



VOCATIONAL EDUCATION
AND TRAINING IN EUROPE

ITALY

SYSTEM DESCRIPTION



VET IN EUROPE 2022

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CHAPTER 1.

Summary of main elements and distinctive features of VET

Summary of main elements (1)

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

Compulsory education lasts 10 years, up to age 16. At age 14 learners make a choice between general education, secondary VET school pathways and regional VET pathways (EQF 3 or 4-ISCED 353). They have the 'right/duty' (*diritto/dovere*) to stay in education until age 18 to accomplish 12 years of education and/or vocational qualification.

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

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

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

There is permeability across VET programmes and also within the general education system.

On completion of a 3-year vocational qualification, it is possible to attend 1 additional year leading to a 4-year vocational diploma; this allows enrolling in the fifth year of the State education system and sitting the State exam for a general, technical or professional education diploma.

At post-secondary level, VET is offered as higher technical education for graduates of 5-year upper secondary programmes or 4-year IeFP programmes who passed entrance exams:

- higher technical education and training courses (*istruzione e formazione tecnica superiore, IFTS*): 1-year post-secondary non-academic programmes leading to a high technical specialisation certificate (*certificato di specializzazione tecnica superiore, EQF level 4*);
- higher technical institute programmes (*istituti tecnici superiori; ITS*): 2- to 3-year post-secondary non-academic programmes which lead to a high-level technical diploma (*diploma di tecnico superiore, EQF level 5*).

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

VET for adults is offered by a range of different public and private providers. It includes

programmes leading to upper secondary VET qualifications to ensure progression opportunities (upskilling) for the low-skilled; these are provided by provincial centres for adult education (*centri provinciali per l'istruzione degli adulti*, CPIA) under the remit of the education ministry.

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

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

Distinctive features (2)

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

Article 117 of the Constitution provides for ownership either by the State, the regions or mechanisms for cooperation between the different institutions, relative to the type of education and training:

- the State establishes general education standards;
- regions have exclusive legislative power over VET;
- education falls within the concurrent legislation, except for the autonomy of education institutions and vocational training.

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

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

[1] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443> [accessed 27.8.2021]

[2] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443> [accessed 27.8.2021]

[1] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>

[2] This part is based on information collected by Fondazione Brodolini under Cedefop's service contract No 2020/0140. Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>

[1] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>

[2] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>

- [1] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [2] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [2] Ministry of Education, Youth and Sports [Ministerstvo školství, mládeže a tělovýchovy – MŠMT]. www.msmt.cz
- [3] Absolutorium is a type of graduate examination, consisting of an exam in theoretical vocational subjects and a foreign language, as well as submitting and defending a graduate thesis which also contains elements of the experience gained through the work placement of the learner. It is organised only by tertiary professional schools and conservatories (higher VET) and leads to a specialist's diploma (DiS.).
- [4] 3-year school-based VET programmes (EQF level 3) and 4-year VET and lyceum programmes (EQF level 4) can be offered as shortened programmes, provided that the school director considers that the learner has completed a programme, at the same EQF level, in a relevant field. Shortened programmes do not lead to a higher EQF level.
- [5] Absolutorium is a type of graduate examination, consisting of an exam in theoretical vocational subjects and a foreign language, as well as submitting and defending a graduate thesis which also contains elements of the experience gained through the work placement of the learner. It is organised only by tertiary professional schools and conservatories (higher VET) and leads to a specialist's diploma (DiS.).
- [1] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [2] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [1] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>
- [3] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [1] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>
- [2] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [1] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>
- [2] As per Amendments to the CROQF Act (Official Gazette No 20/2021), abbreviation 'st' is added to professional qualifications at CROQF level 6 to differentiate these from university qualifications at the same level, indicated by abbreviation 'sv'. 'St' is abbreviated from *struční* (professional), and 'sv' from *sveučilišni* (university).
- [3] As per Amendments to the CROQF Act (Official Gazette No 20/2021), abbreviation 'st' is added to professional qualifications at CROQF 7 to differentiate these from university

qualifications at the same level, indicated by abbreviation 'sv'. 'St' is abbreviated from stručni (professional), and 'sv' from sveučilišni (university).

- [4] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [1] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [2] Based on Cedefop (forthcoming). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>

CHAPTER 2.

Main challenges and policy responses

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

The Italian VET system is characterised by multilevel complexity.

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

To increase the formative value of work-based learning pathways, school-work alternance (ASL, *Alternanza Scuola-Lavoro*) has been replaced by transversal competence and guidance pathways (PCTO, *Percorsi per le Competenze Trasversali e per l'Orientamento*) in 2019. This will support the acquisition of interdisciplinary skills and raise learners' vocational awareness.

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

In order to improve the labour market relevance of VET provision, the National repository for regional vocational qualifications (Repertorio nazionale delle figure nazionali di riferimento per le qualifiche e i diplomi professionali) was updated in 2019 and in 2020. Occupational profiles have been revisited and new qualifications and minimum training standards were introduced.

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

With the final adoption of the guidelines for the interoperability of awarding bodies responsible for the National system for competences certification (NSCC), referred to in the Inter-ministerial Decree of January 5, 2021, prepared in accordance with the Legislative Decree January 16, 2013, no 13, minimum standards for validation of non- formal and informal learning are defined.

The collaboration of training providers and SMEs is identified as a challenge. In order to improve this collaboration, regions and joint interprofessional funds have supported the training of teaching staff for developing new skills within the framework of enterprise 4.0 national plan and the new (digital) transition 4.0 plan (3).

[3] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443> [accessed 27.8.2021]

[3] This part is based on information collected by Fondazione Brodolini under Cedefop's service contract No 2020/0140.
Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>

[3] There is no final version of this document up to date. A draft strategy for 2019-21 is available on www.mon.bg. VET priorities are defined under Priority area 7 in the Strategic

Framework for development of Education, Training and Learning (2021-2030) which was adopted by the Council of Ministers in February 2021. The strategy is available at the education ministry website <https://mon.bg/bg/143>

- [4] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [3] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [7] Absolutorium is a type of graduate examination, consisting of an exam in theoretical vocational subjects and a foreign language, as well as submitting and defending a graduate thesis which also contains elements of the experience gained through the work placement of the learner. It is organised only by tertiary professional schools and conservatories (higher VET) and leads to a specialist's diploma (DiS.).
- [8] Národní soustava kvalifikací: www.narodni-kvalifikace.cz.
- [3] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [4] BMBF website on the programme (German only)
<https://www.bmbf.de/de/bundesprogramm-ausbildungsplaetze-sichern-13371.html>
- [4] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [3] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [5] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [9] The registration numbers of IVET learners for the years 2005-20 are extracted from: <https://mms.is/tolfraediupplysingar> [Accessed: 14.9.2021]. The number for the year 2021 is extracted from a forthcoming update of the website shown in the previous link (containing PBI Statistics on upper secondary schools in the autumn of 2021)).

CHAPTER 3.

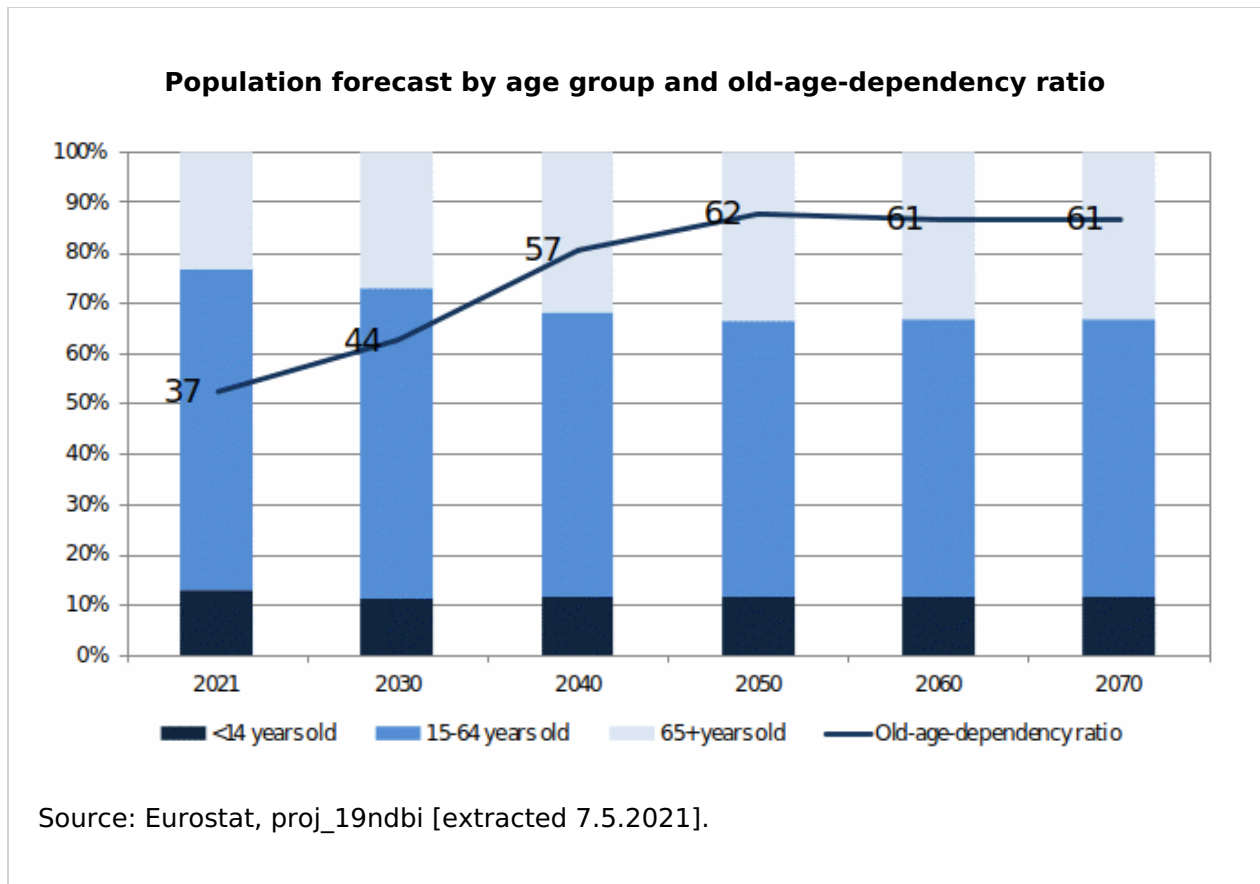
External factors influencing VET

3.1 Demographics

Population in 2020: 59 641 488 (4).

It decreased since 2015 by 1.9% due to the ageing of the population (5).

The old-age-dependency ratio is expected to increase from 37 in 2021 to 61 in 2070.



Demographic trends have an impact on school population, which in the 2018/19 academic year (most recent data available) stood at an overall total of 8 567 147 units and fell by 77 195 enrolments compared to the 2017/18 academic year (-0.9 percentage points), especially at lower secondary level (40 497 fewer learners, which suggests a fall of 0.7 percentage points). In the same period, the upper secondary school level population has increased (+10.22%), because of the number of foreign learners.

Since 2007, immigration has been a prevailing demographic growth factor. In 2016 it halved, while emigration nearly tripled.

The share of foreign learners increased by 27.3% between 2009/10 and 2018/19 (from 673 592 to 857 729), compared to a 6.8% fall in Italian learners (from 8 283 493 to 7 722 150). The share of foreign female learners was 48%.

In the period 2014/15 to 2018/19 (most recent data available), the number of Italian born 'foreign' learners increased from around 450 000 to 553 000 (an increase of almost 103 000 learners, approximately +23 percentage points). In 2018/19, 66.5% of learners with foreign nationality were born in Italy (83.3% in pre-primary education). In the 2018/19 school year (most recent data available), Italian repeat learners (i.e. those who need to repeat an academic year due to poor performance) were 9.1% against 30.1% of learners with non-Italian citizenship. We can find the maximum gap in secondary school, where the percentages become respectively 19.3% and 57.0%. Foreign learners often achieve lower marks in secondary education programmes.

3.2 Economics

Most companies in Italy are micro and small-sized (6).

Total: 4 404 501 enterprises, 17 287 891 employees.

Micro enterprises (0-9 employees): 95.1%

Small enterprises (10-49 employees): 4.3%

Medium enterprises (50-249 employees): 0.5%

Large enterprises (250 and more employees): 0.1%

Main economic sectors in Italy are:

- machinery and equipment;
- metalworking;
- electronics and components;
- chemicals;
- textiles;
- furniture;
- food and beverage;
- construction;
- wholesale and retail trade;
- accommodation and food service activities;
- transport and logistics;
- information and communications;
- financial and insurance activities.

Export is very relevant for Italy and comprises several sectors, mainly machinery and equipment, textiles, furniture, transport equipment and vehicles, metalworking, food and beverage, electronics and components, and others.

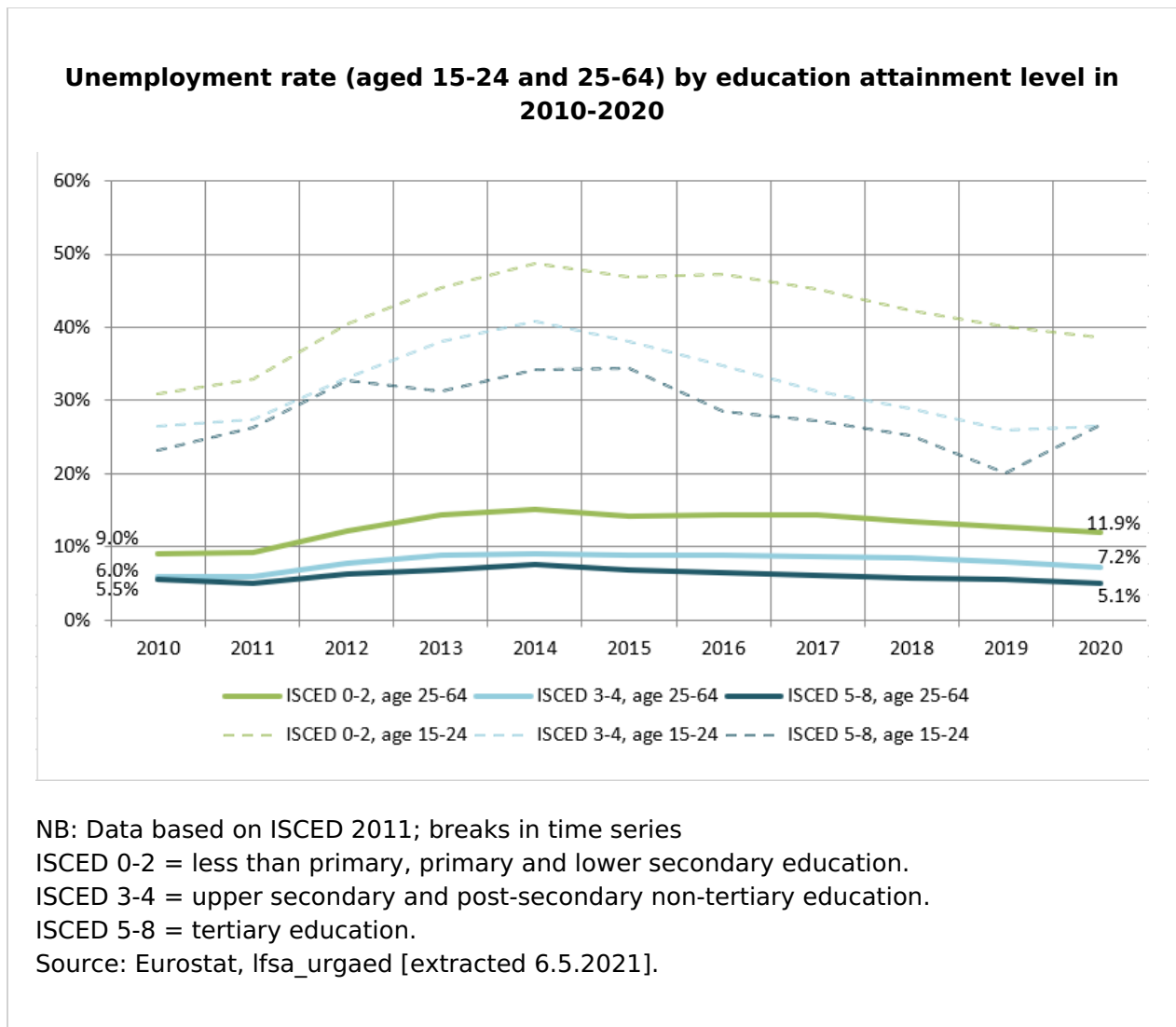
The sectors most linked to VET are electronics and components, information and communications, financial and insurance activities, machinery and equipment, transport equipment and vehicles, and chemicals.

3.3 Labour market

Most occupations and professions are regulated, with the exception of some sectors of self-employment, especially in the southern regions.

In recent years, a series of legislative reforms, inspired by the European principle of flexicurity, have been introduced with the aim of introducing more elements of flexibility into active labour market policies, as well as new social security instruments.

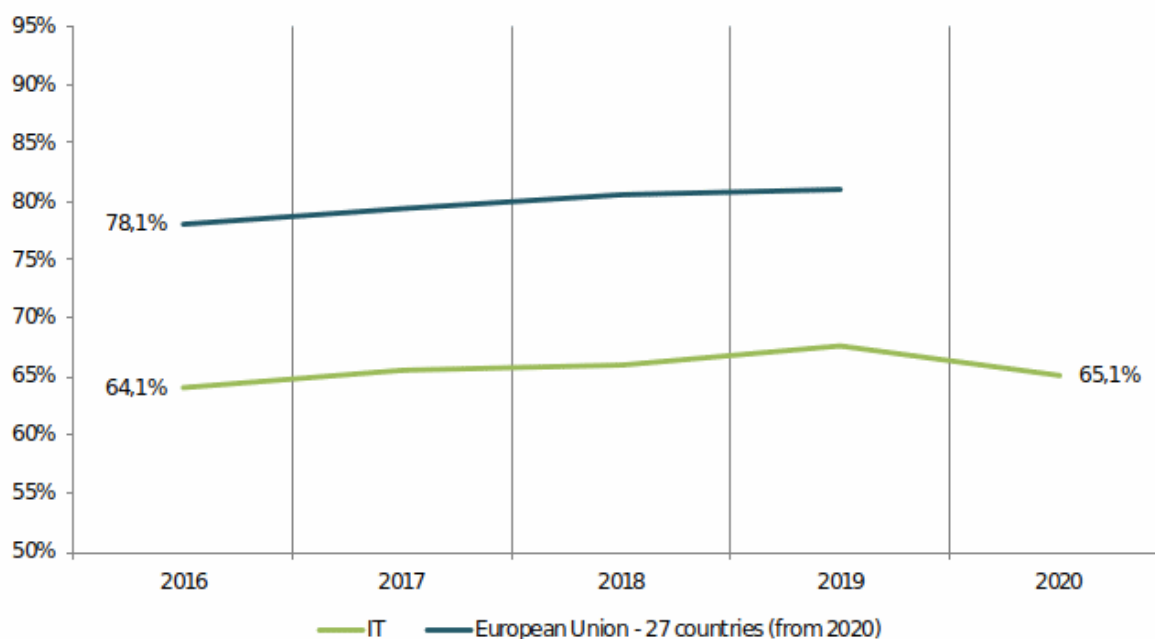
Total unemployment (7) (2020): 8.0% (6.2% in EU-27): it has fallen by 2.0 percentage points since 2016 (8).



Unemployment is distributed unevenly between those with low- and high-level qualifications. The gap has increased during the crisis as unskilled workers are more vulnerable to unemployment.

The employment rate of 20 to 34 year-old VET graduates increased from 64.1% in 2016 to 65.1% in 2020 (9).

Employment rate of VET graduates (20 to 34 years old, ISCED levels 3 and 4)



NB: Data based on ISCED 2011; breaks in time series.

ISCED 3-4 = upper secondary and post-secondary non-tertiary education.

Source: Eurostat, edat_lfse_24 [extracted 6.5.2021].

The increase (+1.0pp) in employment of 20 to 34 year-old VET graduates in 2016-20 was lower compared to the increase in employment of all 20 to 34 year-old graduates (+1.5 pp) in the same period in Italy (10).

For more information about the external drivers influencing VET developments in Italy please see the case study from Cedefop's changing nature and role of VET in Europe project (11).

[4] NB: Data for population as of 1 January. Eurostat table tps00001 [extracted 27.8.2021].

[6] NB: Data for population as of 1 January. Eurostat table tps00001 [extracted 27.8.2021]

[8] Old-age-dependency ratio is defined as the ratio between the number of persons aged 65 and more over the number of working-age persons (15-64). The value is expressed per 100 persons of working age (15-64).

[10] See https://www.wko.at/site/fachkraeftepotenzial/b_mobile.html

[16] See <http://ec.europa.eu/growth/tools-databases/regprof/index.cfm>

[17] Source: Eurostat, une_rt_a [extracted 27.8.2021].

[18] Eurostat table edat_lfse_24 [extracted 27.8.2021].

[19] NB: Breaks in time series. Eurostat table edat_lfse_24 [extracted 27.8.2021].

[21] NB: Breaks in time series. Eurostat table edat_lfse_24 [extracted 27.8.2021].

[4] Old-age-dependency ratio is defined as the ratio between the number of persons aged 65 and more over the number of working-age persons (15-64). The value is expressed per 100 persons of working age (15-64).

- [5] Source: Statbel.be
- [6] <https://economie.fgov.be/fr/publications/apercu-de-leconomie-belge-note>
- [7] <https://statbel.fgov.be/fr/themes/emploi-formation/marche-du-travail/les-professions-en-belgique>
- [8] Source: Eurostat, edat_ifse_24 [extracted 16.5.2019].
- [5] NB: Data for population as of 1 January. Eurostat table tps00001 [extracted 7.5.2021].
- [6] NB: Data for population as of 1 January. Eurostat table tps00001 [extracted 7.5.2021].
- [7] National Agency for Vocational Education and Training (NAVET). Annual reports on the activities of NAVET. https://www.navet.government.bg/bg/media/doklad-NAPOO-2020_VK-3.pdf
- [8] Percentage of active population, 25 to 64 years old.
- [9] Eurostat, une_rt_a [extracted 6.5.2021].
- [10] NB: Data based on ISCED 2011; breaks in time series. ISCED 3-4 = upper secondary and post-secondary non-tertiary education; Eurostat, edat_ifse_24 [extracted 6.5.2021].
- [4] NB: Data for population as of 1 January. Eurostat, tps00001 and proj_19ndbi [Extracted 6.5.2021].
- [5] NB: Data for population as of 1 January. Eurostat, tps00001 and proj_19ndbi [Extracted 7.5.2021].
- [9] In Greek: Επιστημονικό Τεχνικό Επιμελητήριο Κύπρου: <https://www.etek.org.cy/>
- [10] Percentage of active population, 25 to 64 years old
- [11] Eurostat table une_rt_a [Extracted 6.5.2021]
- [12] Source: Eurostat, edat_ifse_24 [Extracted 6.5.2021].
- [11] Czech Statistical Office (ČSÚ), Population of territorial units of the Czech Republic, 1 January 2021 [Počet obyvatel v regionech soudržnosti, krajích a okresech České republiky k 1. 1. 2021]. [accessed 12.11.2021] <https://www.czso.cz/documents/10180/142756350/1300722101.pdf/5957c9a9-24b5-4b96-ba77-2fa7a5bfb1b5?version=1.1>
- [12] Czech Statistical Office (ČSÚ), Development of the population of the Czech Republic, Migration [Vývoj obyvatelstva České republiky, migrace], [accessed 12.11.2021] <https://www.czso.cz/documents/10180/121768528/13006920a07.pdf/ac66a9b9-6075-4ae7-9868-cf3b72be2db9?version=1.1>
- [13] Old-age-dependency ratio is defined as the ratio between the number of persons aged 65 and more over the number of working-age persons (15-64). The value is expressed per 100 persons of working age (15-64).
- [14] The number is an expert estimation. Many Roma declare Czech nationality in census and there are methodological as well as ethical problems related to determining exact number of ethnic minority members.
- [17] Czech Statistical Office (ČSÚ) Foreigners in the CR in the years 2004–2020 (as at 31 December 2020) [Cizinci v ČR v letech 2004 – 2020 (stav k 31. 12.)], [accessed 12.11.2021] https://www.czso.cz/documents/11292/27320905/c01R01_2020.pdf/ff126a2b-2698-4b3c-a180-db977090564d?version=1.0 .
- [18] Eurostat table, sbs_sc_sca_r, [extracted 17.8.2021]; calculations done by NVF.
- [19] Eurostat. Employment by sex, age and economic activity (LFS, table lfsa_egan2): http://ec.europa.eu/eurostat/web/products-datasets/-/lfsa_egan2 [extracted 17.8.2021].
- [20] This sector includes public administration and defence, education, and health and social work.

- [21] Open and accessible database of professions managed by the Ministry of Labour and Social Affairs of the Czech Republic [Národní soustava povolání] www.nsp.cz
- [22] Defined in the Trade Licensing Act.
- [23] Percentage of active population, 25 to 64 years old.
- [24] Eurostat table une_rt_a [extracted 17.8.2021].
- [25] Eurostat table edat_lfse_24 [extracted 18.8.2021].
- [26] Eurostat table edat_lfse_24 [extracted d 17.8.2021]
- [5] NB: Data for population as of 1 January. Eurostat table tps00001 and proj_19ndbi [extracted 7.5.2021].
- [6] NB: Data for population as of 1 January. Eurostat table tps00001 and proj_19ndbi [extracted 7.5.2021].
- [7] Old-age-dependency ratio is defined as the ratio between the number of persons aged 65 and more over the number of working-age persons (15-64). The value is expressed per 100 persons of working age (15-64).
- [11] Results of the employment accounts within the national accounts (VGR): https://www.destatis.de/DE/Themen/Arbeit/Arbeitsmarkt/Erwerbstaetigkeit/_inhalt.html
- [14] Percentage of active population, aged 25 to 64.
- [15] Eurostat table une_rt_a [extracted 6.5.2021].
- [17] Eurostat table edat_lfse_24 [extracted 6.5.2021].
- [5] NB: Data for population as of 1 January; break in series. Eurostat table tps00001 [extracted 7.5.2021].
- [6] NB: Data for population as of 1 January; break in series. Eurostat table tps00001 [extracted 7.5.2021].
- [7] Old-age-dependency ratio is defined as the ratio between the number of persons aged 65 and more over the number of working-age persons (15-64 years). The value is expressed per 100 persons of working age (15-64).
- [8] Percentage of active population, 25 to 64 years old.
- [9] Eurostat table une_rt_a [extracted 6.5.2021].
- [10] Percentage of active population, 25 to 64 years old.
- [11] Eurostat table edat_lfse_24 [extracted 6.5.2021].
- [12] NB: Break in time series. Eurostat table edat_lfse_24 [extracted 6.5.2021].
- [13] NB: Break in time series. Eurostat table edat_lfse_24 [extracted 6.5.2021].
- [4] NB: Data for population as of 1 January; break in series. Eurostat table tps00001 [extracted 7.5.2021].
- [5] NB: Data for population as of 1 January; break in series. Eurostat table tps00001 [extracted 7.5.2021].
- [6] Statistics Finland: www.tilastokeskus.fi/tup/maahanmuutto/maahanmuuttajat-vaestossa/ulkomaan-kansalaiset_en.html#tab1483972171375_1
- [7] Old-age-dependency ratio is defined as the ratio between the number of persons aged 65 and more over the number of working-age persons (15-64 years). The value is expressed per 100 persons of working age (15-64).
- [8] In 2017, it was 61.2 years. Source: Finnish Centre for Pensions: www.etk.fi/en/statistics-2/statistics/effective-retirement-age/
- [9] https://www.oph.fi/julkaisut/2011/koulutus_ja_tyovoiman_kysynta_2025
- [10] Source: https://tilastokeskus.fi/til/tyti/index_en.html [accessed 25.11.2021].

- [11] Percentage of active population, 25 to 64 years old.
- [12] Eurostat table une_rt_a [extracted 6.5.2021].
- [13] NB: Breaks in time series. Eurostat table edat_lfse_24 [extracted 6.5.2021].
- [14] Cedefop (2018). The changing nature and role of vocational education and training in Europe. Volume 3: the responsiveness of European VET systems to external change (1995-2015). Case study focusing in Finland. Cedefop research paper; No 67.
https://www.cedefop.europa.eu/files/finland_cedefop_changing_nature_of_vet_-_case_study.pdf
- [6] NB: Data for population as of 1 January. Eurostat table tps00001 [extracted 1.9.2021].
- [7] NB: Data for population as of 1 January. Eurostat table tps00001 [extracted 1.9.2021].
- [13] Percentage of active population, 25 to 74 years old.
- [14] Eurostat, une_rt_a [extracted 31.8.2021].
- [15] Eurostat table edat_lfse_24 [extracted 30.8.2021].
- [4] NB: Data for population as of 1 January 2020.
- [5] NB: data for population as of 1 January 2020. Eurostat table tps00001 [Extracted 14.9.2021].
- [6] Source: Statistics Iceland. See:
https://px.hagstofa.is/pxis/pxweb/is/lbuar/lbuar__mannfjoldi__1_yfirlit__Yfirlit_mannfjolda/MA
 [Accessed 14.9.2021]. See also Eurostat, proj_19ndbi [Extracted 7.5.2021].
- [7] This indicator is the ratio between the number of persons aged 65 and over (age when they are generally economically inactive) and the number of persons aged between 15 and 64. The value is expressed per 100 persons of working age (15-64).
<https://ec.europa.eu/eurostat/web/products-datasets/-/tps00198> [Accessed: 12.10.2021].
- [8] Adapted by ReferNet Iceland from Statistics Iceland.
- [10] Data from Statistics Iceland.
- [11] Data from Statistics Iceland.
https://px.hagstofa.is/pxis/pxweb/is/Efnahagur/Efnahagur__utanrikisverslun__3_voruthjonust_rxid=1a61cf91-98c6-4d19-a48c-3df6b8dfc8e6
- [12] Percentage of active population, 25 to 64 years old.
- [13] Source: Eurostat, une_rt_a [extracted 20.5.2019].
- [14] Source: Eurostat, lfsa_urgaed [extracted 6.5.2021].
- [15] NB: Break in series. Eurostat table edat_lfse_24 [extracted 23.1.2019]. No data for VET graduates for the period 2014-18. The employment rate of all 20-34 year old graduates for the period 2016-20 decreased by 5.3 percentage points.
- [4] NB: Data for population as of 1 January. Eurostat table tps00001 [Extracted 6.5.2021].
- [5] NB: Data for population as of 1 January. Eurostat table tps00001 [Extracted 6.5.2021].
- [7] Percentage of active population, 25 to 64 years old.
- [8] Source: Eurostat, une_rt_a [extracted 6.5.2021].
- [9] NB: Breaks in time series. Source: Eurostat, edat_lfse_24 [extracted 6.5.2021].
- [10] NB: Breaks in time series. Source: Eurostat, edat_lfse_24 [extracted 6.5.2021].

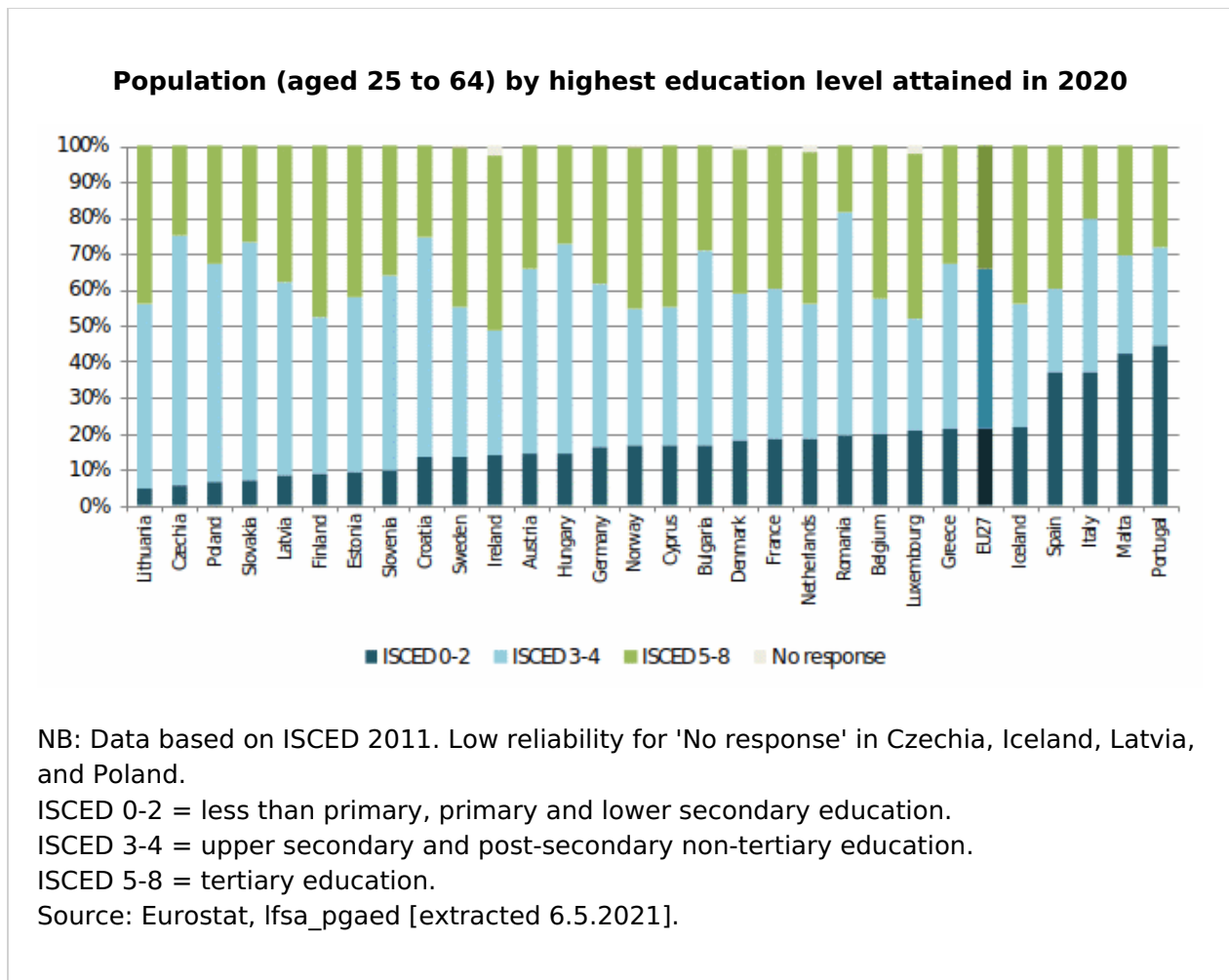
CHAPTER 4.

Education attainment

4.1 Share of high, medium and low level qualifications

Education has high value in Italy. However, the share of the population aged up to 64 with higher education (20.1%) is below the EU-27 average (34.0%). This is also the case for the share of population aged up to 64 with medium or low qualifications. In Italy, there are some contradictions in the relationship between the education and training system and the production system. An example is the low presence of qualified labour in the production system, due mostly to the still fairly low number of graduates compared to other European countries.

Having a higher educational qualification would not appear to have a significant effect on the probability of finding a good job match. Also, over-education is associated with both lower labour productivity and lower job satisfaction. The number of 14-year-olds choosing to enrol on vocational education and training pathways (IeFP) as an option that would allow better matching of skills to jobs is significant, as the figure below demonstrates.



For more information about VET in higher education in Italy please see the case study from

Cedefop's changing nature and role of VET in Europe project (12).

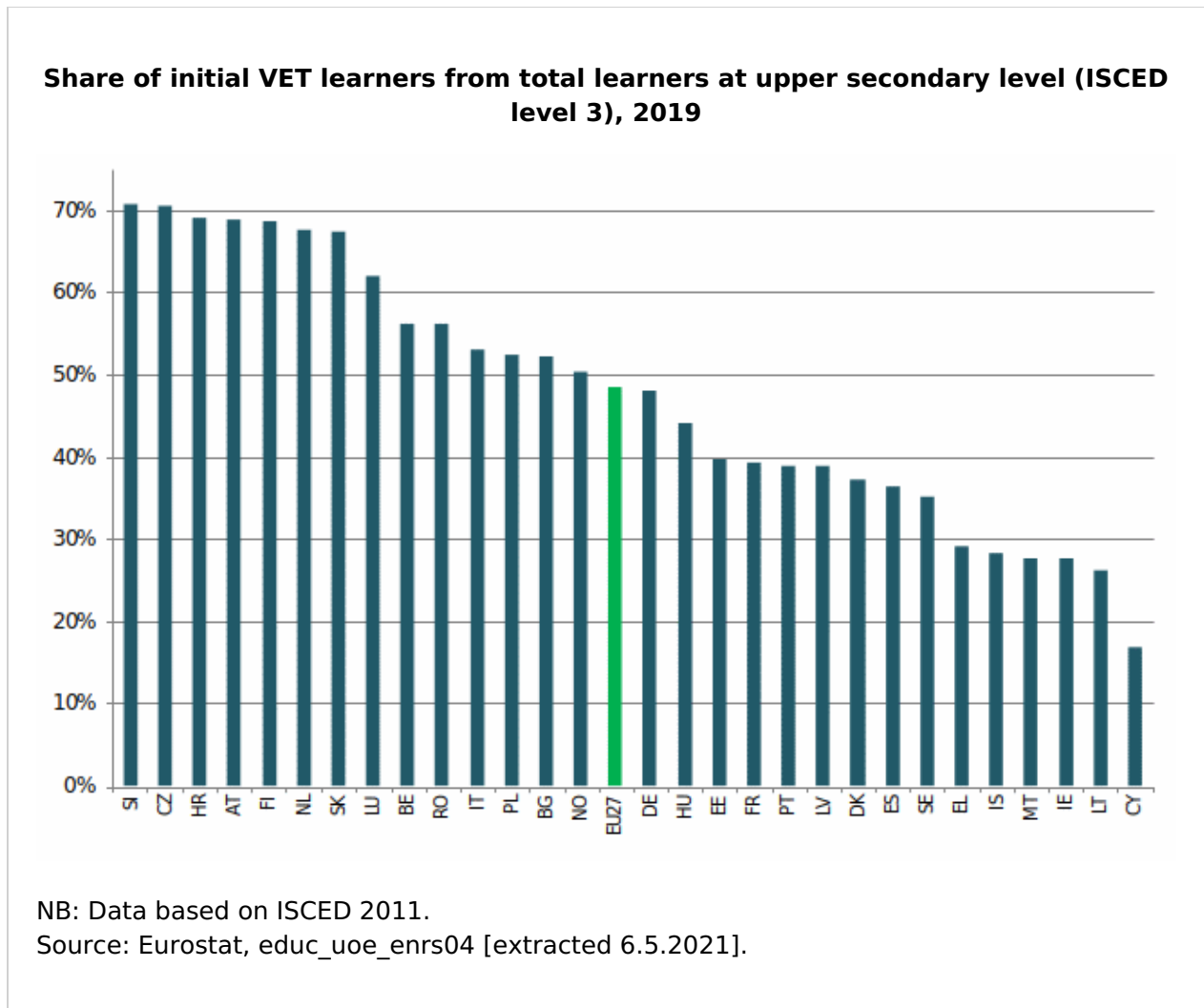
4.3 VET learners by level

Share of learners in VET by level in 2019

| | lower secondary | upper secondary | post-secondary |
|----------------|-----------------|-----------------|----------------|
| Not applicable | 53% | | Not applicable |

NB: Data based on ISCED 2011.

Source: Eurostat, educ_uoe_enrs01, educ_uoe_enrs04 and educ_uoe_enrs07 [Extracted 6.5.2021]



4.4 Female share

In VET there are 55.2% males compared to 44.8% females (reference year: 2020).

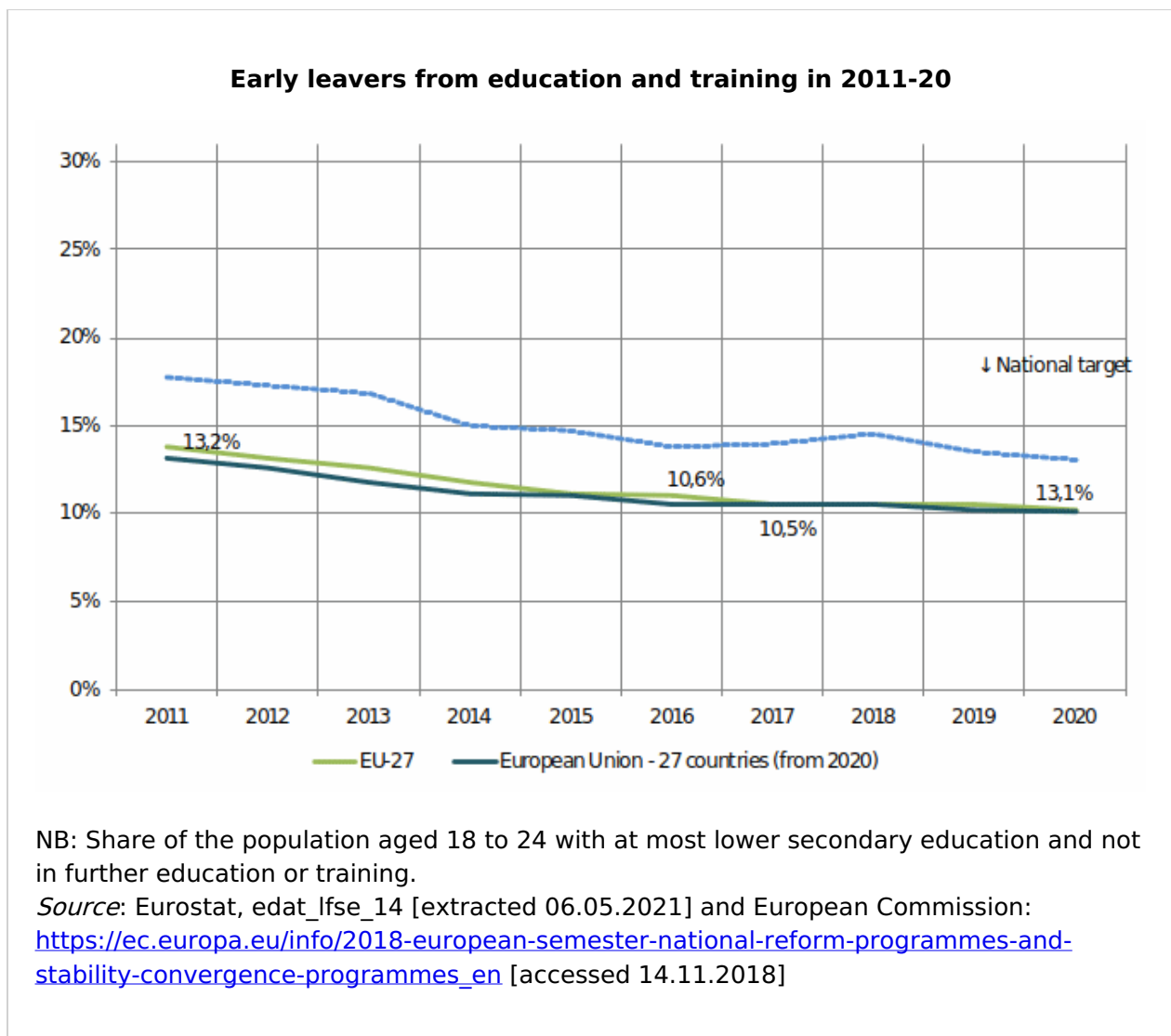
The educational attainment is as follows: 39.2%, less than primary, primary and lower secondary education (levels 0-2); 32.3%, upper secondary and post-secondary non-tertiary education (levels 3 and 4); 13.5%, tertiary education (levels 5-8) (13).The study fields (ISCED

2013) that they follow most are: computer use (28.7%), professional computer (26.7%), business and administration (26.3%), hygiene and occupational health services (24.7%), food processing (23.6%), foreign languages (23.5%), marketing and advertising (23%), mechanics and metal trades (17.7%), accounting and taxation (17.7%), plant maintenance (15.6), wholesale and retail trade (12.8), mechatronics (11.6%), electricity (11.4%), electronics (11.2%) and automation (11.1%) (14).

In vocational education and training pathways (leFP) there are more males than females (52.2%, compared to 47.8%) (15).

4.5 Early leavers from education and training

The share of early leavers from education and training has decreased from 17.8% in 2011 to 13.1% in 2020. It is below the national target for 2020 but above the EU-27 average.



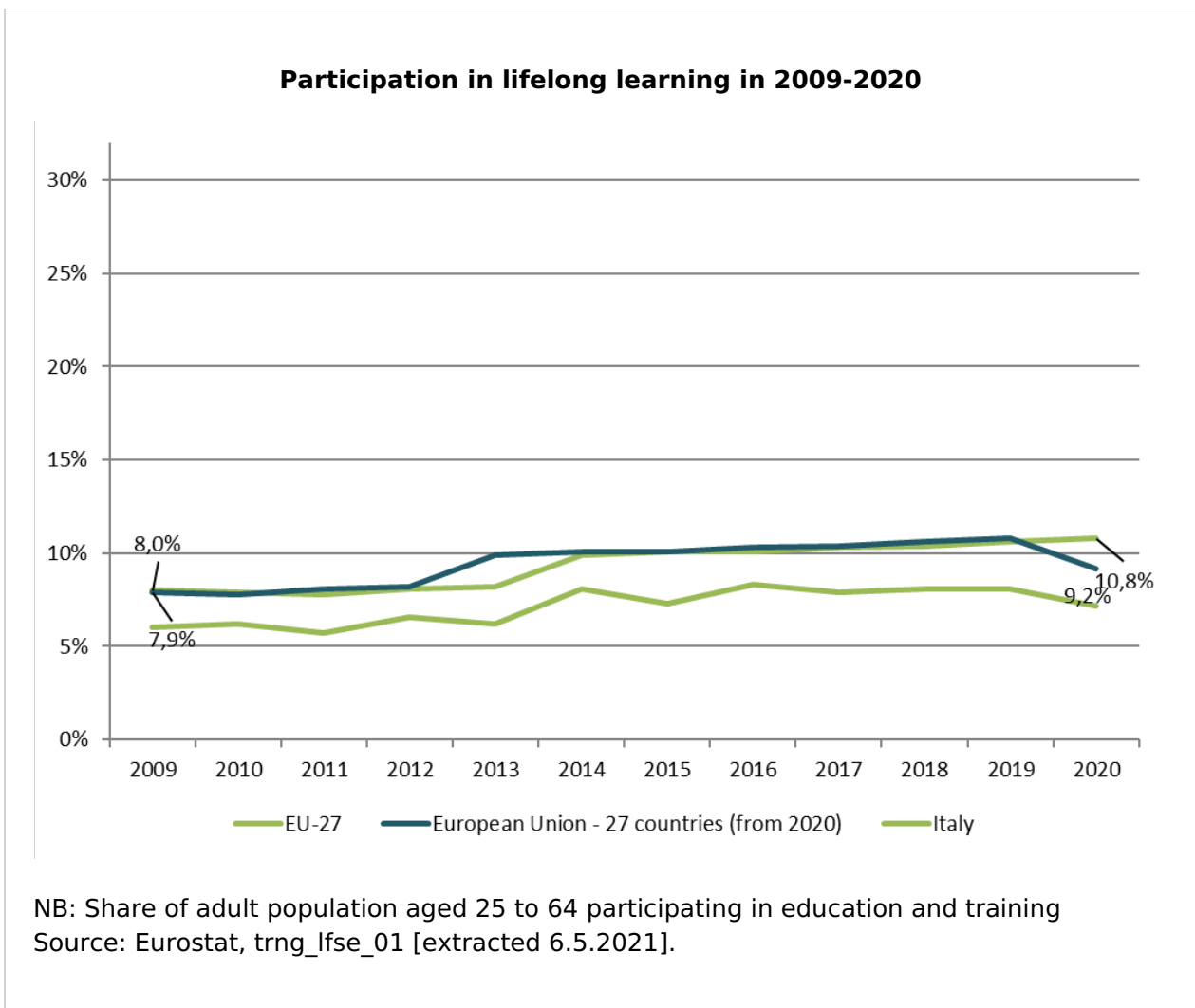
4.6 Participation in lifelong learning

According to Eurostat (Labour force survey (16)), the share of 25 to 64 year-olds participating in education and training over the 4 weeks prior to the survey was 7.2% in 2020, which is lower

than the EU-27 average of 10.8% in 2020 and the national target for 2020 of 12%.

In 2020, the COVID-19 pandemic caused a significant reduction in the level of adult participation in lifelong learning, which fell by 0.9 percentage points from 2019 to 2020.

Participation in adult education and training is influenced by individual socio-demographic characteristics. Those who participate most in learning paths are younger, educated people employed in skilled professions. The chances of being involved in training activities is lower among those who are poorly educated, are over 45 years of age, and are poorly qualified. Compared to the European average, Italy has lower levels of skills development, with a greater penalty for those with a low level of education and qualification. There is also greater training participation among the inactive population, probably due to the longer duration of tertiary education courses (17).



Occupation, together with education, is the principal determinant of unequal access to training: 11 percentage points separate the participation rate of the high-skilled (13.9%) compared to the low-skilled (2.7%). Italian values are lower for each age group and the gap compared to the European average is even more evident in the 35-44 age group. The Italian gap by level of education concerns only adults with low qualifications; for those with upper secondary and tertiary attainment, Italy is equal to European values (18).

Age is one of the most important factors in determining participation in lifelong learning. Data, from a generational perspective, show that involvement in training activities falls as age increases. Among those in employment, learning opportunities are predominantly concentrated among the most qualified professions. Italy still shows very low values for all professional categories, with training participation rates ranging from 13.9% of high-skilled employees to 2.7% of the least qualified employees (19). The data confirm that training tends to qualify further the already qualified, while the risk of exclusion tends to affect the categories of workers most vulnerable, not only for old age or low level of education but also for low qualification of profession (20).

[24] Eurostat table edat_ifse_24 [extracted 17.8.2021]

[25] Eurostat table edat_ifse_24 [extracted 17.8.2021]

[27] <https://www.qualifikationsregister.at/wp-content/uploads/2018/11/Strategie1.pdf> [accessed 27.8.2021]

[9] Source: Eurostat, educ_uoe_enrs01, educ_uoe_enrs04 and educ_uoe_enrs07

[11] National Statistical Institute. Education statistics. <https://infostat.nsi.bg>

[13] These are the names of the relevant specialisations.

[14] The European Union Labour Force Survey (EU LFS) is conducted in all Member States of the European Union, four candidate countries and three countries of the European Free Trade Association (EFTA) in accordance with Council Regulation (EEC) No 577/98 of 9 March 1998. LFS microdata for scientific purposes currently contain data for all Member States plus Iceland, Norway and Switzerland. The EU Labour Force Survey is a large household sample survey providing quarterly results on labour participation of people aged 15 and over as well as on persons outside the labour force. All definitions apply to persons aged 15 years and over living in private households. Persons carrying out obligatory military or community service are not included in the target group of the survey, as is also the case for persons in institutions/collective households. The data collection covers the years from 1983 onwards. In general, data for individual countries are available depending on their accession date. The labour force surveys are conducted by the national statistical institutes across Europe and are centrally processed by Eurostat. The national statistical institutes are responsible for selecting the sample, preparing the questionnaires, conducting the direct interviews among households, and forwarding the results to Eurostat in accordance with the requirements of the regulation. Thus, it is possible to make available harmonised data at European level. More information available at: <https://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey>

[27] The common part of the maturita exam is defined by the State, including two obligatory subjects: Czech and foreign language or maths and in certain cases two extra subjects. Schools are responsible for the profile part of the exam (2 to 4 subjects), which is also a compulsory part of the maturita exam. In the profile part of the exam, VET learners should be examined in at least 2 VET subjects.

[28] 3-year school-based VET programmes (EQF level 3) and 4-year VET and lyceum programmes (EQF level 4) can be offered as shortened programmes, provided that the school director considers that the learner has completed a programme, at the same EQF level, in a relevant field. Shortened programmes do not lead to a higher EQF level.

[22] Actual expenditures 2017: EUR 97.1 million. Source: BMBF (2018). Berufsbildungsbericht 2018 [Report on vocational education and training 2018]. Bonn: BMBF, p. 121. https://www.bmbf.de/upload_filestore/pub/Berufsbildungsbericht_2018.pdf

[15] Measured on 10 November each year; excludes those who: attended classes less than 31 days, were readmitted within 31 days, applied but never attended or who changed

programme in the same curriculum group and in the same institution.

- [16] See Chapter 2 for the information on education levels.
- [15] <https://findikaattori.fi/en/>
- [16] Cedefop (2019). The changing nature and role of vocational education and training in Europe. Volume 6: vocationally oriented education and training at higher education level. Expansion and diversification in European countries. Case study focusing on Finland. Cedefop research paper; No 70.
https://www.cedefop.europa.eu/files/finland_cedefop_changing_nature_of_vet_-_ce_study_0.pdf
- [17] For example, young graduates from upper secondary education at age of 19 cannot always enter higher education due to limited places available; they often apply several years in a row in order to enrol.
- [16] Eurostat, educ_uoe_enrt02 [extracted 30.8.2021].
- [17] Školski e-Rudnik, ŠeR [database] [extracted 30.8.2021].
- [16] Source: Statistics Iceland.
- [17] Source: Statistics Iceland.
- [15] Data from the 2018/19 school year.
- [16] The European Union labour force survey (EU LFS) is conducted in all Member States of the European Union, four candidate countries and three countries of the European Free Trade Association (EFTA) in accordance with Council Regulation (EEC) No 577/98 of 9 March 1998. At the moment, the LFS microdata for scientific purposes contain data for all Member States plus Iceland, Norway and Switzerland. The EU labour force survey is a large household sample survey providing quarterly results on labour participation of people aged 15 and over as well as on persons outside the labour force. All definitions apply to persons aged 15 years and over living in private households. Persons carrying out obligatory military or community service are not included in the target group of the survey, as is also the case for persons in institutions/collective households. The data collection covers the years from 1983 onwards. In general, data for individual countries are available depending on their accession date. The labour force surveys are conducted by the national statistical institutes across Europe and are centrally processed by Eurostat. The national statistical institutes are responsible for selecting the sample, preparing the questionnaires, conducting the direct interviews among households, and forwarding the results to Eurostat in accordance with the requirements of the regulation. Thus, it is possible to make available harmonised data at European level. More information available at: <https://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey>
- [17] Istat (2021), Levels of education and participation in training. Year 2020. The gap with the EU in education levels is growing, Statistics Report, 8 October 2021 (Istat (2021), Livelli di istruzione e partecipazione alla formazione. Anno 2020. Cresce il divario con l'Ue nei livelli di istruzione, Statistiche Report, 8 ottobre 2021). www.istat.it
- [18] Chamber of Deputies-MLPS-INAPP-ANPAL, XX/XXI Report on Continuing Vocational Training in Italy. Annuality 2018-2019-2020, XVIII Legislature, Parliamentary Act: Document XLII No 2 (Camera dei Deputati-MLPS-INAPP-ANPAL, XX/XXI Rapporto sulla Formazione continua. Annualità 2018-2019-2020, XVIII Legislatura, Atto Parlamentare: Documento XLII No 2).
https://www.camera.it/leg18/494?idLegislatura=18&categoria=042&tipologiaDoc=elenco_categoria
- [19] Chamber of Deputies-MLPS-INAPP-ANPAL, XIX Report on Continuing Vocational Training in Italy. Annuality 2017-2018, XVIII Legislature, Parliamentary Act: Document XLII No 1 (Camera dei Deputati-MLPS-INAPP-ANPAL, XIX Rapporto sulla Formazione continua.

Annualità 2017-2018, Senato della Repubblica – XVIII Legislatura, Atto Parlamentare:
Documento XLII No 1 < <http://www.senato.it/leg/18/BGT/Schede/docnonleg/40068.htm>

- [20] Angotti R, Polli C., Lavoratori over 50 a bassa qualificazione e crisi economica in Italia, Osservatorio Isfol, VI (2016), No 3. pp.37-57.
<https://isfoloa.isfol.it/xmlui/handle/123456789/1637>

CHAPTER 5.

VET within education and training system

The education and training system comprises:

- pre-school education (ISCED level 0);
- integrated primary and lower secondary education (ISCED levels 1 and 2) (hereafter first cycle of education);
- upper secondary education (ISCED level 344, EQF 4 for general education) (ISCED levels 353-354, EQF 3-4 for vocational upper secondary options) (also called second cycle of education);
- post-secondary education (IFTS, only vocational – ISCED level 453, EQF 4);
- higher education (ISCED level 453, EQF 5 for higher technical programmes), ISCED level 667, EQF 6, ISCED levels 667-767 EQF 7, ISCED level 768-864, EQF 8).

Pre-school education is not compulsory and is provided by education services for children aged less than 3 years; for ages 3-6 it is available at pre-primary schools which operate under the responsibility of the education ministry.

Compulsory education starts at the age of 6 and lasts for 10 years up to 16 years of age. It covers the whole first cycle of education (primary and lower secondary and 2 years of the second cycle, upper secondary education).

The last 2 years of compulsory education can be attended either in an upper secondary school or within the regional VET system.

Upper secondary school education offers both general and vocational (technical and vocational) programmes. Duration of studies is 5 years. At the end of the upper secondary education, students who pass the final exam receive a certificate that gives them access to higher education.

The following institutes offer education at higher level:

- universities (polytechnics included);
- high level arts, music and dance education institutes (Afam);
- higher schools for language mediators (SSML);
- higher technical institutes (ITS).

Access to university, high-level arts, music and dance education institutes and higher schools for language mediator programmes is solely for students with an upper secondary school leaving certificate. The university and research ministry (22) and individual institutions establish the specific conditions for admission.

Courses at higher technical institutes (ITS) are accessible to students with an upper secondary leaving certificate and to students who have attended a 4-year regional vocational course followed by an additional 1-year course in the higher technical education and training system (IFTS). Higher technical institutes offer short-cycle bachelor programmes, according to the Bologna structure (23).

At upper secondary level the following VET programmes are offered:

- 5-year programmes (EQF level 4) at technical schools leading to technical education diplomas; at vocational schools leading to professional education diplomas. Programmes combine general education and VET, and can also be delivered in the form of alternance

training. Graduates have access to higher education;

- 3-year programmes leading to a vocational qualification (EQF level 3);
- 4-year programmes leading to a technician professional diploma (EQF level 4).

At post-secondary level, VET is offered as higher technical education for graduates of 5-year upper secondary programmes or 4-year vocational education and training pathway programmes who passed entrance exams:

- higher technical education and training courses (IFTS): 1-year post-secondary non-academic programmes leading to a high technical specialisation certificate (EQF level 4);
- higher technical institute programmes (ITS): 2- to 3-year post-secondary non-academic programmes which lead to a high-level technical diploma (EQF level 5).

VET for adults is offered by a range of different public and private providers. It includes programmes leading to upper secondary VET qualifications to ensure progression opportunities for the low-skilled. These programmes are provided by provincial adult education centres (CPIA) under the remit of the education ministry.

Continuing VET (CVET) targets mainly employed people. Most resources for continuing training have been planned and managed by the regions and autonomous provinces (which have mainly used European social fund regional operational programmes as a source) and the social partners (through interprofessional funds).

CVET programmes pursue three goals:

- the maintenance/upgrading of competencies and skills;
- corporate competitiveness and innovation;
- compulsory training.

Compulsory training comprises obligatory courses related to work specific requirements, for which the employer has to make sure that a worker received proper training tailored to the needs and conditions of the workplace. It is a mandatory training at the workplace: mandatory for the employer by law, for all employees in certain occupations, e.g. health and safety. There are also some obligatory training courses by law for some dangerous or potentially dangerous tasks (e.g. driving a fork lift), training for preventive services (occupational physicians may be required by law to do some training regularly, as may workers in the food sector in respect of compliance with hazard analysis and critical control point (HACCP) food protocol), training for safety representatives who deal with occupational safety and health questions at the enterprise level, and training for first aid measures (by law, a certain number of people have to be able to offer first aid) and for workers to protect themselves and others (e.g. fire drills). Beneficiaries can obtain a formal qualification.

[10] IFAPME: Institut wallon de Formation en Alternance et des indépendants et Petites et Moyennes Entreprises – The Walloon Institute for dual training and self-employment in small and medium-sized enterprises.

[11] SYNTRA: Vlaanderen The Flemish Agency for Entrepreneurial Training.

[12] Institut für Aus- und Weiterbildung des Mittelstandes – the Institute for Vocational and Educational Training.

[13] Zentrum für Aus- und Weiterbildung.

[14] Socio-professional Integration Centres – Centres d'insertion socioprofessionnelle.

[15] Socio-professional Integration Organisations – Organismes d'insertion socioprofessionnelle.

[12] Education is compulsory until the age of 16.

- [16] New modern apprenticeship (NMA) is directed towards young people between 14 and 21 years of age at two apprenticeship levels (preparatory and core). Participation in the NMA is not part of compulsory education and is free of charge. The new modern apprenticeship targets two distinct groups of learners:
- a. learners who have not completed compulsory education lower secondary programmes (third grade of gymnasium) can enrol at the preparatory apprenticeship level. The preparatory apprenticeship has been introduced to provide support to early school leavers between the ages of 14 and 16, by gradually introducing them to the labour market, giving them a taste of VET, and helping them to choose a specialisation when they proceed to the core level of apprenticeship;
 - b. learners who have either completed compulsory education or preparatory apprenticeship can enrol at the core apprenticeship level.
- [17] In 2012, the education ministry in cooperation with the labour ministry and other stakeholders established, within the context of the education reform, post-secondary institutes of VET, jointly financed by the ESF, which offered further technical specialisation as of the academic year 2012/13. These were in April 2017 by the Cyprus Agency of Quality Assurance and Accreditation in Higher Education granted them tertiary non-university level status.
- [18] Cyprus Agency of Quality Assurance and Accreditation in Higher Education (CYQAA). In Greek: Φορέας Διασφάλισης και Πιστοποίησης της Ποιότητας της Ανώτερης Εκπαίδευσης (<http://www.dipae.ac.cy/index.php/el/>)
- [19] Private institutions of tertiary education offer a wide range of academic as well as vocational programmes of study at various levels (1- or 2-year diploma, 3-year higher diploma, 4-year bachelor degree and 1- or 2-year master degree) in secretarial studies, aesthetics, food preparation, music, arts and drama, graphic design, hotel and tourism management, computer science, social sciences, education, business studies, management and engineering. English is the language of instruction for most programmes of studies offered, which attracts students from other countries. Furthermore, several private institutions of tertiary education offer academic programmes of study based on validation or franchised agreements with more than 10 European universities and following the provisions of the competent Law of the Republic of Cyprus. Since 1996, the establishment and operation of all private institutions of tertiary education is regulated by law. Each institution sets its own internal regulations, student entry requirements and evaluation, qualifications awarded, tuition fees and teachers' qualifications, which are published in an annual prospectus.
- [20] Cyprus Productivity Centre (CPC). In Greek: Κέντρο Παραγωγικότητας Κύπρου: http://www.mlsi.gov.cy/mlsi/kepa/kepa_new.nsf/index_gr/index_gr?opendocument
- [21] Higher Hotel institute of Cyprus (HHIC). In Greek: Ανώτερο Ξενοδοχειακό Ινστιτούτο Κύπρου: http://www.hhic.moec.gov.cy/moec/hhic/hhic.nsf/index_gr/index_gr?OpenDocument&lang=el
- [30] The Education Act No 561/2004 Coll.: <https://www.msmt.cz/dokumenty-3/skolsky-zakon-ve-zneni-ucinnem-ode-dne-27-2-2021> [accessed 10.11.2021].
- [31] The Higher Education Act No 111/1998 Coll.: <https://www.msmt.cz/dokumenty-3/zakon-c-111-1998-sb-o-vysokych-skolach> [accessed 10.11.2021].
- [32] Ministry of Education, Youth and Sports [Ministerstvo školství, mládeže a tělovýchovy – MŠMT]. www.msmt.cz
- [33] The Act No 179/2006 Coll., on the Verification and Recognition of Further Education Results: <https://www.msmt.cz/dokumenty-3/zakon-o-overovani-a-uznavani-vysledku-dalsiho-vzdelavani> [accessed 10.11.2021].
- [34] A complete vocational qualification (úplná profesní kvalifikace) is defined as a professional competence to perform all the tasks within an occupation (e.g. pastry chef, hairdresser, plumber, economist, engineering technician, etc.). It can be acquired either by completing an IVET programme or by the recognition of prior learning.
- [35] Národní soustava kvalifikací: www.narodni-kvalifikace.cz

- [36] Data taken from the Ministry of Education, Youth and Sports [Ministerstvo školství, mládeže a tělovýchovy – MŠMT]. www.msmt.cz, NPI´s ČR calculation includes all upper and lower secondary and tertiary professional, follow-up and shortened programmes (i.e. all VET types).
- [21] Education and Youth Authority - State examinations: <https://harno.ee/riigieksamid>
- [18] <https://www.finlex.fi/fi/laki/alkup/2017/20170531>
- [18] As per amendments to the CROQF Act (Official Gazette No 20/2021), CSVET represents the Croatian credit system for vocational education and training. One CSVET point corresponds to a workload of 15 to 25 hours lasting 60 minutes.
- [19] Zakon o obrazovanju odraslih (NN 17/07, 107/07, 24/10) [Adult education act]: <https://www.zakon.hr/z/384/Zakon-o-obrazovanju-odraslih>
- [19] There are two main institutions: the IDAN VET training centre (the largest continuing VET institution in Iceland) which offers continuing VET programmes in a variety of sectors (e.g. food and catering, metal and machines, building and construction, printing technology, auto mechanics, computer supported design and hair styling) and the Retraining and Technical Training Centre (Rafiðnaðarskólinn) for electric and electronic technicians.
- [20] These are: the private company Sýni Research Centre which offers various job-related courses for people working in the food industry and the Icelandic Innovation Centre which is a public institution under the Ministry of Industries and Innovation offering courses in project management or personal leadership.
- [22] In 2019 the Ministry of Education, Universities and Research (MIUR) was divided into two ministries, the Ministry of Education and the Ministry of Universities and Research.
- [23] Information retrieved from Eurydice: https://eacea.ec.europa.eu/national-policies/eurydice/content/italy_en

CHAPTER 6.

Apprenticeship

Apprenticeship is one of the main education instruments used to integrate young people in the labour market. It is a permanent labour contract aimed at training young people and giving them employment and is one of the cornerstones of the Italian dual system. The training provided during apprenticeship is managed by the regions and autonomous provinces. Within the Jobs Act framework, Legislative Decree 81/2015 fundamentally revised related regulations. These innovations were mainly designed to enhance the appeal of apprenticeship contracts for companies and institutions because application performances are not yet satisfactory, in line with the general difficulties of the national economic and production system.

Apprenticeship in Italy designates a work contract with a specific training purpose; it includes both on-the-job and classroom training. The regions and autonomous provinces, together with social partners, are responsible for the definition of the training component and its implementation. The national collective labour agreements or inter-sectors agreement regulate apprenticeships in detail, with the obligation to respect some general principles. The apprenticeship contract, which is distinct from other work-based learning, must be drafted in written form, defining the roles and responsibilities of all parties, as well as the terms and conditions of the apprenticeship, the probationary period, the occupation tasks, wage increases, both the entry and final grade levels, and the qualification to be obtained. The training programme is an integral part of the contract. Both the contract and the training programme must be signed by the employer and the apprentice.

Since apprentices are considered employees, they are entitled to insurance benefits for job injuries and accidents, occupational diseases, health reasons, ageing and disability, maternity, household allowance and, since 1 January 2013, labour social security insurance.

The Jobs Act established that only enterprises with up to 50 employees can hire an apprentice if, in the previous 36 months, they retained 20% of their previous apprentices. Workers registered on so-called 'mobility lists' and unemployed people receiving unemployment allowance can take part in this scheme to qualify or requalify: usually they are offered a place on a 'professional' apprenticeship scheme, which is analysed below under the heading professional training apprenticeships.

The apprenticeship system includes three types of contract:

- apprenticeships leading to a professional operator certificate and a professional technician diploma, an upper-secondary school diploma, a higher technical specialisation certification (IFTS) – level I apprenticeship.

These schemes are regulated by the regions and autonomous provinces through specific State-regions conference agreements. Content, which is divided into theoretical and practical learning, the specific qualifications offered, and the number of training hours, is established by the regions and autonomous provinces according to minimum standards agreed at national level. The duration of the contract is determined according to the certificate or diploma to be attained: it cannot exceed the training period nor be less than the national minimum standard. Apprenticeships leading to a professional operator certificate and a professional technician diploma allow young people to fulfil their right/duty to education and training. There are no specific entry requirements, but learners need to bridge the year between the end of lower-secondary school and the start of apprenticeship on an upper-secondary school or vocational education and training pathway programme, unless they are already 15 years old. These apprenticeship schemes last 3 or 4 years and offer the possibility to acquire qualifications at

operator or technician level (in 22 and 21 occupation fields, respectively), professional operator certificate (European qualifications framework level 3) or professional technician diploma (European qualifications framework level 4). These qualifications are part of the national qualifications register. After obtaining the operator certificate, apprentices may proceed to the fourth year to obtain a technician diploma, in the same occupation. Access to university is possible after successful completion of secondary education and an additional 1-year course at an education institute. Apprenticeships for a higher technical specialisation certificate (European qualifications framework level 4) last a year and target young people who have fulfilled their right/duty to education and training.

- professional training apprenticeships: these target 18 to 29 year-olds who want to acquire a qualification provided for in collective bargaining agreements and required on the labour market. Training comprises two parts: acquisition of key skills (120 hours over a 3-year period) regulated by the regions and autonomous provinces and provided by training centres and award a regional qualification; and acquisition of vocational skills for specific occupation areas provided directly by companies. The occupation areas and training content are defined by collective bargaining agreements. These programmes have a maximum duration of 3 years (exceptionally 5 years for the crafts sector).
- higher education and research apprenticeships. This scheme leads to an array of qualification levels encompassing European qualifications framework levels 4-8. It targets 18 to 29 year-olds and fulfils various purposes. Learners can acquire qualifications that are normally offered through school-based programmes, in higher education or at universities, including a doctoral degree. Apprentices can also engage in research activities in private companies or pursue traineeship required to access the liberal professions (lawyer, architect, business consultant); the latter has not yet been regulated by collective bargaining. In agreement with the social partners and public education and training centres, the regions and autonomous provinces decide the duration of contracts and the organisation of programmes and ensure they are compatible with fully school-based curricula. They also define higher education credits learners obtain at schools, universities or training centres and the skills to be acquired through on the job training at a company. In the absence of a regional regulation, ad hoc arrangements between training institutes and companies are possible. Training cost allocation is defined by local authorities, based on national, regional and European social fund regulations.

In September 2015, at the State-regions-autonomous provinces conference, an agreement was signed for a trial of a dual VET system. The trial began in the 2015/16 training year and was an opportunity to develop further the Italian dual education system and to integrate education/training to combat youth unemployment.

The trial included two courses of action:

- the development and reinforcement of the VET providers' placement system:
- supporting VET pathways under dual VET. This action allowed young people to obtain a vocational qualification and/or diploma by following educational pathways that provide for an alternance between school and work experience (400 hours). More specifically, these pathways can be completed by means of apprenticeships and by simulated work training.

With an ad hoc ministerial Decree (24), the labour ministry has financially supported the establishment of the dual IVET system and has allocated annual funds to the regions for implementing dual VET. Consequently, the dual system in IVET is now solidified, the trialling period having ended in 2018 (25), and the labour ministry has entrusted the National Institute for Public Policy Analysis (INAPP) with the task to monitor the system in collaboration with the Regions.

Learn more about apprenticeships in the national context from the European database on apprenticeship schemes by Cedefop: <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/apprenticeship-schemes/scheme-fiches>

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- [16] Information is based on following publication where you can find also further information on this topic:
Allinckx, I.; Karno, A.; Monico, D. (2019). Vocational education and training in Europe – Belgium. Cedefop ReferNet VET in Europe reports 2018.
http://libserver.cedefop.europa.eu/vetelib/2019/Vocational_Education_Training_Europe_Belg
- [18] Institut für Aus- und Weiterbildung des Mittelstandes – the Institute for vocational and educational training in small and medium-sized enterprises.
- [13] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished].
- [14] Almost 10 000 learners from over 140 schools will be covered by planned project activities.
- [22] In Greek: Διεύθυνση μέσης τεχνικής και επαγγελματικής εκπαίδευσης και κατάρτισης.
- [36] Some occupations only require 2 years and there are also regulations allowing a shorter training period for apprentices with an Abitur (the school leaving certificate allowing entry to higher education).
- [41] <https://www.bibb.de/uebs-digitalisierung>
- [46] https://www.gesetze-im-internet.de/bbig_2005/BBiG.pdf
- [47] See AusbildungPlus database: <http://www.ausbildungplus.de/webapp/suche?typ=zq&neuesuche=true> and Berufsbildungsgesetz 2005: https://www.gesetze-im-internet.de/bbig_2005/BBiG.pdf
- [48] BMBF. Report on vocational education and training
<https://www.bmbf.de/de/berufsbildungsbericht-2740.html>
- [22] Currently, apprenticeships are not provided in upper secondary VET (ISCED 354).
- [23] Salaries, training materials and maintenance (such as heating and electricity).
- [20] <https://mzo.gov.hr/UserDocsImages//dokumenti/Obrazovanje/StrukovnoObrazovanje/Reform>
- [21] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/apprenticeship-schemes/scheme-fiches>
- [22] Cedefop (2019). Apprenticeship review: Croatia. Improving apprenticeships through stronger support and care. Luxembourg: Publications office. Thematic country reviews.
<https://www.cedefop.europa.eu/en/publications-and-resources/publications/4173>
- [21] In Icelandic: IDAN fræðslusetur.

CHAPTER 7.

VET governance

The education ministry defines the VET framework in national school pathways (technical and professional institutes) for higher technical education and training courses in agreement with the employment ministry). It has sole responsibility for higher technical institute programmes with regard to the definition of guidance documents and the monitoring and assessment of the training chain (26).

The education ministry also deals with redefining the higher technical institutes' national repertory of occupational profiles, with the introduction of new technical profiles and the updating of those already included in the inventory. The repertory is a list of occupational profiles which are taken into consideration in the design of training courses. Monitoring of higher technical institute courses is carried out by the National Institute for Documentation, Innovation and Educational Research (INDIRE) (27).

The labour ministry defines the VET framework for interventions provided for within the scope of vocational education and training pathways, for higher technical education and training (in agreement with the education ministry), for training interventions for apprenticeships, and for continuing vocational training (CVET) provided within the scope of the public system.

The National Institute for Public Policy Analysis (INAPP) monitors national vocational education and training pathways, apprenticeship training pathways and CVET interventions.

The regions and autonomous provinces are responsible for the planning, programming, organisation and implementation of interventions provided for within the scope of vocational education and training pathways, higher technical education, higher technical education and training, post-vocational education and training pathways, and post-university education for most types of apprenticeship-based training and for publicly funded CVET interventions (in agreement with the social partners).

Programming of higher technical education, and higher technical education and training, interventions, is provided for in specific planning documents known as three-year plans.

Through these documents, the regions and autonomous provinces define their strategy on the post-secondary education and training offer, bringing together and integrating the various supply chains of higher technical education, higher technical education and training hubs (28).

Social partners play an advisory role in the formulation of training policies and contribute to their interpretation into the pathways that then constitute the training offer. They also play a key part in promoting in-company, sectoral and territorial training programmes funded by the regions or realised thanks to joint interprofessional funds for continuing training; they help to elaborate and organise active policies in the labour market. Beyond their advisory role at national and local levels, social partners play a crucial part in professional apprenticeship regulation.

[31] to learn more about the vocational training assistance see the flyer for Berufsausbildungsassistenz [Vocational training assistant] in English: [https://neba.at/neba-leistungen/berufsausbildungsassistenz/warum-bas?task=callelement&format=raw&item_id=624&element=1bd14ef3-f766-4dad-843b-49437aa92d48&method=download&args\[0\]=0](https://neba.at/neba-leistungen/berufsausbildungsassistenz/warum-bas?task=callelement&format=raw&item_id=624&element=1bd14ef3-f766-4dad-843b-49437aa92d48&method=download&args[0]=0) [accessed 27.8.2021]

[20] Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding – Flemish Service for Employment and Vocational Training.

- [21] Commission communautaire française, French Community Commission, responsible for some competences for French-speakers in Brussels.
- [22] Minister for Vocational Training and Minister for Education at the COCOF; Minister for Higher Education and Adult Learning and Minister for Education at the French Community; Minister for Vocational Training and Employment at the Walloon Region. New governments decide about the distribution of tasks within its ministries (there can thus be one, two or three ministers involved).
- [23] Service francophone des métiers et qualifications – the French-language service for jobs and qualifications.
- [24] VDAB: Flemish Employment and Vocational Training Agency. Bruxelles Formation: The Brussels Institute for Vocational Training. SFPME: Service Formation PME: the training service for small and medium-sized enterprises, in Brussels. EFP (Espace Formation des Petites et Moyennes entreprises: the training centre in Brussels for SMEs).
- [15] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished].
- [23] In Greek: Γενική Διεύθυνση Ευρωπαϊκών Προγραμμάτων, Συντονισμού και Ανάπτυξης (ΓΔ ΕΠΣΑ): http://www.dgepcd.gov.cy/dgepcd/dgepcd.nsf/index_gr/index_gr?OpenDocument
- [37] Ministry of Education, Youth and Sports [Ministerstvo školství, mládeže a tělovýchovy – MŠMT]. www.msmt.cz
- [38] Ministry of Labour and Social Affairs [Ministerstvo práce a sociálních věcí – MPSV]. www.mpsv.cz
- [40] Absolutorium is a final examination at tertiary professional schools consisting of the theory of vocational subjects, a foreign language, a graduate thesis and its defence. Upon successful passing of the absolutorium, the graduate attains a tertiary professional qualification and the title of a specialist with a diploma (diplomovaný specialista, DiS).
- [50] BBiG: https://www.gesetze-im-internet.de/bbig_2005/
- [53] Berufsbildungsgesetz (BBiG).
- [54] Kultusministerkonferenz (KMK).
- [55] Zuständige Stellen.
- [24] Vocational Educational Institutions Act (Parliament, 2013); Vocational education standard (Government, 2013), work-based learning regulation (MoER, 2007); Private Schools Act (Parliament, 1998b); Professional Higher Education Institutions Act (Parliament, 1998a); Adult Education Act (Parliament, 2015); Professions Act (Parliament, 2008a); Recognition of Foreign Professional Qualifications Act (Parliament, 2008b); Study Allowances and Study Loans Act (Parliament, 2003a); Youth Work Act (Parliament, 2010b).
- [30] Until the end of 2011 this function was performed by the National Examinations and Qualifications Centre (NEQC) (Riiklik Eksami- ja Kvalifikatsioonikeskus). In 2012, NEQC joined Foundation Innove, and in 2020 Foundation Innove joined the Education and Youth Authority.
- [19] Qualification structure is a system of qualifications. It defines how many there are, initial, further and specialist VET qualifications: their share, titles and competence points (total and for common units; their division within the qualification is decided by the Finnish National Agency for Education).
- [20] Some VET providers are foundations or limited companies; they are categorised as 'private' but municipalities usually have shares in such companies/foundations.
- [23] Zakon o Agenciji za strukovno obrazovanje i obrazovanje odraslih [Act on Agency for VET and Adult Education]; Official Gazette No 24/2010.
- [24] Zakon o izmjenama i dopunama Zakona o strukovnom obrazovanju [Amendments to the

Vocational Education and Training Act]; Official Gazette No 25/2018.

- [26] Training chain (filiera formativa): set of pathways to achieve technical education and vocational education diplomas, at the end of the five-year school courses, of technical institutes and professional institutes.
- [27] National Institute for Documentation, Innovation and Educational Research:
<http://www.indire.it/en/>
- [28] As defined in Inter-ministerial Decree dated 7 February 2013, professional technical hubs are intended to be the functional interconnection between the subjects in the training chain and companies in the production chain and are therefore identified as 'training venues for learning in situ', established thanks to network agreements for sharing public and private workshops that are already operating; this interconnection also establishes venues dedicated to learning in applicative contexts, in order to make full use of existing professional resources, even based on 'workshop at school' and 'enterprise school' modes.

CHAPTER 8.

VET financing mechanisms

Italy makes a distinction between funds that are committed and dispensed. With respect to the sources of funding, both in terms of committed and dispensed funds, regional/provincial sources prevail. In short there are three sources of funding:

- regional/provincial;
- ministry of education;
- ministry of labour.

Funding of vocational and training pathways (IeFP)

Vocational education and training pathways are an alternative channel to school for fulfilling the obligation to participate in education (with the legal requirement for all young people to attend school from age 6 to 16) and the right-duty to it (which must be guaranteed for at least 12 years or until attainment of an upper-secondary school qualification or a vocational qualification before the age of 18). Each year the labour ministry allocates EUR 175 million to the regions and autonomous provinces for the financing of vocational and training pathways, following criteria shared between the labour ministry and the regions.

Funding of higher technical education and training (IFTS) and higher technical education (ITS) courses

The funding methods used for higher technical education and training and higher technical education courses are the same. Monitoring shows a marked uniformity between the regions that use the European social fund to implement courses.

Funding of dual system

Starting from the year 2018, after an experimentation phase, approximately EUR 125 million have been allocated for the financing of the dual system. To promote apprenticeship pathways, Directorial Decrees (DD. No 3 of 19 of April 2019 and DD. No of 18 of March 2020) have provided for increasing funding opportunities.

Since 2018, the labour ministry has allowed regions to finance dual pathways with financial resources originally allocated only for VET pathways (see previous point funding IeFP). More specifically, regions, after having exhausted the financial resources provided for dual pathways, could employ in dual pathways the financial resources earmarked for VET pathways.

The aim is to introduce more flexibility in allocation funds and give regions the opportunity to increase the Type 1 apprenticeship with additional funds.

Funding of apprenticeships

Training activities for apprenticeship are funded by the labour ministry. Since 2017, the labour ministry has earmarked EUR 15 million annually for this activity (for funding training courses); the amount due to the regions is calculated on the basis of the number of apprentices with an apprenticeship contract and the number of apprentices on training pathways.

The regions and autonomous provinces jointly finance training activities dedicated to apprenticeships through their own resources or the resources of the European social fund.

Funding of continuing vocational training (CVET)

Continuing training interventions are funded using a variety of sources and tools. Most of the financial support for CVET derives from the so-called 0.30% contribution paid by private-sector enterprises to the National Institute for Social Security (INPS). This contribution was introduced by Law 845/1978 that provided for an increase (equal to 0.30%) in salaries subject to obligatory social security contributions that employers must pay for compulsory involuntary unemployment protection insurance.

Until 2003, this contribution was managed by the regions, which were provided financial resources for CVET through three channels: Law 236/1993, that had most of the revenue derived from this 0.30%; Law 53/2000, that provided for annual funding of a little under EUR 15 million; ESF, partly also funded by the 0.30% (part of the share allocated to the economy ministry).

Since 2004, joint inter-professional funds have been financed by INPS based on the choices made by enterprises that indicate directly which inter-professional fund they intend to subscribe to. This has led to an increase in the financial resources available for continuing learning and their reorganisation.

Finance for inter-professional funds comes from a part of the 0.30% of gross payroll compulsory involuntary unemployment contribution paid to INPS by all private-sector enterprises with employees. Each enterprise can choose which fund to subscribe to and INPS transfers resources accordingly. In total, INPS has transferred approximately EUR 6.5 billion to interprofessional funds since 2004, an average of EUR 500 million euro.

Resources from the 2014-20 European Social Fund operational programme allocated EUR 575 million to priority 8.v Adaptation of workers to change. That represents 7.03% of thematic objective 8 Promoting sustainable and quality employment and supporting labour mobility and 3% of the total ESF over the 7 years. With an average overall annual national availability of a little under EUR 180 million, the adaptability axis funds the target of continuing training.

Also in 2018, tax relief was introduced for enterprises that invest in training (Law 205/2017). There are tax incentives and tax relief for enterprises that show they have spent on training activities designed to acquire or consolidate the technological skills provided for in National Industry Plan 4.0.

The New skills fund

Legislative Decree No 34 dated 19 May 2020 (29) (so called Decreto Rilancio) implemented several measures to support the Italian economy, severely affected by the COVID-19 emergency.

In line with the National skills strategy, the Decree has established the New skills fund, set up by the National Agency for Active Labour Policies (ANPAL), with the aim to invest in lifelong learning of workers and development of their competences.

The New skills fund, which initially had a budget of EUR 230 million, has been increased for 2020-21 to a total of EUR 730 million. This fund is dedicated to redefining working times, through trade union agreements, and keeping the same overall hours and salaries, in order to encourage training, reskilling and redeployment of workers.

More specifically, it provides for the possibility for company-level and local-level collective agreements to adapt working hours, as a result of changing organisational and production needs, assigning some hours to training courses.

The fund will cover the costs of training hours for workers, including the related social security and welfare contributions (30).

- [25] See also: https://eacea.ec.europa.eu/national-policies/eurydice/content/adult-education-and-training-funding-3_en
- [26] See also: https://eacea.ec.europa.eu/national-policies/eurydice/content/adult-education-and-training-funding-5_nl
- [27] <http://www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Belgium.pdf>
- [28] IAWM: Institut für Aus- und Weiterbildung im Mittelstand und in kleinen und mittleren Unternehmen / Institute for vocational and educational training in small and medium-sized companies in BE-DE. ADG: Arbeitsamt der Deutschsprachigen Gemeinschaft, Public Employment Service of the German-speaking Community. Le Forem: Office wallon de la Formation professionnelle et de l'Emploi/ The Walloon Office for Vocational Training and Placement. VDAB: Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding/ Flemish Employment and Vocational Training Agency. Bruxelles Formation: Institut Bruxellois pour la Formation professionnelle / The Brussels Institut for Vocational Training. Actiris: Brussels Public Employment Service.
- [39] Ministry of Education, Youth and Sports. Vývojová ročenka školství 2021/11-2020/21 [Statistical Yearbook on Education 2010/11-2020/21]. <https://www.msmt.cz/vzdelavani/skolstvi-v-cr/statistika-skolstvi/vyvojova-rocenka-skolstvi-2010-11-2020-21> [accessed 18.8.2021].
- [41] Ministry of Education, Youth and Sports [Ministerstvo školství, mládeže a tělovýchovy – MŠMT]. www.msmt.cz
- [42] The education ministry sets the limits for each year.
- [43] Ministry of Labour and Social Affairs [Ministerstvo práce a sociálních věcí – MPSV]. www.mpsv.cz
- [56] Bundesministerium für Bildung und Forschung (BMBF).
- [57] Bundesministerium für Wirtschaft und Energie (BMWi).
- [58] Bundesministerium für Arbeit und Soziales (BMAS)
- [59] Bundesagentur für Arbeit (BA)
- [61] Bundesinstitut für Berufsbildung (BIBB).
- [64] Überbetriebliche Berufsbildungsstätten (ÜBS) and in the skilled trade sector (ÜLU).
- [65] Ausbildungsverbände.
- [69] Specific information on all public funding activities is available on <http://www.foerderdatenbank.de/>
- [74] Volkshochschulen (VHS).
- [21] The most recent available data of 2017.
- [22] VET providers must collect these data. The system is not fully operational yet as the new financing system will be ready in 2023.
- [25] Local authorities as the legal founders and owners of the schools can also be investors regarding buildings/infrastructure.
- [26] Eurostat, gov_10a_exp [extracted 28.7.2021].
- [27] VET System Development Programme 2016-20.
- [28] Zakon o strukovnom obrazovanju [Vocational Education and Training Act]; Official Gazette No 30/2009, 24/2010, 22/2013, 25/2018
- [29] Zakon o obrtu [Crafts Act]; Official Gazette No 143/2013, 127/2019, 41/2020. Pravilnik o minimalnim uvjetima za ugovore o naukovanju [Regulation on minimal conditions for apprenticeship contracts]. Official Gazette No 107/2020.
- [23] <https://tradingeconomics.com/iceland/gdp> [Accessed: 14.10.2021].

- [24] <https://tradingeconomics.com/iceland/government-spending-to-gdp> [Accessed: 14.10.2021].
- [25] See more information on the fund here at Rannis' website:
<https://www.rannis.is/sjodir/menntun/vinnustadanamssjodur/> [Accessed: 30.9.2021].
- [26] See the relevant information here at (trade union) Samidn's website:
<https://samidn.is/2012/08/31/launataxtar-samtoek-atvinnulifsins/>

CHAPTER 9.

Teachers and trainers

9.1 VET teacher types

In Italy, two main types of professionals are involved in VET: teachers and trainers. The professional profile of teachers is much more clearly defined and regulated than trainers as far as training, recruitment, duties and skills are concerned.

Teachers work mainly in State vocational schools but also in centres for adult education, in universities and higher technical institutes.

Teachers are regulated nationally and are employed by the education ministry. They are recruited through public selection (based on specific competition requirements and the need to pass a State exam) that results in with an employment contract which allows them to acquire the status of public employee.

Teachers' entry requirements are set at national level. To be enrolled, teachers must follow all these steps: a 5-year bachelor degree in specific teaching subjects (e.g. math, chemistry, foreign languages) and specific university courses in an anthropologic/psychologic/pedagogic subject and in teaching methods and technologies; a teaching habilitation in the specific subject that will be taught by means of a national examination, which also tests for a B2 level of a foreign language; after the habilitation the new teacher has to attend 1 year of probation/training to be enrolled.

Trainers mainly work in vocational training centres that are managed directly by the regional and provincial authorities, as well as in private vocational training centres accredited by the regions. Some trainers also work in companies, consultancy agencies, non-profit organisations and public employment services. There is no nationally recognised register of trainers or formal recruitment procedures. The national collective work contract only sets minimum access requirements to the training profession: a degree or an upper secondary school diploma plus professional experience in the relevant sector. Additionally, it establishes that – regardless of the role played in the different training contexts (tutor, counsellor, trainer coordinator) trainers should regularly participate in professional development programmes, either within or outside the institutions at which they work.

9.2 Continuing professional development of teachers/trainers

According to the law, teachers' in-service training is compulsory and continuing, without any specifications about duration. Teachers' in-service training must be in line with the school training supplies, the School improvement plan and the priorities of the education ministry; it must involve all open-ended contract teachers. Incentives are provided to support teachers' continuous professional development (CPD) and systematic need analysis mechanisms.

Training initiatives for teachers can be designed by the school individually or in a network, supporting collaboration with universities, research institutes, professional associations and accredited bodies. Each school has to draw up a teacher CDP plan that can include self-training, peer learning, research activities, but also workshops and working groups to deepen or improve specific subjects or skills. The plan must describe the main features of the training activities and the methods to assess and certificate training results.

VET trainers' in-service training is not formalised; it varies greatly, and participation is discretionary. The national collective labour contract of VET professionals states that all trainers

have the right to take part in training initiatives. Training must be financed by the employer (by the VET centres) and must be considered as working time.

In public funded training, the national accreditation system has established that trainers and other professionals who run key functions must attend refresher programmes to upgrade their professional skills, but no indication has been given about duration. Regional accreditation systems have given more specifications about duration; some regions have set the obligation to draft a training plan for the whole staff. In-service training varies from region to region.

Training supply for trainers is determined by the free market; the most important providers are public and private training bodies and consortia, consultancy firms, professional associations, universities, social partners, Chambers of Commerce, and some business schools. Some sectoral professional associations also act as accrediting bodies in the private sector, in the area of business and management training (for example, the Italian Trainers' Association, AIF). Large companies or public administration departments with permanent internal training services usually contribute to the funding of these activities or invest directly in the continuing training of trainers.

Activities are mainly promoted by the regional authorities and funded by the ESF and by Joint inter-professional funds for continuing training (*Fondi paritetici interprofessionali*).

Universities provide VET teacher initial training on behalf of the education ministry in collaboration with the schools. The minimum requirement for accessing the teaching profession was – until 2018 (when a new recruitment system was developed) – a 5-year bachelor degree in specific teaching subjects (maths, chemistry, foreign languages). The 2018 system introduced, in addition to the degree requirement, the need for knowledge of psychological and pedagogical disciplines and didactic methodologies and technologies, validated by a successful, specific university examination.

Another fundamental feature (introduced in 2018) is the post-degree initial training and internship pathway (FIT). This is a three-year, salaried training pathway that educators must attend before being awarded a teaching post. Post-degree initial training and internship pathways are only accessed after passing a public examination. The post-degree initial training and internship pathway envisages gradual integration of aspiring teachers into the classroom environment and comprises:

- theoretical training for the first year;
- integrated training opportunities, with a work placement in a school and the start of specific training activities (short substitutions covering absences and lasting no more than 15 days) for the second year;
- in the third year, teachers are awarded a vacant teaching position, with all the associated responsibilities.
- after the completion of the 3-year course, if they pass the final examination they are offered a 3-year, renewable contract.

More generally, pre-service training of VET teachers is aimed at improving their teaching, psychological, pedagogical, organisational and social skills. Special attention is also given to improving their language and digital skills, in compliance with EU recommendations. Educators who wish to teach disabled people must also attend a specific course of study in formal education.

For many years, permanent training for VET teachers was considered an individual right under the national collective labour agreement, but it is now compulsory and regulated by the so-called Good School reform (Law 107/2015). This law 'establishes that teachers' in-service training is compulsory and continuing, provides incentives to support continuous teacher

training and systematic need analysis mechanisms. Teachers' in-service training must be in line with the school plan and with the education ministry's priorities. Training must also involve all open-ended contract teachers'.

The regions (with employers' rights organisations and trade unions) define and plan the specific training measures aimed to develop the minimum skills required to carrying out the functions of a tutor.

Training measures for company tutors, which now cover almost all of Italy, have many distinctive features, due to the methodological requirements and the operational means used. Every regional entity may set different training activities.

More information is available in the Cedefop ReferNet thematic perspective on teachers and trainers (31).

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- [35] For detailed information about the training of teachers and trainers in Austria, see Eurydice: https://eacea.ec.europa.eu/national-policies/eurydice/content/teachers-and-education-staff-1_en [accessed 31.8.2021] and <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers> [accessed 31.8.2021].
- [36] See Federal Law Gazette https://www.ris.bka.gv.at/Dokument.wxe?Abfrage=BgblAuth&Dokumentnummer=BGBLA_2013_I_211 [accessed 31.8.2021].
- [29] IFAPME: Institut wallon de Formation en Alternance et des indépendants et des Petites et Moyennes Entreprises / Walloon Institute for apprenticeship and entrepreneurial training in small and medium enterprises in Wallonia. Bruxelles Formation : Institut Bruxellois pour la Formation professionnelle / The Brussels Institut for Vocational Training. SFPME: Service Formation PME / the training service for small and medium-sized enterprises, in Brussels. Le Forem : Office wallon de la Formation professionnelle et de l'Emploi / The Walloon Office for Vocational Training and Placement.
- [30] <https://www.formaform.be/>
- [31] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers>
- [17] Ordinance No 15, active as of 22.07.2019: https://mon.bg/upload/27985/nrdb15-2019_statut_uchiteli-izm24092021.pdf
- [18] <http://iropk.mon.bg/>
- [19] https://mon.bg/upload/27985/nrdb15-2019_statut_uchiteli-izm24092021.pdf
- [20] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers>
- [26] Cyprus Pedagogical Institute(CPI). In Greek: Παιδαγωγικό Ινστιτούτο Κύπρου: <http://www.pi.ac.cy/pi/index.php?lang=el>
- [28] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers>
- [44] The Act No 563/2004 Coll. on pedagogical staff stipulates what type of study programmes and certificates are required for individual categories of teachers (master degree, absolutorium, maturita certificate or VET certificate).
- [45] They are also available for teachers of artistic vocational subjects at elementary artistic schools, secondary schools and conservatoires, as well as teachers at language schools authorised to organise State language examinations.
- [46] Usually people who are specialists from companies wanting to become full-time teachers opt for these programmes.

- [47] National register of qualifications (Národní soustava kvalifikací).
- [48] A teacher with special education/courses who is able to prevent and, if necessary, also effectively solve problematic behaviour or situations that may appear in class or school (drugs, cyber bullying, etc.)
- [50] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers>
- [81] See also: Huismann, A.; Hippach-Schneider, U. (2021). Teachers' and Trainers' professional development to support inclusive and sustainable learning in Germany. Cedefop ReferNet thematic perspectives series. To be published.
- [82] Berufsbildungsgesetz (BBiG), 2005 https://www.gesetze-im-internet.de/bbig_2005/BBiG.pdf
- [83] Ausbilder-Eignungsverordnung (AEVO), last amended in 2009. https://www.gesetze-im-internet.de/ausbeignv_2009/AusbEignV_2009.pdf
- [84] Vorbereitungsdienst
- [85] Kultusministerkonferenz (KMK).
- [86] This section is based on: Huismann, A.; Hippach-Schneider, U. (2021). Teachers' and Trainers' professional development to support inclusive and sustainable learning in Germany. Cedefop ReferNet thematic perspectives series. To be published.
- [87] See also: Hippach-Schneider, U.; Huismann, A. (2019). Vocational education and training in Europe: Germany. Cedefop ReferNet VET in Europe reports 2018. http://libserver.cedefop.europa.eu/vetelib/2019/ReferNet_Germany_VET_in_Europe_2018.pdf
- [88] AEVO, Ausbildereignungsprüfung.
- [89] geprüfter Aus- und Weiterbildungspädagoge
- [90] geprüfter Berufspädagoge
- [92] Kultusministerkonferenz (KMK).
- [93] This section is based on: Huismann, A.; Hippach-Schneider, U. (2021). Teachers' and Trainers' professional development to support inclusive and sustainable learning in Germany. Cedefop ReferNet thematic perspectives series. To be published.
- [35] European credit transfer and accumulation system.
- [36] Kutsekoda: https://www.kutsereregister.ee/en/standardid/standardid_top2/
- [37] <https://www.haridussilm.ee/ee/tasemeharidus/haridustootajad/opetajate-palgaanalus/palk-2007-2019> Õpetajate keskmise brutokuupalk 2007-19
- [38] Source: Estonian education information system (Eesti Hariduse Infosüsteem).
- [40] E.g. healthcare or social services.
- [41] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers>
- [23] In-company trainers (nationally referred to as workplace instructors) are responsible for supervising learners during their on-the-job learning periods or apprenticeship training in enterprises.
- [30] Eurostat, educ_uae_perp01 [extracted 29.7.2021].
- [31] Pravilnik o napredovanju učitelja, nastavnika, stručnih suradnika i ravnatelja u osnovnim i srednjim školama i učeničkim domovima [Regulation on professional advancement of teachers, education professionals and school directors in primary and secondary schools and student dormitories]. Official Gazette No 68/2019, 60/2020, 32/2021.
- [32] As part of the national project Modernisation of the continuous professional development of VET teachers, launched by AVETAE in 2017 and co-funded by the European structural

and investment fund.

- [33] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers>
- [27] European credit transfer and accumulation system (ECTS). is a credit system designed to make it easier for students to move between different countries. Since it is based on the learning achievements and workload of a course, a student can transfer their credits from one university to another so they are added up to contribute to an individual's degree programme or training. It helps to make learning more student-centred. It is a central tool in the Bologna process, which aims to make national systems more compatible and was adopted into Icelandic legislation with the law on universities No 63/2006 (Parliament, www.althingi.is). It also helps with the planning, delivery and evaluation of study programmes, and makes them more transparent. European credit transfer and accumulation system credits represent the workload and defined learning outcomes ('what the individual knows understands and is able to do') of a given course or programme. 60 credits are the equivalent of a full school year of study or work, or two full semesters. In a standard academic year, 60 credits would usually be broken down into several smaller components. A typical 'first cycle' (or bachelor) degree, would consist of 180 or 240 credits, whereas a typical 'second cycle' (or master) degree, would consist of 90 or 120 credits, with at least 60 credits at second cycle level. The use of European credit transfer and accumulation system at the 'third cycle' (or Ph.D. level) varies. European credit transfer and accumulation system has been adopted by most of the countries in the European higher education area (EHEA), and is increasingly used elsewhere. More information on the European credit transfer and accumulation system available at: https://ec.europa.eu/education/resources-and-tools/european-credit-transfer-and-accumulation-system-ects_en . More information on Bologna process and the European higher education area available at: https://ec.europa.eu/education/policies/higher-education/bologna-process-and-european-higher-education-area_en
- [28] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers>
- [31] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/teachers-and-trainers>

CHAPTER 10.

Shaping VET qualifications

10.1 Anticipating skill needs

For 15 years, surveys have been carried out in Italy that study the phenomenon of job needs (quantitative) and skill needs (qualitative) from perspectives both quantitative (which and how many occupational profiles companies predict they will need to recruit over the next few months) and qualitative (which skills, know-how and competences should be the focus of future refresher pathways for company employees).

These two surveys have been carried out by Unioncamere (32) (quantitative survey) and the National Institute for Public Policy Analysis, (INAPP former Institute for the Development of Vocational Training of Workers, ISFOL, qualitative survey) nationally, as well as occasionally regionally.

The results of these surveys are interpreted by integrating them with communication protocols (33), the Classification of occupations (CP 2011) and the Classification of economic activities (ATECO 2008). Since 1997, the Excelsior survey carried out by Unioncamere, has reconstructed an anticipation framework of labour demand and skill needs expressed by companies. Analytical information is collected on the characteristics of the personnel the company intends to hire: skilled labour, educational qualifications and training levels required, difficulty in finding these profiles, need for further training, previous experience, IT and language skills.

INAPP began to carry out research in 2006 designed to analyse existing professions and trades, with a view to providing a detailed description of changes in job content in the short- (next 12 months) and medium-term (next 5 years). Investigation methods were used that made it possible to interview entrepreneurs, corporate human resources managers or industry experts who could outline trends in key sectors of the economy.

The audit survey on professional needs, targeting a sample of about 35 000 companies with employees, aimed to collect qualitative information on the needs of companies in terms of the scarcity/lack of specific skills and know-how relating to the skilled workers they employed. The survey took place in 2017 and the following one is currently under way. Entrepreneurs were able to reflect and explain in great detail not the training that had been carried out over recent years, but what had to be done in the near future to satisfy specific needs.

In Italy, 33% of companies with at least one employee, just over half a million businesses, have declared they employ at least one person for whom they have registered a need within the next few months for specific refresher activities. The in-company professions for which the most pressing needs have been registered – with gaps that must be closed within the next few months via specific training activities – are those attributable to the large groups of skilled jobs in commercial and service activities (23.9%), artisans, specialist workers and farmers (22.9%) and technical professions (20%), followed by office-based managerial positions (18.3%). Skills needs are growing in some sectors of the economy: food and beverage, textiles, chemicals, electronics, commerce and tourism, education and health.

Information from these surveys, explore the professional and training needs of the labour market, provides indications to all stakeholders (including VET providers) of a complex education system with the task of planning and implementing vocational training and upskilling and reskilling training programmes (refresher pathways). There have been some interesting attempts to bring together the world of labour and training supply. Technical committees have been periodically tasked with reviewing and updating standards for occupational profiles,

closely linked to vocational training supply chains (occupational profiles relating to vocational education and training pathways and higher technical education courses). Specific research and analysis activities are aiming to draw up other methodologies, designed to connect (even on a territorial level, the so-called 'curvature' process) the professional needs expressed by companies with the training aims and practices designed by those responsible for the various education options.

See also Cedefop's skills forecast (34) and European Skills Index (35).

10.2 Designing qualifications

Following the approval of Inter-ministerial Decree 8/1/2018 (36), Italy adopted a national qualifications framework. This is a tool to define and classify the qualifications issued within the national system of certification of competences, making it possible to create the national repertory of education and training qualifications and professional qualifications, hereafter the national repertory.

Thanks to the national qualifications framework, the institutional and technical process for cross-referencing qualifications issued within the national system to one of the eight levels of the European qualifications framework for lifelong learning is defined. The scope, descriptors and levels of the national qualifications framework are developed in coherence and continuity with European qualifications framework levels. The national qualifications framework and the Atlas of work and qualifications (hereafter the work atlas) (37) are the two components of the technical infrastructure of the national repertory.

The competences that compose the national repertory are defined and updated by the education ministry, the labour ministry, other ministries and regions and autonomous provinces that now have the possibility to use the descriptors of the work atlas (processes, activities and expected outcomes) as guideline criteria. These have been developed on a national level in collaboration with the regional authorities and are periodically updated, in line with the decree dated 30 June 2015.

The technical investigation part is done via a process conducted by the National Institute for Public Policy Analysis (INAPP) further to a request by, and in collaboration with, stakeholders who are sector experts; it is subsequently validated by the national technical group established in line with the 30 June 2015 decree.

The technical-institutional decision to create a national benchmark – a reference tool, organised along the lines of job descriptors – has constructed a shared system of technical elements around which to assess the relevance of the needs of the labour market to the competences already described in the national repertory; development of the competences is then possible, if necessary. The qualifications in the national repertory constitute the minimum national standard: reference to the public awarding body; description of competences in terms of skills, know-how, autonomy and responsibility; referencing to the economic activity statistical codes (ATECO) and the nomenclature and classification of occupations (CP-ISTAT), in compliance with national statistical system laws; and referencing to the national qualifications framework/European qualifications framework.

These elements are compulsory for all qualifications for the purpose of validation and certification within the national system of certification of competences, as well as for the purposes of portability in a European context. The descriptors of the atlas of work are referenced to national qualifications framework levels and are the only benchmarks for the process of comparison between the qualifications issued by the different public awarding bodies.

The national system of certification of competences is designed to be integrated with, and complementary to, public lifelong learning, in order to favour development of the cultural and professional skills acquired by individuals in formal and non-formal learning contexts and the portability of qualifications in both national and European contexts. The technical institutional system that has been developed since 2013 is the single benchmark for organisation of assessment tests, basically designed to ascertain the possession of competences, in line with Article 3, para. 1 of Legislative Decree 13 dated 16 January 2013.

Both components of the national repertory (the national qualifications framework and the work atlas) are anchored to the definition of competence intended as the proven ability to use – in work, study or professional and personal development situations – a complex set of skills and know-how acquired in formal, non-formal and informal learning contexts.

The work atlas has descriptions of one or more expected outcomes for each of the 903 areas of activity which make up the classification of economic and professional sectors. These express the outcome of an activity or a set of activities of a specific area of activity and include indications on the expected product/service, on the service to be provided, on any input elements and on the context and complexities expressed in terms of autonomy and responsibility.

The national qualifications framework provides the reference parameter to define and/or evaluate the elements for expressing the minimum expected outcomes, in relation to a specific qualification. It details what individuals should know and be capable of doing in relation to each of the eight levels that characterise the increasing complexity of learning for each of the descriptors of the competence (know-how, skills, autonomy and responsibility).

The Italian context is one of multiple institutional actors at national and regional levels.

National vocational school programmes that combine general education and VET (38) fall under the competence of education ministry that lays down general rules and common principles. Schools have the autonomy to include specific subjects.

Education and vocational training qualifications, which fall within the competence of the regions, are included in the national register of qualifications. These qualifications are the outcome of a technical and institutional process, deriving from the permanent conference for relations between the State, the regions and the autonomous provinces (a privileged forum for political negotiations between the central government and the regions), with the signing of a State-regions agreement. Any modification to the register requires a debate in this forum.

Specific information for VET programmes is presented below.

Initial VET programmes (IeFP).

Title V of the current Constitution provides that vocational and training pathways (IeFP) fall under the exclusive competence of the regions. This means that the State sets 'common standards' (essential levels of performance, LEP, defined by Legislative Decree 226/05) and regions define, by their own legislation, the system of vocational and training pathways, taking into account the characteristics and needs of the territory. Regions design the training provision. In 2011, regulations issued by the State-regions conference have introduced several important systemic elements: a set of training standards for basic skills to be developed in the 3- and 4-year programmes; a set of minimum standards (valid at national level) for technical and vocational skills in relation to the occupational profiles included in the national qualifications register (39) intermediate and final certifications that are valid at national level.

The national qualifications register created in 2011 contains the national occupational profiles and the corresponding qualifications and programmes or learning pathways, as well as

minimum education and training standards (valid at national level). Qualifications leading to a certain national occupational profile need to be described in terms of learning outcomes and to be allocated the corresponding EQF level.

The update of the occupational profiles is made through an institutional process also involving social partners and approved in State-regions conference.

Legislative Decree 226/05 also defines the essential levels of competence assessment and certification. Regions ensure the fulfilment of essential levels related to the assessment and certification of competences: every year an examination commission made up of teachers and experts (as established in Article 19 of the decree) evaluate the level of achievement of learning outcomes; at the end of the pathways, students must pass an exam.

In 2019, with an agreement reached by the State-Regions Conference, the national repertory reference figures for the professional qualification and diploma, the minimum training standards of basic, technical and professional competences, and the intermediate and final certification models of the VET pathways, were renewed.

The labour ministry has allocated new national resources aimed at the promotion of the dual system in leFP, for the implementation of pathways characterised by a high number of corporate training hours (minimum 400 annual hours) or enterprise simulation.

Technical and vocational school programmes (40)

The education ministry defines by legislative decree, for each kind of pathway, the areas of the curriculum (agricultural, industry, etc.), the timetable of subjects and the educational cultural and professional profile (41) of learners. The educational cultural and professional profile is a document describing the skills, abilities and knowledge that the learner must possess at the end of pathways. Its purpose is as reference and guideline in defining the pathways curriculum.

Technical schools offer pathways in 11 areas allocated in two sectors: economic and technological (42).

Vocational schools offer pathways in six areas allocated in two sectors: service sector and industry and craft. Each school can decline these courses according to the local context consistent with the priorities indicated by the regions (43).

At the end of both pathways, learners must pass the State exam that consists of two written tests and an oral test. The first written test is common to all upper secondary education pathways, while the second is specific for each pathway. The education ministry defines by decree the evaluation grids for the assignment of the exam marks.

Higher technical education and training programmes (IFTS) (44)

The institution of the higher technical education and training pathways is planned by the regions, within their exclusive competences in the planning of the training offer. At national level a joint Decree (2013) adopted by the education minister and the labour minister (in accordance with the State-regions conference) defines the 20 specialisation areas for the training offer and the minimum standard of skills. Additional skills may be further defined at regional level, based on the analysis of local professional needs and through consultation with institutions and social partners. At the end of pathways, learners must pass an exam for the assessment of competence acquired. The examination commission takes into account the indications of the region and is made up of representatives of the school, university, vocational training and the world of work.

Higher technical institutes (ITS) (45)

Qualifications on offer from higher technical institutes are the result of a strong synergy between different actors: enterprises, universities/centres of scientific and technological research, schools, and local authorities. The qualifications are designed in six technological areas envisaged by Article 7 of the Prime Minister's Decree of 25 January 2008 (sustainable mobility, new technologies for life, new technologies for 'Made in Italy' products, innovative technologies for cultural heritage and tourism, information and communication technologies, energy efficiency) that are considered priorities to support the economic development and competitiveness of the Italian industry. For each area, national reference figures are identified to diversify the training offer so that it is consistent with the needs of the territory in which the higher technical institute operates: to date, there are 29 national reference figures. Each higher technical institute also defines, for each national reference figure, a specific technical professional profile based on the needs of the territory in which it operates. The 29 figures are characterised by a common cultural and professional profile and technical-professional skills. In particular, the course provides the following competences: basic (language, communication and social, scientific and technological, legal and economic, organisational and managerial) and technical-professional competences.

At the end of the courses, learners must pass a final exam for the assessment of competences acquired through the process. The examination board is made up of representatives of the training provider (e.g. school, university, vocational training) and experts from the labour market.

[37] See AMS. Qualification barometer <http://www.ams.at/qualifikationsbarometer> [accessed 31.8.2021].

[38] for more information on the new skills initiative and results see <https://www.ams.at/newskills> [accessed 31.8.2021].

[39] Cedefop. Skills forecast. <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast> [accessed 31.8.2021].

[40] Cedefop. Skills panorama. <https://skillspanorama.cedefop.europa.eu/en/indicators/european-skills-index> [accessed 31.8.2021].

[32] Competent can be freely accessed at the following website: SERV. Sterk door overleg. <https://www.serv.be/serv>

[33] <https://www.steunpuntwerk.be/>

[34] Bassins de l'Enseignement qualifiant – Formation – Emploi, IBEFE.

[35] Previously Brussels Observatory of Employment and Training.

[36] Bruxelles Formation : Institut Bruxellois pour la Formation professionnelle / The Brussels Institut for vocational training.

[37] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>

[38] <https://skillspanorama.cedefop.europa.eu/en/indicators/european-skills-index>

[40] Service francophone des métiers et des qualifications – the French-speaking Agency for Professions and Qualifications.

[41] IAWM: Institut für Aus- und Weiterbildung im Mittelstand und in kleinen und mittleren Unternehmen / Institute for alternating training and small and medium enterprises.

[42] ADG: Arbeitsamt der Deutschsprachigen Gemeinschaft Belgiens / Employment and Vocational Training Agency in the German-speaking Community.

[21] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills->

[forecast](#)

- [22] <https://skillspanorama.cedefop.europa.eu/en/indicators/european-skills-index>
- [23] <https://www.mon.bg/bg/57>
- [24] <https://www.navet.government.bg/bg/media/ZPOO-2018-1.pdf>
- [25] <http://www.mon.bg> and <http://www.navet.government.bg>
- [26] Framework programmes include: general provisions, including the regulatory basis, the aim and purpose of the programme; requirements: entry (age, medical, previous education and qualification level), career and education pathways, form(s) of training (day full-time, evening, part-time, individual, distance, dual, self-learning); curriculum; training module content (theoretical and practical); graduation requirements (State examinations for full qualifications and final examinations for partial qualifications).
- [27] National Agency for Vocational Education and Training (NAVET). Optimisation of List of professions for VET. <https://www.navet.government.bg/bg/lpvet-opt/>
- [33] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>
- [34] <https://skillspanorama.cedefop.europa.eu/en/indicators/european-skills-index>
- [51] <https://www.predikcetrhuprace.cz/>
- [52] Available at www.infoabsolvent.cz.
- [53] <https://www.infoabsolvent.cz/Temata/ClanekAbsolventi/4-4-02/Charakteristiky-a-perspektivy-odvetvi-ekonomiky-v-34>[accessed 10.11.2021].
- [54] Ministry of Labour and Social Affairs [Ministerstvo práce a sociálních věcí – MPSV]. www.mpsv.cz
- [55] Ministry of Education, Youth and Sports [Ministerstvo školství, mládeže a tělovýchovy – MŠMT]. www.msmt.cz
- [56] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>
- [57] <https://skillspanorama.cedefop.europa.eu/en/indicators/european-skills-index>
- [58] www.narodnikvalifikace.cz
- [59] The Act No 179/2006 Coll., on the Verification and Recognition of Further Education Results: <https://www.msmt.cz/dokumenty-3/zakon-o-overovani-a-uznavani-vysledku-dalsiho-vzdelavani> [accessed 10.11.2021].
- [60] A vocational qualification (profesní kvalifikace) is defined as an ability of a person to perform a task or a set of tasks within an occupation. It corresponds to certain activities (e.g. furniture assembly, installation of lifts, manufacture of upholstered seats, sports massage, flower arrangement, cold dishes catering, production of ice cream, etc.) but does not cover the whole occupation.
- [61] A complete vocational qualification (úplná profesní kvalifikace) is defined as a professional competence to perform all the tasks within an occupation (e.g. pastry chef, hairdresser, plumber, economist, engineering technician, etc.). It can be acquired either by completing an IVET programme or by the recognition of prior learning.
- [62] www.narodnikvalifikace.cz
- [63] In Czech: Vyšší odborné školy.
- [64] In Czech: Vysoké školy.
- [65] www.nsp.cz
- [66] <https://www.narodnikvalifikace.cz/>
- [67] www.nsp.cz

- [68] <https://www.spcr.cz/struktura-sp-cr/45-aktualne/co-by-vas-mohlo-zajimat/10355-zamestnavatele-se-vice-zapoji-do-prakticke-vyuky-; https://1url.cz/TKha1> [accessed 10.11.2021].
- [94] Bündnis für Arbeit, Ausbildung und Wettbewerbsfähigkeit.
- [97] Institut für Arbeitsmarkt und Berufsforschung (IAB).
- [100]Referenz-Betriebs-System (RBS).
- [101]<https://www.bibb.de/de/12471.php>
- [102]<https://www.bibb.de/en/49603.php>
- [107]Arbeitsmarktbarometer.
- [108]<https://www.iab.de/de/daten/arbeitsmarktbarometer>
- [109]<https://www.iab.de/de/befragungen.aspx> ; <https://www.vdi.de/presse/publikationen/> ; https://www.bitkom.org/de/markt_statistik/806.aspx .
- [110]<https://www.boeckler.de/index.htm>
- [111]<https://www.fes.de/>
- [112]<https://www.kas.de/>
- [113]<https://www.bertelsmann-stiftung.de/cps/rde/xchg/bst>
- [115]<http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>
- [116]<https://skillspanorama.cedefop.europa.eu/en/indicators/european-skills-index>
- [117]Ausbildungsberufe.
- [120]Bundesministerium für Wirtschaft und Energie (BMWi)
- [121]Bundesministerium für Bildung und Forschung (BMBF)
- [124]Berufsbildungsgesetz (BBiG)
- [125]Bundesministerium für Wirtschaft und Energie (BMWi).
- [127]Der ‚Bund-Länder-Koordinierungsausschuss Ausbildungsordnungen/Rahmenlehrpläne‘ (KoA).
- [42] Ministry of Economic Affairs and Communications.
- [44] <https://oska.kutsekoda.ee/en/oska-sectors/>
- [45] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>
- [46] <https://www.cedefop.europa.eu/en/tools/european-skills-index>
- [47] Kutsekoda: State register of occupational qualifications:
<http://www.kutsekoda.ee/kutsereregister>
- [24] <https://beta.oph.fi/fi/tilastot-ja-julkaisut/julkaisut/osaaminen-2035>
- [25] It means that VET providers can decide within the limits of the licence received from Ministry of Education and Culture what qualifications and training programmes to offer.
- [26] This section is based on Cedefop's Skills Panorama (2017). Skills anticipation in Finland. Analytical highlights series.
http://skillspanorama.cedefop.europa.eu/en/analytical_highlights/skills-anticipation-finland
- [27] A reduction in the number of employees, which is achieved by not replacing those who leave.
- [28] Growth in competences for Finland: proposed objectives for degrees and qualifications for the 2020s (Suomi osaamisen kasvu-uralle. Ehdotus tutkintotavoitteista 2020-luvulle).
<http://julkaisut.valtioneuvosto.fi/handle/10024/75163>

- [29] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>
- [30] <https://www.cedefop.europa.eu/en/tools/european-skills-index>
- [31] <http://www.cedefop.europa.eu/en/events-and-projects/projects/european-credit-system-vocational-education-and-training-ecvet>
- [32] Teachers, guidance and counselling staff and assessors of competence.
- [34] Uredba o praćenju, analizi i predviđanju potreba tržišta rada za pojedinim zvanjima, te izradi i uzimanju u obzir preporuka za obrazovnu upisnu politiku [Government decree on the monitoring, analyses and prediction of labour market needs and the development of an educational enrolment policy]; Official Gazette No 93/2010.
- [35] Public employment service.
- [36] Zakon o Hrvatskom kvalifikacijskom okviru [Croatian Qualification Framework Act]; Official Gazette No 22/2013, 41/2016, 64/2018, 47/2020, 20/2021.
- [37] Strategy of regional development, Industrial strategy, Smart specialisations strategy, Innovation strategy and Strategy of science, education and technology.
- [38] <http://hko.poslovna.hr/>
- [39] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>
- [40] Zakon o Hrvatskom kvalifikacijskom okviru [Croatian Qualification Framework Act]; Official Gazette No 22/2013, 41/2016, 64/2018, 47/2020, 20/2021..
- [41] Pravilnik o Registru Hrvatskog kvalifikacijskog okvira [Regulation on CROQF Register]; Official Gazette No 96/2021.
- [29] <https://www.oecd.org/education/implementing-policies/collapsecontents/Menntastefna-2030-Sk%C3%BDrsla-OECD-um-innlei%C3%B0ingu-Menntastefn.pdf>
- [30] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>
- [31] Information for Iceland is not available.
- [32] https://www.government.is/library/01-Ministries/Ministry-of-Education/Curriculum/adskr_frsk_ens_2012.pdf
- [32] <http://www.unioncamere.gov.it/>
- [33] Information and data collected through the surveys is organised on the basis of the 2011 Classification of occupations and the Classification of economic activities (ATECO).
- [34] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>
- [35] <https://skillspanorama.cedefop.europa.eu/en/indicators/european-skills-index>
- [37] The Atlas of work and qualifications (work atlas) is a classification and information tool created on the basis of the descriptors of the Classification of economic and professional sectors, also pursuant to Art. 8 of Legislative Decree 13/2013 and Art. 3, para. 5 of the Inter-Ministerial Decree of 30 June 2015 and an integral part of the information systems pursuant to Arts. 13 and 15 of Legislative Decree 150/2015.
- [38] Vocational schools (Istituti professionali).
- [39] Repertorio nazionale delle qualifiche.
- [40] Istituti tecnici e istituti professionali.
- [41] Profilo Educativo culturale e professionale P.E.Cu.P.
- [42] Decreto del Presidente della Repubblica, 15 marzo 2010, No 88 and Decreto del Presidente della Repubblica 31 luglio 2017, No 134.

- [43] Decreto Legislativo, 13 aprile 2017, No 61:
<https://www.gazzettaufficiale.it/eli/id/2017/05/16/17G00069/sg>
- [44] Istruzione e formazione tecnica superiore.
- [45] Istituti di Istruzione Tecnica superiore. More information available at:
<http://www.sistemait.it/istituti-tecnici-superiori-its.php>

CHAPTER 11.

Quality assurance

Within the education and training system, the various segments and pathways are accountable to different competent bodies on matters relating to quality assurance.

In terms of issuing general laws on education and defining essential levels of provision on educational matters, upper secondary education and higher technical education are regulated on a national level by the education ministry.

A national evaluation system was established by Presidential Decree 80/2013 within the national education and training system. Its aim is evaluating system efficiency and efficacy, contextualising the evaluation on an international level.

At least every 3 years, the education ministry issues strategic priorities on the evaluation of the education system that, with reference to the vocational education and training system, are defined by guidelines adopted in agreement with the State-regions conference and the labour ministry.

The National Institute for the Evaluation of the Education and Training System (INVALSI) (46) operates within the national evaluation system.

Its primary tasks are:

- to guarantee the functional coordination of the national evaluation system;
- to propose evaluation protocols and plan visits to schools by external evaluation units;
- to define efficiency and efficacy indicators to identify the school and training institutes that require support and need to be externally evaluated as a priority;
- to make tools for realising actions linked to evaluation available to individual schools and training facilities;
- to define indicators for the evaluation of school directors;
- to handle the selection, training and inclusion on special lists of external evaluation unit experts;
- to draft a periodic report on the education and training system;
- to take part in international surveys and other initiatives relating to evaluation.

A key role for improving the quality of the system is played by the National Institute for Documentation, Innovation and Educational Research (INDIRE) (47), which provides support to school institutes in defining and implementing plans to improve the quality of the training offer and the learning outcomes of students, which schools and training institutes independently adopt.

It supports innovation processes centred on the use and diffusion of new technologies, activating research projects designed to improve didactics, as well as interventions linked to consultancy and the training of teaching, administrative and managerial personnel.

Article 6 of Presidential Decree 80/2016 provides for the evaluation procedure of the school and training institute, a procedure which should be organised in four phases:

- self-evaluation: self-analysis and verification of the service provided based on the data made available by the education ministry's own information system; surveys on learning and data on added value provided by national institute for the evaluation of the education and training system, and other significant elements integrated by the school itself. This is the first step of self -evaluation. The second step is the preparation of a self-evaluation report in

electronic format, based on a reference framework provided by the national institute for the evaluation of the education and training system, and the formulation of an improvement plan;

- external evaluation: the first step is the identification of the situations to be evaluated, based on the efficiency and efficacy indicators defined by national institute for the evaluation of education and training system. The second step consists of unit visits. The third step is the redefinition of improvement plans based on the outcomes of the analysis carried out by the units;
- improvement actions: this phase consists of the definition and implementation of improvement interventions, including those with the support of the national institute for documentation, innovation and education research or through collaboration with universities, research bodies, professional and cultural associations;
- social reporting: publication and dissemination of the results achieved, through indicators and comparable data, both in terms of transparency and of sharing and promoting improvement of the service with the community.

The national evaluation system comprises the evaluation of school directors and of learning. It is carried out by the national institute for the evaluation of education and training system, through periodical and systematic checks on the skills and know-how of students and the overall quality of the training offer at education and vocational education and training institutes, including in the context of lifelong learning.

In relation to the promotion of quality assurance and quality culture in VET, a key role is also played by the Italian National Reference Point (NRP) of EQAVET, hosted by the National Institute for Public Policy Analysis (INAPP) (48).

The NRP supports the implementation of the European Recommendation on VET and the Osnabrück Declaration and the national process for improving quality assurance, disseminating scientific and technical knowledge and those practices and tools for continuous improvement, self-evaluation and quality assurance; it also supports VET providers in the implementation of self-assessment and peer review based on the European peer review methodology.

The NRP carries out the following activities:

- information for the main national and regional stakeholders on European guidelines and initiatives;
- collection and comparative analysis of national and international tools and methodologies;
- dissemination and share of best practices on quality assurance;
- support to the implementation of innovative quality assurance methodologies, such as self-assessment and peer review;
- promotion and support for the implementation of the National Plan for Quality in VET.

The NRP also coordinates the National Board under the auspices of the labour ministry. The National Board includes as members the main stakeholders and representatives of the national institutions involved in the issue of quality assurance in VET:

- Ministry of Labour and Social Policy;
- Ministry of Education;
- Ministry of Universities and Research;
- regions;
- social partners;
- training providers;
- education institutions.

[41] See Bmbwf. Quality management system for schools. <https://www.qms.at/> [accessed

31.8.2021].

- [42] With the Education Reform Act (Federal Law Gazette, I No 138/2017 https://www.ris.bka.gv.at/Dokumente/BgblAuth/BGBLA_2017_I_138/BGBLA_2017_I_138.pdf 31.8.2021)), in force since autumn 2017, new regulations regarding quality assurance at schools have been introduced. This act foresees the establishment of a monitoring system which comprises quality management and resource controlling. QIBB is to be merged with SQA, the quality management system of general education schools, and further developed. First results of this extensive reform are to be expected for 2020.
- [43] for more information see Bmbwf. Quality management system for schools. <https://www.qms.at/> [accessed 31.8.2021].
- [44] see Federal Institute for Quality Assurance in the Austrian School System. <https://www.iqs.gv.at/> [accessed 31.8.2021].
- [45] See IBW. <https://ibw.at/> [accessed 31.8.2021].
- [36] Decision No 82.592.
- [37] It does not apply in the case of preparatory apprenticeship.
- [38] The term 'field of study' (κλάδος) is broader than the term 'specialisation' (ειδικότητα), as it includes several specialisations. In these terms the field of study 'mechanical engineering' includes four specialisations: 'mechanical engineering', 'vehicle technology', 'building services engineering', and 'natural gas transmission and distribution'.
- [39] Cyprus Agency for Quality Assurance and Accreditation in Higher Education (CYQAA) was established on the basis of the Quality assurance and accreditation of higher education and the establishment and operation of an agency on related matters law, of 2015, and is responsible to ensure the quality of higher education in Cyprus and to support, through the procedures provided by the relevant legislation for the continuous improvement and upgrading of higher education institutions and their programmes of study. More information available at: <https://www.dipae.ac.cy/index.php/en/>
- [70] The School Quality model and related criteria for evaluation were designed and developed within the ESF project The National System for the Inspection Evaluation of the Educational System in the Czech Republic (NIQES), implemented 2011-15.
- [130]Berufsprinzip.
- [132]Berufsbildungsgesetz (BBiG): https://www.gesetze-im-internet.de/bbig_2005/
- [133]Handwerksordnung (HWO): <https://www.gesetze-im-internet.de/hwo/BjNR014110953.html>
- [134]In the period from 2011 to 2020, 118 occupations (more than a third of all 324 recognised occupations) were modernised, while 4 occupations have been created.
- [136]Kultusministerkonferenz (KMK).
- [137]Last BIBB transition study in 2011: <https://www.bibb.de/de/9039.php>
- [138]<https://www.test.de/thema/weiterbildungsberatung/>
- [139]<https://www.bibb.de/veroeffentlichungen/en/publication/show/8596>
- [140]Deutsches Institut für Erwachsenenbildung (DIE).
- [141]<https://wbmonitor.bibb.de>
- [142]This section is based on: Hippach-Schneider, U.; Huismann, A. (2019). Vocational education and training in Europe: Germany. Cedefop ReferNet VET in Europe reports 2018. http://libserver.cedefop.europa.eu/vetelib/2019/ReferNet_Germany_VET_in_Europe_2018.pdf
- [51] Comprising more than 50% self-learning.
- [52] A curriculum group (e.g. media technologies) comprises curricula from related fields (e.g. multimedia; printing technology; and photography).

- [54] <https://www.haridussilm.ee>
- [33] VET provider collects feedback from learners twice: at the beginning of studies and at the end.
- [34] The term used in the legislation.
- [42] Zakon o Nacionalnom centru za vanjsko vrednovanje obrazovanja [National Centre for External Evaluation of Education Act]; Official Gazette No 151/2004.
- [43] Pravilnik o načinu provedbe vanjskog vrednovanja i korištenju rezultata vanjskog vrednovanja školskih ustanova [Regulation on the Means of Implementing External Evaluation and Using the Results of External Evaluation of Education Providers]; Official Gazette No 23/2011.
- [44] Zakon o prosvjetnoj inspekciji [School Inspection Act]; Official Gazette No 61/2011, 16/2012, 98/2019, 52/2021.
- [45] Zakon o stručno-pedagoškom nadzoru [Professional-Pedagogical Monitoring Act]; Official Gazette No 73/1997.
- [46] Pravilnik o Registru Hrvatskog kvalifikacijskog okvira [Regulation on CROQF Register]; Official Gazette No 96/2021.
- [47] Zakon o obrtu [Crafts Act]; Official Gazette No 143/2013, 127/2019, 41/2020
- [48] Zakon o obrtu [Crafts Act]; Official Gazette No 143/2013, 127/2019, 41/2020
- [49] Zakon o strukovnom obrazovanju [Vocational Education and Training Act]; Official Gazette No 30/2009, 24/2010, 22/2013, 25/2018.
- [50] Agencija za strukovno obrazovanje i obrazovanje odraslih (2011b). Hrvatski okvir za osiguranje kvalitete u strukovnom obrazovanju i osposobljavanju: Priručnik za samovrjednovanje [Croatian framework for quality assurance in VET: manual for self-assessment].
<http://www.asoo.hr/UserDocsImages/Priru%C4%8Dnik%20za%20samovrjednovanje.pdf>
- [51] <http://e-kvaliteta.asoo.hr>
- [33] IDAN (in Icelandic: IÐAN) is a non-profit education and training provider supported by the federation of employees and unions; a provider of continuing education offering diverse in house- and company courses including accredited programs for qualified professionals in the crafts and trades. Companies have also access to career and vocational counselling through skills assessment, analysis of educational needs and planning and implementation of in-house educational pathways. IÐAN has been heavily involved with the implementation of validation of prior learning in Iceland. IÐAN provides assessment of non-Icelandic professional qualifications and work experience. In addition, a provider of various services for the Ministry of Education, Science and Culture and are involved in creating both national and international partnerships, embracing innovation and meeting new challenges to support the labour market. More information available at:
<http://viskaproject.eu/about-us/idan/>
- [46] National Institute for the Evaluation of the Education and Training System / Istituto nazionale per la valutazione del sistema di istruzione e formazione (INVALSI):
<http://www.invalsi.it/invalsi/index.php>
- [47] National Institute for Documentation, Innovation and Educational Research / Istituto nazionale di documentazione, innovazione e ricerca educativa (INDIRE):
<http://www.indire.it/>
- [48] www.inapp.org

CHAPTER 12.

Validation of prior learning

Italy's legislative framework for the recognition of prior learning was put into place with the Legislative Decree 13/2013, which established the national system of certification of competences, and the inter-ministerial decree of June 2015, which defined the operational framework for the recognition of regional qualifications at the national level.

On 5 January 2021, in agreement with the Ministries of Labour, of Education, of University and Research, of Public Administration and of Economy and Finance, Italy adopted the guidelines for the interoperability of awarding bodies of the National system of certification of competences (49).

The guidelines, also agreed by the regions and autonomous provinces, set the rules for operationalising the services of the competent public bodies for the identification, validation and certification of competences acquired in formal, non-formal and informal contexts, in support of the individual's right to lifelong learning (Law No 92 of 2012). They also complete the regulatory framework of the National system for the certification of competences (Legislative Decree No 13 of 2013 (50).

According to the decree, competences specific to certain qualifications related to the national repertory are referenced to the national qualifications framework (NQF), are subject to identification, validation and certification. The national repertoire was included in the Atlas of work and qualifications. The terminology is created by the National Institute for Public Policy Analysis (INAPP) to support the technical group responsible for the national framework.

The competences are assessed on request and may also be recognised by public bodies (subject to internal arrangements) in terms of credits to aid their portability.

The labour ministry collects data by competent bodies, as well as through INAPP and the National Agency for Active Labour Market Policies (ANPAL) and submits them to the national technical committee to verify that minimum service standards and performance indicators are met.

The Italian regions are the main hub for services for labour and vocational training on the territory. Within the system supporting active labour or vocational training policies, they are tackling the issue of the certification and validation of competences, contextualising and differentiating tools and approaches.

The 30 June 2015 (51) decree also included measures relating to the functions required for providing validation and certification services:

- accompanying and supporting identification of the competences and making them transparent;
- planning and implementation of assessment activities;
- implementation of assessment activities on aspects relating to curricula and professional contents.

The Decree describes the tasks and activities that personnel responsible for providing services for the identification, validation and certification of competences should exercise in the various phases of the process: access to the service/welcoming; recognition/identification; and assessment and certification. The European qualifications framework level for each function is also indicated.

It should be noted that regions, in their position as awarding bodies, offer a direct guarantee on the criteria and methods adopted for recruitment of personnel entrusted with providing such functions and verification of their professional requisites, in compliance with the principles of collegiality, neutrality, impartiality and independence. In those regions where the regional rules and services system is already accessible, provider competence training has already been planned and implemented. Where work is still in process to make services operational, the debate on professional resources is part of a more general framework regarding system standards.

To help develop and raise awareness of the theme, INAPP has prepared a multimedia training package, which has been designed in an open-source environment (Moodle) and provided on a MOOC (massive online open course) platform, to transfer all the information, know-how, methodologies and tools useful for managing the various phases of the process to service providers.

For more information about arrangements for the validation of non-formal and informal learning please visit Cedefop's European database (52).

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- [47] See https://www.qualifikationsregister.at/wp-content/uploads/2018/11/Strategie_zur_Validierung_nicht-formalen_und_informellen_Lernens.pdf [[accessed 31.8.2021].
- [44] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/european-database-on-validation-of-non-formal-and-informal-learning>
- [28] <https://www.mon.bg/bg/57>
- [29] <https://www.mon.bg/bg/59>
- [30] <https://www.mon.bg/bg/100053>
- [31] <https://www.mon.bg/bg/100305>
- [32] National Agency for Vocational Education and Training (NAVET). Annual reports on the activities of NAVET. <https://www.navet.government.bg/bg/dokumenti/dokumenti-na-napoo/>
- [33] https://cumulus.cedefop.europa.eu/files/vetelib/2016/2016_validate_BG.pdf
- [40] Decision No 82.592.
- [41] Council Recommendation 2012/C398/01.
- [42] https://cumulus.cedefop.europa.eu/files/vetelib/2016/2016_validate_CY.pdf
- [71] The Act No 179/2006 Coll., on the Verification and Recognition of Further Education Results: <https://www.msmt.cz/dokumenty-3/zakon-o-overovani-a-uznavani-vysledku-dalsiho-vzdelavani> [accessed 10.11.2021].
- [72] Authorised entities are licenced by the so-called awarding bodies, which are organisations of State administration relevant to the given field (ministries or the Czech National Bank). In 2016 there were 1216 authorised entities.
- [73] There are 182 complete vocational qualifications in the NSK.
- [74] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/european-database-on-validation-of-non-formal-and-informal-learning>
- [143] Fachoberschulreife.
- [145] <http://www.bildungsspiegel.de/news/weiterbildung-bildungspolitik/17-valikom-chancen-fuer-menschen-ohne-berufsabschluss>; www.validierungsverfahren.de;
- [146] Gleichwertigkeitsfeststellung.
- [147] <https://www.valikom.de/fachtagung/content/impressionen/>

- [148]<https://www.validierungsverfahren.de/en/home>
- [149]www.ihk-fosa.de
- [150]<https://www.bibb.de/en/68882.php>
- [151]<https://www.anererkennung-in-deutschland.de/html/de/>
- [152]Bundesamt für Migration und Flüchtlinge (BAMF).
- [153]<https://www.anererkennung-in-deutschland.de/html/en/skillsanalysis.php>
- [154]<https://www.anererkennung-in-deutschland.de/html/en/pro/data-reports.php>
- [155]This section is based on: Hippach-Schneider, U.; Huismann, A. (2019). Vocational education and training in Europe: Germany. Cedefop ReferNet VET in Europe reports 2018.
http://libserver.cedefop.europa.eu/vetelib/2019/ReferNet_Germany_VET_in_Europe_2018.pdf
- [60] Elukestva oppe strateegia täiskasvanuharidusprogramm 2019-22 [Lifelong learning strategy adult education programme 2019-22].
<https://www.hm.ee/et/tegevused/arengukavad>
- [61] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/european-database-on-validation-of-non-formal-and-informal-learning>
- [34] In Icelandic: Raunfærnimat.
- [35] https://cumulus.cedefop.europa.eu/files/vetelib/2016/2016_validate_IS.pdf
- [52] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/european-database-on-validation-of-non-formal-and-informal-learning>

CHAPTER 13.

Incentives for learners

Individual vouchers and other subsidies

Both the regions and autonomous provinces, and the inter-professional joint funds, finance personalised continuing vocational training (CVET) programmes, through vouchers for tailored training interventions and other tools, such as 'endowment' (53), mainly targeted to the employed.

Incentives for the unemployed

Tuscany has experimented with re-employment allowances (54), integrating them with training vouchers and recruitment incentives. The initiative targets the unemployed, whether or not in receipt of social security benefits, and the economically inactive. The training activities that can be funded using the voucher system envisage both pathways for qualifying and certifying skills relating to one or more segments of a certain profile and regulated training (qualifications, certificates, etc.). After training it will be possible to spend re-employment cheques to purchase services for assistance with reintegration. The scheme envisages a service pact after the voucher has been granted.

In 2017, the region of Apulia funded individual vouchers for the unemployed and those in a state of non-employment (earners of incomes below the taxable threshold), to be spent on standard regional training offers (55). The pathways funded with vouchers (with a maximum duration of 400 hours) focus on basic or transversal skills (English, basic IT skills, communication skills) or regulated training (authorisations, certificates, qualifications) or on technical-professional skills, with reference to the professional skills present in the regional repertory.

Incentives for employees

The region of Tuscany funded, in 2017, individual training vouchers targeting managers, directors and young professionals. The use of this tool is ideal for those who can autonomously choose and orient their vocational pathways according to professional experiences already undertaken or by means of consolidated basic technical training.

Vouchers for managers aim to favour training for skills and know-how useful to the enterprise when making choices linked to technological, organisational and managerial innovation and business models, in order to develop the Industry 4.0 paradigm.

Vouchers for young professionals (56) (self-employed under 40 years of age) aim to support the training of professionals starting their career and facing economic difficulty in paying for their training or even accessing a training programme in the first place. Access to training programmes stems from obligations imposed by compulsory training, i.e. by training which comprises obligatory courses related to specific work requirements.

The regions of Piedmont and Liguria have funded individual learning activities using standard individual training vouchers for employed workers (with a maximum of EUR 3 000 per capita) (57).

In addition, every year the Inter-professional joint funds finance, through calls for tenders, individual training vouchers that can be used for enrolment in inter-company training courses.

Study leave

Under provisions of Law 53/2000 (58), the regions and autonomous provinces grant leave for training for workers, acknowledging their right to lifelong training.

- [48] For more information about funding in education, see Eurypedia:
https://eacea.ec.europa.eu/national-policies/eurydice/content/funding-education-1_en
[accessed 31.8.2021].
- [49] See <https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10009531> [accessed 31.8.2021].
- [50] See <https://www.wko.at/service/bildung-lehre/Lehrlinge.html> [accessed 31.8.2021].
- [43] The grant for the academic year 2018/19 ranges from EUR 1 450 to EUR 1 710. The grant is paid once. http://www.moec.gov.cy/ypiresia_foititikis_merimnas/foititiki_chorigia.html
- [156]https://www.bmbf.de/bmbf/de/home/_documents/die-novellierung-des-berufsbildungsgesetzes-bbig.html
- [157] BIBB Datenreport 2021 [VET data report 2021], Chapter A9.1
https://www.bibb.de/datenreport/de/datenreport_2021.php
- [158]https://www.die-duale.de/dieduale/de/home/home_node.html
- [159] Berufsausbildungsbeihilfe BAB: Standard funding support under p. 56 ff. of the German Social Code (SGB III and BAföG). Actual expenditures 2020: EUR 291.2 million.
https://dejure.org/gesetze/SGB_III/58.html ; www.bafoeg.bmbf.de ;
<https://www.arbeitsagentur.de/bildung/ausbildung/berufsausbildungsbeihilfe-bab>
<https://www.arbeitsagentur.de/web/content/DE/BuergerinnenUndBuerger/Ausb...> ;
<http://www.bafoeg-aktuell.de/karriere/berufsausbildungsbeihilfe.html>
- [161]<https://www.arbeitsagentur.de/en/training-allowance-disabled-persons>
- [162] Ausbildungsbegleitende Hilfen abH - Standard funding support for dual apprenticeship and introductory training as defined in the German Social Code. (SGB III, 74 to 80).
<https://www.arbeitsagentur.de/bildung/ausbildung/ausbildungsbegleitende-hilfen>
- [163] Actual expenditures 2020: EUR 107.38 million (BMBF, 2021 p 106).
- [164] Berufsvorbereitende Bildungsmaßnahmen – BvB (SGB III, 51). www.arbeitsagentur.de
- [165] Actual spending for 2020: EUR 193,53 million. (BMBF (2021). Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BMBF, p. 108.
- [166] Einstiegsqualifizierung – EQ (SGB III, 54a) <https://www.arbeitsagentur.de>
- [167] Actual spending 2020: € 26,72 million (BMBF (2021). Berufsbildungsbericht 2021 [VET data report 2021], Bonn: BMBF, p.111.
- [169] Integration measures for refugees (BMW i, update 4.2019)
https://www.bmwi.de/Redaktion/DE/Downloads/C-D/darstellung-der-massnahmen-der-bundesregierung-fuer-die-sprachfoerderung-und-integration-von-fluechtlingen.pdf?__blob=publicationFile&v=6
- [170] www.bamf.de
- [171] <https://handbookgermany.de/en.html>
- [172] Vocational orientation – provision for refugees (BOF)
<https://www.berufsorientierungsprogramm.de/angebote-fuer-zugewanderte/de/berufsorientierung-fuer-fluechtlinge-bof-1955.html>
- [173] Federal ESF integration guideline for asylum seekers and refugees (IvAF)
<https://www.esf.de/portal/DE/Foerderperiode-2014-2020/ESF-Programme/bmas/esf-integrationsrichtlinie-bund.html>
- [174] <http://www.cedefop.europa.eu/en/news-and-press/news/germany-new-act-aid-refugee-integration> and https://www.bundesregierung.de/Content/EN/Artikel/2016/07_en/2016-05-

[25-integrationsgesetz-beschlossen_en.html;jsessionid=9EF13197E8E4E1732BFC105F9A814042.s1t1](#)

- [175] Make-it-in-Germany portal <https://www.make-it-in-germany.com/en/> and Information portal for the recognition of foreign professional qualifications <https://www.anererkennung-in-deutschland.de/html/en/immigration.php>
- [176] https://www.aufstiegs-bafoeg.de/aufstiegsbafoeg/de/home/home_node.html
- [177] <https://www.bmbf.de/de/das-weiterbildungsstipendium-883.html>
- [178] Bundesministeriums für Bildung und Forschung (BMBF).
- [180] <https://www.bmbf.de/de/das-aufstiegsstipendium-882.html>
- [182] Funding volume in 2020: EUR 29.3 million. BMBF VET report 2021, p. 105.
- [183] <http://www.bildungspraemie.info/>
- [185] KURSNET: <http://kursnet-finden.arbeitsagentur.de/kurs/>
- [186] Several projects on partial qualifications are taking place: DIHK-TQ project website. <https://www.dihk.de/tq-de> ETAPP project's website <https://www.etapp-teilqualifizierung.de/> Website of employer initiative on partial qualification (Bundesweite Initiative zur Fachkräftegewinnung und -entwicklung) <https://www.nachqualifizierung.de/> TQ website of the Federal Employment Agency <https://www.arbeitsagentur.de/bildungstraeger/berufsanschlussfaehige-teilqualifikationen>
- [187] www.arbeitsagentur.de
- [188] <http://kursnet-finden.arbeitsagentur.de/kurs/>
- [189] Legislation promoting further training amended (AWStG) (7.2016) <https://www.bmas.de/DE/Service/Gesetze-und-Gesetzesvorhaben/arbeitslosenversicherungsschutz-weiterbildungsstaerkungsgesetz.html>
- [190] Qualification Opportunities Act (Qualifizierungschancengesetz) (12.2018) <https://www.bmas.de/DE/Service/Gesetze-und-Gesetzesvorhaben/qualifizierungschancengesetz.html>
- [191] <https://www.bmas.de/DE/Service/Gesetze-und-Gesetzesvorhaben/arbeit-von-morgen-gesetz.html>
- [192] BA website on the Future starters programme <https://www.arbeitsagentur.de/karriere-und-weiterbildung/foerderung-berufliche-weiterbildung>
- [62] Excluding 'non-stationary' programmes, i.e. comprising more than 50% self-learning.
- [64] Excluding 'non-stationary' programmes, i.e. comprising more than 50% self-learning.
- [67] Unemployment Insurance Fund. <https://www.tootukassa.ee/>
- [35] Learners pay taxes from their allowances if they receive income from other source(s).
- [36] In one or multiple periods.
- [37] <https://www.tyollisyysrahasto.fi/en/adult-education-allowance/>
- [52] Pravilnik o minimalnim uvjetima za ugovore o naukovanju [Regulation on minimal conditions for apprenticeship contracts]. Official Gazette No 107/2020.
- [53] Pravilnik o načinu organiziranja i izvođenju nastave u strukovnim školama [Regulation on the organisation and implementation of teaching and learning in VET schools]; Official Gazette No 140/2009, 130/2020.
- [53] Endowment consists of a nominal monetary amount that the beneficiary can use on the services included in a tailored intervention programme drawn up in agreement with public or private operators (training providers) accredited to provide such services. The amount of the endowment varies in proportion to the level of employability of the subject and the services included in the individual programme. The beneficiary is never given the sum

allocated directly: the financial relationship is only established between the providing public body and the accredited public or private operator that provides the service. For some services, the operator receives the relevant public refund based on the outcome of the specific activity and not on its simple provision.

- [54] <<https://www.regione.toscana.it/-/industria-4.0-voucher-formativi-per-professionisti-e-imprenditori-al-via-i-due-bandi>>
- [55] This is a specific initiative by Tuscany Region. Maximum amount: EUR 2 500.
<https://por.regione.puglia.it/-/miformoelavoro>
- [56] Amount given varies and depends on different factors (e.g. economic sector).
http://www301.regione.toscana.it/bancadati/atti/Contenuto.xml?id=5123588&nomeFile=Decreto_n.7981_del_29-07-2016-Allegato-A
- [57] The voucher can cover between 50 and 70% of total training cost. It can vary in relation to the class size of the company. The beneficiary must be at least 18 years old.
- [58] Legge 8 marzo 2000, No 53, art. 5 <http://www.parlamento.it/parlam/leggi/00053l.htm> and : XV Rapporto sulla Formazione Continua in Italia: <https://www.isfol.it/primo-piano/pubblicato-il-xv-rapporto-sulla-formazione-continua>

CHAPTER 14.

Incentives for enterprises to boost their participation in VET provision

Tax credits, exemptions and reductions in social security contributions

The 2018 Budget Law established that tax credit for 4.0 training is granted to enterprises for 40% of the expenses relating to the corporate cost of salaried personnel for the time they are occupied in training activities. This can amount to a maximum of EUR 300 000 per year for each enterprise and is granted for stipulated training activities, thanks to corporate or territorial collective contracts (59). The training activities permissible for requesting tax credits must involve issues connected to the introduction of digital technology innovations: big data and data analysis, cloud and fog computing, cyber security, cyber-physical systems, rapid prototyping, visualisation and augmented reality systems, advanced and collaborative robotics, man-machinery interface, additive manufacturing, the internet of things and machines and the digital integration of corporate processes.

The 2019 Italian Financial Law has introduced a new measure, the Transition plan 4.0, aiming to support enterprises in the transition toward the 4.0 model. In this Law (60), all the previous government interventions are included (Industry 4.0, 2017-18).

The 2019 financial Law also provides a non-refundable contribution, as a voucher aimed at introducing the profile of innovation manager within the enterprises. The goal is to support the technological and digital transition processes of SMEs, as well as company networks, through the introduction of managerial profiles able to implement the technologies provided in industry 4.0.

The voucher is for those SMEs and company networks that have hired managerial resources to encourage digitalisation and corporate reorganisation processes. The maximum voucher amount is EUR 40 000 per annum; it may not exceed 50% of the costs incurred starting from the 2019 tax period, increased to EUR 80 000 for enterprise networks.

Enterprises that recruit young people on a level 1 apprenticeship contract (i.e. at upper secondary level) are totally exempt from social security payments for the hours the apprentice spends on external training. For the duration of on-the-job training they are granted a substantial reduction in the social security payments owed.

Law 232/2016 introduced financial incentives for companies involved in dual training. To facilitate the recruitment of young people on a permanent contract in the same company where they were on alternance contracts or types 1 or 3 apprenticeship, certain types of enterprise (such as those with fewer than 10 employees) are entitled to total social security exemption for the first 3 years. In the fourth year they will pay 10% of taxable social security contributions.

Companies with more than nine employees pay a contribution, for the entire duration of the apprenticeship, equal to 11.61% of the taxable social security contribution.

Wage subsidy and training remunerations

Employers willing to offer apprenticeships can hire an apprentice at an entry grade level up to two levels lower than the final qualification to be obtained and/or pay a salary equal to a percentage of the salary of a qualified worker, according to the provisions of the collective agreement applied.

Other incentives

Several Italian regions (for example, Piedmont and Liguria) also fund standard enterprise training vouchers (for varying amounts, depending on the size of the enterprise). Enterprise vouchers are a simplified management method designed for small enterprises that generally find it difficult to organise structured training courses.

[51] See https://www.wko.at/service/bildung-lehre/Gesamtuebersicht_Foerderarten_lehre.html [accessed 31.8.2021].

[52] See <https://www.initiative-erwachsenenbildung.at/initiative-erwachsenenbildung/was-ist-das/> [accessed 31.8.2021].

[53] See <https://www.bmbwf.gv.at/Themen/schule/schulpraxis/zentralmatura/bm.html> [accessed 31.8.2021].

[46] Dienststelle für Selbstbestimmtes Leben (DSL).

[45] The single-company training programmes in Cyprus provide incentives to employers to design and organise in-company training programmes, implemented by internal or external trainers, to meet the specific needs of the enterprise for the effective utilisation of its personnel. The single-company training programmes abroad provide incentives to employers to participate with their personnel in training programmes abroad to transfer specialised knowledge and skills in areas related to the introduction of innovation, new technology and technical know-how;

[46] The training programmes are implemented by accredited vocational training centres, at accredited vocational training facilities by certified trainers of vocational training. The programmes are subsidised by the Human Resource Development authority (HRDA):

- multi-company training programmes provide continuing training for meeting the training needs of employed and unemployed persons through their participation in training programmes implemented by public or private training institutions and organisations. They cover a broad range of issues in all operations of the enterprise and in all occupations;
- high-priority multi-company training programmes provide continuing training to meet the training needs of employed persons through their participation in training programmes in specific high-priority issues.

Employees from different companies attend these programmes.

[193] According to BIBB- VET data report 2021 p. 197: in 2007, 24.1% of all companies provided training against 18.5% in 2019/20 – if only considering the companies entitled to provide training, then 54.4% did provide training in 2019/20.

[194] For further information on this, please consult: Hippach-Schneider, U.; Huismann, A. (2019). Vocational education and training in Europe: Germany. Cedefop ReferNet VET in Europe reports 2018.
http://libserver.cedefop.europa.eu/vetelib/2019/ReferNet_Germany_VET_in_Europe_2018.pdf

[195] Information on federal government website (English)
<https://www.bundesregierung.de/breg-en/news/ausbildung-corona-1774334>

[196] www.bmwi.de/Redaktion/DE/Text-sammlungen/Mittelstand/hand-werk.html?cms_artId=243216

[197] BIBB website on the special programme on digitalisation in ÜBS <https://www.bibb.de/uebs-digitalisierung>

[199] Website of the Alliance for initial and further training <https://www.aus-und-weiterbildungsallianz.de/AAW/Navigation/DE/Home/home.html>

- [200]JOBSTARTER website <https://www.jobstarter.de/index.html>
- [201]www.bmwi.de/passgenaue-besetzung
- [203]Bundesministerium für Wirtschaft und Energie, BMWi.
- [204]www.arbeitsagentur.de/personalentwicklung
- [205]<https://www.unternehmen-integrieren-fluechtlinge.de/>
- [206]Information on the chambers Welcome Guides (ZDH)
<https://www.zdh.de/fachbereiche/gewerbefoerderung/passgenaue-besetzung-willkommenslotsen/willkommenslotsen/>
- [207]KAUSA training and migration service centres <https://www.bildungsketten.de/de/3135.php>
- [54] Zakon o državnoj potpori za obrazovanje i izobrazbu [Act on State Aid for Education and Training]; Official Gazette No 109/2007, 134/2007, 152/2008, 14/2014.
- [37] In Icelandic: Verkiðn: <http://verkidn.is/>
- [59] See: <https://www.mise.gov.it/index.php/it/incentivi/impresa/credito-d-imposta-formazione>
- [60] The 2019 Italian financial Law has introduced a new measure, Transition plan 4.0, aiming to support enterprises in the transition toward the 4.0 model. In this Law, all the previous government interventions are included (industry 4.0, 2017-18). Law 27 December 2019, No 160. State budget for 2020 (Legge 27 dicembre 2019, No 160. Bilancio dello Stato per il 2020) <https://www.gazzettaufficiale.it/eli/id/2020/12/30/20G00202/sg>

CHAPTER 15.

Guidance and counselling

Guidance within the VET system is promoted and implemented through different initiatives at national, regional, and local levels. Education and career guidance is provided by teachers and school counsellors, as well as external guidance experts and professionals. The aim of the provision of guidance activities is to improve self-knowledge and self-assessment of personal capacities, attitudes and expectations. According to Law no107/2015, in order to ensure a smoother transition into the labour market, all upper secondary schools (from general education to vocational education and training) are requested to provide school-to-work transition pathways. These pathways were a guidance path for students, allowing them to know different work-based contexts and, consequently, to aid choices among the training opportunities.

In October 2019, the Italian education ministry published a set of guidelines on pathways for transversal skills for guidance purposes (61). These pathways (PCTO) replaced the school-to-work transition pathways. The guidelines stress the guidance potential of these pathways which, fostering a self-guidance approach, support students in making more informed choices in relation to personal, educational and professional development (62).

Italian employment agencies offer the following specific activities relating to guidance and counselling services (Law 150/2015):

- basic guidance, analysis of competences in relation to the local labour market and profiling;
- help in job-seeking, including through group sessions, within 3 months of registration;
- specialist and tailored guidance using competence assessment and needs analysis in terms of training, work experience or other active employment policy measures, with reference to adaptation of the profile to the demand for labour expressed on a territorial, national and European level;
- tailored guidance to self-employment and mentoring through the subsequent start-up phases;
- job placement, including through the use of the tailored outplacement indemnity.

Please see:

- guidance and outreach Italy national report (63);
- Cedefop's labour market intelligence toolkit (64);
- Cedefop's inventory of lifelong guidance systems and practices (65).

[54] BMS (Berufsbildende mittlere Schule): school for intermediate vocational education; BHS (Berufsbildende höhere Schule): college for higher vocational education.

[55] <http://www.erwachsenenbildung.at> [accessed 31.8.2021].

[56] Accessible online at the landing page <https://www.karrierekompass.at/> [accessed 31.8.2021].

[58] <https://www.bic.at> [accessed 31.8.2021].

[60] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/guidance-and-outreach-inactive-and-unemployed-austria> [accessed 31.8.2021].

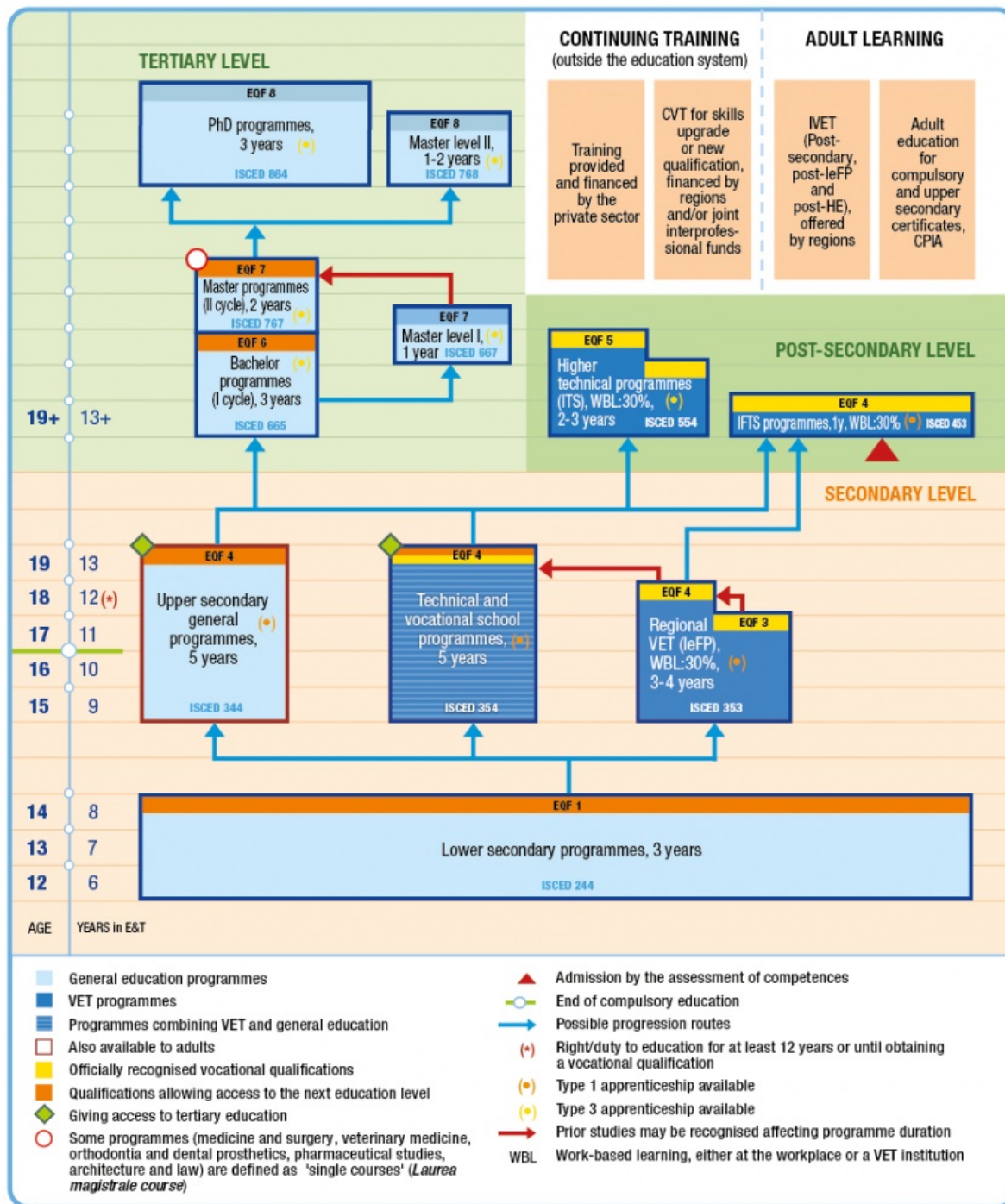
[61] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere> [accessed 31.8.2021].

[62] <https://www.cedefop.europa.eu/en/country-reports/inventory-lifelong-guidance-systems-and-practices> [accessed 31.8.2021].

- [47] https://cumulus.cedefop.europa.eu/files/vetelib/2018/guidance_outreach_Belgium_Cedefop_
- [48] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere>
- [49] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices>
- [35] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere>
- [36] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices>
- [48] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere/cyprus>
- [49] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices>
- [75] <http://www.cedefop.europa.eu/events-and-projects/networks/refernet/thematic-perspectives/guidance-outreach>
- [76] www.infoabsolvent.cz
- [77] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices>
- [78] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere>
- [209] <https://www.bildungsketten.de/> and <https://www.berufsorientierungsprogramm.de/>
- [210] <https://www.jba-hamburg.de/English-71>
- [211] <https://www.servicestelle-jba.de/wws/9.php#/wms/ueber-uns.php>
- [212] <https://www.berufsorientierungsprogramm.de/angebote-fuer-fluechtlinge/de/english-1993.html>
- [213] <https://www.bmas.de/DE/Themen/Arbeitsmarkt/Modellprogramme/respekt-pilotprogramm.html>
- [214] <https://www.studienabbruch-und-dann.de/>
- [215] <https://www.arbeitsagentur.de/karriere-und-weiterbildung>
- [216] https://www.der-weiterbildungsratgeber.de/weiterbildungsratgeber/de/home/home_node.html
- [217] BIBB. Überaus. <https://www.ueberaus.de/wms/dossier-uebergangsmangement.php>
- [218] BMBF. Die Transferinitiative [the transfer initiative] <https://www.transferinitiative.de/>
- [219] <https://www.arbeitsagentur.de/karriere-und-weiterbildung> ;
<https://berufenet.arbeitsagentur.de> ; <https://con.arbeitsagentur.de/prod/berufetv/start> ;
<https://kursnet-finden.arbeitsagentur.de> ;
<https://www.arbeitsagentur.de/bildung/ausbildung/azubiwelt>
- [220] <https://www.bibb.de/dienst/abp/de/index.php>
- [221] <https://planet-beruf.de/schuelerinnen>
- [222] <https://abi.de/>
- [223] <https://studienwahl.de/>
- [224] <https://www.bildungsserver.de/>
- [225] <https://www.iwwb.de/kurssuche/startseite.html>
- [226] <http://www.cedefop.europa.eu/events-and-projects/networks/refernet/thematic-perspectives/guidance-outreach>

- [227] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices-germany>
- [72] <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports>
- [73] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere>
- [74] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices>
- [38] <http://www.cedefop.europa.eu/events-and-projects/networks/refernet/thematic-perspectives/guidance-outreach>
- [39] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere>
- [40] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices-finland>
- [55] <http://www.cisok.hr>
- [56] www.e-Usmjeravanje.hzz.hr
- [57] <http://www.cedefop.europa.eu/events-and-projects/networks/refernet/thematic-perspectives/guidance-outreach>
- [58] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices>
- [38] <http://www.cedefop.europa.eu/events-and-projects/networks/refernet/thematic-perspectives/guidance-outreach>
- [39] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere>
- [40] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices>
- [64] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find-more-information-in-your-country-and-elsewhere>
- [65] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices>

Vocational education and training system chart



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Italy, 2022.

VET Programme Types

EQF 4

IFTS programmes,

1 year,

WBL: 30%

ISCED 453

Post-Secondary, IFTS, 1 year-long, VET programmes leading to EQF level 4, ISCED 453 (Istruzione e Formazione Tecnico Superiore)

| | | | |
|---|-----|--|-----|
| EQF level | 4 | ISCED-P 2011 level | 453 |
| Usual entry grade | 13+ | Usual completion grade | 13+ |
| Usual entry age | 19 | Usual completion age | 20 |
| Length of a programme (years) | 1 | | |
| Is it part of compulsory education and training? | ✗ | Is it part of formal education and training system? | ✓ |
| Is it initial VET? | ✓ | Is it continuing VET? | ✗ |
| Is it offered free of charge? | ✓ | Is it available for adults? | ✓ |

ECVET or other credits Not applicable

Learning forms (e.g. dual, part-time, distance)

- school-based learning
- work practice
- self-learning
- apprenticeship

Main providers

- Schools/training centres: these pathways are designed and managed by at least four training partners (a school, a vocational training centre, a university, an enterprise or another public or private centre) which formally cooperate
- Enterprises

Share of work-based learning provided by schools and companies <=70%

| | |
|---|--|
| Work-based learning type (workshops at schools, in-company training / apprenticeships) | <ul style="list-style-type: none"> • in-company practice |
| Main target groups | Programmes are available for young employed and unemployed people and adults with an upper secondary education diploma. |
| Entry requirements for learners (qualification/education level, age) | Learners must hold an upper secondary education diploma. Higher technical education and training courses are also open to: holders of a professional technician certificate; young people admitted to the fifth year of general upper secondary education (<i>Liceo</i>); people who do not have an upper secondary education qualification, but had their educational, training and vocational experiences validated. |
| Assessment of learning outcomes | To complete a VET programme, learners need to pass a leaving examination, based on the features characterising regional labour markets and referring to nationally defined and established in State-regions agreements occupational profiles. |
| Diplomas/certificates provided | Higher technical specialisation certificate (<i>Certificato di specializzazione tecnica superiore</i>) |
| Examples of qualifications | Higher technical specialisation certificate in Assistant manager for travel agency and tour operator (70). |
| Progression opportunities for learners after graduation | Those who complete VET can enter the labour market or higher technical programmes (ITS). |
| Destination of graduates | Information not available |
| Awards through validation of prior learning | <p>✓</p> <p>Higher technical specialisation qualifications are based on a system of minimum levels of general (basic and transversal standards) and technical-professional competences (71), nationally recognised and structured into course credits (<i>Unità Capitalizzabili - UC</i>).</p> <p>There's no possibility to acquire partial qualifications.</p> |
| General education subjects | Information not available |
| Key competences | Information not available |

Application of learning outcomes approach ✓

Level description includes learning outcomes descriptors in terms of competence and knowledge; they are also provided with assessment criteria.

Share of learners in this programme type compared with the total number of VET learners <1% (72)

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- [70] As described in national context and specified explicitly in the *Referencing the Italian qualifications framework to the European qualifications framework* report (adopted in 2012). <https://ec.europa.eu/ploteus/en/referencing-reports-and-contacts>
- [71] Annex A - Unified Conference Agreement dated 29 April 2004; Unified Conference Agreement dated 16 March 2006; Inter-Ministerial Decree dated 7 July 2011.
- [72] 2016
-

References

- [5] Statistik Austria (2022): Population 2002-2022 by citizenship and country of birth [Bevölkerung 2002-2022 nach Staatsangehörigkeit und Geburtsland] <https://www.statistik.at/statistiken/bevoelkerung-und-soziales/bevoelkerung/bevoelkerungsstand/bevoelkerung-nach-staatsangehoerigkeit-geburtsland> [accessed 23.6.2022]
- [9] Oberwimmer, K. et al. (2019). Nationaler Bildungsbericht Österreich 2018, Band 1 [National education report, Volume 1]; Das Schulsystem im Spiegel von Daten und Indikatoren [Education in facts and figures], p. 25. https://www.iqs.gv.at/_Resources/Persistent/db972c5b2eb2dc267191b05ae55adb5a05b8b0 [accessed 27.8.2021]
- [11] BMDW (2021). KMU im Fokus 2020. Bericht über die Situation und Entwicklung kleiner und mittlerer Unternehmen der österreichischen Wirtschaft [SMEs in Focus 2020. Report on the situation and development of small and medium-sized enterprises in the Austrian economy]. Vienna. https://www.bmdw.gv.at/dam/jcr:8efe9893-101a-496c-a63f-8ff185a68587/NEU_KMU%20im%20Fokus_2020_barrierefrei.pdf [accessed 27.8.2021]
- [12] BMDW (2021). KMU im Fokus 2020: Bericht über die Situation und Entwicklung kleiner und mittlerer Unternehmen der österreichischen Wirtschaft [SMEs in Focus 2020: report on the situation and development of small and medium-sized enterprises in the Austrian economy]. Vienna. https://www.bmdw.gv.at/dam/jcr:8efe9893-101a-496c-a63f-8ff185a68587/NEU_KMU%20im%20Fokus_2020_barrierefrei.pdf [accessed 29.11.2021]
- [13] Statistik Austria (2022). Österreich. Zahlen. Daten. Fakten 2021/22 [Austria. Numbers. Data. Facts 21/22]. Wien. <https://www.statistik.at/services/tools/services/publikationen/detail/1079?cHash=b5d1c51e8b19c2131e5f322397791ed2> [accessed 23.6.2022]
- [14] WKÖ- Austrian Economic Chamber (2021). Statistical Yearbook 2021. https://wko.at/statistik/jahrbuch/YEARBOOK_2021.pdf [accessed 27.8.2021]
- [15] WKÖ-Austrian Economic Chamber (2021). Österreichische Exportwirtschaft 2021 [Austrian

foreign trade 2021], S. 12f.

<https://www.wko.at/service/aussenwirtschaft/exportwirtschaft.pdf> [accessed 27.8.2021].

- [20] Cedefop (2018). Vocational education and training in Austria: short description [unpublished working paper].
- [22] Cedefop (2018). Vocational education and training in Austria: short description [unpublished working paper].
- [23] Cedefop (2019). The changing nature and role of vocational education and training in Europe. Volume 6: vocationally oriented education and training at higher education level. Expansion and diversification in European countries. Case study focusing on Austria. Cedefop research paper; No 70.
https://www.cedefop.europa.eu/files/austria_cedefop_changing_nature_of_vet_-_case_study.pdf
- [26] Dornmayr, H.; Nowak, S. (2020). Lehrlingsausbildung im Überblick 2020 – Strukturdaten, Trends und Perspektiven [Apprenticeship overview 2020: structural data, trends and perspectives]. Vienna: ibw research report; No 203. <https://ibw.at/bibliothek/id/521/>.
- [28] Eurostat (2021): Adult learning statistics. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Adult_learning_statistics&oldid=535026#Participation_rate_of_adults_in_learning_in_t [accessed 29.11.2021]
- [29] Cedefop (2018). Vocational education and training in Austria: short description [unpublished working paper].
- [30] Dornmayr H.; Nowak, S. (2020). Lehrlingsausbildung im Überblick 2020 – Strukturdaten, Trends und Perspektiven [Apprenticeship overview 2020: structural data, trends and perspectives]. Vienna: ibw research report; No 203. <https://ibw.at/bibliothek/id/521/>.
- [32] Tritscher-Archan, S. (2016). Vocational education and training in Europe – Austria. Cedefop ReferNet VET in Europe reports.
http://libserver.cedefop.europa.eu/vetelib/2016/2016_CR_AT.pdf
- [33] Cedefop (2018). Vocational education and training in Austria: short description [unpublished working paper].
- [34] Dornmayr, H.; Nowak, S. (2020). Lehrlingsausbildung im Überblick 2020 – Strukturdaten, Trends und Perspektiven [Apprenticeship overview 2020: structural data, trends and perspectives]. Vienna: ibw research report; No 203.
<https://ibw.at/resource/download/2114/ibw-forschungsbericht-203.pdf>. [accessed 31.8.2021] For more information on the model calculation, see p. 112ff.
- [46] UEAPME (ed.) (2018). European guidelines on quality assurance in higher VET.
<https://www.ibw.at/bibliothek/id/356/>[accessed 31.8.2021].
- [57] <http://www.ams.at/lehrstellen>
- [59] Tritscher-Archan, S. (2016). Vocational education and training in Europe – Austria. Cedefop ReferNet VET in Europe reports.
http://libserver.cedefop.europa.eu/vetelib/2016/2016_CR_AT.pdf [accessed 31.8.2021].
- [17] Dual learning [Duaal leren] <https://onderwijs.vlaanderen.be/nl/directies-en-administraties/secundair-onderwijs/duaal-leren>
- [19] Allinckx, I.; Karno, A.; Monico, D. (2019). Vocational education and training in Europe – Belgium. Cedefop ReferNet VET in Europe reports 2018.
http://libserver.cedefop.europa.eu/vetelib/2019/Vocational_Education_Training_Europe_Belg
- [39] Allinckx, I.; Karno, A.; Monico, D. (2019). Vocational education and training in Europe – Belgium. Cedefop ReferNet VET in Europe reports 2018.
http://libserver.cedefop.europa.eu/vetelib/2019/Vocational_Education_Training_Europe_Belg

- [43]] Allinckx, I.; Karno, A.; Monico, D. (2019). Vocational education and training in Europe – Belgium. Cedefop ReferNet VET in Europe reports 2018.
http://libserver.cedefop.europa.eu/vetelib/2019/Vocational_Education_Training_Europe_Belg
- [45] Allinckx, I.; Karno, A.; Monico, D. (2019). Vocational education and training in Europe – Belgium. Cedefop ReferNet VET in Europe reports 2018.
http://libserver.cedefop.europa.eu/vetelib/2019/Vocational_Education_Training_Europe_Belg
- [16] National Agency for Vocational Education and Training (NAVET). Annual reports on the activities of NAVET. https://www.navet.government.bg/bg/media/doklad-NAPOO-2020_VK-3.pdf
- [34] Krasteva L. (2018). Guidance and outreach for inactive and unemployed – Bulgaria. Cedefop ReferNet thematic perspectives series:
<https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/guidance-and-outreach-inactive-and-unemployed-bulgaria>
- [6] CYSTAT. SECONDARY EDUCATION, 2017/2018 / SECONDARY EDUCATION, 2018/2019.
<https://www.cystat.gov.cy/en/KeyFiguresList?s=33>.
- [7] CYSTAT.BIRTHS, DEATHS, MIGRATION, 1974-2019.
<https://www.cystat.gov.cy/en/KeyFiguresList?s=46>
- [8] Ministry of Labour, Welfare and Social Insurance (2018). General statistics 2018.
http://www.mlsi.gov.cy/mlsi/sid/sidv2.nsf/page21_en/page21_en?OpenDocument
- [15] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished].
- [24] CYSTAT. STATISTICAL ABSTRACT - TIMESERIES, CHAPTERS A-I (EN).
<https://www.cystat.gov.cy/en/PublicationList?&p=3>
- [25] CYSTAT. FINANCIAL STATISTICS OF EDUCATION, 2018.
<https://www.cystat.gov.cy/en/KeyFiguresList?s=33>
- [27] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished].
- [29] Human Resource Development Authority (2017a). Προβλέψεις Απασχόλησης στην Κυπριακή Οικονομία 2017-27 [Forecasts of employment needs in the Cyprus economy 2017-27].
<https://www.anad.org.cy/wps/portal/hrda/hrdaExternal/researchAndStudies/employmentFore>
- [30] Human Resource Development Authority (2017b). Annual report 2016.
https://www.anad.org.cy/wps/wcm/connect/hrda/6618b244-b306-4517-8b3c-07c9813fedce/ANNUAL+REPORT+2016+%2815-05-18%29+HI.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_HHHAH9O0NGE980A76618b244-b306-4517-8b3c-07c9813fedce-memtmDf
- [31] Human Resource Development Authority (2016). Εντοπισμός Αναγκών σε Γαλάζιες Δεξιότητες στην Κυπριακή Οικονομία 2016-2026 [Identification of blue skill needs in the Cyprus economy 2016-26]. https://www.anad.org.cy/wps/wcm/connect/hrda/9359405e-8412-4fb0-9f2c-8929bc43315b/%CE%95%CE%BD%CF%84%CE%BF%CF%80%CE%B9%CF%83%CE%BC%CFMOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_HHHAH9O0NGE980A79359405e-8412-4fb0-9f2c-8929bc43315b-ngFD23N
- [32] Human Resource Development Authority (2018). Εντοπισμός Αναγκών σε Πράσινες Δεξιότητες στην Κυπριακή Οικονομία 2017-2027 [Identification of green skill needs in the Cyprus economy 2017-27]. https://www.anad.org.cy/wps/wcm/connect/hrda/f07f831e-7d5c-4bf6-81bd-7074dd520541/C452~1.PDF?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_HHHAH9O0NGE980A7f07f831e-7d5c-4bf6-81bd-7074dd520541-ngBxi1U

- [35] Council of the European Union (2012). Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning. Official Journal of the European Union, C 398, 22.12.2012, pp. 1-5.
- [47] Korelli, Y.; Mourouzides, Y. (2018). Guidance and outreach for inactive and unemployed – Cyprus. Cedefop ReferNet thematic perspectives series.
<https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/guidance-and-outreach-inactive-and-unemployed-cyprus>
- [1] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>
- [6] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>
- [9] Ministry of Education, Youth and Sports (2020). Strategie vzdělávací politiky ČR do roku 2030+ [Strategy for the Education Policy of the Czech Republic]. Prague: Ministry of Education, Youth and Sports.
https://www.msmt.cz/uploads/brozura_S2030_en_fin_online.pdf
- [10] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [15] Government of the Czech Republic (no date). Zpráva o stavu romské menšiny v ČR za rok 2019 [Report on the situation of the Roma Minority in the Czech Republic in 2019].
<https://www.vlada.cz/assets/ppov/zalezitosti-romske-komunity/aktuality/Zprava-o-stavu-romske-mensiny-2019.pdf>
- [16] Czech Statistical Office (ČSÚ) (2014). Národnostní struktura obyvatel [Ethnic structure of population]. <https://www.czso.cz/documents/10180/20551765/170223-14.pdf>
- [29] Ministry of Education, Youth and Sports (2020). Strategie vzdělávací politiky ČR do roku 2030+ [Strategy for the Education Policy of the Czech Republic]. Prague: Ministry of Education, Youth and Sports.
https://www.msmt.cz/uploads/brozura_S2030_en_fin_online.pdf
- [49] Ministry of Education, Youth and Sports (2020). Strategie vzdělávací politiky ČR do roku 2030+ [Strategy for the Education Policy of the Czech Republic]. Prague: Ministry of Education, Youth and Sports.
https://www.msmt.cz/uploads/brozura_S2030_en_fin_online.pdf
- [69] Ministry of Education, Youth and Sports [Ministerstvo školství, mládeže a tělovýchovy – MŠMT]. www.msmt.cz
- [8] BIBB. Das Projekt QuBe - Qualifikation und Beruf in der Zukunft [The QuBe project - Qualification and profession in the future] <https://www.bibb.de/de/11727.php>
- [9] Maier, T.; Kalinowski, M. et al. (2021). Should I stay or should I go? Bonn. BIBB. Report 1/2021. <https://www.bibb.de/dienst/veroeffentlichungen/de/publication/show/17275>
- [10] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021.] Bonn: BIBB. See also: https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Unternehmen/_inhalt.html
- [12] <https://www.destatis.de/DE/Themen/Arbeit/Arbeitsmarkt/Erwerbstaetigkeit/ArbeitsmarktstruCovid19.html>
- [13] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021.] Bonn: BIBB. p.15.
- [16] https://www.destatis.de/DE/Themen/Arbeit/Arbeitsmarkt/Erwerbstaetigkeit/_inhalt.html

- [18] Cedefop (2018). The changing nature and role of vocational education and training in Europe. Volume 3: the responsiveness of European VET systems to external change (1995-2015). Case study focusing on England. Cedefop research paper; No 67. https://www.cedefop.europa.eu/files/england_cedefop_changing_nature_of_vet_-_case_study.pdf
- [19] Cedefop (2019). The changing nature and role of vocational education and training in Europe. Volume 6: vocationally oriented education and training at higher education level. Expansion and diversification in European countries. Case study focusing on Germany. Cedefop research paper; No 70. https://www.cedefop.europa.eu/files/germany_cedefop_changing_nature_of_vet_-_case_study.pdf
- [20] BIBB (2020). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021.] Bonn: BIBB. p. 37 See also: <https://www-genesis.destatis.de/genesis/online?operation=abrufabelleBearbeiten&levelindex=1&levelid=1632933787211&auswahloperati0001&auswahltext=&werteabruf=Werteabruf#abreadcrumb>
- [21] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021.] Bonn: BIBB. p.250.
- [23] Huismann, A. (2018). Guidance and outreach for inactive and unemployed – Germany. Cedefop ReferNet thematic perspectives series, pp. 22-26. http://libserver.cedefop.europa.eu/vetelib/2018/guidance_outreach_Germany_Cedefop_ReferNet.pdf
- [24] BMBF (2018). Berufsbildungsbericht 2018 [Report on vocational education and training 2018]. Bonn: BMBF, p. 90. https://www.bmbf.de/upload_filestore/pub/Berufsbildungsbericht_2018.pdf
- [25] BMBF(2018). Weiterbildungsverhalten in Deutschland: https://www.bmbf.de/upload_filestore/pub/Weiterbildungsverhalten_in_Deutschland_2018.pdf
More recent data about Germany in 2020 will be published by the end of 2021.
- [26] BIBB (2018). Datenreport zum Berufsbildungsbericht 2018 [VET data report 2018]. Bonn: BIBB, p. 85, 88 and 167. https://www.bibb.de/dokumente/pdf/bibb_datenreport_2018.pdf
BIBB (2017). VET data report Germany 2016-17: facts and analyses to accompany the Federal Government report on VET: selected findings. Bonn: BIBB, p 39-41. <https://www.bibb.de/datenreport/en/60595.php>
- [27] BIBB (2021): Verzeichnis der anerkannten Ausbildungsberufe 2021 [List of recognised training occupations 2021]. Bonn: BIBB. <https://www.bibb.de/de/65925.php>
- [28] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 78. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [29] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/10.2801/667443>
- [30] BBiG: http://www.gesetze-im-internet.de/bbig_2005/_53b.html
- [31] Hauptausschuss; <https://www.bibb.de/de/463.php>
- [32] Fachhochschulen
- [33] Deutscher Bundestag (2021): Zwischenbericht zur Wissenschaftlichen Studie „Duales Studium: Umsetzungsmodelle und Entwicklungsbedarfe [Interim report on the scientific study ‚Duales Studium: Implementation models and development needs‘]. Berlin: Deutscher Bundestag, p.4. <https://dserver.bundestag.de/btd/19/312/1931267.pdf>
- [34] BIBB (2021): Verzeichnis der anerkannten Ausbildungsberufe 2021 [List of recognised training occupations 2021]. Bonn: BIBB. <https://www.bibb.de/de/65925.php>

- [35] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 90. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [37] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p.164. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [38] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 131. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [39] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 92. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [40] Standardberufsbildpositionen: <https://www.bibb.de/en/134898.php>
- [42] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 35. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [43] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 23. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [44] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 119. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [45] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 286. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [49] BIBB (2018). Datenreport zum Berufsbildungsbericht 2018 [VET data report 2018]. Bonn: BIBB. <https://www.bibb.de/datenreport/de/index.php>
- [51] Bundesministerium für Bildung und Forschung (Federal ministry of education and research)
- [52] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB. https://www.bibb.de/datenreport/de/datenreport_2021.php
- [60] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 225. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [62] Pfeifer, H., Wenzelmann, F. et al. (2020). Kosten und Nutzen der betrieblichen Ausbildung 2017/18 [Costs and benefits of in-company training 2017/18]. Bonn. BIBB, p. 19. https://www.bibb.de/tools/dapro/data/documents/pdf/eb_21316.pdf
- [63] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 232. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [66] Bundesministerium für Bildung und Forschung (BMBF)
- [67] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 239. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [68] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 239. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [70] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 238. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [71] Bundesagentur für Arbeit (BA)
- [72] assistierte Ausbildung (AsA)
- [73] BMAS (2021). Bericht der Bundesregierung über die Förderung der beruflichen Weiterbildung im Rahmen der aktiven Arbeitsförderung und die entsprechenden Ausgaben [Report of the Federal Government on the promotion of continuing vocational training within the framework of active labour promotion and the corresponding expenditure]. BMAS, Berlin. https://www.bmas.de/SharedDocs/Downloads/DE/Aus-Weiterbildung/bericht-foerderung-berufliche-weiterbildung.pdf;jsessionid=90572B9411AFADB80713BB3DA44555E5.delivery1-master?__blob=publicationFile&v=2

- [75] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB. p. 352. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [76] Bundesagentur für Arbeit (BA)
- [77] Gesetz zur Stärkung der Chancen für Qualifizierung und für mehr Schutz in der Arbeitslosenversicherung (Qualifizierungschancengesetz) 2019: https://online.beck.de/Dokument?vpath=bibdata%5Cges%5Cbrd_001_2018_2651%5Ccont%5Cbrd_001_2018_2651.htm
- [78] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB. p. 352. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [79] Seyda, S., Placke, B. (2020). IW-Weiterbildungserhebung 2020: Weiterbildung auf Wachstumskurs [IW Continuing Education Survey 2020: Continuing Education on a Growth Path]. IW. Köln. p. 105. <https://www.iwkoeln.de/studien/susanne-seyda-beate-placke-weiterbildung-auf-wachstumskurs-493427.html>
- [80] Müller, N., Wenzelmann, F. (2018). Berufliche Weiterbildung: Aufwand und Nutzen für Individuen [Continuing vocational development: Cost and benefit for individuals]. BIBB. Bonn. p. 4. <https://www.bibb.de/dienst/veroeffentlichungen/de/publication/show/8931>
- [91] BMBF (2013). Qualifizierungsmöglichkeiten für Ausbilderinnen und Ausbilder: Geprüfte/-r Aus- und Weiterbildungspädagoge/-in. Geprüfte/-r Berufspädagoge/-in [Qualification possibilities for trainers: certified education and training educator and certified vocational trainer]. Bonn: BMBF. <https://lit.bibb.de/vufind/Record/61379>
- [95] Bundesinstitut für Berufsbildung (BIBB)
- [98] Gesellschaft für wirtschaftliche Strukturforchung (GWS)
- [99] <https://www.bibb.de/de/11727.php> [accessed 22.9.2021]
- [103] Bundesministerium für Bildung und Forschung (BMBF)
- [104] <https://www.bibb.de/en/12138.php>
- [105] Deutsches Institut für Erwachsenenbildung (DIE)
- [106] <https://www.bibb.de/en/2160.php>
- [114] This section is based on: Hippach-Schneider, U.; Huismann, A. (2019). Vocational education and training in Europe: Germany. Cedefop ReferNet VET in Europe reports 2018. https://www.refernet.de/dokumente/pdf/2018_CR_DE.pdf
- [118] Berufsbildungsgesetz (BBiG)
- [119] BIBB (2017a). Training regulations and how they come about. Bonn: BIBB. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8277>
- [122] BIBB (2017). Training regulations and how they come about. Bonn: BIBB. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8277>
- [123] BIBB (2017). Training regulations and how they come about. Bonn: BIBB. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8277>
- [126] BIBB (2017). Training regulations and how they come about. Bonn: BIBB. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8277>
- [128] BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [Data report of the vocational education and training report 2021]. Bonn: BIBB. p. 64. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [129] Standardberufsbildpositionen: <https://www.bibb.de/en/134898.php>
- [131] BIBB (2017). Quality assurance of company-based training in the dual system in Germany: an overview for practitioners and VET experts. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8548>, p. 7.
- [135] BIBB (2017). Quality assurance of company-based training in the dual system in Germany.

Bonn: BIBB. <https://www.bibb.de/dienst/veroeffentlichungen/en/publication/show/8548>

- [144]Cedefop (2020). Vocational education and training in Germany: short description. Luxembourg: Publications Office of the European Union. <http://data.europa.eu/doi/10.2801/121008>
- [160]BMBF (2021). Berufsbildungsbericht 2021 [Report on vocational education and training 2021]. Bonn: p. 107 https://www.bmbf.de/bmbf/shareddocs/downloads/files/21-04-28-bbb-2021.pdf?__blob=publicationFile&v=1
- [168]BMBF (2021). Berufsbildungsbericht 2021[VET data report 2021]. Bonn: BMBF, p. 108.
- [179]BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 346.. <https://www.bibb.de/datenreport/>
- [181]BIBB (2021). Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BIBB, p. 348. <https://www.bibb.de/datenreport/>
- [184]Huisman, A. (2018). Guidance and outreach for inactive and unemployed – Germany. Cedefop ReferNet thematic perspectives series. http://libserver.cedefop.europa.eu/vetelib/2018/guidance_outreach_Germany_Cedefop_Refe
- [198]BMBF (2021). Berufsbildungsbericht 2021. Bonn: BMBF, p. 106. https://www.bmbf.de/bmbf/shareddocs/downloads/files/21-04-28-bbb-2021.pdf?__blob=publicationFile&v=1
- [202]BMBF (2021). Berufsbildungsbericht 2021 [VET data report 2021]. Bonn: BMBF, p. 120.
- [208]Huisman, A. (2018). Guidance and outreach for inactive and unemployed – Germany. Cedefop ReferNet thematic perspectives series. http://libserver.cedefop.europa.eu/vetelib/2018/guidance_outreach_Germany_Cedefop_Refe
- [2] Based on Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. For ISCED 354 programmes. <http://data.europa.eu/10.2801/10.2801/667443>
- [14] Cedefop (2018). The changing nature and role of vocational education and training in Europe. Volume 3: the responsiveness of European VET systems to external change (1995-2015). Case study focusing in Estonia. Cedefop research paper; No 67. https://www.cedefop.europa.eu/files/estonia_cedefop_changing_nature_of_vet_-_case_study.pdf
- [17] Parliament (2013). Vocational Educational Institutions Act (Kutseõppeasutuse seadus). Riigi Teataja [State Gazette], RT I, 30.12.2015, 25. <https://www.riigiteataja.ee/en/eli/ee/514012019002/consolide/current>
- [18] Parliament (2015). Adult Education Act (Täiskasvanute koolituse seadus). Riigi Teataja [State Gazette], RT I, 23.3.2015, 5. <https://www.riigiteataja.ee/en/eli/529062015007/consolide>
- [19] Government (2013). Standard of vocational education. (Kutseharidusstandard). Riigi Teataja [State Gazette], RT I 2013, 13, 130. <https://www.riigiteataja.ee/en/eli/515012020003/consolide>
- [20] Cedefop (2017). Estonia: European inventory on NQF 2016. <http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/estonia-european-inventory-nqf-2016>
- [25] https://www.hm.ee/sites/default/files/haridusvaldkonna_arengukava_2035_kinnitaud_vv_en
- [26] Government (2013). Standard of vocational education. (Kutseharidusstandard). Riigi Teataja [State Gazette], RT I 2013, 13, 130. <https://www.riigiteataja.ee/en/eli/515012020003/consolide>
- [31] Parliament (2013). Vocational Educational Institutions Act (Kutseõppeasutuse seadus). Riigi Teataja [State Gazette], RT I, 30.12.2015, 25.

<https://www.riigiteataja.ee/en/eli/ee/514012019002/consolide/current>

- [32] Parliament (2013). Vocational Educational Institutions Act (Kutseõppeasutuse seadus). Riigi Teataja [State Gazette], RT I, 30.12.2015, 25.
<https://www.riigiteataja.ee/en/eli/ee/514012019002/consolide/current>
- [34] Parliament (2013). Vocational Educational Institutions Act (Kutseõppeasutuse seadus). Riigi Teataja [State Gazette], RT I, 30.12.2015, 25.
<https://www.riigiteataja.ee/en/eli/ee/514012019002/consolide/current>
- [39] Parliament (2013). Vocational Educational Institutions Act (Kutseõppeasutuse seadus). Riigi Teataja [State Gazette], RT I, 30.12.2015, 25.
<https://www.riigiteataja.ee/en/eli/ee/514012019002/consolide/current>
- [43] MoEC (2020). Tööjõuvajaduse ja -pakkumise prognoos aastani 2029 [Forecast of labour force 2019-27]. <https://oska.kutsekoda.ee/en/estonian-labour-market/estonian-labour-market-today-tomorrow/>.
- [48] Government (2013). Standard of vocational education. (Kutseharidusstandard). Riigi Teataja [State Gazette], RT I 2013, 13, 130.
<https://www.riigiteataja.ee/en/eli/515012020003/consolide>
- [49] Cedefop ReferNet Estonia (2014). Estonia: VET in Europe: country report. Cedefop ReferNet VET in Europe reports.
http://libserver.cedefop.europa.eu/vetelib/2014/2014_CR_EE.pdf
- [50] Cedefop ReferNet Estonia (2014). Estonia: VET in Europe: country report. Cedefop ReferNet VET in Europe reports.
http://libserver.cedefop.europa.eu/vetelib/2014/2014_CR_EE.pdf
- [53] MoER; SICI (2016). The inspectorate of education of Estonia. Tartu: SICI, Standing International Conference of Inspectorates.
<http://www.siciinspectorates.eu/getattachment/21147d5b-bc8d-49c8-8fc0-864d2d31cc01>
- [55] MoER (2015b). Pädevad ja motiveeritud õpetajad ning haridusasutuste juhid [Lifelong learning strategy competent and motivated teachers and school leadership programme].
<https://www.hm.ee/et/tegevused/arengukavad>
- [56] Cedefop (2016). 2016 update to the European inventory on validation of non-formal and informal learning: country report Estonia.
https://cumulus.cedefop.europa.eu/files/vetelib/2016/2016_validate_EE.pdf
- [57] Parliament (2013). Vocational Educational Institutions Act (Kutseõppeasutuse seadus). Riigi Teataja [State Gazette], RT I, 30.12.2015, 25.
<https://www.riigiteataja.ee/en/eli/ee/514012019002/consolide/current>
- [58] Government (2013). Standard of vocational education. (Kutseharidusstandard). Riigi Teataja [State Gazette], RT I 2013, 13, 130.
<https://www.riigiteataja.ee/en/eli/515012020003/consolide>
- [59] Cedefop (2016). 2016 update to the European inventory on validation of non-formal and informal learning: country report Estonia.
https://cumulus.cedefop.europa.eu/files/vetelib/2016/2016_validate_EE.pdf
- [63] Parliament (2013). Vocational Educational Institutions Act (Kutseõppeasutuse seadus). Riigi Teataja [State Gazette], RT I, 30.12.2015, 25.
<https://www.riigiteataja.ee/en/eli/515012016003/consolide>
- [65] Parliament (1999). Income Tax Act (Tulumaksuseadus). Riigi Teataja [State Gazette], RT I 1999, 101, 903. <https://www.riigiteataja.ee/en/eli/ee/505042019004/consolide/current>
- [66] Parliament (2015). Adult Education Act (Täiskasvanute koolituse seadus). Riigi Teataja [State Gazette], RT I, 23.3.2015, 5.
<https://www.riigiteataja.ee/en/eli/529062015007/consolide>

- [68] Parliament (2005). Labour Market Services and Benefits Act (Tööturuteenuste ja – toetuste seadus). Riigi Teataja [State Gazette], RT I 2005, 54, 430.
<https://www.riigiteataja.ee/en/eli/ee/511012017005/consolide/current>
- [69] Parliament (2009). Employment Contracts Act (Töölepingu seadus). Riigi Teataja [State Gazette], RT I 2009, 5, 35.
<https://www.riigiteataja.ee/en/eli/ee/520032019008/consolide/current>
- [70] Parliament (2003b). Value Added Tax Act (Käibemaksuseadus). Riigi Teataja [State Gazette], RT I 2003, 82, 554.
<https://www.riigiteataja.ee/en/eli/ee/504012017001/consolide/current>
- [71] Parliament (1999). Income Tax Act (Tulumaksuseadus). Riigi Teataja [State Gazette], RT I 1999, 101, 903. <https://www.riigiteataja.ee/en/eli/ee/516012017002/consolide/current>
- [8] Eurostat, sbs_sc_sca_r2, [extracted 2.9.2021]
- [9] European Commission (2018). Annual report on European SMEs 2017/2018: SMEs growing beyond borders. Contract EASME/COSME/2017/031.
<https://publications.europa.eu/en/publication-detail/-/publication/a435b6ed-e888-11e8-b690-01aa75ed71a1/language-en>
- [10] WTTTC (2021). Croatia 2021 annual research: key highlights [database].
<https://www.wtttc.org/economic-impact/country-analysis/country-data/>
- [11] European Commission (2019). Country report Croatia 2019. COM(2019) 150 final.
https://ec.europa.eu/info/sites/info/files/file_import/2019-european-semester-country-report-croatia_en.pdf
- [12] <https://mrosp.gov.hr/UserDocsImages/dokumenti/Uprava%20za%20tr%C5%BEi%C5%A1te9>
- [3] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished].
- [18] Icelandic Government (2021). Regulation on workplace learning no 189.
<https://www.reglugerd.is/reglugerdir/eftir-raduneytum/mennta--og-meningarmalaraduneyti/nr/0189-2021>
- [22] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished].
- [36] Icelandic Government (2020). The Icelandic student loan fund Act no 60.
<https://www.althingi.is/lagas/151c/2020060.html>
- [1] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>
- [2] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office.
<http://data.europa.eu/doi/10.2801/667443>
- [3] Cedefop (2021). Spotlight on VET – 2020 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office. <http://data.europa.eu/doi/10.2801/667443>
- [6] Istat (2018). Italian Statistical Yearbook, Rome (Reference year: 2016, most recent data available). Annuario Statistico Italiano, Roma (Anno di riferimento: 2016, dato più recente disponibile). Istat (2018).
- [11] Cedefop (2018). The changing nature and role of vocational education and training in Europe. Volume 3: the responsiveness of European VET systems to external change (1995-2015). Case study focusing on Italy. Cedefop research paper; No 67.
https://www.cedefop.europa.eu/files/italy_cedefop_changing_nature_of_vet_-_case_study.pdf

- [12] Cedefop (2019). The changing nature and role of vocational education and training in Europe. Volume 6: vocationally oriented education and training at higher education level. Expansion and diversification in European countries. Case study focusing on Italy. Cedefop research paper; No 70.
https://www.cedefop.europa.eu/files/italy_cedefop_changing_nature_of_vet_-_case_study_0.pdf
- [13] INAPP (Unpublished). OFP Survey 2020 reference year.
- [14] INAPP (Unpublished). OFP Survey 2020 reference year.
- [21] INAPP (Unpublished). OFP Survey reference year 2020.
- [24] Ministry of Labour, Directorial decree No 2 of 23 April 2021 for the distribution between regions and autonomous provinces of the resources relating to the year 2020 for the financing of training courses in the dual system (Ministero del Lavoro, Decreto direttoriale No 2 del 23 aprile 2021 di ripartizione tra regioni e province autonome delle risorse relative all'annualità 2020 per il finanziamento dei percorsi formativi nel Sistema duale).
<https://www.lavoro.gov.it/documenti-e-norme/normative/Documents/2021/DD-2-del-23042021-duale-2020.pdf>
- [25] Law 205/2017 State budget for the financial year 2018 and multi-year budget for the three-year period 2018-2020, art. 1 paragraph 110 (Legge 205/2017 Bilancio di previsione dello Stato per l'anno finanziario 2018 e bilancio pluriennale per il triennio 2018-2020 art. 1 comma 110). <https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2017-12-27;205>
- [29] Legislative Decree No 34 dated 19 May 2020
- [30] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished]
- [36] Inter-ministerial Decree of 8 January 2018, Establishment of the national framework of qualifications issued as part of the National Skills Certification System referred to in Legislative Decree 16 January 2013, No 13 (Ministero del lavoro, Decreto 8 gennaio 2018, Istituzione del Quadro nazionale delle qualificazioni rilasciate nell'ambito del Sistema nazionale di certificazione delle competenze di cui al decreto legislativo 16 gennaio 2013, No 13). <https://www.gazzettaufficiale.it/eli/id/2018/01/25/18A00411/sg>
- [49] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished].
- [50] Legislative Decree 16 January 2013, No 13, Definition of the general rules and essential levels of performance for the identification and validation of non-formal and informal learning and of the minimum service standards of the national skills certification system, pursuant to article 4, paragraphs 58 and 68 , of the law 28 June 2012, No 92 (Decreto Legislativo 16 gennaio 2013, No 13, Definizione delle norme generali e dei livelli essenziali delle prestazioni per l'individuazione e validazione degli apprendimenti non formali e informali e degli standard minimi di servizio del sistema nazionale di certificazione delle competenze, a norma dell'articolo 4, commi 58 e 68, della legge 28 giugno 2012, No 92).
<https://www.gazzettaufficiale.it/eli/id/2013/02/15/13G00043/sg>
- [51] Inter-ministerial Decree of 30 June 2015, Definition of an operational framework for the national recognition of regional qualifications and related competences, within the National directory of education and training qualifications and professional qualifications referred to in Article 8 of the decree legislative 16 January 2013, No 13 (Decreto Interministeriale 30 giugno 2015, Definizione di un quadro operativo per il riconoscimento a livello nazionale delle qualificazioni regionali e delle relative competenze, nell'ambito del Repertorio nazionale dei titoli di istruzione e formazione e delle qualificazioni professionali di cui all'articolo 8 del decreto legislativo 16 gennaio 2013, No 13).
<https://www.gazzettaufficiale.it/eli/id/2015/07/20/15A05469/sg>
- [61] Ministry of Education, University and Research (2018). Pathways for transversal skills and

guidance. Guidelines (Ministero dell'Istruzione, dell'Università e della Ricerca, Percorsi per le competenze trasversali e per l'orientamento. Linee guida).

www.miur.gov.it/documents/20182/1306025/Linee+guida+PCTO+con+allegati.pdf/3e6b551c5e4-71de-8103-30250f17134a?version=1.0&t=1570548388496

[62] Cedefop; ReferNet (2021). VET REF: developments in vocational education and training policy database. [Unpublished].

[63] Bonacci, M. (2018). Guidance and outreach for inactive and unemployed - Italy. Cedefop ReferNet thematic perspectives series.

https://cumulus.cedefop.europa.eu/files/vetelib/2018/guidance_outreach_Italy_Cedefop_Refe