. EQF levels have not yet been defined.

Source: Cedefop and ReferNet Slovakia.

VET in Slovenia

Formal vocational education and training (VET) programmes in Slovenia are generally provided by public schools. Together with private providers, public schools also offer continuing VET for adults.

The Education Ministry is the main body responsible for VET. It prepares legislation for upper secondary and higher vocational education, adopts educational programmes, and finances VET providers. The latest VET reform has increased the autonomy of schools, by transferring significant decision-making powers regarding curricula and management from national to school level. Social partners are involved in VET at all levels:

- preparing vocational standards as a base for formal VET programmes;
- participating in the council of experts for VET (consulting body for the Ministry);
- cooperating at local level in preparing 'open curricula' (employers);
- helping organise practical training for students.

VET programmes

After completing compulsory basic education, VET students can enrol in the following upper secondary, mainly school-based, programmes:

- technical programmes (ISCED-P 354): four-year programmes that lead to a vocational *matura* (two general and two vocational – theoretical and practical – exams). These programmes consist of at least 40% of general subjects and 4 to 12 weeks of practical training at a workplace. After passing vocational *matura*, students can enrol in higher post-secondary, non-tertiary vocational education (ISCED-P 554, two years) or in first-cycle tertiary professional education (ISCED-P 655, three to four years). Graduates also have an opportunity to access most academic tertiary programmes if they pass one additional general *matura* exam;
- vocational programmes (ISCED-P 353): three-year labour-market-oriented programmes that lead to a final examination consisting of a practical assignment and Slovenian language exam. Programmes include at least 24 weeks of workplace training. After completion of the final

examination students can enter the labour market or access two-year vocational technical education programmes at ISCED-P 354 that lead to vocational *matura*;

- short VET programmes (ISCED-P 353): two-year programmes that include work-based learning that prepare and qualify learners for less demanding occupations, for example at assistant level. Alternatively, they can choose to continue their education in upper secondary VET programmes.

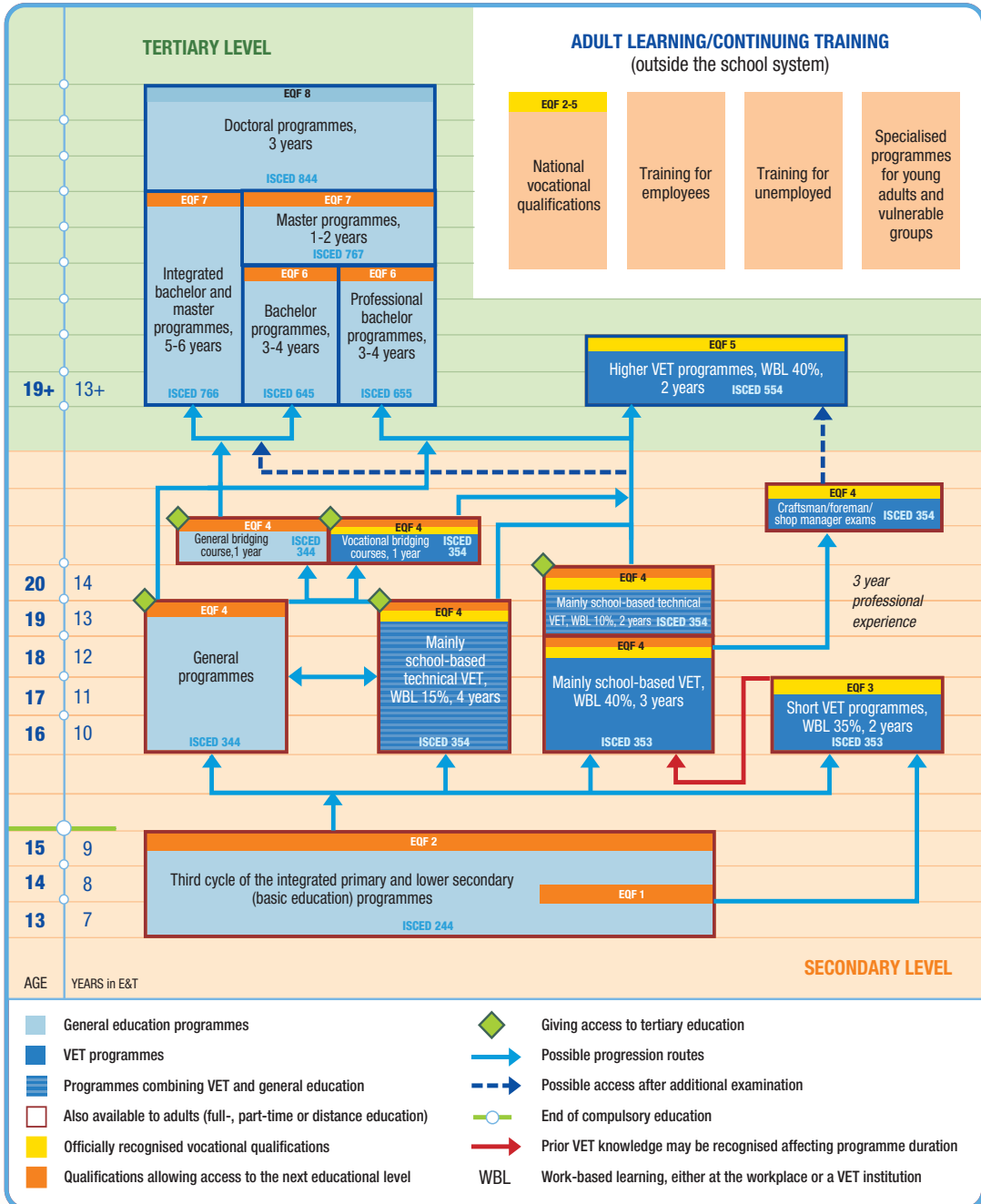
Public and private VET providers also offer higher VET programmes at post-secondary level, which include 40% of work-based learning in companies. Learners with vocational or general *matura* can enrol in these two-year programmes.

Adult learning

Adults can enrol in the same formal VET programmes as the young. Organisation and means of assessing learning are adjusted to suit adult learner needs, for instance by using modules and allowing exemptions.

In addition to VET programmes, the national vocational qualifications (NVQ) system governed by the Ministry of Labour, has been in place since 2000. It is based on assessment processes that enable adults over 18 to obtain formal recognition of their vocational competences, acquired outside the formal education system.

Adults can also participate in continuing VET, usually provided by private companies. Regulation of provision of such programmes is not part of legislation. Many activities to support adult education are organised by adult education guidance centres and a network of independent learning centres.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Slovenia.

VET in Spain

Modernising vocational education and training (VET), and making it more flexible as support to lifelong learning, are at the heart of Spanish education and employment policies. VET plays a significant role in dealing with the adverse effects of the economic crisis and in helping young people acquire qualifications that respond to labour market needs.

VET in Spain is mainly the responsibility of education and employment authorities. The national system for qualifications and vocational training forms the umbrella for VET programmes leading to formal qualifications awarded by them. The General Vocational Training Council is the national government's advisory body on VET policy. It comprises representatives of national and regional public authorities and social partners, such as enterprise organisations and trade unions.

Stakeholders were involved in developing occupational standards and creating a national register (*Catálogo Nacional de Cualificaciones Profesionales*, CNCP), which serves as a reference for education and employment authorities when designing VET qualifications and programmes to ensure they are relevant to labour market needs.

VET qualifications awarded by the education authorities (VET diplomas) certify education level (from secondary to higher education) and occupational skills and competences. Those awarded by the employment authorities (professional certificates) comprise three levels and certify the occupational skills and competences acquired.

VET usually begins after the end of compulsory education (ISCED-P 341), at age 16. Learners opting for school-based VET attend a two-year programme (ISCED-P 354) which leads to an intermediate-level VET diploma. This diploma gives access to higher level VET (ISCED-P 554) via an admission procedure. There are also VET options for those who have not completed compulsory education that award professional certificates at level 1 of the national register.

Those older than 16 can also attend programmes (250-1 150 hours) awarding professional certificates. Access requirements and duration vary according to the level of learning outcomes to be

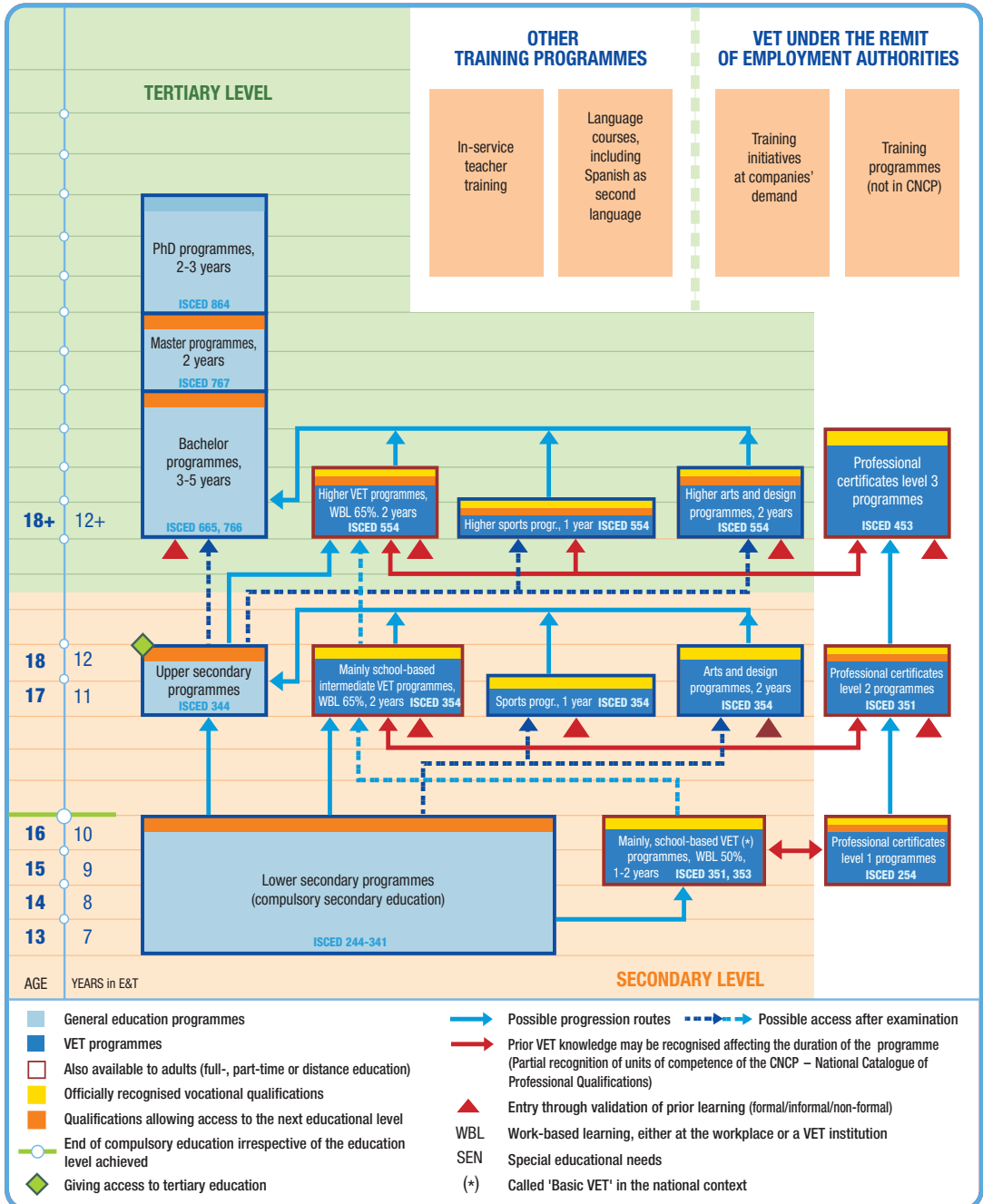
achieved. These programmes can be considered initial or continuing VET, depending on the learners' background and professional experience.

There are also intermediate and higher-level VET programmes in arts and design and sports (ISCED-P 354 and 554).

The dual principle was introduced in 2012 to increase access to VET and support young people in transition to the labour market. Some autonomous communities have already put it in place in specific occupation areas. Participants (16-25 year-olds) are considered employees covered by labour contracts (usually one to three years) and get at least a minimum wage: this is not necessarily the case in dual training schemes under the remit of the education authorities. People up to the age of 30 may also benefit until youth unemployment decreases. At least 25% (first year) or 15% (subsequent years) of the time specified in the contract should be devoted to acquiring complementary skills in a specialised or duly authorised training centre or in the company.

Tertiary or higher education comprises university studies and higher-level VET. Since 2011, higher-level VET diplomas have been assigned to the first of the four levels of the Spanish higher education qualifications framework (MECES). Recognition of certain European credit transfer and accumulation systems allows progression for higher VET graduates and complementary studies for those from university.

CVET for workers, employed or unemployed, can be demand-led either as in-company training or in the form of individual training permits for formal qualifications financed through a social security bonus. CVET can also be offered as part of active labour market policies, encouraging people to upgrade their skills and acquire professional certificates based on the occupational standards of the CNCP issued by the labour authorities. This supply side training is financed through public funds.



NB: ISCED-P 2011. EQF levels have not yet been defined.
Source: Cedefop and ReferNet Spain.

VET in Sweden

Swedish vocational education and training (VET) includes programmes and study pathways within upper secondary education, and non-academic and academic tertiary education. After compulsory school, students have the right to proceed to upper secondary school to either one of the vocational programmes or one of the higher education preparatory programmes. Learners not accumulating enough pass grades can follow individualised introductory programmes giving access to upper secondary level. All upper secondary vocational programmes may be offered as school-based or as apprenticeship. Independent of the specific combination of school-based and apprenticeship learning, successful completion of these VET programmes leads to a vocational diploma. Learners can also gain an upper secondary vocational diploma in municipal adult education. Non-academic tertiary VET mainly consists of one- or two-year higher VET programmes leading to a diploma or advanced diploma in higher vocational education.

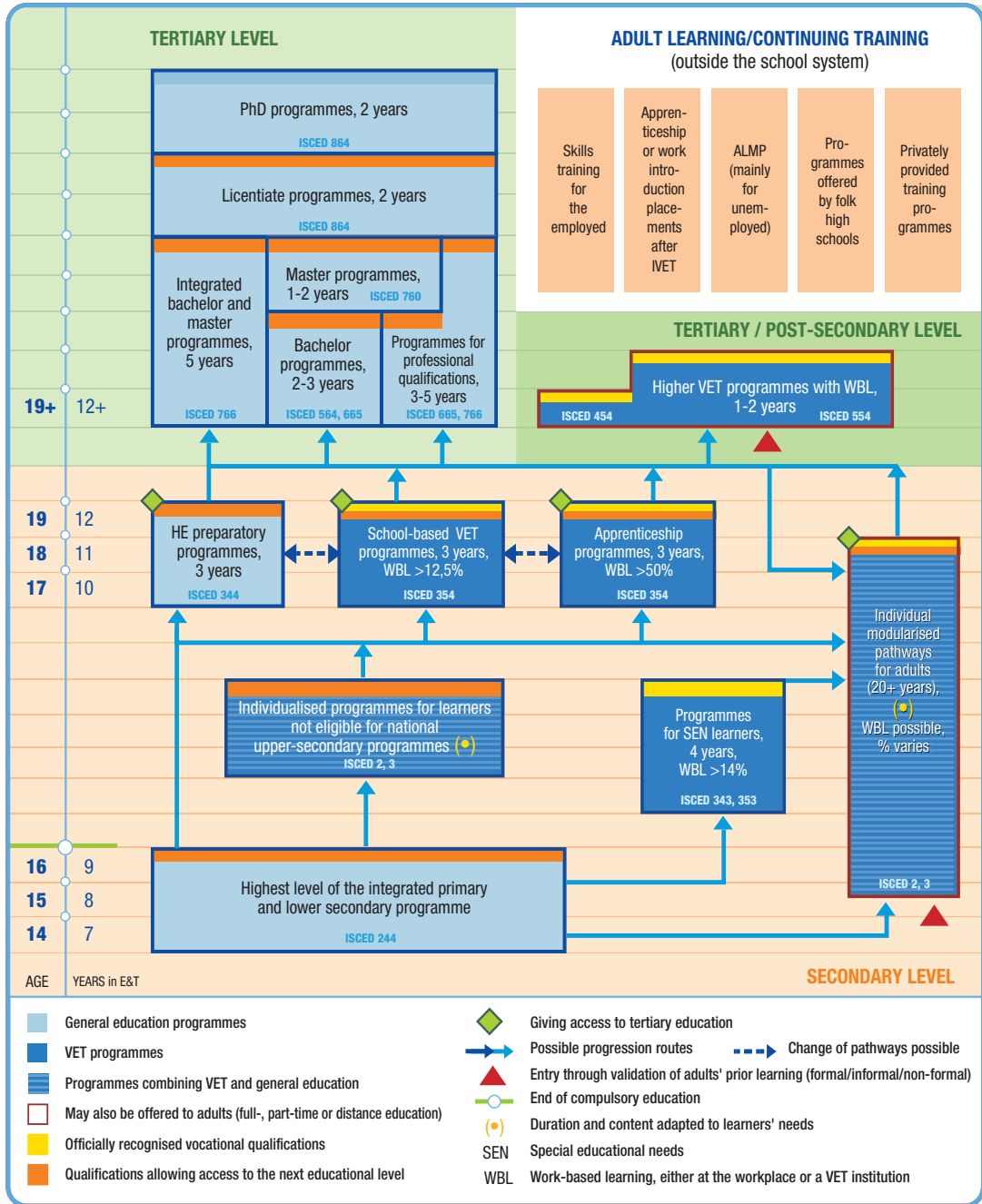
An upper secondary diploma is required to access higher vocational education and higher education. Students must also have pass grades in certain courses, such as Swedish/Swedish as a second language, English and mathematics, to meet general entry requirements for higher education. All students attending an upper secondary school vocational programme have the right within its scope, or through programme extensions, to study these required courses. Specific entry requirements apply to some higher vocational education or higher education programmes.

The starting point for adult education is always an individual's specific needs and situation. Individual pathways are the most common way to gain a qualification in a new field or study the courses required to access higher vocational education or higher education. In upper secondary school vocational programmes, workplace-based training (APL) is compulsory and covers a minimum of 15% of the programme. In contrast, for upper secondary apprenticeship education, more than half the learning takes place at a workplace. Non-academic higher vocational programmes combine

school-based learning with training at the workplace (LIA); to obtain an advanced diploma in higher vocational education, for example, at least a quarter of the programme must be carried out as LIA.

The Ministry of Education and Research is responsible for most education; for VET this covers upper secondary schools, adult education, and higher vocational education. Steering documents regulating upper secondary school and municipal adult education are drawn up by the government and by the Swedish National Agency for Education. Upper secondary schools may be run by municipalities, county councils and the State. Private actors may also be approved as education providers and run independent upper secondary schools. Private providers do not exist in municipal adult education but municipalities can outsource tasks such as training. The Swedish National Agency for Higher Vocational Education approves providers and government grants for higher vocational programmes. Providers draft an education plan and programmes should be developed and delivered in close cooperation with the world of work.

There are many other actors providing both initial and continuing VET. Courses and programmes are financed through fees or by companies and organisations, but public grants are also provided. This includes non-formal education arranged by private companies and labour market partners, supplementary education, and programmes offered by folk high schools. Several active labour market policy programmes geared towards the unemployed are also vocationally-oriented or feature different forms of work placement.



VET in the United Kingdom

Vocational education and training (VET) is available at secondary, further and higher education levels; most VET qualifications are taken at secondary and further education level. VET prepares students for work in a wide variety of sectors. It includes broad introductory courses and narrowly specialised advanced training. Education or training is compulsory up to age 16 (17 in England), but most young people continue learning after this point. For learners up to 18, VET is funded by government agencies, while adult learners are eligible for grants and loans.

School-based programmes that combine general academic study with VET elements exist alongside broad VET programmes and specialist occupational programmes that may take place both in a school setting and the workplace. VET is offered full- and part-time; students may attend training on a block-release or day-release basis from employers or attend evening or weekend learning. Programme duration varies by subject area, level of study and type of learning and is generally between one and four years.

Apprenticeships always include a work contract and, in most cases, a technical and occupational qualification and core, transferable skills such as numeracy, literacy and ICT. Demand for apprenticeships is rising and competition for the best apprenticeship places is increasing. More apprenticeships are being developed at higher education level.

Qualifications are designed by independent awarding organisations that also issue the certificates. Some offer a large variety of qualifications, often both general academic and vocational; smaller ones 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.

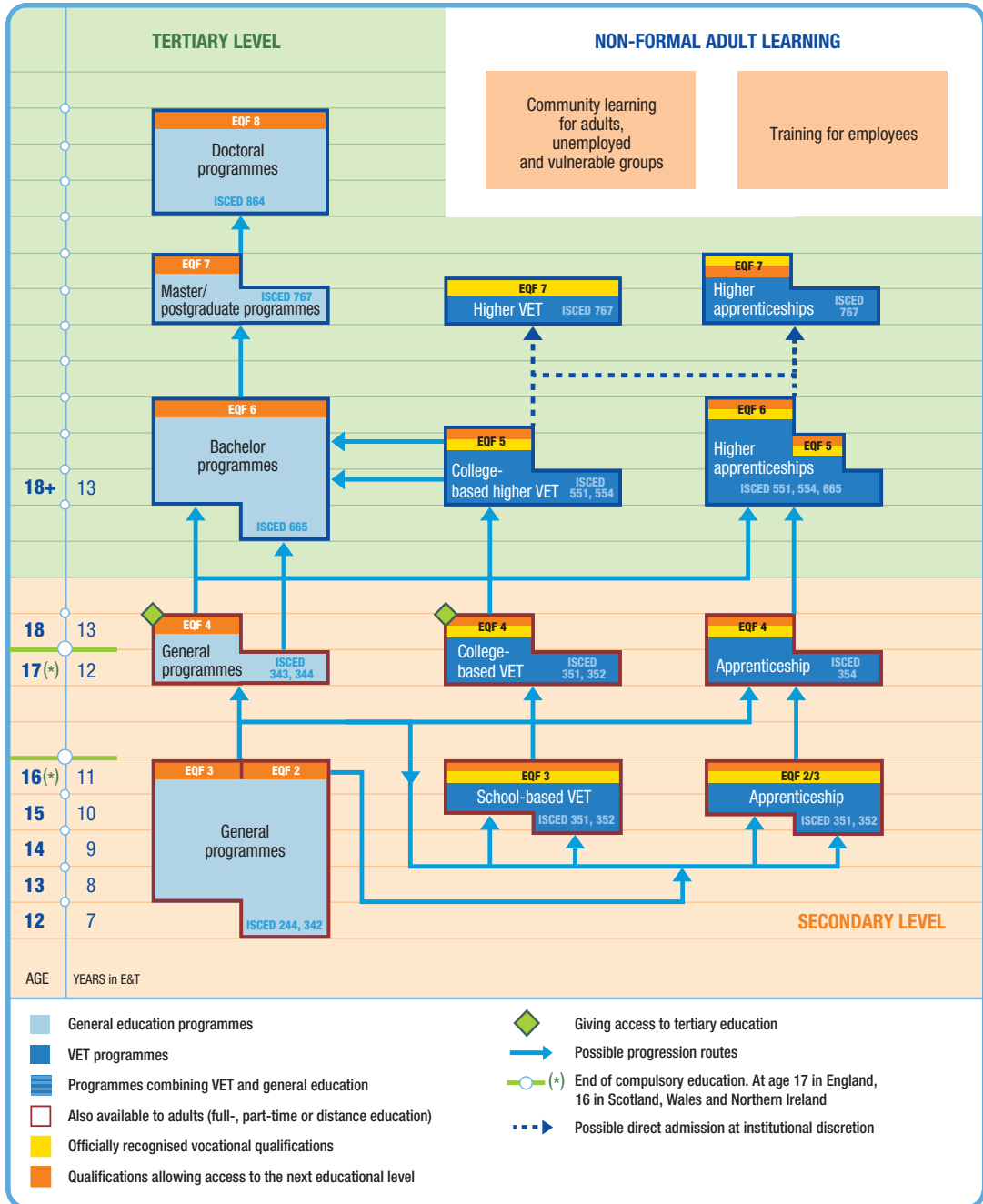
Many VET learners are adults. Adult and continuing education is part of the formal education system, but is also offered as non-formal training by employers and training providers. Trade unions, employer organisations, sector skill councils and other social partnerships are involved in providing

adult education, developing learning resources and anticipating labour market needs. Employers are encouraged to become more involved in skill and qualifications development.

There is a well-established system for VET learners in the UK to progress to higher education. Candidates holding vocational qualifications at upper secondary level (EQF level 4), may access selected first-cycle university programmes at institutional discretion. 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.

The recently introduced curriculum for excellence in Scotland creates greater opportunities for students to combine qualifications and subjects, which means that a larger variety of secondary qualifications may be used to apply for tertiary education in future. Across the UK there are also good articulation options for progression from higher VET programmes (EQF level 5), such as higher national certificates and diplomas, to the second or third year of a bachelor degree in a related field. However, admission and transfer arrangements are made at the discretion of the admitting institution. Outcome agreements, in some cases, lead to guaranteed progression from one study level to the next in Scotland.

The unit-based structure of qualifications, and their alignment to qualifications and credit frameworks, opens up the possibility of credit transfer between qualifications in line with recognition of prior learning guidelines. The UK qualifications system also has the main building blocks to support the European credit system for vocational education and training (ECVET) in place and is now working towards its implementation for international student mobility.



NB: ISCED-P 2011.

Source: Cedefop and ReferNet UK.

ReferNet – a European network for sharing knowledge

Austria

ABF Austria – Arbeitsgemeinschaft
Berufsbildungsforschung Austria
www.refernet.at

Belgium

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

Bulgaria

NAVET – Национална агенция за
професионално образование и обучение
www.refernet.bg

Croatia

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

Cyprus

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

Czech Republic

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

Denmark

Professionshøjskolen Metropol
www.phmetropol.dk/refernet

Estonia

INNOVE – Sihtasutus INNOVE
www.innove.ee/refernet

Finland

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

France

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

Germany

BIBB – Bundesinstitut für Berufsbildung
www.refernet.de

Hungary

Oktatásfejlesztési Observatory Központ –
 Budapesti Corvinus Egyetem
www.refernet.hu

Ireland

SOLAS – An tSeirbhís Oideachais
 Leanúnaigh agus Scileanna
www.fas.ie/en/Refernet/Default.htm

Iceland

Rannís – Rannsóknamiðstöð Íslands
www.refernet.is

Italy

ISFOL – Istituto per lo sviluppo della
 formazione professionale dei lavoratori
www.isfol.it/refernet-italia

Latvia

AIC – Akadēmiskās informācijas centrs
www.aic.lv/refernet

Lithuania

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

Luxembourg

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

Malta

NCFHE – Kummissjoni Nazzjonali għal
 Edukazzjoni Avanzata u Oghla
www.refernet.org.mt

Netherlands

ECBO – Expertisecentrum
 Beroepsonderwijs
www.refernet.nl

Norway

Utdanningsdirektoratet
www.udir.no/Stottemeny/Om-direktoratet/Internasjonalt-arbeid2/ReferNet1/

Poland

FFW – Fundacja Fundusz Współpracy
www.refernet.pl

Portugal

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

Romania

CNDIPT – Centrul National de Dezvoltare a
 Învățământului Profesional și Tehnic
www.tvet.ro/

Slovakia

SNO – Slovenské národné observatórium
 odborného vzdelávania a prípravy – Štátny
 inštitút odborného vzdelávania
www.refernet.sk

Slovenia

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

Spain

SEPE – Servicio Público de Empleo Estatal
www.sepe.es/refernet

Sweden

SKOLVERKET – Statens skolverk
www.skolverket.se/refernet

United Kingdom

ECCTIS Ltd
www.refernet.org.uk

Cedefop is a European agency based in the northern Greek city of Thessaloniki focused on development of vocational education and training. The Centre carries out research that underpins European and national vocational education and training policy, with particular focus on how best to link education and employment.

By collecting, through its expert networks in Member States, specialised information on vocational education and training policies and practice across Europe, Cedefop produces analyses, data and statistics that allow for comparisons between countries and identify present challenges and future trends.

Cedefop submits its reports to the European Commission, European Parliament, Member States and European social partners. It also advises its stakeholders on issues linked to vocational education and training.

The Centre also operates as a forum, bringing together policy-makers, social partners, researchers and practitioners to share ideas and debate the best ways to improve vocational education and training in Europe.

Cedefop's work is organised around three axes:

1. **Vocational education and training systems and institutions**
 - Cedefop monitors changes to vocational education and training systems and implementation of common EU tools, such as qualification frameworks.
 - The Centre advises policy-makers on implementing reforms.
2. **Learning and employability**
 - Cedefop examines a wide range of policies affecting transitions between vocational pathways and employment, such as social inclusion and innovation.
 - The Centre advises stakeholders on how to address citizens' needs in parallel with economic priorities.
3. **Skills and the labour market**
 - Cedefop researches demographic, social and economic trends as they affect the nature of jobs and demand for skills.
 - The Centre assesses benefits of vocational pathways for individuals and employers, and forecasts skill needs.

Spotlight on VET

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