



VOCATIONAL EDUCATION
AND TRAINING IN EUROPE

CROATIA

SYSTEM DESCRIPTION



VET IN EUROPE 2022

Cedefop; AVETAE - Agency for Vocational Education and Training and Adult Education (2022). *Vocational education and training in Europe - Croatia: system description* [From Cedefop; ReferNet. Vocational education and training in Europe database].
<https://www.cedefop.europa.eu/en/tools/vet-in-europe/systems/croatia-u2>

Contributors: Nino Buić, Sandra Dobrić (ReferNet Croatia) and Jelena Muhina (Cedefop)

© Cedefop and Agency for Vocational Education and Training and Adult Education (ReferNet Croatia), 2022

Reproduction is authorised, provided the source is acknowledged.

Table of contents

- Chapter 1. Summary of main elements and distinctive features of VET.
- Chapter 2. Main challenges and policy responses.
- Chapter 3. External factors influencing VET.
 - 3.1. Demographics.
 - 3.2. Economics.
 - 3.3. Labour market.
- Chapter 4. Education attainment.
 - 4.1. Share of high, medium and low level qualifications.
 - 4.2. VET learner share of the total VET population.
 - 4.3. VET learners by level.
 - 4.4. Female share.
 - 4.5. Early leavers from education and training.
 - 4.6. Participation in lifelong learning.
 - 4.7. VET learners by age.
- Chapter 5. VET within education and training system.
- Chapter 6. Apprenticeship.
- Chapter 7. VET governance.
- Chapter 8. VET financing mechanisms.
- Chapter 9. Teachers and trainers.
 - 9.1. VET teacher types.
 - 9.2. Continuing professional development of teachers/trainers.
- Chapter 10. Shaping VET qualifications.
 - 10.1. Anticipating skill needs.
 - 10.2. Designing qualifications.
- Chapter 11. Quality assurance.
- Chapter 12. Validation of prior learning.
- Chapter 13. Incentives for learners.
- Chapter 14. Incentives for enterprises to boost their participation in VET provision.
- Chapter 15. Guidance and counselling.
- Vocational education and training system chart.
- VET Programme Types.
 - IVET 2-year programmes leading to EQF levels 3, ISCED 351 (dvogodisnji strukovni programi)..
 - Initial VET 3-year apprenticeship programmes for crafts and trades, Unified Model of Education, JMO (jedinstveni model obrazovanja, JMO programi); initial VET 3-year programmes for industry and crafts; and dual education programmes leading to EQF level 4, ISCED 353..
 - Initial VET programmes leading to EQF level 4, ISCED 354, 4-year programmes (Četverogodišnji programi redovitog strukovnog obrazovanja).
 - One 5-year programme for general nursing qualification (jedan petogodišnji program - za medicinsku sestru opće njege).
 - VET specialist development programmes leading to EQF level 5, ISCED 453 (programistrukovnoga specijalističkog usavršavanja). These programmes are legally foreseen and not introduced yet..
 - Short-cycle professional undergraduate programmes (kratki stručni studij)..
 - Undergraduate professional studies leading to EQF level 6, ISCED 655, (preddiplomski stručni studij)..
 - Specialist graduate professional studies leading to EQF 7, ISCED 757 (specijalistički diplomski stručni studij).

- Professional development programmes, ISCED 451 (programi usavršavanja).
- Short training programmes, ISCED 351 (programi osposobljavanja).
- Master craftsperson qualification exam leading to EQF level 5 (majstorski ispit).
- References.

CHAPTER 1.

Summary of main elements and distinctive features of VET

Summary of main elements (1)

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

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

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

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

The 4-year, mostly school-based, VET programmes, with a WBL share of around 10%, as well as dual model VET programmes with WBL share of around 70%, lead to qualifications at CROQF level 4.2/ EQF level 4 and allow progression to tertiary education; this follows completing external State *Matura* exams. In 2020, around 80% of 4-year and 5-year programme graduates took State *Matura* exams and around 50% enrolled in higher education on completion of secondary education.

3-year VET programmes give access to the labour market and lead to qualifications at the Croatian Qualifications Framework (CROQF) level 4.1/ EQF level 4; WBL share ranges from 5% and more in school-based programmes, over 60% in apprenticeships (programmes for crafts, nationally referred to as unified model of education, JMO) and up to 80% in the dual model of education. Within the final exam for completion of the 3-year JMO programme, learners take the apprenticeship exam. Around 10% of all IVET learners are in apprenticeships.

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

VET specialist development programmes (EQF 5) are foreseen but not introduced yet at post-secondary level.

Professional education and training are offered at tertiary level. Short-cycle professional undergraduate programmes last 2 to 2.5 years (at least 120 and under 180 ECTS points) and lead to qualifications at CROQF/EQF level 5. 3- to 4-year professional undergraduate programmes lead to a professional bachelor diploma at CROQF level 6.st (2) /EQF level 6. Professional bachelors may continue their studies in university; this is decided by each higher education institution individually. Specialist graduate professional studies last 1 to 2 years and lead to a professional specialist diploma at CROQF 7.1.st (3)/EQF level 7.

Adult education and training in Croatia lead to educational attainment at EQF levels 1 to 5 for learners older than 15. Most programmes are VET-related, ranging from short training and professional development to programmes leading to qualifications equivalent to those in IVET. The education ministry's approval of programmes leading to formal certificates is necessary, with prior positive opinion from ASOO. Adult learning is typically financed by learners.

Distinctive features (4)

VET in Croatia has two main roles. Alongside preparation for labour market entry, it enables progression to tertiary education; this is primarily through 4-year VET programmes, where learners spend half of their time acquiring general competences. In 2020, around 54% of 4-year VET graduates enrolled in tertiary education on completion of secondary education.

Participation in VET at upper secondary level is one of the highest in the EU (69% compared to the EU-28 average of 47.3% in 2019). Croatia has the lowest rate of early school leaving in the EU (2.2% in 2020, compared to the EU-27 average of 9.9%) and has thus met its Europe 2020 national target of 4%.

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

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

In 2019, the first WorldSkills Croatia competition launched a reformed model of VET student competitions with over 560 competitors in 47 disciplines and fairs. With 10 000 visitors, high visibility and stakeholder endorsement, this became the leading national event for the promotion of VET. Following disruption by the COVID-19 pandemic in 2020, the WorldSkills Croatia competition was held live in 2021 for over 300 IVET learners in 43 disciplines.

[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>

CHAPTER 2.

Main challenges and policy responses

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

Youth unemployment has been gradually falling (16.6% in 2019 among those aged 15 to 24), yet it increased to 21.1% in 2020 in consequence of the economic effects of the COVID-19 pandemic. Similarly, the share of young people (aged 15 to 24) neither in employment nor in education and training (NEETs) fell to 11.8% by 2019, yet increased to 12.2% in 2020. Youth guarantee schemes are in place to help young people get into employment, apprenticeship, education and training within 4 months of leaving school or becoming unemployed.

National demographics are reducing the number of learners, particularly in 3-year IVET programmes. Those most affected are the apprenticeship programmes (JMO), losing half of their learners in the past 8 years. A new model of dual education was introduced as of 2018 to improve the quality of work-based learning and apprenticeships.

Participation in adult learning in 2020 was only 3.2%, positioning Croatia at the lower end of EU range despite the tax incentives available for entrepreneurs for education and training costs, and VAT exemptions for adult education providers offering programmes approved by the education ministry. The main activities aim at promotion of lifelong learning in Croatia through awareness-raising efforts by ASOO (5).

-
- [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>

CHAPTER 3.

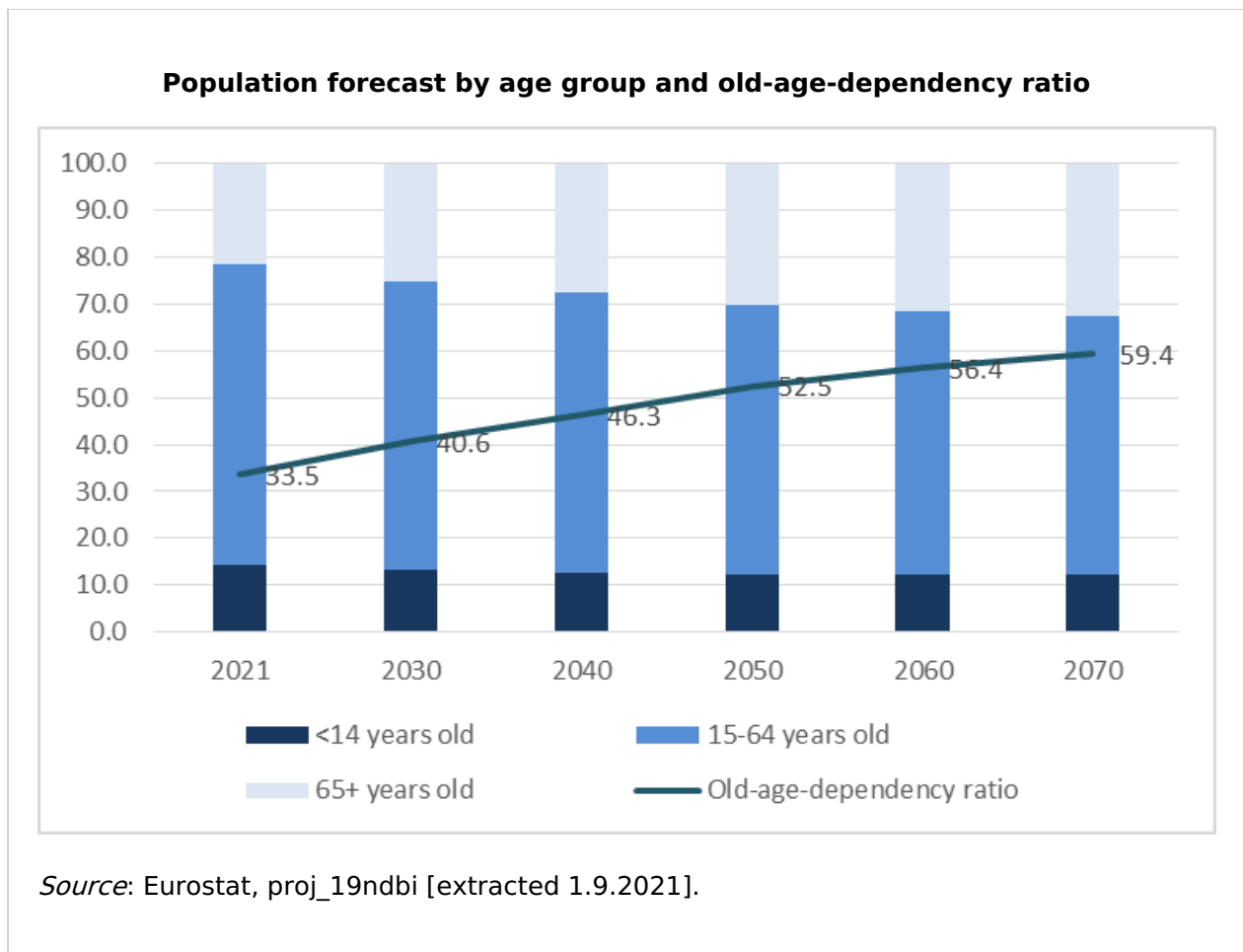
External factors influencing VET

3.1 Demographics

Population in 2021: 4 036 355 (6).

It has fallen by 5.3% since 2013 due to negative natural growth and emigration that has been steadily intensifying since Croatia joined the EU in 2013 (7).

As in many other EU countries, the population is ageing. The old-age-dependency ratio is expected to increase from 33.5% in 2021 to 59.4% in 2070.



Overall reduction in the number of learners at upper secondary level has been reflected in a sharp decline in enrolment rates in 3-year VET programmes over the past years. National demographics are reducing the number of learners, particularly in 3-year IVET programmes. Those most affected are the apprenticeship programmes (JMO), losing half of their learners in the past 8 years.

There is only a small number of VET providers that offer education in minority languages (9 institutions, 618 enrolled students). Language options include Serbian and Italian, followed by Hungarian, and VET providers are located in regions with higher representation of minority

communities.

3.2 Economics

Although the number of small and medium-sized enterprises (SMEs) fell by 9.8% between 2010 and 2017, it started increasing again in 2018 (+2.7% from 2017). The majority of SMEs in 2018 were micro enterprises (91.1%) (8).

SME contribution to the Croatian 'non-financial business economy' is of key importance. In 2017, 60.8% of overall value-added and 68.1% of employment is generated by SMEs, exceeding the respective EU averages of 56.8% and 66.4% (9).

SMEs are concentrated in major urban centres (Zagreb, Split, Rijeka, Osijek) and the surrounding areas. According to total revenues, the leading industrial branches are the production of food, drinks and tobacco, chemical and oil industries.

Tourism is an important driver of the economy and generates strong multiplying effects spilling over to other economic fields. The total contribution of travel and tourism to GDP was 24.3% in 2019, against global average of 10.4%. The COVID-19 pandemic significantly affected the sector, halving its contribution to GDP in Croatia in 2020 (10.2%) and globally (5.5%) (10).

Capital investments in infrastructure would boost the economy's growth potential; this is particularly so in transport, energy efficiency, transition to a circular economy, public and private research and development and digitalisation, but benefit would also come from resources used getting people to work and promoting social inclusion (11).

3.3 Labour market

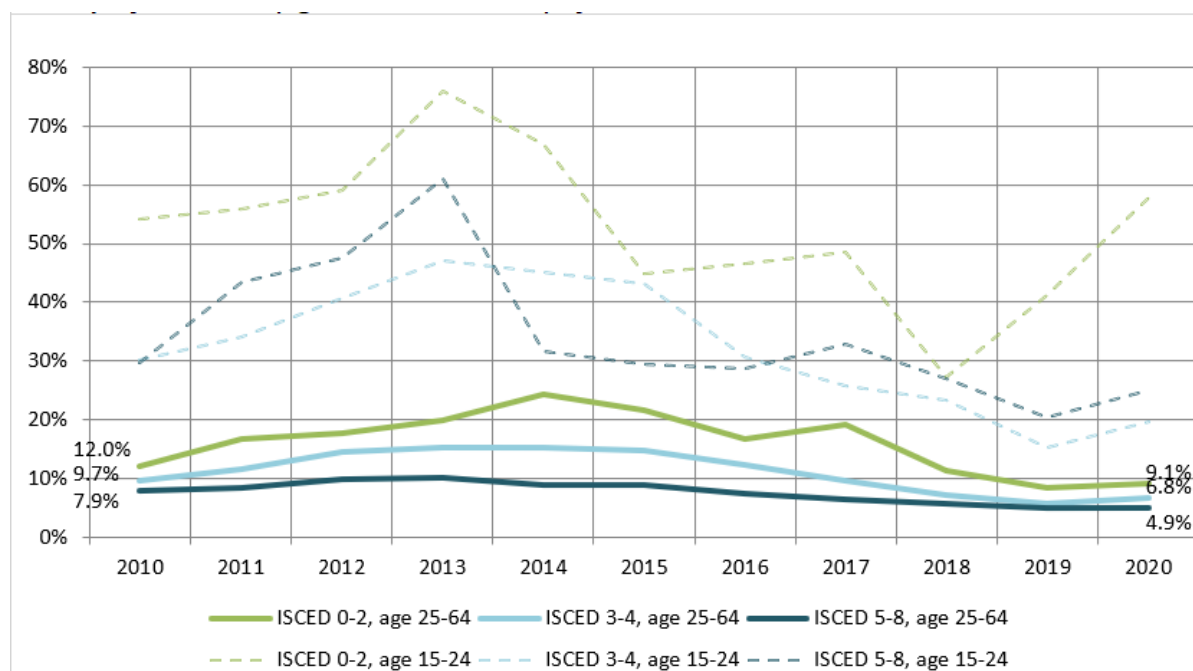
Alongside a fair number of regulated professions, the labour market is flexible to some extent.

Regulated professions extend over a range of sectors relevant to VET, including occupations in crafts and trades, medical care, tourism, and transportation.

The list of regulated professions is published by the Ministry of Labour (12).

Total unemployment (13) (2020): 6.4% (6.2% in EU-27); it decreased by 4.8 percentage points (pp) since 2016 (14).

Unemployment rate (aged 15-24 and 25-64) by education attainment level in 2011-20



NB: data based on ISCED 2011; breaks in time series; low reliability for ISCED 0-2 and 5-8, age 15-24.

ISCED 0-2 = less than primary, primary and lower secondary education. ISCED 3-4 = upper secondary and post-secondary non-tertiary education. ISCED 5-8 = tertiary education.

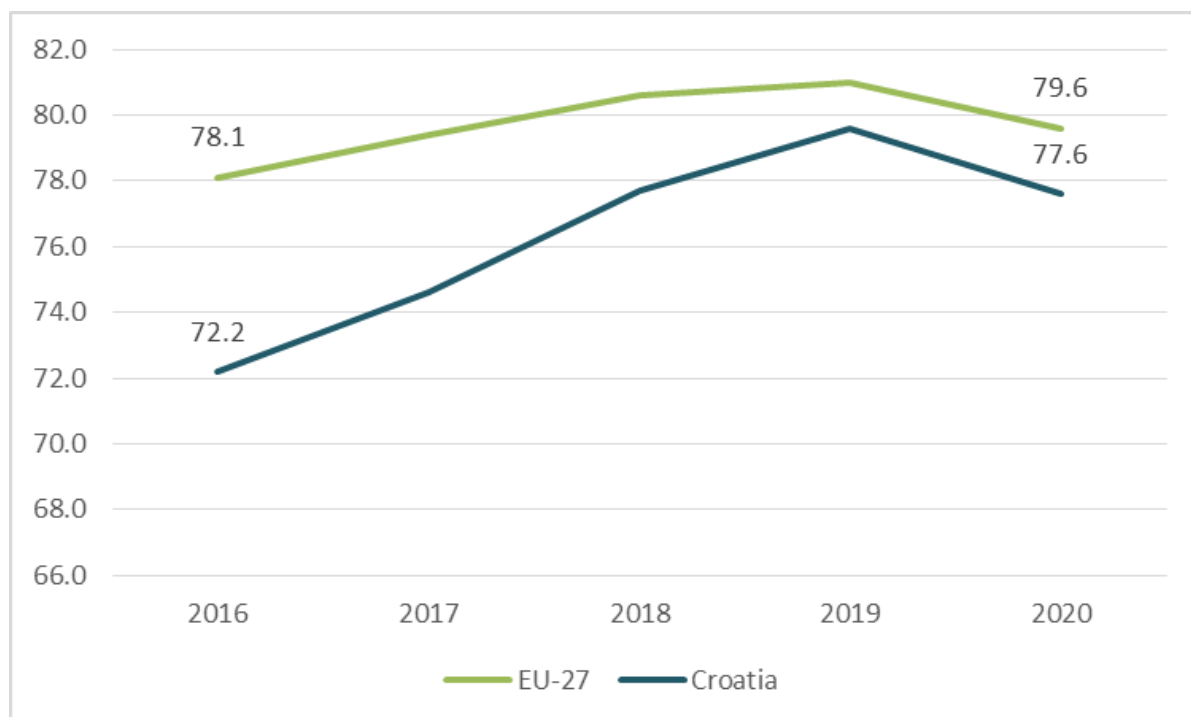
Source: Eurostat, lfsa_urgaed [extracted 1.9.2021].

The figure above shows unemployment is significantly higher among young people (aged 15-24) than among those aged 25-64 and it is distributed unevenly between those with low- and high-level qualifications.

As of 2015, for the 25-64 age group, the gap has been decreasing, with the unemployment rate for unskilled workers (9.1%) still high in comparison to those with medium-level qualifications, including most VET graduates (6.8%) and to those with tertiary education (4.9%) in 2020.

Employment of VET graduates aged 20 to 34 increased from 72.2% in 2016 to 77.6% in 2020 (15).

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_ifse_24 [extracted 30.8.2021].

The increase (+7.4 pp) in employment of 20- to 34-year-old VET graduates in 2016-2020 in Croatia was higher compared to the increase in employment of VET graduates (+2.9 pp) in the same period in EU-27. However, in 2019-20, the COVID-19 pandemic affected the employment of VET graduates somewhat less in the EU-27 (-1.4 pp) than in Croatia (-2.0 pp).

[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_ifse_24 [extracted 27.8.2021].

[19] NB: Breaks in time series. Eurostat table edat_ifse_24 [extracted 27.8.2021].

[21] NB: Breaks in time series. Eurostat table edat_ifse_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_lfse_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_lfse_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_lfse_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.ooph.fi/julkaisut/2011/koulutus_ja_tyovoiman_kysynta_2025
- [10] Source: https://tilastokeskus.fi/til/tyti/index_en.html [accessed 25.11.2021].

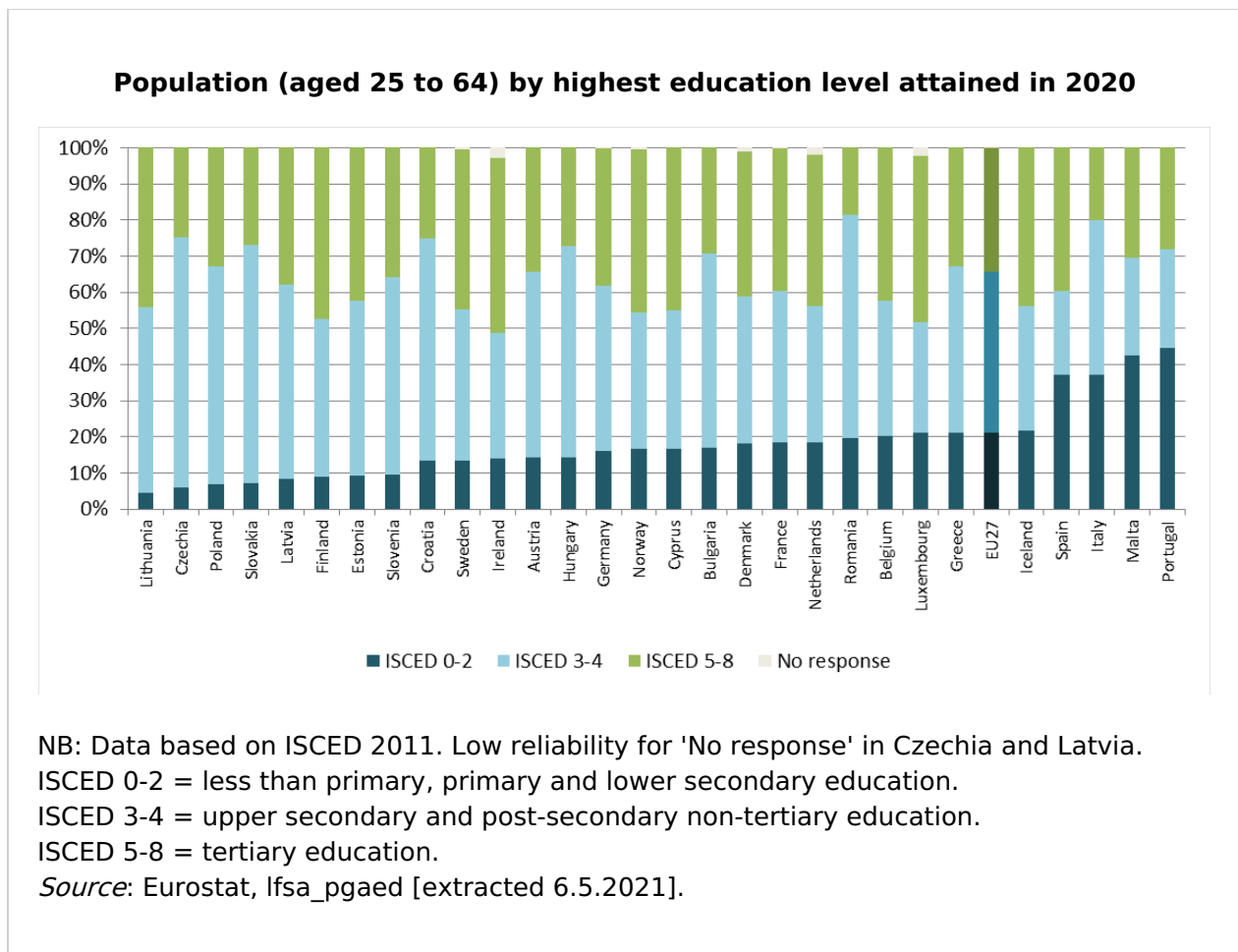
- [11] Percentage of active population, 25 to 64 years old.
- [12] Eurostat table une_rt_a [extracted 6.5.2021].
- [13] NB: Breaks in time series. Eurostat table edat_lfse_24 [extracted 6.5.2021].
- [14] Cedefop (2018). The changing nature and role of vocational education and training in Europe. Volume 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].

CHAPTER 4.

Education attainment

4.1 Share of high, medium and low level qualifications

In 2020, 13.4% of the population (aged 25-64) in Croatia attained lower education level (ISCED 0-2), 61.4% attained medium education level (ISCED 3-4) and 25.2% attained tertiary education (ISCED 5-8).



4.3 VET learners by level

Share of learners in VET by level in 2019

lower secondary	upper secondary	post-secondary
10.5%	69.0%	Not applicable

Source: Eurostat, educ_uae_enrs01, educ_uae_enrs04 and educ_uae_enrs07 [extracted 30.08.2021].

At tertiary level, 29% of higher education students attended professional programmes in 2019 (16).

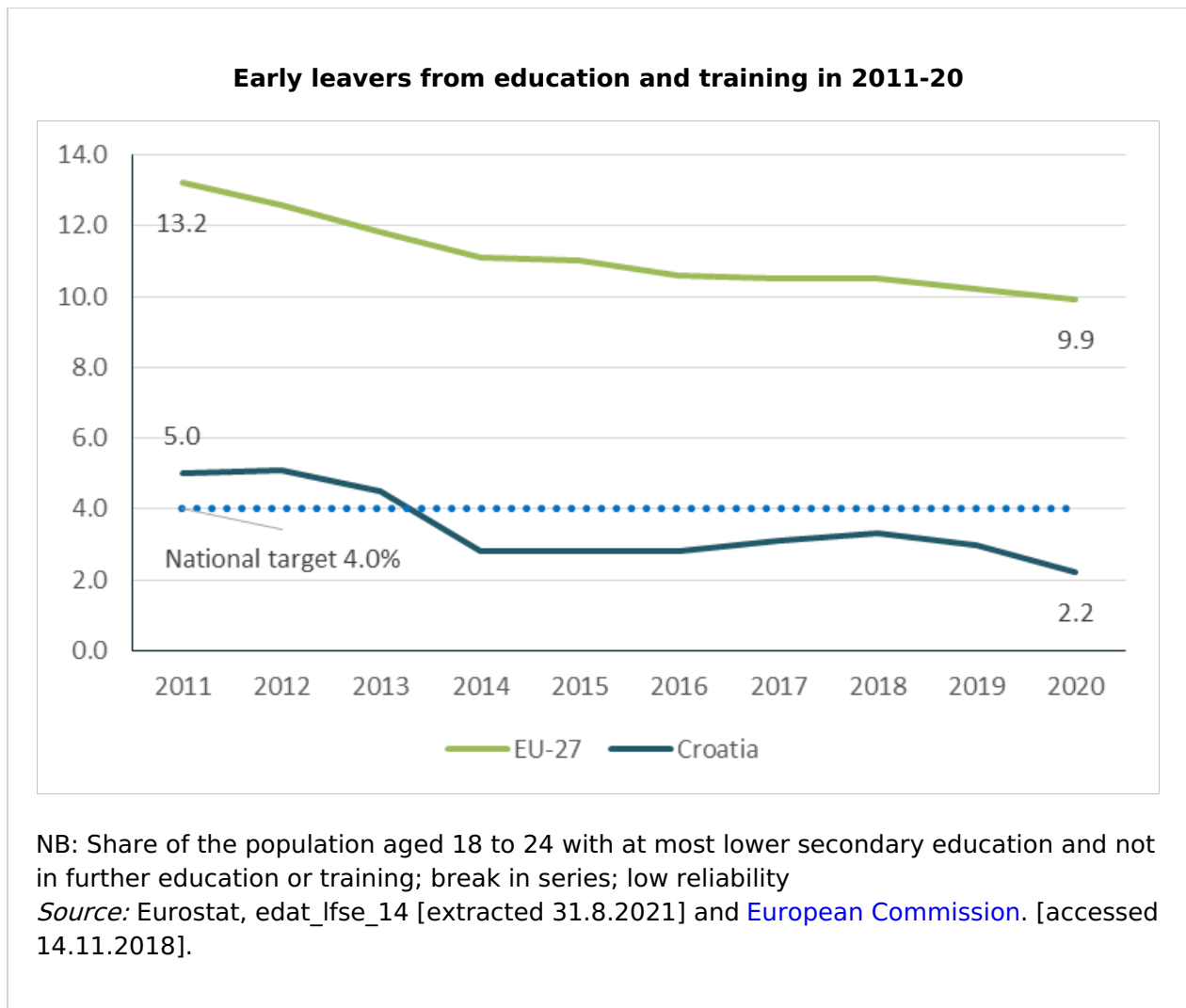
4.4 Female share

In 2020-21, there were 57% male students enrolled in initial VET, against 43% female students (17).

Male students are the majority in 3-year industrial programmes in IVET, whereas female students are the majority in 5-year programme for general care nurses.

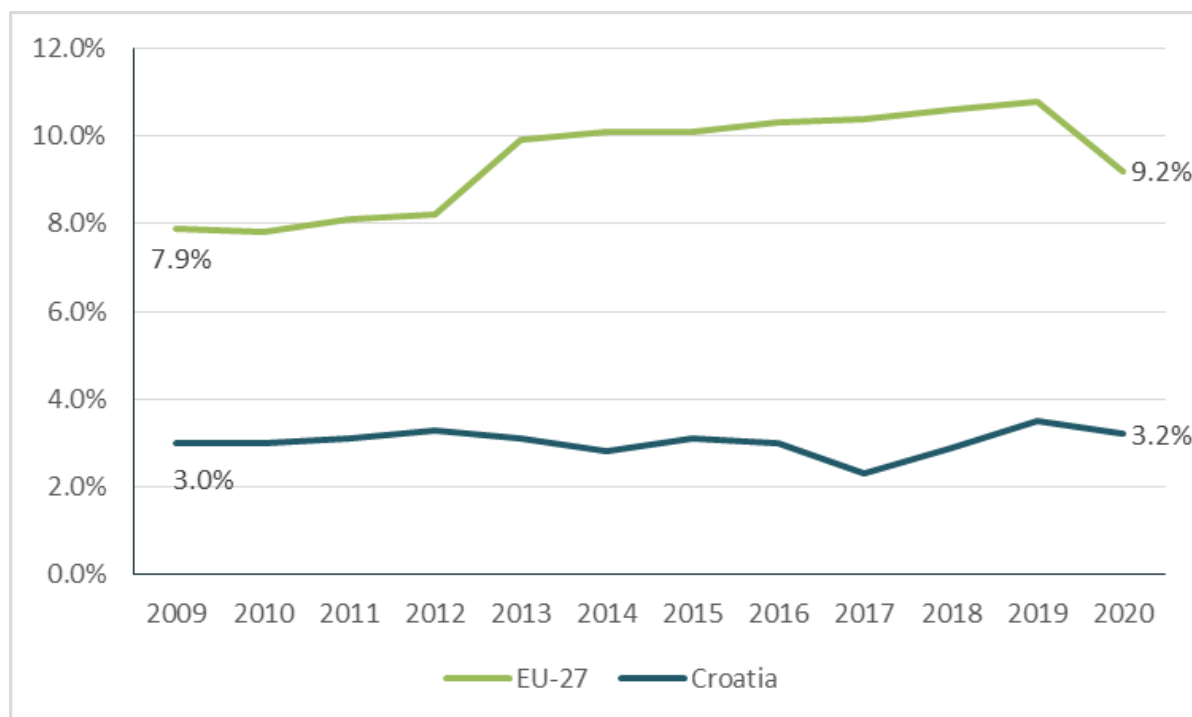
4.5 Early leavers from education and training

Croatia traditionally has very low rate of early school leaving, 2.2% in 2020. It is significantly lower than 9.9%, the EU-27 average.



4.6 Participation in lifelong learning

Participation in lifelong learning in 2009-20



NB: Share of adult population aged 25 to 64 participating in education and training.

Source: Eurostat, trng_lfse_01 [extracted 6.5.2021].

The share of adults participating in training programmes in 2020 remains among the lowest in the EU (3.2%) and significantly below the EU-27 average (9.2%).

[24] Eurostat table edat_lfse_24 [extracted 17.8.2021]

[25] Eurostat table edat_lfse_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].

CHAPTER 5.

VET within education and training system

The education and training system comprises:

- preschool education (ISCED level 0);
- integrated primary and lower secondary education (ISCED level 2) (hereafter basic education);
- upper secondary education (ISCED level 3);
- post-secondary non-tertiary education (ISCED level 4);
- tertiary education (ISCED levels 5, 6, 7 and 8).

Early and preschool education is offered from the very early age of 6 months and is provided at childcare institutions (*dječji vrtići*). 1-year pre-school education is compulsory before enrolling in primary education.

Primary and lower secondary education are integrated and last 8 years, typically from age 6 to 15; it may last to age 21 for special education needs learners.

Upper secondary education includes 4-year general education gymnasium programmes, art education and initial VET programmes that might last from 1 to 5 years.

VET specialist development programmes (*strukovno specijalističko usavršavanje i osposobljavanje*) are envisaged as further education programmes (specialisation) at the post-secondary level (CROQF/EQF 5, at least 60 CSVET (18) or 120 ECTS) for learners who completed VET programmes at secondary level (at least CROQF/EQF 4.1. or higher). Up to now, these programmes have not been developed, nor delivered by VET providers in Croatia.

Access to tertiary education is ensured through achieving adequate results in State *Matura* exams (*državna matura*) for general education, art education and 4-year programme VET graduates. 3-year VET programmes may be offered as apprenticeship and dual education programmes leading to the labour market. Graduates can enter an optional 1- to 2-year bridging programme and, if successful, take State *Matura* exams to qualify for tertiary education. In order to enrol in higher education, VET graduates can opt to take the State *Matura* exams (*ispiti državne mature*) following the completion of 4- and 5-year programmes. The National Centre for External Evaluation of Education administers the State *Matura* exams in cooperation with upper-secondary schools. These exams serve three aims: final examination and requirement for graduation from general upper-secondary schools; entrance exams for undergraduate studies at tertiary level for all students (including VET graduates); and external evaluation of student competences and learning outcomes. State *Matura* exams are administered in general education subjects only, as obligatory and optional exams. Obligatory exams are in Croatian language, mathematics and foreign language and they may be taken at A (advanced) and B (elementary) level. The list of optional exams is determined by the National Centre for External Evaluation of Education for each school year. Higher education institutions set the required level of exams and optional exams among their admission criteria independently.

Professional higher education is offered at polytechnics in the form of short-cycle undergraduate programmes (ISCED 5), professional undergraduate programmes (ISCED 6) and graduate professional specialist programmes (ISCED 7).

Initial and continuous VET is offered. The majority of initial VET programmes are 3-year or 4-year programmes leading to formal upper secondary VET qualifications. These programmes

might be delivered as:

- apprenticeships (alternation schemes);
- school-based, with training periods at employers;
- dual education programmes (in an experimental phase since the 2018/19 school year).

Delivery modes of upper secondary IVET programmes

IVET programmes	Delivery modes offered		
	Apprenticeship programmes	School-based VET with periods of training at the workplace	Dual education programmes
3-year VET programmes for crafts (WBL performed through practical training in licensed crafts and/or legal entities and school workshops)	x		
3-year VET programmes for industry and related education programmes (WBL is performed through practical training in school workshops, in the workplace and in school laboratories, and through professional practice performed in the workplace (included in most programmes))		x	X
4-year VET programmes (WBL is performed through practical training in school workshops and laboratories and through professional practice performed in the workplace (included in most programmes))		x	X
5-year VET programme – general care nurse (WBL is performed through training in school facilities, Source: Agency for Vocational Education and Training and Adult Education.		x	

IVET at upper secondary level leads to VET qualifications at levels 3 and 4 that are the same as in the European qualifications framework (EQF). There is an offer of 1-to 2-year VET programmes leading to levels 3, but these are minor pathways, for less than 1% of upper secondary learners. There is one 5-year programme only (general care nurse) with the implementation mode different from other programmes (2-year general education training and 3-year VET programme).

4-year VET programmes combine general and vocational education on average in the same shares. Therefore, they have good progression opportunities to tertiary education if learners pass the State *Matura* exams that are entrance exams.

3-year programmes delivered as apprenticeships and dual education programmes leading to labour market. Graduates who want to progress to tertiary education will take 1-to 2-year bridging programme that will allow them to take State *Matura* exams.

Professional education and training programmes at tertiary level are not considered VET.

Non-formal continuing VET is part of adult learning regulated by the Adult Education Act (19).

[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>

CHAPTER 6.

Apprenticeship

Currently, there are two types of apprenticeship programmes in Croatia:

- Unified Model of Education (*Jedinstveni model obrazovanja*, JMO);
- experimental dual education programme based on the Model of Croatian Dual Education.

Unified Model of Education (*Jedinstveni model obrazovanja*, JMO)

As of the school year 2004/05, the apprenticeship scheme is implemented in 3-year initial VET programmes for crafts and trades, also known as the Unified Model of Education (*Jedinstveni model obrazovanja*, JMO).

Previously, programmes in dual education were introduced in the school year 1995/96. Their main characteristic was the separation of general education from vocational theoretical and practical education. In consequence, students were issued two certificates: one for general education and the other for vocational education. Due to the complexity, dual education programmes were replaced by the Unified Model of Education (JMO).

JMO programmes consist of two parts: general education part and apprenticeship. Apprenticeship consists of a professional-theoretical part and practical training and exercises. The share of work-based learning at apprenticeship providers is about 60% of the programme.

Apprenticeship providers are typically business entities such as craft business workshops or trade associations, institutions or cooperatives, licenced to offer practical training and exercises for apprentices. In order to get the licence, apprenticeship providers must ensure conditions for students to acquire competences in the real work environment, including a student mentor with adequate qualifications and pedagogical competences.

The JMO programme student has the status of regular student and apprentice in craft. Entry requirements include completed primary education, demonstrated medical fitness for the particular profession, as well as placement and apprenticeship contract with a licensed apprenticeship provider.

The apprenticeship contract in writing is concluded between the apprenticeship provider and the student or his/her parents or guardian if the student is not of legal age. It is not a contract of employment. The apprenticeship contract also prescribes the obligation to pay monthly remuneration to the student.

JMO programmes end with formal qualification at EQF level 4, ISCED 353. Students finish their education with the preparation and the defence of the final practical assignment (*završni rad*). The defence involves taking the apprenticeship exam, which includes a practical task within a complex examination item. The school issues a certificate of completion (*svjedodžba o završnome radu*) and the chamber of crafts issues a certificate supplement on apprenticeship (*datak svjedodžbi o naukovanju*). The main destination of graduates is the labour market. As of 2014, graduates from 3-year VET programmes can enter an optional 1- to 2-year bridge programme and, if successful in gaining a second VET qualification, can also take State *Matura* exams to access higher education. JMO graduates can also apply for the master craftsman exam after at least 2 years of work experience in the field.

Various stakeholders are involved in the implementation of JMO programmes. The Ministry of Science and Education decides on enrolment quotas, adopts JMO curricula and approves programmes, with the prior consent of the ministry in charge of crafts. The ministry responsible

for crafts shares the responsibility with the ministry in charge of education. It ensures apprenticeship vacancies and suggests the enrolment structure, drafts curricula, defines and supervises the licensing procedure for apprenticeship providers, maintains the database of licensed crafts, and sets minimum conditions for apprenticeship contracts. It also defines the method and process of taking apprenticeship exams and exams on elementary teaching skills for workplace mentors. The Agency for VET and Adult Education proposes curricula to the Ministry of Science and Education for adoption and is in charge of the external evaluation of apprenticeship exams. The chamber of trades and crafts issues licences to apprenticeship providers, verifies and keeps record of the apprenticeship contracts, issues certificate supplements on apprenticeship, runs training programmes and conducts exams in elementary teaching skills for workplace mentors in JMO. Apprenticeship providers offer practical training and exercises to students and participate in exam committees for apprenticeship exams. VET schools enrol students in JMO programmes, implement the general, vocational theoretical part and a smaller part of the practical training of the programme, organise the preparation and defence of the final practical assignment, and issue certificates of completion.

In the school year 2020/21, 11 445 students were enrolled in 42 JMO programmes delivered by 103 VET providers; this equates to 8.0% of all secondary school students and 11.8% of all VET students. JMO programmes are facing a steady decline in participation, with the number and share of JMO students in all VET programmes decreasing by more than a half in the past 8 years. JMO programmes are offered in nine sectors: agriculture, food and veterinary medicine; forestry and wood technology; textiles and leather; mechanical engineering, shipbuilding and metallurgy; electrical engineering and computing; construction and geodesy; economy and trade; tourism and hospitality; and personal and other services. The most popular qualifications in 2020/21 were hairdresser, car mechanic, car mechatronic, carpenter and installer of heating and air-condition.

Dual education programme based on the Model of Croatian Dual Education

In 2018, the Ministry of Science and Education (MoSE) launched the experimental dual education programme based on the document Model of Croatian Dual Education (20). The responsible institution for the implementation of the programme is MoSE, with other ministries, agencies, economic and crafts chambers, employers' associations and with the support from partner institutions from Germany, Austria and Switzerland. Key participants in dual education represent students, VET schools and business entities. The partnership of VET schools and business entities reflects in cooperation in planning and implementation of work-based learning, continuous professional development of VET teachers and mentors in business entities, exchange of new technologies and know-how, monitoring and assessment of students' progress in work-based learning activities and the organisation of final exams. VET schools are responsible for teaching and learning activities in line with vocational curricula, planning work-based learning activities with business entities, preparing students for work-based learning, and supporting and supervising mentors in business entities. In the first year of the programme, work-based learning is mostly organised in VET schools, while in the following years, most work-based learning is undertaken in business entities. The entities are required to provide training and continuous professional development to mentors, as well as to ensure quality assurance of work-based learning. Students sign contracts with business entities and are entitled to a monthly allowance for the period of work-based learning undertaken in business entities. The experimental phase of the programme started in the 2018/19 school year. In 2020/21, it was conducted in nine qualifications at EQF level 4 (3-year programmes for salesman, glazier, chimney sweeper, CNC operator, waiter, cook, and painter decorator and 4-year programmes for beautician and hairdresser) in 28 VET schools. In 2020, curricula were adopted for four qualifications (salesman, glazier, chimney sweeper, and beautician). The programme is financed from the State Budget and from the Swiss-Croatian Cooperation Programme as part of the project Modernisation of VET Programmes.

Learn more about apprenticeships in the national context from the European database on apprenticeship schemes by Cedefop (21).

Please, see also Cedefop Thematic country review on apprenticeship in Croatia (22).

-
- [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/UserDocImages//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>

CHAPTER 7.

VET governance

Although several governmental ministries have an influence on the development of VET for the sectors under their remit, the Ministry of Science and Education (*Ministarstvo znanosti i obrazovanja*) is responsible for overall VET policy. It monitors the overall compliance of the VET system with legislation and coordinates multiple executive agencies in the field of education.

Since the mid-2000s, the government has established several new agencies. Establishing the Agency for VET in 2005 marked the beginning of profound reforms in VET. In 2010, VET and adult education agencies merged into the Agency for VET and adult education (*Agencija za strukovno obrazovanje i obrazovanje odraslih*, ASOO) (23). As an executive body in charge of the overall development and organisation of the VET system, ASOO is responsible for the following:

- development of VET programmes/curricula;
- ensuring stakeholder involvement in VET;
- support and follow-up for VET school self-assessment;
- monitoring the work of VET and adult education institutions;
- provision of advice and counselling services for VET and adult education institutions;
- professional exams for new, and promotions for experienced, VET teachers, offering continuous professional development opportunities for VET teachers;
- foreign VET qualification recognition process;
- organising national skills competitions.

Other stakeholders in VET are:

- Ministry of Economy and Sustainable Development (*Ministarstvo gospodarstva i održivog razvoja*) defines conditions and procedures for licensing apprenticeship providers, taking apprenticeship exams, apprenticeship contracts, etc.;
- Ministry of Labour, Pension System, Family and Social Policy (*Ministarstvo rada, mirovinskoga sustava, obitelji i socijalne politike*) is in charge of employment policies and labour market forecasting;
- Council for VET (*Vijeće za strukovno obrazovanje*) consists of 21 members from various stakeholders. The role of this body is to coordinate activities of all stakeholders in VET, initiate the development of new curricula and revision of existing curricula, recommend new developments in VET, and to provide its assessment for the establishment of the network of regional centres of competence;
- Education and Teacher Training Agency (*Agencija za odgoj i obrazovanje*, AZOO), responsible for the development of general education part of VET curricula;
- the Croatian Chamber of Trades and Crafts issues licences to apprenticeship providers, verifies and keeps record of apprenticeship contracts, issues certificate supplements on apprenticeship, runs training programmes and conducts exams in elementary teaching skills for workplace mentors in JMO. It is also a partner in the experimental programme in dual education, launched as of school year 2018/2019;
- the Croatian Chamber of Economy (*Hrvatska gospodarska komora*) is an independent organisation of all legal bodies performing business activities. The chamber advocates for the advancement of VET in Croatia and it is also a partner in the experimental programme in dual education, launched as of school year 2018/19;
- the Croatian Employers' Association (*Hrvatska udruga poslodavaca*) is an independent organisation of all legal bodies performing business activities. Its tasks are to represent the interests of members in the development of the economic system, assess means and

conditions of economic growth, improve the development of entrepreneurship, develop business relations with foreign partners, and support innovation and development;

- industrial trade unions (six confederations of trade unions) are key stakeholders in social dialogue in Croatia who represent the position of Croatian labour force.

IVET providers are public and private secondary vocational schools that can be vocational or polyvalent (offer both gymnasium and VET programmes). The majority of schools are public, with the share of private VET schools at 4%. Local authorities are legal founders and owners of the public schools. Vocational schools can be technical, industrial, craft and others, based on the type of programmes and their duration (2-, 3- (industrial and crafts schools), 4- or 5-year (technical schools)). Some VET schools offer programmes from a single education sector or subsector, such as health and medicine, economy, commerce, administration, forestry, carpentry, agriculture, veterinary medicine, maritime, traffic, aviation, hospitality, tourism, engineering, electrical engineering, and construction.

Based on new legislative provision in 2018 (24), 25 schools from the sectors of tourism and hospitality, mechanical engineering, electrical engineering and ICT, health care and agriculture have been chosen in the process of establishing the network of regional centres of competences.

-
- [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.

CHAPTER 8.

VET financing mechanisms

Since 2001, the financing of public upper secondary VET schools has been decentralised.

The State budget finances:

- salaries for teachers and other employees in education;
- in-service training of teachers and other specialists;
- education of at-risk groups (ethnic minorities, learners with special needs) and gifted learners;
- transportation costs of learners;
- teaching materials and equipment;
- information and communication technology infrastructure and software for schools;
- school libraries;
- capital investments (buildings, infrastructure).

Local and regional governments cover:

- costs related to school premises and equipment;
- operating costs of secondary schools;
- transportation costs of employees;
- co-financing of food and lodging in learner residences;
- capital investments (buildings, infrastructure) according to criteria determined by the Minister of Education (25).

If local/regional governments cannot ensure minimum funding, the centrally managed equalisation fund (*Fond za izravnvanje*) provides the deficit amount.

In 2019, the distribution of education expenditure by level shows greater inclination to funding pre-primary and primary education (50.1%), rather than tertiary (19.9%), and secondary education (19.1%) (26).

In CVET, adult learners usually cover the expenses of the education programmes they attend. The exception is primary education programmes, which are free of charge for adults and financed by the Ministry of Science and Education. The public employment service, as a part of ALMP, covers for the education expenses of the unemployed, and some adult education programmes have recently been financed through different ESF-funded projects.

The reforms of IVET and CVET (27) foreseen strongly rely on EU structural funds.

[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.

CHAPTER 9.

Teachers and trainers

9.1 VET teacher types

In VET, there are:

- general subject teachers;
- vocational teachers and trainers.

Teachers of general subjects, such as mathematics and English, are qualified according to general regulations on teachers set by the education ministry. These require graduate university or professional studies, as well as pedagogical competences.

Teachers and trainers in IVET and formal CVET (28):

- teachers of theoretical vocational subjects (*nastavnik stručno-teorijskih sadržaja*) require higher education (180 ECTS or more) and completed supplementary pedagogical-psychological education (60 ECTS) and other requirements according to the VET curriculum;
- teachers of practical training and exercises (*nastavnik praktične nastave i vježbi*) require an undergraduate university or professional degree (180 ECTS or more), pedagogical competences and holding a qualification of a required profile;
- vocational teachers (*strukovni učitelj*) require a level of education defined by VET curriculum (at least a secondary vocational education of the corresponding profile) pedagogical competences and at least 5 years of work experience in the appropriate profession;
- teaching associate (*suradnik u nastavi*) requires a secondary education, pedagogical competences and at least 5 years of work experience, unless regulated differently by the vocational curricula.

In 3-year VET programmes (JMO), apprenticeship providers (crafts and legal entities) have to assign a mentor, usually a qualified staff member who accompanies apprentices during their work at employers. According to the legislation (29), mentors can be:

- master craftspersons;
- persons who have the same rights, as per the Crafts Act, as the persons who have passed the master craftsman's exam and also have passed the exam that proves elementary teaching competences;
- persons with relevant higher education qualifications and the exam proving elementary teaching competences;
- inventors or persons with high school qualifications who have their trades and crafts businesses registered in the region of particular national interest, with at least 3 years of relevant professional experience and the exam proving elementary teaching competences;
- persons with relevant high school qualifications, at least 7 years of relevant professional experience and the exam proving elementary teaching competences.

In 2019, about 15 100 teachers taught either vocational or general education subjects in upper secondary vocational education (30).

In dual education programmes the mentor must be employed by the employer, have the appropriate qualification and have passed an exam that proves the basic knowledge of teaching.

9.2 Continuing professional development of teachers/trainers

The continuing professional development and in-service training of VET staff is mainly provided by the Agency for VET and Adult Education. VET schools are also expected to provide in-house staff development activities. However, there are currently no data available on the quality or effectiveness of these activities (see also below for school-based developmental projects and mobility projects funded by EU programmes). Travel and accommodation costs of in-service training for teachers are covered by VET institutions, which affects the numbers of teachers attending training. Overall, the provision of in-service training for VET staff is underfinanced and generally perceived as insufficient.

Apart from the State-funded in-service training described above, in-service training of VET teachers is also implemented by:

- professional associations and other non-governmental organisations offering training (fee-based or free of charge);
- public open universities (*Pučka otvorena učilišta*);
- the Chamber of Crafts and Trades;

Such in-service training does not require programme or provider accreditation.

The system enables promotion in the profession of teachers, vocational trainers and teaching associates. The Regulation on the promotion of teachers in primary and secondary education (31) guides promotion in the profession, and teachers can acquire the title of mentors, advisors and excellent advisors.

They can be recognised for outstanding achievements in education. The Regulation prescribes levels, conditions and ways of progression. VET teachers initiate the process of promotion, with mandatory notification to their schools. The Agency of VET and Adult Education conducts the promotion procedure and issues decisions on the promotion of VET teachers. The requirements for advancement include a professional exam, work experience as a teacher, participation in CPD, and meeting additional assessment criteria, which cover organisation, participation or mentorship in student competitions; mentorship to students or teacher trainees; delivery or participation in training; activity in professional associations; publications and production of teaching materials and educational content; project management or implementation; and contribution to school (a mandatory criterion) and the education system.

Teachers are elected into positions of mentor and advisor for the period of 5 years and can be re-elected.

In 2018, the Agency for Vocational Education and Training and Adult Education (AVETA) produced the concept for the new model of continuing professional development (CPD) and open programme of CPD for VET school teachers (32). The concept significantly expands the scope, the quality and the modalities of CPD and defines general and elective modules delivered through guided training, individual assignments and assessment activities. Modules are directed at developing teaching competences, teaching talented students and students with disabilities, quality assurance, class management, innovative teaching methods, adult education, service learning, as well as strengthening peer- and lifelong-learning, digital and project management competences.

More information is available in the Cedefop ReferNet thematic perspective on teachers and trainers (33).

[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, matura 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 (Národná 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.kutseregister.ee/en/standardid/standardid_top2/
- [37] <https://www.haridussilm.ee/ee/tasemeharidus/haridustootajad/opetajate-palgaanaluus/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_uoe_perp01 [extracted 29.7.2021].
- [31] Pravilnik o napredovanju učitelja, nastavnika, stručnih suradnika i ravnatelja u osnovim 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>

CHAPTER 10.

Shaping VET qualifications

10.1 Anticipating skill needs

Based on the Government Decree on the monitoring, analyses and prediction of labour market needs and the development of an educational enrolment policy (34), PES (35) (*Hrvatski Zavod za zapošljavanje*) conducts an annual analysis and prediction of labour market needs for specific qualifications. This analysis is based on relevant statistical data and employment indicators of currently unemployed persons with specific qualifications, data from the Employers questionnaire (*anketa poslodavaca*) and regional and local development strategies and plans. PES publishes the Recommendations for educational enrolment and stipend policies (*Preporuke za obrazovnu upisnu politiku i politiku stipendiranja*). These recommendations are regionally and locally determined and are qualitative, rather than quantitative in nature, indicating only if there is a need for an increase or decrease in the enrolment in a specific VET programme. They have not always been taken into account while determining the enrolment vacancies in the specific VET programmes and the need for a more efficient and precise system was recognised.

Legislation on NQF (36) in 2013 provided a new tool for qualification development and reshaped the structure for labour market anticipation and feedback loops between occupational standards, qualification standards and curricula. The process of adjusting education to labour market needs begins with an estimation of future needs for knowledge and skills, as outlined in key strategic documents (37). The process of adjustment between education and labour market needs is based on the development of occupational standards (*standard zanimanja*) and subsequently on the development of qualification standards (*standard kvalifikacija*). The occupational standards are empirically founded upon the sector profiles (*profil sektora*) and the occupation standard survey (*anketa o standardu zanimanja*). The development of VET curricula is based on the qualification standards.

In order to support qualification development, the Ministry of Labour has, in previous years, launched the Croatian Qualifications Framework (CROQF) web portal (38) as the central portal with labour market and education indicators. The CROQF portal is designed to serve as the central tool for labour market monitoring and the main evidence base for the development of sector profiles and occupational standards as the key mechanisms of CROQF. The portal offers data visualisation, statistics and analyses by CROQF sectors. It integrates data on employment, unemployment, enrolment in secondary and higher education programmes, key economic activities and corresponding employment rates, and distribution of different occupations in sectors in relation to economic activities. The portal associates data on unemployment from the Croatian Employment Service, data on employment from the Croatian Pension Insurance Institute, enrolment in secondary and higher education programmes from the Ministry of Science and Education and the relevant statistical indicators from the Croatian Bureau of Statistics.

See also Cedefop's skills forecast (39).

10.2 Designing qualifications

VET qualifications

Three major elements of qualification development are foreseen:

- occupational standards (*standard zanimanja*)

The occupational standards are a tool developed to identify the skills and associated knowledge required to be 'competent' in a particular job role. The standards are broken into units, which classify different sets of skills and knowledge. For VET qualifications, the occupational standards are being developed to a level of detail that highlights and describes the broad skills and knowledge sets that may be applied across a number of subsectors and related job roles within a particular industry.

- qualification standard (*standard kvalifikacija*)

The qualification standards take the skills identified and described within the occupational standards and translates them into criteria against which learners are evaluated. The qualification standards are broken down into a series of logical 'units'. Each unit is comprised of a set of 'learning outcomes' and 'assessment criteria'. The learning outcomes describe what a learner should be able to achieve once a programme of study has been completed. The assessment criteria establish the activities and benchmarks that must be achieved by the learner in order to demonstrate that learning outcomes have been achieved. Each unit is also given a credit value that identifies the amount of time required by an average learner to complete all relevant learning and assessment activities to achieve the required learning outcomes. When a range of qualification standards has been developed, a decision is made as to which units need to be 'mandatory' or 'elective'.

- VET curriculum (*strukovni kurikulum*)

The final phase of the development process is associated with the production of VET curricula, which set out what needs to be taught in order to ensure that learning outcomes can be achieved.

The qualification development in VET follows the general process for qualification development at all levels, described in the CROQF Act (40) and the Regulation on CROQF Register (41). The CROQF Register represents the central repository of approved occupational standards, qualification standards and units of learning outcomes, organised in corresponding sub-registers. In order to be approved, the proposals for occupational standards and qualification standards follow the prescribed procedure for the entry in the CROQF Register.

The first stage of qualification development consists of the development and entry of the relevant occupational standard for the qualification. According to the CROQF Act, any legal entity or natural person, as well as public administration body with legitimate interest, may propose an occupational standard for entry in the CROQF Register. The proposed occupational standard needs to be empirically founded on relevant development strategies, sector profiles and occupational standard survey, which ensures the input of employers. The proposed occupational standard is submitted to the Ministry of Labour to decide on the entry of the occupational standard in the CROQF Register based on the expert opinion of an assessment commission set up by the Ministry.

Qualification standard development follows a similar process, with the Agency for VET and Adult Education responsible for the entry of VET qualification standards in the CROQF Register, based on expert opinions of assessment commissions set up by the Agency.

The final stage comprises the development of a vocational curriculum, which is based on the qualification standard and aligned to the occupational standard. The proposed vocational curricula should be aligned with the National curriculum for VET and the relevant sectoral curricula. Based on the learning-outcome approach, the National curriculum for VET from 2018 describes teaching and learning processes, including work-based learning and learning cycles. It encompasses qualifications on CROQF/EQF levels 2-5 and defines the curricular framework for VET, which comprises sectoral curricula, vocational curricula and VET school curricula. The

document sets out the structure for each qualification level in terms of the proposed teaching time devoted to general content, vocational modules, elective modules and work-based learning in line with sectoral and vocational curricula. The National curriculum for VET defines enrolment, permeability and assessment in VET. It allows for learning flexibility and specialisation through elective modules integrated in qualifications at CROQF level 4.1. and 4.2. / EQF level 4 for up to 30% of vocational curricula. The sectoral curricula set out the framework for all vocational curricula for qualifications on EQF levels 2-5 within particular education sectors. This way, the sectoral curricula ensure the attainment of broader competences relevant for all occupations within a sector. The sectoral curricula development is envisaged within the current AVETAE project for the modernisation of vocational education and training system in Croatia.

Managing qualifications

Several bodies are involved in designing, updating and awarding qualifications:

- Assessment commissions appointed by the Ministry of labour for expert evaluation of occupational standards and by the Agency for VET for evaluation of qualification standards in VET;
- Ministry of Science and Education: as the national coordinating body responsible for CROQF, the Ministry of Science and Education offers methodological guidelines for the development of qualification standards. It also coordinates quality assurance of qualifications and learning outcomes, and is responsible for developing a system for the recognition and validation of non-formal and informal learning;
- Ministry of Labour: as the responsible authority for the labour market, the Ministry of Labour is in charge of the sub-register of occupational standards. It offers methodological guidelines for the development of occupational standards and decides on the entry of the proposed occupational standards in the CROQF Register. It is also responsible for producing evidence-base for the development of occupational standards by collecting information about current and future labour market needs and the necessary competences. The Ministry of Labour is expected to monitor the labour market needs and propose corresponding development of qualification standards and occupational standards;
- Agency for VET and Adult Education (ASOO): as the public administration body in charge of VET, AVETAE proposes occupational standards, qualification standards and curricula in VET. AVETAE also processes and decides on the requests for entry of qualification standards in the CROQF Register. Currently, AVETAE leads a large-scale project for the modernisation of vocational education and training in Croatia, as the largest initiative for update of VET qualifications and reform of VET curricula;
- The National Council for the Development of Human Potential (*Nacionalno vijeće za razvoj ljudskih potencijala*): as the strategic advisory body responsible for CROQF, the National Council offers recommendations for policies relevant to qualification development and the alignment of education to 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://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.

CHAPTER 11.

Quality assurance

Developing a coherent system

The area of quality assurance is informed by:

- external assessment of student competences and VET providers, administration of the State *Matura* exams and national exams in VET, based on the VET Act and the National Centre for External Evaluation of Education Act (42), by the National Centre for External Evaluation of Education;
- external assessment of institutions (43), inspection (44) performed by the Ministry of Science and Education and professional-pedagogic supervision of VET providers (45) by the Agency for VET and Adult Education;
- quality assurance of programmes for acquiring qualifications by the Ministry of Science and Education and the Agency for Science and Higher Education through the CROQF (46);
- supervision over the implementation of apprenticeships (47) by the Ministry of Economy and Sustainable Development;
- external assessment of apprenticeship exam by the Agency for VET and Adult Education (48);
- self-assessment of VET providers (49), based on the VET Act and relevant methodology (50) organised and supported by the Agency for VET and Adult Education.

VET schools do self-assessment once a year, within the six assessment areas:

- planning and programming of work;
- teaching and support to learning;
- learning outcomes;
- material and human resources, including continuing professional development of staff;
- cooperation within the VET school and with stakeholders;
- administration and management.

Each area is further broken down into quality areas, which are described using individual quality criteria. All areas are applied primarily to IVET. In 2011, secondary VET schools launched a self-assessment process and the first annual reports were produced and analysed. To assist VET schools in the process, the VET agency developed a comprehensive manual and an online E-quality tool (51) (*e-kvaliteta*) that enabled secondary VET schools to present their self-assessment data and plans for improvements. Both measures are evidence-based.

The strategic documents call for the establishment of a coherent, unified system of VET quality assurance at the national level, at the level of VET providers and at the level of qualifications developed in line with EQAVET recommendations. This system is to be used for both IVET and CVET. Strong argumentation for a coherent, unified system comes from analyses indicating the existence of parallel and uncoordinated structures that are insufficiently used for the amelioration of school practice and the development of VET policy.

[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>

CHAPTER 12.

Validation of prior learning

Formal qualifications cannot be acquired through recognition of non-formal and informal learning.

-
- [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-](http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/european-database-on-validation-of-non-formal-and-informal-learning)

[visualisations/european-database-on-validation-of-non-formal-and-informal-learning](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

Allowances for learners

In the 3-year VET programmes for crafts and trades, the contract for apprenticeship (*ugovor o naukovanju*) regulates learner allowances as stipulated by the legislation (52). In other VET pathways, learner allowances are also regulated through contracts for practical training and exercises (*ugovor o provedbi praktične nastave i vježbi*) (53).

Scholarships for shortage occupations

In 2019, EUR 9.8 million was granted for scholarships to 4 126 students in 3-year VET programmes in crafts and trades (*jedinstveni model obrazovanja, JMO*) for which there is a labour market shortage; the amount of support is increasing by the year. The list of eligible programmes was determined nationally, but allows regional modification. Local communities, as well as professional associations and private firms, also provide incentives and stipends for learners.

In Croatia, the main employment policy relevant to VET is the Active labour market policy (*Mjere aktivne politike zapošljavanja, ALMP*).

-
- [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_foitetikis_merimnas/foitetiki_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 (BMWi, 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.anerkennung-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.

CHAPTER 14.

Incentives for enterprises to boost their participation in VET provision

Tax exemptions

Companies that provide apprenticeships for learners in 3-year VET programmes have tax breaks reducing their taxable income (54). Entrepreneurs that train one to three learners per year on their premises may reduce their taxable income by 5%; an additional learner further reduces the taxable income by 1 percentage point, up to a limit of 15%.

[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?](http://www.bmwi.de/Redaktion/DE/Text-sammlungen/Mittelstand/hand-werk.html?__blob=publicationFile)

[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.

CHAPTER 15.

Guidance and counselling

The Croatian Employment Service (CES) systematically organises activities aimed at giving information, guidance and counselling for students in the final years of primary and upper secondary education (including VET).

Several elements developed by CES within this comprehensive guidance and counselling system are aimed at young persons. In recent years, CES has organised a regional network of 13 centres for career information and guidance under the name of CISOK^(55) (*Centri za informiranje i savjetovanje o karijeri*). This allowed for a tailor-made approach to guidance and counselling. The services are free of charge and open to both students and parents. Trained guidance counsellors provide services. Guidance is provided to learners in transition from primary to secondary and from secondary to higher education through open days and career fairs. These initiatives are supported by chambers, employers, former students and parents. Further establishment of CISOKs is planned to cover all counties in Croatia.

Career guidance for learners is conducted through the joint efforts of school counsellors and CES career guidance counsellors. Particular attention is devoted to learners with lower achievement and those who, according to the evaluations, might face labour market problems after they complete their education, i.e. those with developmental and health issues, learning disabilities or behaviour disorders. Team evaluation is carried out, including psychological assessment, an interview and, if needed, a medical examination by an occupational health physician. Labour market needs, educational opportunities and learners' individual abilities and needs are taken into account while forming the expert team opinion on the most appropriate choices in education.

CES has also developed a web portal e-Guidance (56) to offer the information needed for the selection of education programmes and to provide assistance in setting and reaching professional goals and searching for jobs.

Finally, CES conducts a yearly survey of the vocational intentions of primary and secondary school students. Using the results of this survey, expert teams of school and CES representatives define target groups that need specific services for career guidance. The aggregate results of the survey indicate the trends in the intentions of learners and are forwarded to stakeholders in education and employment at both regional and national levels.

Please see:

- guidance and outreach Croatia national report (57);
- Cedefop's labour market intelligence toolkit (58).

[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].

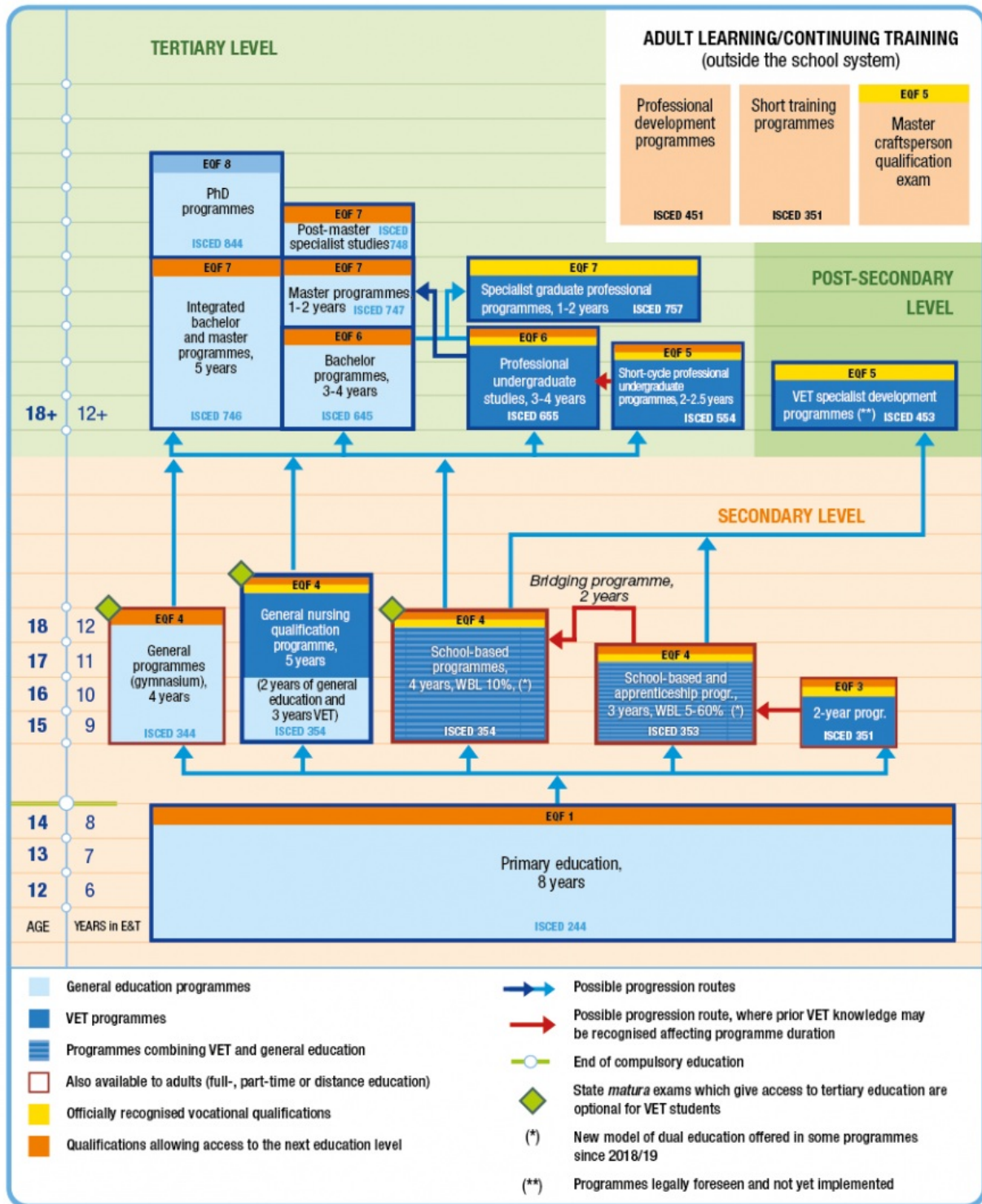
[61] <http://www.cedefop.europa.eu/en/toolkits/resources-guidance/toolkit/where-can-you-find->

[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#/wws/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/wws/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>

Vocational education and training system chart



NB: ISCED-P 2011.

Source: Cedefop and ReferNet Croatia, 2022.

VET Programme Types

EQF 4
General nursing qualification programme, 5 years (2 years of general education and 3 years VET) ISCED 354

One 5-year programme for general nursing qualification (jedan petogodišnji program - za medicinsku sestru opće njege)

EQF level	4	ISCED-P 2011 level	354
Usual entry grade	9	Usual completion grade	13
Usual entry age	15	Usual completion age	19
Length of a programme (years)	5		
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 The total workload for 5-year programmes is a minimum of 240 CSVET credits, with at least 150 CSVET credits of the level 4 or a higher level of units of learning outcomes (78).

CSVET credits are awarded for vocational education and training at EQF levels 2-5. Each CSVET credit includes 15 to 25 hours of study work, duration of 60 minutes.

Learning forms (e.g. dual, part-time, distance) 5-year programmes for general nursing qualification follow a different structure:

- school-based general education in the first 2 years;
- school-based vocational theoretical and practical parts in schools and practical training in hospitals in the second 3 years.

Main providers VET schools

Share of work-based learning provided by schools and companies	60% in the final 3 years of the programme
Work-based learning type (workshops at schools, in-company training / apprenticeships)	For 5-year general nursing qualification programmes, practical training is organised in hospitals and other teaching healthcare institutions.
Main target groups	Young people
Entry requirements for learners (qualification/education level, age)	The entry requirements include a certificate of completion of primary education and adequate physical and mental health, as required by the occupational standard.
Assessment of learning outcomes	For the completion of the educational programme learners need to produce and present a final practical assignment (<i>izradba i obrana završnog rada</i>) which is mandatory for all learners in order to receive a qualification. A final assessment is conducted by schools (79); upon passing it, a learner acquires a secondary school qualification and the VET school issues a certificate.
Diplomas/certificates provided	Certificates of completion (<i>svjedodžba o završnome radu</i>) also represent the final formal award. However, after completing the first 2 years of the nursing programme, which focuses on the general education content, learners receive a certificate of completion, for 2-year general education for the attainment of a medical care qualification (<i>uvjerenje o završenome dvogodišnjem općeobrazovnom programu za stjecanje zdravstvene kvalifikacije</i>).
Examples of qualifications	General care nurse

Progression opportunities for learners after graduation In order to enrol into higher education, graduates can opt to take the *State Matura* exams (*ispiti državne mature*) following the completion of the 5-year programme. Students holding the certificates of completion (*svjedodžba o završnome radu*) as well as a certificate on the State *Matura* exams passed (*potvrda o položenim ispitima državne mature*) can apply to higher education. The National Centre for External Evaluation of Education administers the State *Matura* exams in cooperation with upper-secondary schools. These exams serve three aims: final examination and requirement for graduation from general upper-secondary schools, entrance exams for undergraduate studies at tertiary level for all students (including VET graduates) and external evaluation of student competences and learning outcomes. State *Matura* exams are administered in general education subjects as obligatory and optional exams. Obligatory exams are in Croatian language, mathematics and foreign language and they may be taken at A (advanced) and B (elementary) level. The list of optional exams is determined by the National Centre for External Evaluation of Education for each school year. Higher education institutions set the required level of exams and optional exams among their admission criteria independently. National data from 2019 suggest that over 80% of 4- and 5-year VET programme students expressed a wish to study at the tertiary level by enrolling in the national information system and taking the three obligatory State *Matura* exams (Croatian language, mathematics, foreign language).

Destination of graduates In 2020, around 40% of 5-year programme graduates enrolled in higher education on completion of secondary education.

Awards through validation of prior learning ✗

General education subjects The general education ratio is 100% the first 2 years, and VET part ratio is 100% in the second 3 years.

Key competences Depending on individual curricula, eight key competences (80) are integrated in 5-year programme at EQF level 4 to different extents.

Application of learning outcomes approach Curriculum for the qualification of general care nurse is learning outcome-based.

**Share of learners in
this programme type
compared with the
total number of VET
learners**

In 2020/21, 25 VET providers enrolled 5 263 students (5.4% of all IVET learners) in one (general care nurse) 5-year programme.

-
- [78] Zakon o Hrvatskom kvalifikacijskom okviru [Croatian Qualification Framework Act]; *Official Gazette* No 22/2013, 41/2016, 64/2018, 47/2020, 20/2021.
- [79] Regulation on the development and defence of the final exam (2009).
- [80] As per Recommendation of the European Parliament and of the Council of 18 December for lifelong learning (2006/962/EC).

EQF 5

Short-cycle professional

undergraduate
programmes

2-2.5 years

ISCED 554

Short-cycle professional undergraduate programmes (kratki stručni studij).

EQF level 5		ISCED-P 554 2011 level
Usual entry grade	Not applicable	Usual completion grade Not applicable
Usual entry age	Not applicable	Usual completion age Not applicable
Length of a programme (years)	2-2.5	
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?

Education is free of charge for full-time students enrolled in public higher education institutions, either for students in the first year of the programme for the first time or, in further years of study, for students who earned at least 55 ECTS credits in the previous academic year. Exceptions exist for students with disabilities and high-achieving students simultaneously enrolled in two programmes at tertiary level.

Students at private higher education providers or part-time students pay tuition fees for their studies.

Is it available for adults? ✘

ECVET or other credits 120 -150 ECTS

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

- part-time
- full-time

Main providers Higher education institutions

Share of work-based learning provided by schools and companies

Opportunities for practical training depend on individual curricula.

Work-based learning type (workshops at schools, in-company training / apprenticeships)

- practical training at higher education institutions, if determined by curricula
- in-company training, if determined by curricula.

Main target groups

For full-time studies: young people, secondary school graduates at EQF level 4.

Besides young people, part-time studies may also be available to working adults.

Entry requirements for learners (qualification/education level, age)

Previously acquired EQF level 4 qualification or higher.

Assessment of learning outcomes

Written or oral examinations at course level.

Final assessment may include written and/or oral examination or final thesis, as determined by curricula.

Diplomas/certificates provided

Professional associate (*stručni pristupnik*).

Examples of qualifications	Professional associate in chemical engineering (<i>stručni pristupnik kemijskog inženjerstva</i>).
Progression opportunities for learners after graduation	<p>Graduates may continue their education with professional undergraduate programmes.</p> <p>Depending on the curricula, at the discretion of higher education institutions, graduates may also enrol in university graduate programmes or specialist graduate professional programmes; on condition they pass additional and supplementary exams.</p>
Destination of graduates	Not applicable
Awards through validation of prior learning	✗
General education subjects	General education subjects are taught mostly in relation to vocational subjects.
Key competences	Some courses may be offered to teach key competences.
Application of learning outcomes approach	Not consistent.
Share of learners in this programme type compared with the total number of VET learners	In 2018/19, there were 53 students enrolled in short-cycle professional undergraduate programmes, representing 0.1% of students in higher education professional programmes, and 0.03% of all students in higher education.

EQF 7

Specialist graduate
professional
programmes leading to
EQF 7

ISCED 757

Specialist graduate professional studies leading to EQF 7, ISCED 757 (specijalistički diplomski stručni studij)

EQF level	7	ISCED-P 2011 level	757
Usual entry grade	Not applicable	Usual completion grade	Not applicable
Usual entry age	Not applicable	Usual completion age	Not applicable
Length of a programme (years)	1-2		
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?	Education is free of charge for full-time students enrolled in public higher education institutions, either for students in the first year of the programme for the first time or, in further years of study, for students who earned at least 55 ECTS credits in the previous academic year. Exceptions exist for students with disabilities and high-achieving students simultaneously enrolled in two programmes at tertiary level. Students at private higher education providers or part-time students pay tuition fees for their studies.	Is it available for adults?	✗

ECVET or other credits 60-120 ECTS

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

- part-time
 - full-time
-

Main providers

- colleges (*visoke škole*)
 - polytechnics (*veleučilišta*)
 - universities (*sveučilišta*)
-

Share of work-based learning provided by schools and companies

Opportunities for practical training depend on individual curricula.

Work-based learning type (workshops at schools, in-company training / apprenticeships)

- practical training at education institution, if determined by curricula
 - in-company training, if determined by curricula
-

Main target groups

- for full-time studies: young people, graduates of undergraduate professional programmes
 - Besides young people, part-time studies may also be available to working adults.
-

Entry requirements for learners (qualification/education level, age)

Entry requirements are completed undergraduate professional studies or completed undergraduate university studies.

Assessment of learning outcomes

Written or oral examinations at course level

Final assessment may include written and/or oral examination or final thesis, as determined by curricula

Diplomas/certificates provided

- professional specialist in occupation (*stručni specijalist*), or
 - professional specialist engineer (*stručni specijalist inženjer*) with the addition of the name of the occupation
-

Examples of qualifications

Professional specialist engineer in civil engineering (*stručni specijalist inženjer građevinarstva*) (*struč. spec. ing. aedif.*).

Professional specialist in accounting and finances (*stručni specijalist računovodstva i financija*) (*struč.spec.oec.*).

Progression opportunities for learners after graduation	Specialist graduate professional studies are designed as a terminal professional degree leading to the labour market.
Destination of graduates	Information not available
Awards through validation of prior learning	Higher education providers are required to set internal guidelines for recognising prior learning at EQF levels 6 and higher (88).
General education subjects	General education subjects are taught in relation to vocational subjects.
Key competences	Courses may be offered to teach key competences, depending on curricula.
Application of learning outcomes approach	✓
Share of learners in this programme type compared with the total number of VET learners	In 2018/19, there were 6 965 students enrolled in specialist graduate professional programmes, representing 15.0% of students in higher education professional programmes, and 4.3% of all students in higher education.

[88] Zakon o Hrvatskom kvalifikacijskom okviru [Croatian Qualification Framework Act]; Official Gazette No 22/2013, 41/2016, 64/2018, 47/2020, 20/2021.

Professional development programmes, ISCED 451 (programi usavršavanja)

EQF level	Not applicable	ISCED-P 2011 level	451
Usual entry grade	Not applicable	Usual completion grade	Not applicable
Usual entry age	Not applicable	Usual completion age	Not applicable
Length of a programme (years)	At least 150 hours (89)		
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)	The theoretical part of the programme may be delivered through in-person group instruction at the adult education provider, and partially, through independent learning (including distance learning). The practical part of the programme is generally delivered in-person at the adult education provider or in companies, as set by professional development programmes.		
Main providers	Adult education providers		
Share of work-based learning provided by schools and companies	Not applicable		
Work-based learning type (workshops at schools, in-company training / apprenticeships)	<ul style="list-style-type: none"> • practical training at adult education provider • in-company practice 		

Main target groups	Professional development programmes are generally intended for adult learners who wish to further their skills related to their occupation.
Entry requirements for learners (qualification/education level, age)	Professional development programmes, adopted by adult education institutions, set entry requirements. These may involve certain education level, qualification, age, work experience, medical fitness or other specific prerequisites of the programme (e.g. driver's licence).
Assessment of learning outcomes	Final assessment is performed by an exam commission at the adult education provider delivering the professional development programme. It generally includes a theoretical exam (written and/or oral) and a practical exam.
Diplomas/certificates provided	Professional development certificate (<i>uvjerenje o usavršavanju</i>) is a formal certificate (<i>javna isprava</i>) recognised by the education and training and labour authorities.
Examples of qualifications	Trained sommelier (<i>usavršavanje za poslove sommeliera</i>), trained driving instructor (<i>usavršavanje za poslove instruktora vožnje</i>)
Progression opportunities for learners after graduation	Labour market. Professional development programmes are intended for workers who wish to further their skills in the existing occupation.
Destination of graduates	Not available
Awards through validation of prior learning	✗
General education subjects	✗
Key competences	Only if related to training programme
Application of learning outcomes approach	✓
Share of learners in this programme type compared with the total number of VET learners	About 5% of adult learners opted for professional development programmes in 2020.

Short training programmes

ISCED 351

Short training programmes, ISCED 351 (programi osposobljanja)

EQF level	Not applicable	ISCED-P 2011 level	351
Usual entry grade	Not applicable	Usual completion grade	Not applicable
Usual entry age	Not applicable	Usual completion age	Not applicable
Length of a programme (years)	At least 120 hours (90)		
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 The total workload for acquiring a qualification at EQF level 2 is a minimum of 20 CSVET credits of the EQF level 2 or a higher level of units of learning outcomes (91).

CSVET credits are awarded for vocational education and training at EQF levels 2-5. Each CSVET credit includes 15 to 25 hours of study work, duration of 60 minutes.

Learning forms (e.g. dual, part-time, distance) The theoretical part of the training may delivered through in-person group instruction at the adult education provider, and partially, through independent learning (including distance learning). The practical part of the training is generally delivered in-person at the adult education provider or in companies, as set by training programmes.

Main providers Adult education providers

Share of work-based learning provided by schools and companies > 60% (92)

Work-based learning type (workshops at schools, in-company training / apprenticeships)	<ul style="list-style-type: none"> • practical training at adult education provider • in-company practice
Main target groups	Short training programmes at EQF level 2 are generally intended for adult learners.
Entry requirements for learners (qualification/education level, age)	Training programmes, adopted by adult education institutions, set entry requirements. These may involve certain education level, age, work experience, medical fitness or other specific prerequisites of the training programme (e.g. driver's licence, etc.).
Assessment of learning outcomes	Final assessment is performed by an exam commission at the adult education provider delivering the training programme. It generally includes a theoretical exam (written and/or oral) and a practical exam.
Diplomas/certificates provided	Short training certificate (<i>uvjerenje o osposobljavanju</i>) is a formal certificate (<i>javna isprava</i>), recognised by the education and training and labour authorities.
Examples of qualifications	Trained forklift operator (<i>osposobljen za rukovatelja viličarom</i>), trained for bartending jobs (<i>osposobljen za poslove barmena</i>), trained for simple jobs in the occupation of butcher (<i>osposobljen za jednostavne poslove u zanimanju mesar</i>).
Progression opportunities for learners after graduation	Learners holding this certificate normally enter the labour market meeting requirements to execute simple tasks in familiar conditions.
Destination of graduates	Not available
Awards through validation of prior learning	✗
General education subjects	✗
Key competences	Only if related to training programme
Application of learning outcomes approach	✓

Share of learners in this programme type compared with the total number of VET learners Adult learners most often opt for short training programmes, over 60% in 2020.

- [91] Zakon o Hrvatskom kvalifikacijskom okviru [Croatian Qualification Framework Act]; Official Gazette No 22/2013, 41/2016, 64/2018, 47/2020, 20/2021.
- [92] Adopted in 2018, the National curriculum for VET defines WBL share in qualifications at EQF level 2 at over 60%. New qualifications and vocational curricula in line with the National curriculum for VET are yet to be developed in the VET reform process, which is currently underway.

EQF 5

Master craftsperson
qualification exam**Master craftsperson qualification exam leading to EQF level 5
(majstorski ispit)**

EQF level 5		ISCED-P 2011 level	
		Not applicable	
Usual entry grade	Not applicable	Usual completion grade	Not applicable
Usual entry age	Not applicable	Usual completion age	Not applicable
Length of a programme (years)	Not applicable		
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 The total workload for programmes at EQF level 5 is a minimum of 60 CSVET, with at least 30 CSVET credits of the level 6 or a higher level of units of learning outcomes (93).

CSVET credits are awarded for vocational education and training at EQF levels 2-5. Each CSVET credit includes 15 to 25 hours of study work, duration of 60 minutes.

Learning forms (e.g. dual, part-time, distance) Not applicable

Main providers Chamber of trades and crafts

Share of work-based learning provided by schools and companies Not applicable

Work-based learning type (workshops at schools, in-company training / apprenticeships) Not applicable

Main target groups	Professional workers in regulated crafts and trades occupations
Entry requirements for learners (qualification/education level, age)	<p>Eligible candidates for taking the master craftsperson qualification exam are:</p> <ul style="list-style-type: none"> • those who passed the apprenticeship exam and have at least 2 years of experience in the occupation; • those who completed upper secondary education other than apprenticeship and have at least 4 years of experience in the occupation; • those who passed the apprenticeship exam and completed 1-year training in master craftsperson school; • those who completed upper secondary education other than apprenticeship, have at least 2 years of experience in the occupation, and who completed 1-year training in master craftsperson school.
Assessment of learning outcomes	<p>The master craftsperson qualification exam includes assessment of general knowledge and knowledge of legislation in the economy and entrepreneurship relevant for operating a crafts business and training apprentices, as well as practical skills and professional-theoretical knowledge relevant for specific occupation in crafts and trades.</p> <p>Master craftsperson qualification exams are conducted by commissions nominated by the chamber of crafts. The ministry in charge of crafts regulates the procedure of taking the master craftsperson qualification exams (94).</p>
Diplomas/certificates provided	Master craftsperson diploma (<i>diploma o majstorskom zvanju</i>)
Examples of qualifications	Master ship mechanic (<i>majstor brodski mehaničar</i>), master plumber (<i>majstor vodoinstalater</i>)
Progression opportunities for learners after graduation	Labour market. Qualification is intended for experienced craftsmen in regulated crafts and trade occupations.
Destination of graduates	Not available
Awards through validation of prior learning	✗
General education subjects	✗
Key competences	✗

Application of learning outcomes approach ✖

Share of learners in this programme type compared with the total number of VET learners Not applicable

- [93] Zakon o Hrvatskom kvalifikacijskom okviru [Croatian Qualification Framework Act]; Official Gazette No 22/2013, 41/2016, 64/2018, 47/2020, 20/2021.
- [94] [BOX_11] Pravilnik o postupku i načinu polaganja majstorskog ispita te ispita o stručnoj osposobljenosti [Regulation on the procedure and ways of taking master craftsperson qualification exam and professional training exam]. Official Gazette No. 88/2002.
-

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_the_EU [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_Belgium
- [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_Belgium
- [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_Belgium
- [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_HHHAH900NGE980A76618b244-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_HHHAH900NGE980A79359405e-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_HHHAH900NGE980A7f07f831e-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=abruftabelleBearbeiten&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://beck-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] WTTC (2021). Croatia 2021 annual research: key highlights [database].
<https://www.wttc.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>