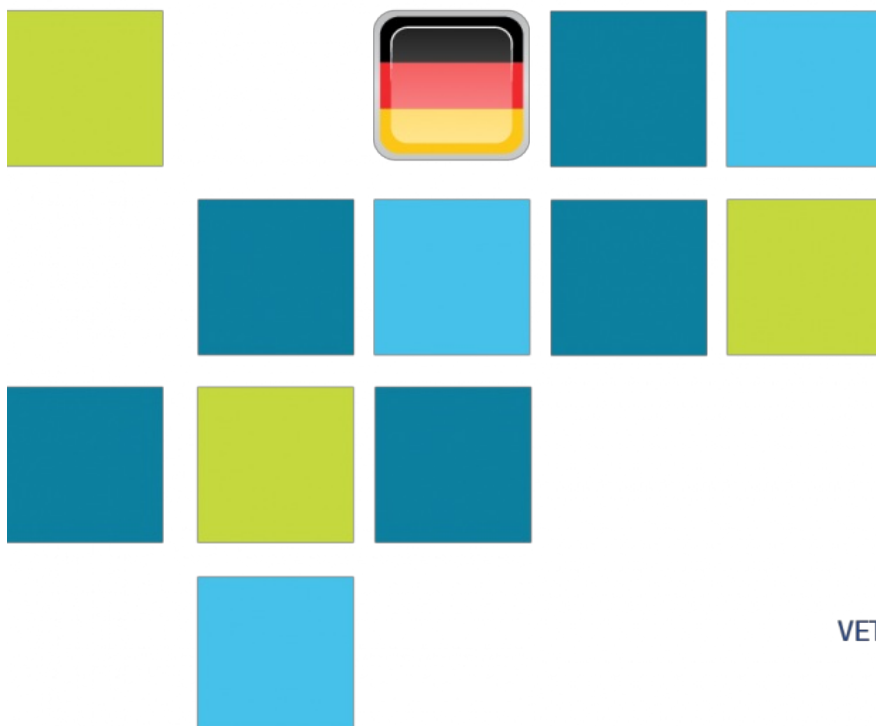

VOCATIONAL EDUCATION
AND TRAINING IN EUROPE

GERMANY

SYSTEM DESCRIPTION



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 - Transition programmes leading to EQF level 1-2 and ISCED level 254 and include the following programmes: pre-vocational training year (Berufsvorbereitungsjahr – BVJ); basic vocational training year (Berufsgrundbildungsjahr – BGJ); introductory training (Einstiegsqualifizierung – EQ)..
 - Apprenticeship scheme (dual system: duale Ausbildung) according to the Vocational Training Act (BBiG) and the Trade and Crafts Code (HwO) at EQF level 3-4 and ISCED level 354 (in 2020: 324 programmes, one for each occupation that can be learnt in the apprenticeship scheme)..
 - Specialised programmes (Berufsoberschule BOS – Fachoberschule FOS – Schule für Gesundheits-, Erziehungs- und Sozialberufen GES nach Bundes- und Landesrecht) leading to EQF level 4-5, ISCED 444, 453, 454.
 - Advanced vocational qualifications and exams at three levels: - EQF level 5: professional specialist (Berufsspezialist), - EQF 6: Bachelor professional (master craftsperson, specialist: Fachwirte und Meister) and - EQF 7: Master professional (management experts: Betriebswirt)..
 - Advanced vocational programmes in trade and technical schools (Fachschule) leading to EQF level 6 and ISCED 655..
 - Dual study bachelor programmes (Duales Studium im Bachelor Programm) leading to

EQF level 6 and ISCED level 645.

- Master programme (Master Programm) leading to EQF level 7, ICSED 747.
- References.

CHAPTER 1.

Summary of main elements and distinctive features of VET

Summary of main elements (1)

Vocational education and training (VET) is based on close cooperation between the State, companies and social partners. The Federal Ministry of Education and Research (BMBF) is responsible for general VET policy issues and has a coordinating role for all training occupations. The BMBF works closely with the Federal Institute for Vocational Education and Training (BIBB). BIBB conducts research, moderates the process of developing the training regulations and plays a crucial advisory role for VET policy. The Federal States (*Länder*) are in charge of the school-based part of VET. Social partner contribution is important at different levels.

Upper secondary VET

Apprenticeship programmes (dual system) are the pillar of upper secondary VET. They are mostly offered at EQF level 4 and cover 325 occupations. Programmes usually last 3 years and combine two learning venues, companies and vocational schools: the work-based learning share is approximately 75%. Enterprises bear the costs of company-based training and pay learner remuneration. Those passing the final examination carried out by the chambers are qualified as certified skilled professionals.

In parallel, upper secondary VET programmes are offered in vocational schools at EQF levels 2 to 4. These include:

- school-based VET programmes, duration 1 to 3 years, leading e.g. to a qualification in the health sector such as a nurse;
- general education programmes with vocational orientation, duration 2 to 3 years, leading to the general higher education entrance qualification.

Young people with learning difficulties, handicap or insufficient German language skills have the possibility to attend different transition programmes.

At post-secondary level, specialised programmes are offered at EQF levels 4 to 5, lasting 1 to 3 years and leading to entrance qualifications for universities.

Tertiary VET

At tertiary level, those with vocational qualifications and professional experience can acquire advanced vocational qualifications at EQF levels 5 to 7. At EQF level 6 (bachelor professional, e.g. *Meister*) the qualifications entitle graduates to exercise a trade, to hire and train apprentices, and to enrol in academic bachelor programmes. Graduates can continue at EQF level 7 (master professional). These qualifications support the acquisition of middle and top management positions in companies. Preparation courses are offered by chambers or schools.

Advanced vocational programmes are offered at EQF 6, lasting 1.5 to 4 years. Entrance requirements include specific vocational qualification and work experience. They lead to an advanced qualification (such as technician, educator) and give access to the relevant field of study.

Dual study programmes are offered at EQF levels 6 to 7 by different higher education institutions.

They provide a blend of academic and vocational training, in which in-company training is an important element (share of at least 40 to 50%). Enterprises bear the costs of company-based training and pay learners a wage.

Continuing VET

Continuing training is playing an increasingly important role in improving employability by upskilling and reskilling in line with the digital and ecological transition. It is characterised by a wide variety of training providers and a low degree of State regulation. State incentives are in place to increase participation in CVET.

Distinctive features (2)

Germany's VET is a successful model, largely based on the dual system (apprenticeship) leading to high-quality vocational qualifications, valued on the labour market. Apprenticeship enables smooth education-to-work transitions, contributing to low youth unemployment: in 2019 this was 5.8% of those aged 15 to 24, versus 15.1% in the EU-27. About 50% of upper secondary school learners are enrolled in a VET programme; of those, 70% participate in apprenticeship. A growing share of apprentices has a higher education entrance qualification (29.3% of apprentices starting their training in 2019). The success of the German apprenticeship system was also the main driver for implementing the European Alliance for Apprenticeships.

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

Social partner contribution at different levels is important. As vocational training must respond to labour market needs, employer organisations and trade unions have a major influence on the content and form of IVET and CVET. At national level, they are represented in the BIBB board and participate in its vocational training committees. At regional level, the chambers play a crucial role in VET, such as in examinations. The initiative for updating or developing new occupational profiles comes mainly from social partners.

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- [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>

CHAPTER 2.

Main challenges and policy responses

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

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

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

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

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

- the number of unfilled training places shows a need for reconciling supply and demand while taking into account regional and branch-specific differences. Employment agencies play a major role in matching SMEs and applicants;
- the Alliance for initial and further training has committed to integrating all interested learners in a VET programme; pre-VET measures and support during training are offered to migrants, refugees and other disadvantaged groups to facilitate their transition to VET and successful completion (3) .

Mitigating the effects of the COVID-19 crisis on apprenticeship with the federal programme Securing apprenticeship placements, which:

- supports training companies in all sectors of the economy and training institutions in the health and social professions;
- motivates training companies and institutions to maintain and expand their apprenticeship placements with premiums and bonuses, enabling young people to continue and successfully complete their training;
- avoids short-time work for apprentices, promote contractual and joint training, and create incentives for taking over apprentices in the event of insolvency (4) ,

[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>

CHAPTER 3.

External factors influencing VET

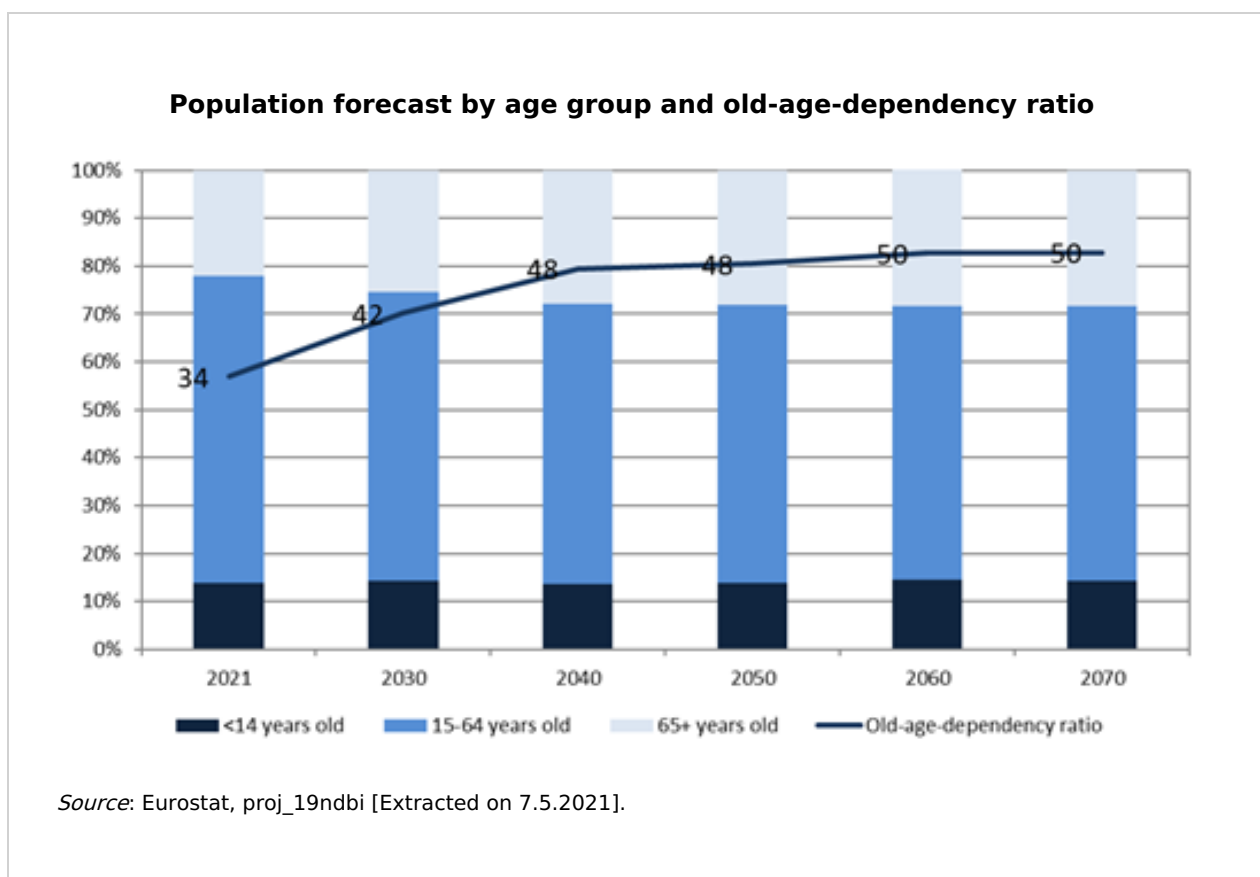
3.1 Demographics

Population in 2020: 83 166 711 (5)

It increased by 2.4% since 2015 due to migration (net migration in 2015: +1.1 million) (6) .

As in many other EU countries, the population is ageing.

The old-age-dependency ratio is expected to increase from 34 in 2021 to 50 in 2070 (7) .



The ageing of the currently high proportion of middle-age population cohorts will lead to significant shifts in the age structure, once they join the group aged 65+ years. In 2021, 13.8 % of the population were below 14, 64.2% were between 15 and 65, and 22% were 65 or older. By 2070, 14.4% of the population will be below 14, but only 57.2% will be between 15-64 years old, i.e. working age. The number of 65+ year-old people will increase to 28.4%. The old-age-dependency ratio will increase from 34.2% in 2021 to 49.7% in 2070. This indicator is the ratio between the number of persons aged 65 and over (age when they are generally economically inactive) and the number of persons aged between 15 and 64.

The Qualification and occupation projections (QuBe project) (8) provide an overview of a probable development of the German labour market up to the year 2040. Due to constantly changing framework conditions, the data basis and the modelling method of the projection are regularly updated and revised. The QuBe data portal illustrates possible development paths of labour supply and demand. It shows that, due to the ageing of society, the labour force will decline by around 1.8 million people between 2020 and 2040. This projection assumes average annual migration gains of around 240 000 persons (9) .

3.2 Economics

The overwhelming majority (2.6 million) of companies in 2019 were micro companies (1-9 employees) and small and medium-sized enterprises (SMEs, 10-249 employees); 2.1 million were classified as microenterprises. Only 17 000 enterprises had more than 249 employees. However, in terms of turnover, large enterprises dominate. Small and medium-sized enterprises were responsible for only 29% of turnover in 2019.

In 2019, 56% of the 31.6 million employees worked in micro and SMEs: micro-enterprises employed about 18% of active persons, small enterprises (10-49 employees), 21% were employed in small enterprises, and a further 17% in medium-sized enterprises.

These SMEs form the *Mittelstand*, which is playing a major role in the dual VET system by providing the most apprentice placements. Compared to previous years, a larger proportion of apprenticeship training activity takes place in medium-sized as well as large companies, while the participation of micro and small enterprises recorded declines (10) .

In 2020, most employed persons were working in the tertiary economic sector (mainly services), followed by the secondary sector (production industry) and the primary sector (agriculture, forestry and fishing) (11) .

The share of enterprises in the primary sector providing apprentice placements has decreased in recent years. In the secondary sector, many enterprises provide apprenticeship. The tertiary sector offers a differentiated picture: a positive trend in personal services (e.g. medical and nursing services), a clearly negative trend in company-related services (e.g. financial and legal services, information and communication-related services) and a less negative trend in transport, trade, accommodation and catering services.

3.3 Labour market

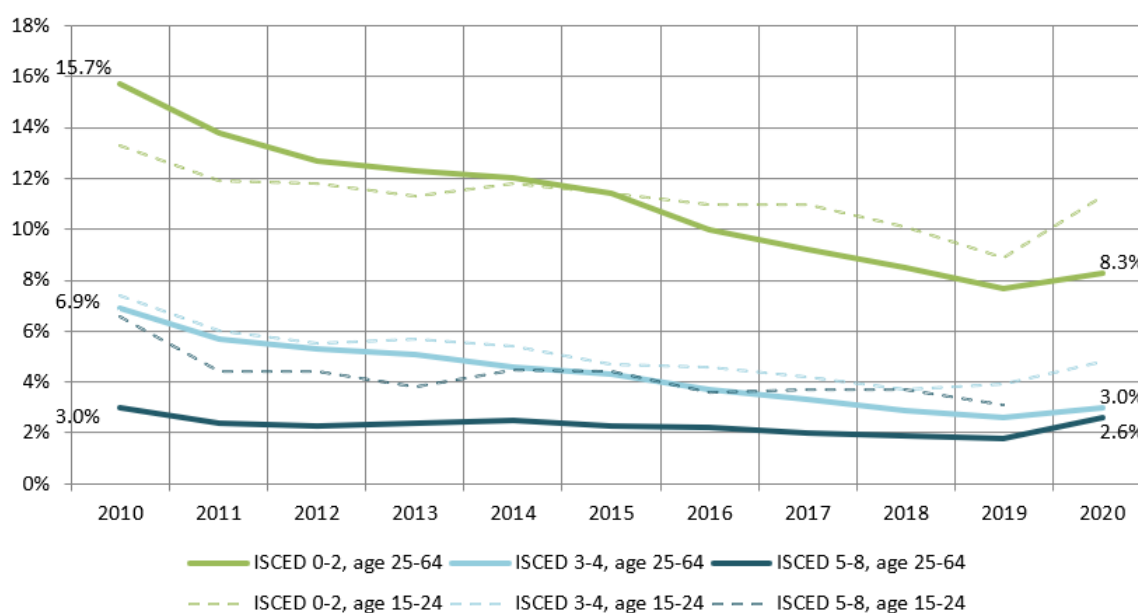
Most occupations in Germany are regulated and only accessible with the relevant qualification.

The consequences of the pandemic-related restrictions on the economy and the labour market are differentiated: for example, fewer services can be offered due to the reduction in the production of goods. For many workers, this means short-time work or even the loss of their jobs. This is contrasted with areas such as the health sector, where there has been a considerable increase in the workload since the pandemic (12) .

Even before the pandemic, falls in supply and demand and also in the number of newly concluded training contracts had been expected, particularly as a result of falling school leaver numbers. This trend was exacerbated by the effects of the COVID-19 pandemic. The number of apprenticeships on offer in 2020 fell by 50 700 (-8.8%) to 527 400 compared to 2019, while the number of young people seeking apprenticeships fell by 53 000 (-8.9%) to 545 700 (13) .

Total unemployment (14) (2020): 3.4% (6.2% in EU27); it has fallen by 0.4 percentage points since 2016 (15) . With 44.8 million people in employment, the ratio is 75.5 % (16) .

Unemployment rate (aged 15-24 and 25-64) by education attainment level in 2010-20



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

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.

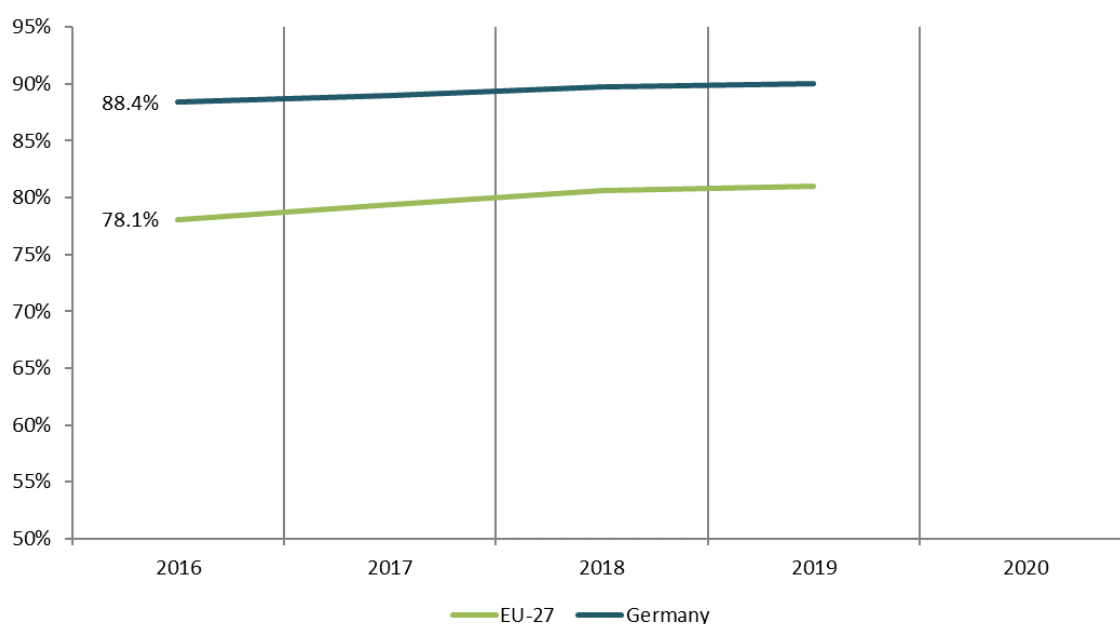
Source: Eurostat, Ifsa_urgaed [Extracted 6.5.2021].

Unemployment is distributed unevenly between those with low- and high-level qualifications.

The gap has increased during the Covid-19 crisis as unskilled workers are more vulnerable to unemployment. In 2018, the unemployment rate of people with upper secondary and post-secondary non-tertiary education, the levels where most VET graduates exist (ISCED levels 3 and 4), was only slightly above the unemployment rate of people with tertiary education (2.9% compared to 1.9%). Low-skilled people (less than lower secondary education) however, faced a much higher risk of unemployment with the rate at 8.5%.

The employment rate of 20 to 34-year-old VET graduates increased from 82.4% in 2016 to 84.4% in 2020 (17) .

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 6.5.2021].

The employment rate of VET graduates increased from 90.1 % in 2016 to 93.4 % in 2019, but declined to 92.2 % in 2020.

For more information about the external drivers influencing VET developments in Germany please see the case study from Cedefop's changing nature and role of VET in Europe project (18).

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- [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_ifse_24 [extracted 6.5.2021].

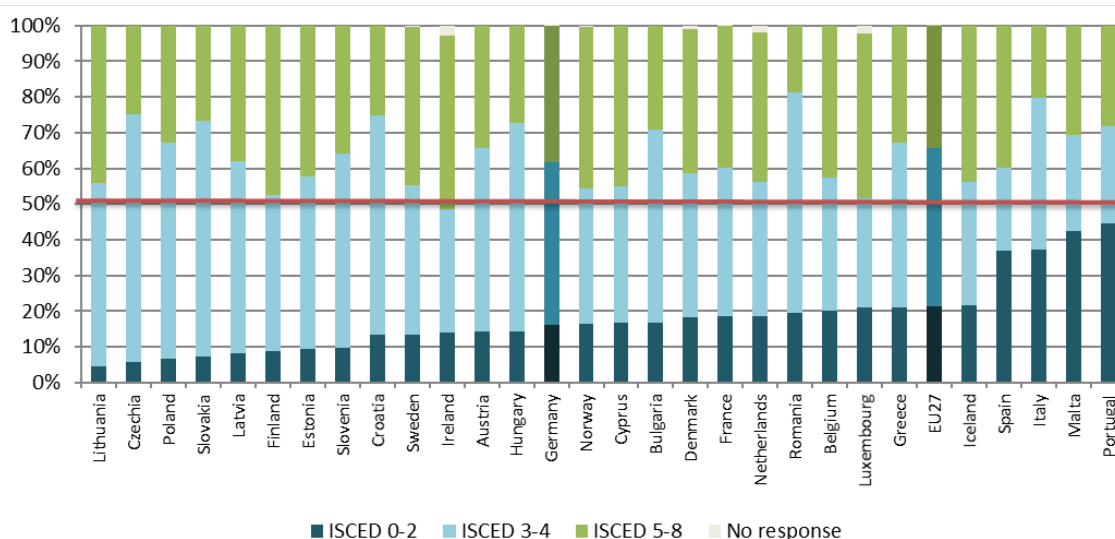
CHAPTER 4.

Education attainment

4.1 Share of high, medium and low level qualifications

The share of population aged 25 to 64 which has an upper and post-secondary education level is the highest at 45.7%, almost equalling the EU-27 average (44.5%). The share of 25-64 years old with higher education level was 38%, slightly higher than the EU-27 average (34%). 16.1% of the population had only reached the lower secondary education level, which was 5% below the EU-27 average.

Population (aged 25 to 64) by highest education level attained in 2020



NB: Data based on ISCED 2011. Low reliability for 'No response' in Czechia and Latvia.

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, Ifsa_pgaed [extracted 6.5.2021].

In Germany, the number of people whose highest educational attainment is within the upper-secondary and post-secondary non-tertiary level (ISCED 3-4) has been falling steadily within recent years. In 2014, the number of graduates with an ISCED level 3-4 qualification was just over 30 000. In 2018, it was 29 447 and has further decreased to 28 013 in 2020. In contrast, the number of tertiary education graduates (ISCED 5-8) has increased from 12 232 in 2014 to 14 455 in 2020. The number of people with an educational attainment of less than a primary, a primary or a lower secondary level (ISCED 0-2) stayed constant throughout the years. In 2014 it was 10

350 and in 2020 it was 10 658.

For more information about VET in higher education in Germany please see the case study from Cedefop's changing nature and role of VET in Europe project (19) .

4.3 VET learners by level

Share of learners in VET by level in 2018

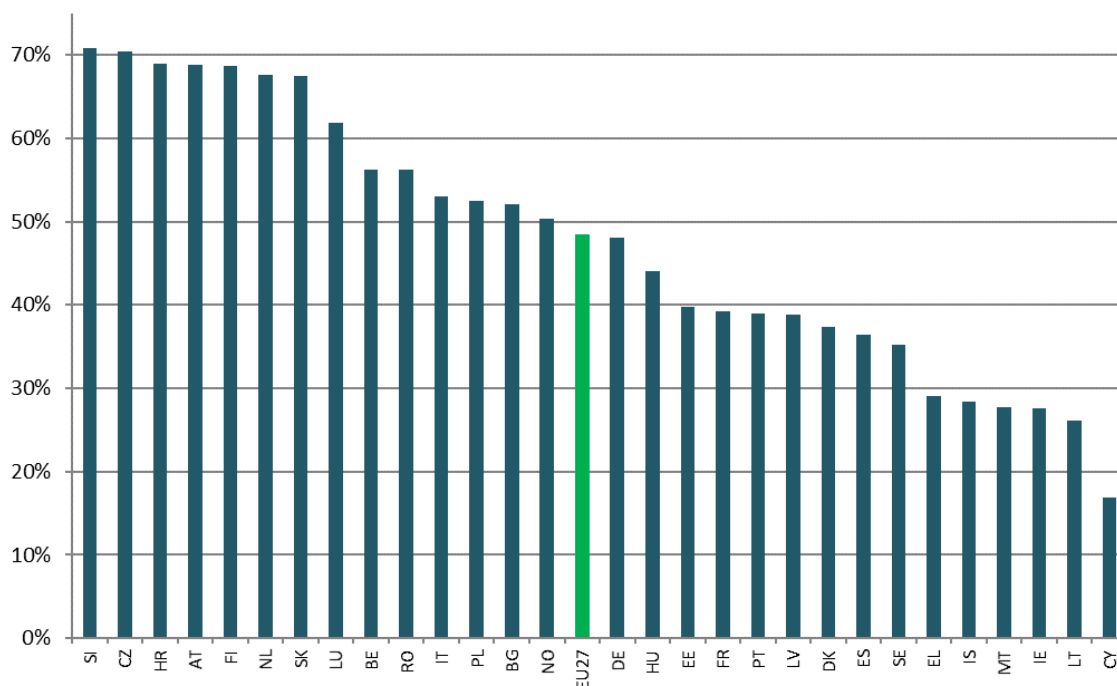
VET in Germany is mainly at the upper secondary and tertiary levels. Upper secondary education includes both the dual VET system (i.e. apprenticeship system) and full-time school-based vocational training. The post-secondary non-tertiary sector is almost exclusively characterised by programmes leading to vocational qualifications as double qualifications, i.e. a general education programme and subsequent vocational training or two IVET programmes in succession.

Share of learners in VET by level in 2019

lower secondary	upper secondary	post-secondary
4.6%	46.5%	93.3%

Source: Eurostat, educ_uoe_enrs01, educ_uoe_enrs04 and educ_uoe_enrs07 [extracted 27.10.2020].

Share of initial VET learners from total learners at upper secondary level (ISCED level 3), 2019



NB: Data based on ISCED 2011;.

Source: Eurostat, educ_uoe_enrs04 [extracted 6.5.2021].

4.4 Female share

Young women and men continue to orient themselves very differently on the VET market in Germany. This applies not only to the training paths taken by girls and boys, but also to the training occupations they choose. For example, male youths are overrepresented in the dual VET system (65.2% men to 34.8% women), with female youths in full-time school-based training mostly in healthcare, education and social occupations. 36.4% of the apprenticeship contracts concluded in 2020 were concluded with women. The trend observed for years, that fewer and fewer apprenticeship contracts in the dual system are being concluded with women, continued in 2020. Over time, a continuous reduction in the proportion of women can be seen: 2019: 36.6%; 2016: 39.2%; 2013: 40.5%.

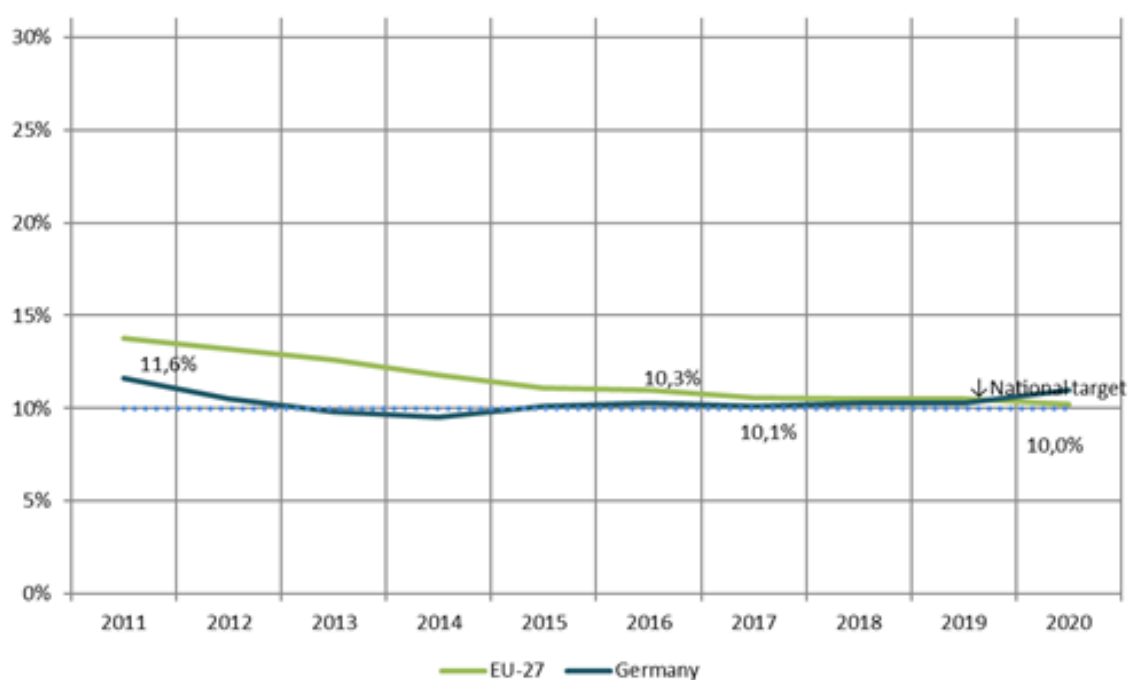
Female youths often opt for full-time school-based apprenticeships, predominantly in health, education and social occupations. While the number of female apprentices in industry, commerce and crafts is continuously falling, they continue to dominate in the liberal professions (2020: 91.6%; 2019: 91.3%), home economics (2020: 87.0%; 2019: 84.7%) and public service (2020: 62.7%; 2019: 62.3%) (20) .

In the apprenticeship programmes, the top five occupations for males are automotive mechatronics technician, electronics technician, IT specialist, plant and industrial mechanics. Among female apprentices, the top five occupations are office management assistant, medical assistant, dental nurse, retail saleswoman and saleswoman.

4.5 Early leavers from education and training

The share of early leavers from education and training has decreased from 11.1% in 2009 to 10.3% in 2018 and has reached almost the national target for 2020 of not more than 10%. The average dropout rate decreased by 0.8 percentage points since 2009, which is exclusively due to a fall in the numbers for domestic students. Compared to 2009, the figure fell by 1.4 percentage points. Foreign-born pupils were three times more likely to drop out of school in 2019 (24.2%) than German pupils (average: 8.1%).

Early leavers from education and training in 2011-2020



NB: Share of the population aged 18 to 24 with at most lower secondary education and not in further education or training; break in series.

Source: Eurostat, edat_lfse_14 [Extracted 6.5.2021] and European Commission:

https://ec.europa.eu/info/2018-european-semester-national-reform-programmes-and-stability-convergence-programmes_en [accessed 14.11.2018].

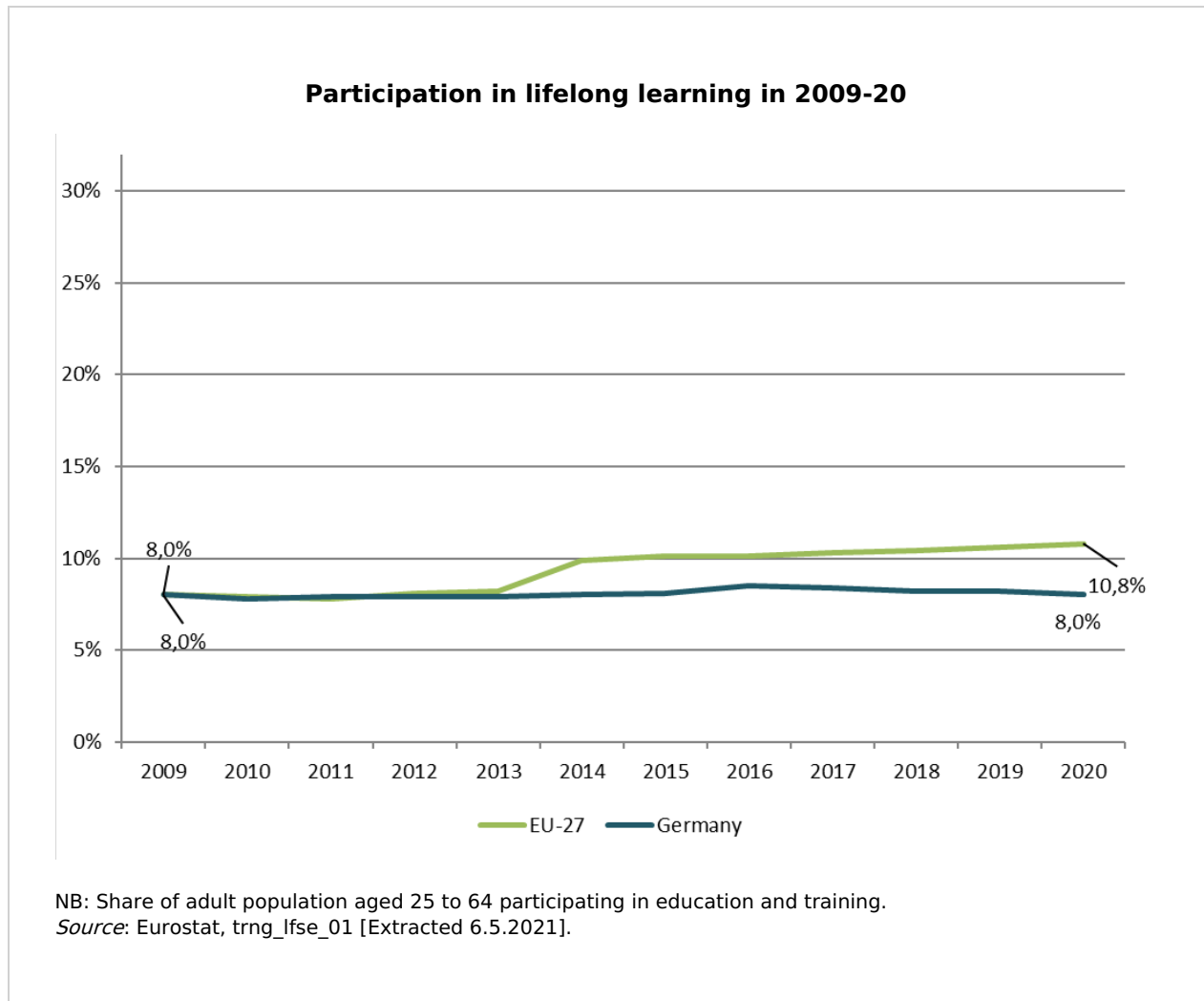
In 2020, joint funding from three federal ministries reacted to the COVID-19 pandemic with the programme Securing apprenticeship places. It pursues the goals of avoiding training drop-outs and maintaining the supply of training places. The federal programme offers financial support to training companies and training institutions in the health and social professions so that the level of training can be maintained, short-time work can be avoided, trainees from other companies can be taken on and contract and joint training can be offered (21) .

Specific support is offered targeting young people who need help to complete vocational training. Enrolment is voluntary and the support consists of special classes and accompanying socio-educational mentors to help apprentices overcome language and education deficits and acquire specialist theoretical knowledge during at least 3 hours a week. The law establishing this measure came into force in May 2015 (22) . It helps apprentices to avoid dropping out of training, stabilise training relationships and complete vocational training. Apprentices with difficulties can receive additional individual coaching by senior volunteers working for the Prevention of training drop-outs initiative, VerA. The senior experts are retired professionals with broad experience in their respective field of work. (23)

Specific measures are also targeting young people who need support earlier, i.e. to obtain a general school-leaving certificate and to make the transition from school to training: it includes career start coaching, introductory training, and preparatory VET. All these measures are part of the Educational chains programme, with a strong preventive approach (24) .

4.6 Participation in lifelong learning

Lifelong learning offers training opportunities for adults, including early leavers from education.



In Germany, participation in lifelong learning increased from 7.9% in 2011/12 and 13 to 8.5% in 2016 but, during those years, was still below the EU-28 average (9.1% in 2011, 10.7% in 2013 and 11.3% in 2019). By 2019, the German share had declined to 8.2%. Due to the slump in continuing education measures due to the COVID-19 crisis, the share of participants in 2020 fell to 7.7%. The European benchmark includes non-formal and formal learning **in the last 4 weeks** before the survey (Labour force survey) among respondents aged 25 to 64. In the Adult education survey, respondents are asked about learning activities **during the last 12 months**. In this case, the participation rate in lifelong learning in Germany is much higher: 54% in 2018 (25) .

[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

CHAPTER 5.

VET within education and training system

The education and training system comprises:

- primary education (ISCED level 1, EQF level 1);
- lower secondary education (ISCED level 2, EQF level 2 and 3);
- upper secondary education (ISCED level 3), with the dual VET system, i.e. apprenticeship system (ISCED level 3 and 4; EQF level 3 and 4);
- post-secondary non-tertiary education (ISCED level 4 and 5; EQF level 4 to 5);
- higher VET and higher education (ISCED levels 6, 7 and 8, EQF levels 5 to 8).

Compulsory education is for all those aged 6 to 18. Compulsory *full-time* education lasts 9 years (or 10 years, depending on the Federal State).

Following 4 years of primary school for all, educational paths are divided in the subdivided school system, consisting of lower secondary programmes (until grade 9 or 10) and upper secondary programmes (until grade 12 or 13).

The apprenticeship or dual VET system (EQF level 4) in Germany is also part of the upper secondary education area, just as much as full-time school-based vocational education and is the main pillar of VET. Slightly more than half of an age cohort (2019: 54.4%) begins training in one of the 324 training occupations (26) . The distribution within the IVET sector underlines the relevance of the apprenticeship system: in 2020 almost two-thirds (64.2%) of young people started an apprenticeship, the rest started school-based vocational training (35.8%), especially in health, education and social services, which are not offered in the dual VET system (27) . Taken as a whole, the school-based VET programmes at upper secondary level differ in terms of access, length, types and levels of qualification they lead to (EQF levels 2 to 4) (28) .

Progression from IVET at upper secondary level is possible through various regulated VET programmes provided at post-secondary and increasingly at tertiary level.

Besides the IVET system, the German VET system also includes continuing education. Below is an overview of the VET learning options, which all include WBL:

At upper secondary level:

- general education programmes with vocational orientation;
- school-based VET programmes;
- apprenticeship programme (i.e. dual VET incl. WBL of ca. 70%);

At post-secondary level:

- specialised programmes;

At tertiary level:

- advanced vocational qualifications and exams at EQF level 5 (professional specialist), EQF level 6 (Bachelor professional, e.g. master craftsperson, specialist) and EQF level 7 (Master professional e.g. management expert);
- advanced vocational programmes (technician, specialist and similar programmes);

- bachelor programmes;
- master programmes.

At post-secondary level (EQF levels 4 and 5), specialised programmes building on secondary VET impart deeper occupational knowledge and lead to higher education entrance qualifications.

At tertiary level, there are the advanced vocational qualifications and exams. VET in Germany comprises three levels of advanced vocational qualifications (EQF levels 5 to 7). They differ regarding competence requirements and the related operational deployment in companies. Admission to level 7 qualifications requires level 6 qualifications; level 6 qualifications do not require level 5 qualification but can be acquired directly after IVET in the dual system and mostly work experience is necessary (master craftsman, technician or specialist qualifications).

As part of an amendment to the BBiG in 2020, new designations for the qualifications were introduced: Certified professional specialist (EQF level 5), Bachelor professional (EQF level 6) or Master professional (EQF level 7) (29), making the equivalence of VET and higher education more visible. The designations are internationally more comprehensible and are thus intended to promote mobility on the global labour markets.

Unlike the training regulations for IVET in the dual system, these federally regulated advanced training regulations do not include a curriculum; however, they do define and describe examinations. Other features, which must be specified in the advanced training regulations, include (§ 53 para. 2 BBiG, § 42 para. 2 HwO):

- (a) designation of the advanced qualification;
- (b) the aim, contents and requirements of the examination;
- (c) admission requirements;
- (d) examination procedure.

As a rule, admission to an examination generally requires an IVET qualification in a recognised training occupation (dual VET). The advanced training regulations are laid down by the Federal Ministry of Education and Research (BMBF) by agreement with the competent ministries and following consultation with the Board (30) of the Federal Institute for Vocational Education and Training (BIBB). Advanced vocational training as a master craftsman (*Meister*, EQF level 6) entitles the holder to practice a craft trade independently, to employ and train apprentices, and opens up access to programmes at craft academies, universities of applied sciences (31) as well as universities.

Data about this qualification are not fully recorded in the ISCED statistics because admission to the examinations does not generally require participation in a preparatory course or formal education programme. There is political pressure to remedy this lack of transparency in international statistics and to include all programmes that meet the ISCED-2011 level definition in the future.

Advanced vocational programmes (ISCED 655; EQF 6) are offered at trade and technical schools, which are regulated according to the state law. Entrance requirements vary by subject area: an applicant normally needs a qualification in a recognised training occupation appropriate to the chosen subject, and relevant work experience of at least 1 year, or a qualification from a full-time vocational school and relevant work experience of at least 5 years. Advanced vocational programmes can be followed as part-time or full-time programmes (the latter last between 1 and 3 years) and they lead to a state vocational qualification (e.g. educator; technician). Students adopt extensive responsibility and management functions at the workplace. Some trade and technical schools also provide programmes that lead to a formal entrance qualification for the universities of applied sciences. They exist for the following occupational fields: agriculture, design, technology, business and social care. They end with a final state examination under state law.

Dual study programmes (EQF levels 6 and 7) combine two learning venues (the workplace and the education institution) similar to the apprenticeships at secondary level and are offered by universities of applied sciences (UASs, *Fachhochschulen*), the dual university (*Duale Hochschulen*), universities of cooperative education (*Berufsakademien*) as well as some universities. More than a quarter of all UAS programmes are offered as dual study programmes (32) .

CHAPTER 6.

Apprenticeship

Apprenticeship scheme (dual VET system)

Dual VET, which is used as a synonym for apprenticeships, has a high status in Germany. Slightly more than half of an age cohort (2019: 54.4%) begins training in one of the 324 training occupations (33) . Nationwide, at the end of 2019, there were approximately 1.33 million apprentices (34) . Particularly owing to how it links learning and work, as well as schools and companies, the system appears to be a successful model for structuring the transition from school to working life. It is characterised by two learning places, the in-company training which covers approximately 70% of the learning time, and the VET schools, which supplement the training with theoretical and general learning content.

The primary aim of the apprenticeship is to enable young people to acquire comprehensive vocational competence. After finishing the apprenticeship, they should be able to fulfil their duties as employees efficiently, effectively, innovatively, autonomously and in cooperation with others. The array of competences must be demonstrated in exams regulated by law (Vocational Training Act, BBiG). Final exams are geared to vocational practice, i.e., to the work requirements and processes of the occupation. They are conducted by the chambers. For this task, the chambers are authorised by the State and are officially acting as a public institution. Upon passing the final examination, apprentices receive a chamber certificate to document that training has been successfully completed. This certification of qualification is fully recognised and highly trusted among employers. Performance in VET school subjects is evaluated via school reports.

An apprenticeship in the dual system normally lasts 3 years (35) . On average, young people take up VET at the age of 19.7 (36) . Compulsory education must have been completed before starting an apprenticeship. There are no further formal access requirements but companies select their apprentices and the majority of them hold either the intermediate secondary school leaving certificate (*mittlerer Schulabschluss*) or the lower secondary school leaving certificate (*Hauptschulabschluss*). However, the share of apprentices with a higher education entrance qualification has been rising as well: in 2018, almost one in three apprentices (29.3%) was a high-school graduate (37) . This group followed successively both paths of education at upper secondary level: first the general, followed by the vocational qualification. Despite being classified as 'upper secondary', IVET is also considered by high-school graduates as an alternative option to tertiary education. The repartition of apprentices according to the economic sector of occupation was as follows in 2019: 58% in commerce and industry, 27.6% in the craft sector, 8.5% in liberal professions, 3% in the public sector, 2.4% in agriculture and 0.4% in housekeeping (38) .

Apprenticeship places are offered in both enterprises and public institutions. Enterprises enter into a contract with apprentices, where they bear the costs of the in-company training and pay the trainee remuneration. The remuneration is regulated by collective agreement and increases with every year of training, averaging about a third of the starting pay for a trained skilled worker.

In-company training part

The basis for the in-company training part are the training regulations. They define the professional competences that the apprentices have to acquire in their specific occupation. They are valid nationwide, which guarantees a uniform national standard. In 2021 four new themes have been introduced to supplement all training regulations:

- digitised working world;
- environment and sustainability;
- safety and health at the workplace;
- company, VET, labour and tariff law (39) .

All companies involved in training are obliged to integrate these subjects into their individual training plans. The basis for learning in the VET schools is the framework curricula, which are aligned with the training regulations.

If SMEs are unable to provide all the stipulated learning content: they may lack suitable training personnel, or, owing to their particular specialisation, may not cover all the training content themselves. There are various ways to overcome these problems:

- inter-company vocational training centres (*überbetriebliche Berufsbildungsstätten, ÜBS*) designed to supplement in-company training: education institutions offer periods in these training centres, which are often sponsored by autonomous bodies in the relevant sectors of industry. Since 2016, digital transformation has been promoted in these training centres by funding the purchase of digital equipment as well as selected pilot projects on adaptation of teaching and learning processes (40) ;
- enterprises can form joint training structures (*Ausbildungsverbünde*). There are four traditional models for this:
 - lead enterprise with partners (*Leitbetrieb mit Partnerbetrieben*): one enterprise takes the lead and bears overall responsibility for training; however, parts of the training are conducted in various partner enterprises;
 - training to order (*Auftragsausbildung*): some training takes place outside the regular enterprise, perhaps in a nearby larger one with a training workshop, on the basis of an agreement and against reimbursement of costs;
 - training consortium (*Ausbildungskonsortium*): several SMEs sign a cooperation agreement and work together on equal footing. They take on apprentices and train them independently. If an enterprise cannot cover a specific area of content, the apprentice moves to another enterprise (rotation principle);
 - training association (*Ausbildungsverein*): enterprises establish an organisation which takes over administrative tasks such as contracting, while the enterprises conduct training. Association structures usually comprise a general meeting and an honorary committee. A statute regulates members' rights and obligations.

Challenges

In 2020, social and economic life in Germany was significantly constrained by the COVID-19 pandemic. Matching problems in the training market increased, also because many measures for vocational orientation and for bringing together supply and demand could not take place or could only take place to a limited extent. The training market also had to cope with considerable restrictions. As a result, the number of newly concluded training contracts in 2020 was significantly lower than in the previous year. According to the results of the BIBB survey as of 30 September, a total of 467 500 new training contracts were concluded. This corresponds to a decline of 57 600 contracts (-11.0%). For the first time (since 1992), the number of new training contracts was below 500 000 (41) .

A matching problem can still be observed. In the reporting year 2020, 59 900 training places remained unfilled, while 78 200 training place seekers were still registered. However, the share of unsuccessful applicants as a proportion of the officially identified demand for 2019 is still comparatively high but stable, at 14.3% (42) . The skilled crafts and trades sector was particularly affected by a shortage of applicants. Many public policy measures are aiming to counteract these developments.

The trend towards higher qualification of the last few years, with regard to the general school-leaving qualifications of trainees in the dual VET system, also continued in 2019. Since 2015, more new training contracts have been concluded with young people with a university entrance

qualification than with a lower secondary school leaving certificate (*Hauptschulabschluss*). As in the past years, the largest group in 2019 was those with the intermediate secondary school leaving certificate (*mittlerer Schulabschluss*), at 40.7%. Almost 29.3% of those concluding a training contract, were in possession of a higher education entrance qualification (*Abitur*). About one in four (24.3%) had a lower secondary school leaving certificate (*Hauptschulabschluss*). The proportion of new trainees without a school leaving certificate was very low at 3.5% (15 876) (43) .

For young people with a migration background, transition from general education to VET is often difficult and lengthy. Nevertheless, the latest (2020) BA/BIBB survey among former dual VET applicants shows that almost one third (29%) of the young people with a migration background registered with the federal employment agency (BA) had found a placement and had begun an in-company apprenticeship. In contrast, 42% of those without a migration background had started such an apprenticeship (44) .

The number of refugees applying for asylum, mostly since 2015, and applying for an apprenticeship placement (with registration at an employment agency) drastically increased from 10 253 in September 2016 to 26 428 in September 2017. It was almost 5% of all registered dual VET applicants.

Additional qualifications

Since the amendment of the Vocational Training Act in 2005 (45) , there is the possibility of providing so-called 'codified additional qualifications' in the context of apprenticeship. This includes 'additional vocational skills, knowledge and qualifications (...) to supplement or broaden vocational competence' (BBiG 2005 Section 5 (2) No 5), which are anchored in the training regulations and go beyond the training occupation profile. Additional qualifications allow for flexible shaping of in-company training with regard to the qualification requirements in the company. This enables companies to respond promptly to changing skills needs, which is becoming increasingly important due to developments in digitalisation. At the same time, it is an attractive opportunity for young people to upgrade their vocational qualifications (46) .

Two important sources of information and data on the dual apprenticeship scheme in Germany are the yearly *Report on vocational education and training* (47) and the corresponding *Data report on VET* (48) .

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

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- [35] 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).
 - [40] <https://www.bibb.de/uebs-digitalisierung>
 - [45] https://www.gesetze-im-internet.de/bbig_2005/BBiG.pdf
 - [46] 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
 - [47] BMBF. *Report on vocational education and training* <https://www.bmbf.de/de/berufsbildungsbericht-2740.html>

CHAPTER 7.

VET governance

The constitution of Germany regulates the responsibility for education. It lies with the Federal States. The federal government is responsible for regulations on the company-based part of VET as well as continuing education and training. The governance system is characterised by a close partnership between the State and the social partners at all levels. The Vocational Training Act (49) defines in detail, which institutions are in charge of organising, developing and monitoring in-company IVET in Germany as well as vocational training preparation, advanced vocational qualifications and vocational retraining.

The role of Federal government

Dual VET, i.e. the apprenticeship system, is based on nationally recognised occupations and vocational training regulations, which guarantee a national standard. The federal government is responsible for designing the dual VET content for the occupations. Depending on the sector, different ministries are involved. In most cases, this is the Federal Ministry of Economic Affairs and Energy. The approval of the education ministry (BMBF) (50) is always required, so the ministry provides coordination and guidance for VET policy for all training occupations.

The BMBF is responsible for monitoring developments in VET and publishes annual reports. These reports are supplemented by the VET data report of the Federal Institute for Vocational Education and Training (BIBB) providing detailed data and background information (51). It is also responsible for the Vocational Training Act (52) and the legal supervision and funding of the BIBB. The federal government's responsibilities also include measures to promote dual VET. These measures include permanent support programmes as well as special funding programmes, which, for example, aim to create additional apprenticeship places in less popular regions or to finance specific programmes for disadvantaged. The federal government is involved in programmes and strategies to strengthen CVET and also provides funding for special research projects to ensure VET is constantly updated.

Nationally, the Federal Institute for VET is the core institution for consensus building between all parties involved in VET. Its four-party Board advises the government on fundamental issues of in-company vocational training and is involved in setting standards and designing training regulations. The institute conducts research and identifies future tasks for VET, promotes innovations and develops new, practice-oriented proposals for solutions.

The role of the Federal States

According to the Constitution, responsibility for education lies with the Federal States. This also applies to the area of VET with regard to schools. The respective competent State ministries coordinate their activities via a standing committee (53) to ensure a certain degree of uniformity and comparability. The standing committee decisions are recommendations, and only become legally binding when passed by the individual State parliaments. The Federal States have vocational training committees, with equal representation of employers, employees and the State authorities. They advise the Federal State governments on vocational training issues in schools and also contribute to designing schemes that support disadvantaged youths and provide opportunities for additional qualifications that require school-based training.

The role of social partners

The dual system is based on a close cooperation between employers, trade unions and the government. Social dialogue and codetermination are important for reforms to be accepted. The social partners – employer organisations and trade unions – have considerable influence on the

content and form of VET to ensure their requirements and interests are taken into account. Responsible action by all participants – beyond each group's particular interests – is a precondition for the efficiency of the dual VET system. Their representatives are members of the Federal Institute for VET's main board, participate in the vocational training committees at the Federal State level as well as those of the competent bodies.

Organising apprenticeship/dual VET requires a complex but clear division of responsibilities. Social partners play a central role in initiatives for change, because the structure of vocational training must meet the demands of industry but also of the learner. If there is a need for change – such as in qualification requirements – representatives of the federal government, State governments and the social partners agree on the basic principles. They are involved in drafting occupational standards requirements or developing new training regulations. The social partners are also involved in the process of referencing the German qualifications framework to EQF.

The role of competent bodies

Competent bodies (54)) play a crucial role in Germany. The largest group are the professional chambers. Their tasks are monitoring training in companies and ensuring the quality of in-company training, advising companies, trainers and apprentices; establishing and maintaining lists of training contracts; organising the exam system and holding final exams. Each competent body has a tripartite vocational training committee whose members represent employers, trade unions and teachers.

The chambers, including the chambers of industry and commerce, the chambers of crafts and the appropriate professional boards for the liberal professions are self-governing private bodies but, in some areas, they have been assigned public tasks as 'competent bodies' in dual VET, e.g. in the context of the examination.

[49] BBiG: https://www.gesetze-im-internet.de/bbig_2005/

[52] Berufsbildungsgesetz (BBiG).

[53] Kultusministerkonferenz (KMK).

[54] Zuständige Stellen.

CHAPTER 8.

VET financing mechanisms

In Germany, initial and continuing VET is based on mixed financing by various public and private bodies. These include the Federal Ministry of Education and Research (55) , Federal Ministry of Economic Affairs and Energy (56) , the Federal Ministry of Labour and Social Affairs (57) , the Federal Employment Agency (58) , the States and their ministries of employment, economic, education or cultural affairs, the European Union, local authorities, companies, unions, chambers, associations, private institutions and individuals themselves. In this respect, financing for initial VET and continuing general and vocational education differs quite substantially from the schools and universities sector, which benefits from relatively comprehensive public funding.

Funding of IVET

In the dual system, in-company training is usually financed by the individual enterprise: an enterprise decides whether or not it will offer training and in which occupations. It decides how many apprentices it will take on, and how much it wants to spend on training in general. Enterprises enter into a contract with apprentices and pay them remuneration. This is regulated by collective agreement and increases with every year of training, averaging about a third of the starting pay for a trained skilled worker. Average apprentice remuneration across Germany for 2020 was EUR 963 gross per month (59) .

According to the most recent calculations by the Federal Institute for VET (60) , based on a representative study for the apprenticeship year 2017/18, the gross costs for companies were around EUR 27.2 billion for 1.3 million apprentices. In the same period, trainees generated earnings of EUR 18.7 billion, so the net cost to the companies for apprenticeships amounted to around EUR 8.4 billion (61) . The study also shows that employers invest on average EUR 20 855 per apprentice per year (61% for remuneration and social benefits for apprentices; 24% for salaries of trainers; 11% other costs and 4% equipment). If the companies' benefit from the apprenticeships is included in the calculation, 69% of investment is refinanced by the productive contribution of apprentices during training (62) .

Small and medium-size enterprises, in particular skilled crafts companies, are important training suppliers. It might happen that they are unable, or not fully able, to provide all the facets of training required by regulations. This is primarily due to the increasing division of labour in working processes, increasing specialisation or accelerated technological change. The limited suitability of such enterprises as training providers is compensated by supplementary external training measures in inter-company vocational training centres (63) or through joint training structures (64) . Inter-company vocational training centres are operated mainly by public law bodies (municipalities, chambers and guilds) or non-profit private law bodies (trade associations). There is mixed financing, with subsidies from the federal employment agency, the federal government (capital grants from the education ministry (65) and the Federal States added to the resources of the responsible body. Funding is offered for the modernising and restructuring of inter-company training centres to adapt them to changing education and training policy and economic conditions, as well as the challenge of digitalisation.

The school-based element of dual VET is financed by Federal States and local authority public funds: EUR 3.3 billion in 2020 (EUR 3 billion in 2018) for the public vocational schools providing part-time VET for apprentices (66) . The States bear the costs of internal school affairs (supervision of schools, laying down of curricula, teacher training, teachers' pay), and the local authorities are responsible for financing external school affairs (construction, maintenance and renovation of school buildings, management, procurement of teaching and learning resources).

In 2018 the total public expenditures for dual VET amount to approximately EUR 3 billion compared to EUR 8.4 billion net costs of dual VET for companies.

A further EUR 5.7 billion is used to finance other types of schools in the vocational education system, such as full-time vocational schools, specialised grammar schools, specialised schools, specialised upper secondary schools and vocational preparation years in 2020 (67) . Additionally, special measures to promote VET, such as support programmes (often partly financed by ESF funds) to create additional apprenticeship places for specific target groups or in less popular regions, are financed from the Federal or State budgets (68) . The federal government also provides funding for special research projects to ensure that VET is constantly updated (69) .

The VET-related expenditure of the Federal Employment Agency (70) applies to both pre-VET and IVET (i.e. grants for young people) and, since 2015, a support measure for companies training young people who would otherwise have difficulty finding a training place (71) , amount to EUR 0.9 billion in 2020.

Funding of CVET

Companies, the State, the Federal Employment Agency and private individuals themselves are involved in financing continuing VET.

The federal government contributes to financing continuing training via funding programmes from various ministries (72) . The Federal States participate in financing continuing training in a similar fashion. Acting together with local government, and in some case municipal associations, they continue to finance adult education centres (73) , teacher training institutes and other continuing training institutes (74) .

The support of the Federal Employment Agency (75) for CVET focuses on the costs for CVET activities as well as on professional reintegration or the prevention of impending unemployment. Thus, the subsequent acquisition of a vocational qualification by adults or retraining are also supported. The possibilities for funding were expanded in 2019 by the Qualification Opportunities Act (76) as well as the counselling services for employees and companies. In 2020, the funding from the Federal Employment Agency was EUR 2.8 billion (77) .

In 2020, companies in Germany invested EUR 1236 per employee in CVET, almost 16% more than in 2016. The overall economic investment volume in CVET increased by 23% and amounts to EUR 41.3 billion. Digitalisation is a major driver for continuing education: digitalised companies invest more time and money in continuing education than other companies. The largest share of CVET, 89.2%, takes place during paid working hours (78) .

According to a study of the Federal Institute for Vocational Education and Training (BIBB) from 2016, individuals contribute a considerable amount to the financing of CVET, although employers fund the majority. Most individual funding is for formal training courses and advanced vocational education; these are comparatively rarely jointly financed by employers. The total expenditure of private individuals on CVET amounted to EUR 17.8 billion (79) .

[55] Bundesministerium für Bildung und Forschung (BMBF).

[56] Bundesministerium für Wirtschaft und Energie (BMWi).

[57] Bundesministerium für Arbeit und Soziales (BMAS)

[58] Bundesagentur für Arbeit (BA)

[60] Bundesinstitut für Berufsbildung (BIBB).

[63] Überbetriebliche Berufsbildungsstätten (ÜBS) and in the skilled trade sector (ÜLU).

[64] Ausbildungsverbünde.

- [68] Specific information on all public funding activities is available on <http://www.foerderdatenbank.de/>
- [73] Volkshochschulen (VHS).

CHAPTER 9.

Teachers and trainers

9.1 VET teacher types

Germany differentiates between teachers and trainers in initial and in continuing VET. The focus of the following information is on teachers and trainers in the dual system, but it also provides a brief description of teachers in full-time vocational schools and on continuing VET teachers and trainers (80) .

Types of teacher and trainer in IVET

Type of training	Type of staff
Work-based IVET programmes (Dual system of training: apprenticeship)	<p>Training staff in companies:</p> <ul style="list-style-type: none">● at least one registered responsible trainer (mostly part-time) having passed the examination on trainer aptitude;● skilled workers providing training at their particular workplace, without being trainers themselves;● full-time trainer or master craftsperson in company or inter-company VET centre, as well as VET manager in large company. <p>Teachers in part-time VET schools:</p> <ul style="list-style-type: none">● university trained VET teachers for vocational and general subjects;● university trained grammar school teachers for general subjects;● side-entering teaching staff, without a teacher qualification but with expertise for vocational subjects with teacher shortage;● 'technical' teachers for vocational practice with work experience (e.g. Meister, technicians) having attended a further training course with the Federal State seminars of pedagogy.
School-based IVET programmes	<p>Teachers in full-time VET schools:</p> <ul style="list-style-type: none">● university-trained VET teachers for vocational and general subjects;● university-trained grammar school teachers for general subjects;● side-entering teaching staff without a teacher qualification but with expertise for vocational subjects with teacher shortage;● 'technical' teachers for vocational practice with work experience (e.g. Meister, technicians) having attended a further training course with the federal state seminars of pedagogy.
External learning facilitators (mentors, coaches, counsellors)	<ul style="list-style-type: none">● Individual career-start mentors for the transition from school to apprenticeship and senior volunteer coaches for apprentices at risk of early leaving from VET until successful completion of their training;● Youth social workers in training schemes for vulnerable groups, training counsellors at the chambers, vocational guidance counsellors employed by the federal employment agencies, etc.

Source: compiled by ReferNet Germany (2021).

In the dual system, there are company trainers and teachers at (part-time) VET schools:

In-company trainers are in charge of training the apprentice at the workplace, according to the training regulation for the specific occupation and the individual training plan. According to the Vocational Training Act (81) , only in-company trainers who possess pedagogical and professional aptitude are eligible to train. The aptitude of the training staff is guaranteed by the competent chamber that registers them (e.g. chambers of industry and commerce, chambers of skilled crafts). These competent bodies are responsible for adopting examination regulations and setting up examination boards to conduct aptitude examinations for trainers, according to the Trainer Aptitude Regulation (82) . To support in-company trainers in the acquisition of the required competences, the chambers and other education providers offer different types of courses. The Federal Institute for VET recommends taking a 115-hour course to prepare for the Trainer Aptitude Regulation examination.

Most initial VET trainers are skilled workers, journeymen or forepersons. They engage in training part-time directly at the workplace. However, any company carrying out apprenticeship training has at least one employee who is the designated trainer and has proven his aptitude to take over this task by successfully passing the examination according to the Trainer Aptitude Regulation. Many trainers in skilled crafts also hold an advanced qualification certificate as master craftsman.

Vocational school teachers are trained under the jurisdiction of the Federal States (*Länder*). They teach theoretical knowledge (general and occupation-related). VET school teachers must have a university degree at the master level (EQF level 7), including internships in companies and schools. The master degree is followed by an 18-month preparatory school service (83) . The process is regulated by a framework agreement adopted by the Conference of Ministers of Education and Cultural Affairs (84) in 1995 and last amended in 2018: the Framework agreement on the training and examination for teaching at the Secondary Level II (vocational subjects) or for vocational schools. For occupation-related subjects and vocational practice at school, there are also special teachers without a university degree but with professional experience and further pedagogical training (85) .

Teachers and trainers in non-formal continuing VET

There is a wide variety of professionals acting as teachers or trainers in non-formal continuing VET; there is no common standard for what constitutes a continuing VET teacher or trainer. Their formal qualifications vary widely as does their occupational status, from retired or unemployed to qualified employees in training institutions. If formal advanced vocational training takes place in public sector establishments (such as trade and technical schools, colleges), the training, employment and activities of the teaching staff are based on criteria laid down in the relevant State legislation for teaching staff (86) .

9.2 Continuing professional development of teachers/trainers

The advanced vocational qualifications for in-company trainers build on one another. In addition to the examination in accordance with the Ordinance on Trainer Aptitude (87) , the advanced VET qualifications of Certified initial and continuing education pedagogue (88) (EQF level 6) and Certified vocational pedagogue (89) (EQF level 7) have been developed by VET stakeholders in 2009 and provide professional skills in pedagogy and management. These qualifications entitle trainers to take additional tasks, such as searching and selecting apprentices or managing training. The occupational profiles include online tutoring, development of teaching materials, ability to identify apprentice skills, and leadership skills (90) .

The range of the preparation courses is large and allows the choice between different forms of teaching and learning. In addition to part-time and full-time seminars, evening and weekend offers, there are also numerous online courses, mostly combined with attendance phases. The

courses can be provided in or outside the company, for example by the chambers or other institutions providing CVET. The durations of the advanced courses are 500 hours for EQF level 6, and around 2 years for EQF level 7 qualification. The 'competent bodies' (mostly the chambers) are responsible for the organisation and carrying out the examinations and certifications.

From the non-formal perspective, there is a variety of opportunities for timely CPD provided by the employer, the chambers and other educational institutions. For example, regular updating of specialist knowledge and skills is necessary, in particular in the technical-commercial and the skilled crafts occupations. Digital media literacy is of high importance as well. The portal www.foraus.de is a trainer information and exchange forum providing online learning modules. This flexible and low-threshold offer is important to address specific trainer competences.

The conditions for continuous professional development (CPD) of VET school teachers are determined by the Education Act (*Schulgesetz*) of the relevant State and therefore might differ among the single States (*Länder*). In general, teachers are obliged to follow continuous training to maintain and develop their skills and competences. In its Länder common guidelines for the CPD of teachers, adopted in March 2020, the Conference of Ministers of Education and Cultural Affairs (91) underlines the importance of CPD due to changing conditions (e.g. growing heterogeneity of learners; inclusion and digitalisation) and encourages teachers to build their personal professionalisation portfolio.

Each school draws up a CPD plan. A broad spectrum of VET teaching competences and topics are covered: technical, pedagogical/didactic and transversal. The CPD is offered in different formats, the preferred being half-day CPD on-site (to avoid cancellation of classes), as well as in-process CPD at school, distributed over a school year. Online and blended learning formats are becoming more common, especially since the COVID-19 pandemic. The CPD offer can be provided through different structures, but is often organised by federal institutions dedicated to quality development of schools and teachers and subordinated to the respective federal ministry of education. CPD can also be organised by the school or close to the school by a local institution, universities, and external providers. (92)

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- [80] 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.
- [81] Berufsbildungsgesetz (BBiG), 2005 https://www.gesetze-im-internet.de/bbig_2005/BBiG.pdf
- [82] Ausbilder-Eignungsverordnung (AEVO), last amended in 2009. https://www.gesetze-im-internet.de/ausbeignv_2009/AusbEignV_2009.pdf
- [83] *Vorbereitungsdienst*
- [84] Kultusministerkonferenz (KMK).
- [85] 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.
- [86] 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
- [87] AEVO, *Ausbildereignungsprüfung*.
- [88] *geprüfter Aus- und Weiterbildungspädagoge*
- [89] *geprüfter Berufspädagoge*
- [91] Kultusministerkonferenz (KMK).

- [92] This section is based on: Huisman, 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.

CHAPTER 10.

Shaping VET qualifications

10.1 Anticipating skill needs

Systematic recording and research into future skills needs was already initiated in the 1999 resolutions by the Alliance for Jobs, Training and Competitiveness (93) .

The Federal Institute for VET (94) monitors new skills requirements using the following different main approaches:

- qualification and occupational fields projections ⁽⁹⁶⁾: in cooperation with the Institute for Employment Research (95) and the Institute of Economic Structures Research (96) , forecasting model calculations on labour market developments by 2040 are set up. Longer-term developments in occupational fields and qualifications can now be displayed in a more differentiated manner. Projections include areas where a considerable shortage of skilled workers may occur and in which skills levels are at risk of being affected by unemployment (97) . This makes it possible to take necessary action at an early stage to improve the match between supply and demand in the labour market;
- company surveys help to build a comprehensive picture of technological and organisational developments and the associated skills requirements. Such surveys are conducted once or twice a year among the companies represented on the Federal Institute for VET panel. Known as the reference company system (98) , these are more than 1 400 training and non-training firms which vary in size, sector, legal form, length of time in operation and main occupations. There are also surveys in selected sectors geared towards particular fields of work to receive reliable information on the requirements in individual occupations (99) ;
- the VET 4.0 initiative *Effects of digital innovation on vocational training* (100) was launched in 2016 by the Ministry of Education and Research (101) and the Federal Institute for VET. It includes various projects;
- *Survey of the working population on qualification and working conditions in Germany*. this data collection is meant to provide differentiated and representative information on the working population and jobs in Germany for quantitative employment and qualification research as well as for occupational health and safety reporting (102) ;
- *wbmonitor*: in cooperation with the German Institute for Adult Education (103) , the *wbmonitor* makes a contribution to provide research and improvement of the continuing education data. Every year, it supplies information on developments within the sector, its organisation and the offers available (104) ;

These research activities focus on changes in existing fields of work or the emergence of new fields, and the accompanying development in qualification requirements, including the factors which influence these. In addition to quantitative assessment, the Federal Institute for VET qualification development also identifies qualitative trends. The Ministry of Education and Research also supports the development of a 'labour market barometer' (105) , a future-oriented labour market monitoring system (106) . The Federal States and several regions pursue individual early identification activities (including regional monitoring of qualification developments, and skill needs surveys). Social partners are also involved in early identification, mainly in the context of modernising initial and further training regulations. All these activities help ensure that VET adapts to and meets qualification needs. Investigations into skill needs and qualification development are also carried out by:

- sector-specific associations, such as the Association of Engineers and the German Association of Information Technology, Telecommunications and New Media (BitKom);

- the Institute for Employment Research (107) ;
- several foundations, such as the Hans-Böckler Foundation (108) , Friedrich-Ebert Foundation (109) , Konrad-Adenauer Foundation (110) and the Bertelsmann Foundation (111) ;
- other stakeholders (112) .

See also Cedefop's skills forecast (113) and European skills index (114) .

10.2 Designing qualifications

Cooperation based on mutual trust is essential between government and social partners. Employers and trade unions jointly formulate the requirements for the occupational standards. All cooperation related to VET is based on consensus; no regulations concerning initial or further VET may be issued against the declared will of either of the social partners. The employers and the unions assume responsibility through their codetermination in shaping VET. Without this codetermination, social partners would be unwilling to take responsibility. This connection forms the basis of a working 'public-private partnership' (PPP).

Designing qualifications

This section describes the shaping of qualifications in the dual VET system (apprenticeship), which is the predominant form of initial VET in Germany (70% workplace training and 30% of participation in full-time school-based VET). Key elements of dual VET are training occupations (115) and the corresponding regulations. These form the basis for in-company training and are complemented by the respective framework curricula from the school-based part of apprenticeships. They comprise VET standards, occupational characteristics, a 2- or 3-year training plan and examination regulations. In-company training for young people under 18 is only permitted in recognised training occupations. The Vocational Training Act (116) defines the requirements that these training occupations must meet, ensuring binding quality standards and the protection of minors (117) . Since it is a federal government responsibility to decide on these training occupations, they are called 'State-recognised training occupations'.

Developing standards

Training regulations are issued for recognised training occupations by the relevant ministry, usually the Federal Ministry for Economic Affairs and Energy (118) , in agreement with the Federal Ministry of Education and Research (119) . These form the legal framework and contain minimum standards for the in-company part of initial training for individual occupations (120) .

The development of new training regulations and framework curricula (or the adaptation of existing ones to meet changing vocational practices) follows a standardised procedure, involving the federal government, the State governments, employers, trade unions and vocational education researchers (121) .

The Vocational Training Act (122) stipulates that training regulations shall specify:

- the name of the training occupation;
- the duration of training (between 2 and 3 years);
- the training occupation profile, i.e., what a learner is expected to know, understand and be in a position to do;
- the framework training curriculum, a guide to structuring the learning process in terms of time and content;
- the exam requirements.

These key points, also referred to as 'benchmarks', form the basis for a proposed revision or development of a new occupation. Usually, the initiative to modernise a training regulation or to develop a new one comes from the social partners. Once a proposal has been submitted to the relevant ministry, training regulations are drawn up in three steps:

Defining the 'benchmarks'

These are set in a meeting ('an application interview') at the relevant ministry (in most cases the Ministry for Economic Affairs and Energy) (123) in which the social partners and the federal and State governments participate. In many cases, the Federal Institute for VET issues an opinion or, particularly when larger scale revisions are being considered, conducts research before the ministry takes its decision. The Federal Institute for VET provides the platform for this process and also coordinates and moderates it.

Elaboration and coordination

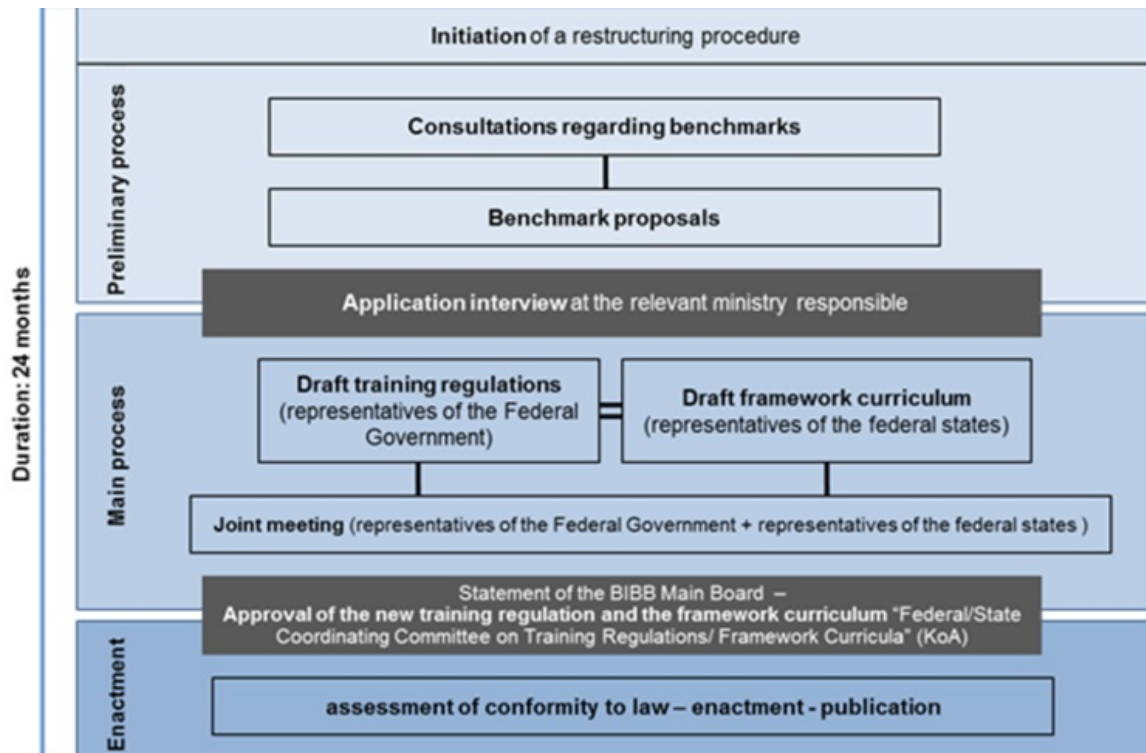
Social partner umbrella associations are asked to designate experts to design the training occupation together with the Federal Institute for VET (BIBB). The work on the training regulation framework curricula is coordinated with the work on the corresponding framework curricula for the part-time vocational schools drawn up by Federal State representatives to ensure they complement each other (124) .

Adoption of the regulation

The relevant coordinating committee of the federal government and the Federal States (125) approves the new training regulation and the school framework curriculum. The training regulations generally offer enough flexibility to adapt to new technologies and to meet changing demands on training companies, because they are formulated in a broad sense, also with regard to digitalisation.

The Federal and State governments have agreed to limit the duration of the development process to around a year. In the years 2011 to 2020, 122 training occupations were reorganised. These included 118 modernised and four new training occupations. Eleven modernised training occupations came into force on 1 August 2020 (126) . Additionally, in 2021 four new themes have been introduced to supplement all training regulations: digitised working world, environment and sustainability, safety and health at the workplace, and company, VET, labour and tariff law (127) . All companies involved in training are obliged to integrate these subjects into their individual training plans.

Procedure for updating of training regulations



Source: Author's illustration following Barbara Lorig et al. in: bwp, No 20, June 2011.
http://www.bwpat.de/ausgabe20/lorig_etal_bwpat20.pdf [accessed: 24.9.2021].

- [93] Bündnis für Arbeit, Ausbildung und Wettbewerbsfähigkeit.
- [95] Institut für Arbeitsmarkt und Berufsforschung (IAB).
- [98] Referenz-Betriebs-System (RBS).
- [99] <https://www.bibb.de/de/12471.php>
- [100] <https://www.bibb.de/en/49603.php>
- [105] Arbeitsmarktbarometer.
- [106] <https://www.iab.de/de/daten/arbeitsmarktbarometer>
- [107] <https://www.iab.de/de/befragungen.aspx> ; <https://www.vdi.de/presse/publikationen/> ;
https://www.bitkom.org/de/markt_statistik/806.aspx .
- [108] <https://www.boeckler.de/index.htm>
- [109] <https://www.fes.de/>
- [110] <https://www.kas.de/>
- [111] <https://www.bertelsmann-stiftung.de/cps/rde/xchg/bst>
- [113] <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills->

[forecast](#)

- [114] <https://skillspanorama.cedefop.europa.eu/en/indicators/european-skills-index>
- [115] *Ausbildungsberufe.*
- [118] Bundesministerium für Wirtschaft und Energie (BMWi)
- [119] Bundesministerium für Bildung und Forschung (BMBF)
- [122] Berufsbildungsgesetz (BBiG)
- [123] Bundesministerium für Wirtschaft und Energie (BMWi).
- [125] Der ‚Bund-Länder-Koordinierungsausschuss Ausbildungsordnungen/Rahmenlehrpläne‘ (KoA).

CHAPTER 11.

Quality assurance

Three overarching principles are significant for understanding quality assurance in VET. These are the dual principle, the occupation principle (128) , and the principle of consensus:

- the dual principle combines learning in the work process with learning at a vocational school, and at the same time facilitates the acquisition of occupational experience;
- the occupation principle is based on certification, which is binding and recognised across the country. It affords the opportunity to exercise a multitude of occupational activities;
- the principle of consensus guarantees proximity to the labour market as well as transparency and acceptance of training occupations via the involvement of the social partners, the Federal Government and the Federal States in the development of national training standards.

Laws, ordinances and recommendations stipulate nationally-binding minimum standards for company-based training (129) .

Important instruments of quality assurance in VET are highlighted below:

- national standards based on the VET law,
- monitoring of initial and continuing VET learning, and
- the referencing of the German qualification framework (DQR) to the EQF, allowing more transparency and comparability of qualifications within the EU.

VET law as basis for quality assurance

The VET Act (130) and the Trade and Crafts Code (131) describe the required standards for training facilities and trainers, training regulations and examinations. Training regulations are revised every few years to keep pace with rapid technological and organisational change (132) . As company-based VET is a core part of the German dual system, employer and employee organisations are important stakeholders in quality assurance in initial VET (133) . The Confederation of German Employers' Associations (BDA) has a key role in VET policy, including developing training regulations and setting minimum standards for company-based initial VET. The local chambers of industry and commerce and chambers of skilled trades monitor regulations on training facilities and trainers. They also advise companies on these topics. Employer and employee organisations, as well as teachers, are equally represented on their examination boards. All apprenticeship contracts have to be registered at the chambers.

The framework curriculum required for the school section of dual education and training is regularly revised by the Standing Conference of the Ministers of Education and Cultural Affairs (134) . Compliance with quality assurance requirements by initial VET providers is monitored by the local school authorities. Quality assurance approaches are based on quality frameworks, education standards, centralised exams, monitoring and benchmarking exercises and school inspection. In some cases, for example *Baden-Württemberg Landesinstitut für Schulentwicklung*, specialised agencies for quality development are in charge of supervising the vocational schools.

Monitoring and data for evidence-based VET policy

The education ministry (BMBF) publishes an annual report on VET, providing a wealth of information and analysis on various aspects of its development. It is accompanied by the Federal Institute for VET data report which brings together data from different sources (own data, data from federal statistical office, statistical offices of the States, Federal Employment Agency,

Institute for Employment Research) on training entrants and on the outcomes of training (such as share of employed learners, occupation obtained after training). The report sets the basis for policy decisions on VET, including programme funding. Several other projects also inform VET provision:

- the Federal Employment Agency and the Federal Institute for VET conduct regular surveys with school leavers and job applicants in order to research transitions to VET;
- the Federal Institute for VET (BIBB) carries out a *Transition Study* (135) ;
- every 2 years, the national education report analyses developments of the education system, including VET;
- the German education panel study (NEPS) investigates education returns, competence development during lifelong learning, and transitions from VET to the labour market.

Quality assurance in CVET

Quality assurance is mandatory for continuous VET providers receiving public funding: employment agencies issue only learning vouchers in certified programmes offered by accredited providers. Accreditation of continuous VET providers and programmes is done by private certification bodies according to criteria set out in the ordinance regulating accreditation and certification in continuing training. A four-party (State and federal level; employer and employee organisations) advisory council consults the certification bodies. The BMBF funds regular checks of CVET providers through an independent foundation (136) and has prepared a quality checklist (137) to help find a CVET offer and provider of good quality. The BIBB together with the German Institute for Adult Education (138) , operates the online platform *wbmonitor* (139) which is dedicated to supporting continuous VET in Germany. It conducts a yearly survey of public and private CVET providers and monitors developments in the labour market.

National qualification framework

The German qualifications framework (DQR) has eight levels. It is based on learning outcomes and focuses on the German concept of 'vocational action competence': a holistic and integrated approach to competence acquisition during VET, rather than one based on acquiring isolated skills and competences. The DQR is developed as a transparency instrument without providing any legal duties or rights, neither for individuals nor for education providers or enterprises. The DQR was referenced to the European qualifications framework (EQF) in 2012. In addition to the equivalence of vocational and higher education, the equivalence of vocational and general education was made visible. Furthermore, criteria and procedures to include non-formal learning in the DQR are under discussion (140) .

[128] *Berufsprinzip.*

[130] *Berufsbildungsgesetz* (BBiG): https://www.gesetze-im-internet.de/bbig_2005/

[131] *Handwerksordnung* (HWO): <https://www.gesetze-im-internet.de/hwo/BjNR014110953.html>

[132] 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.

[134] Kultusministerkonferenz (KMK).

[135] Last BIBB transition study in 2011: <https://www.bibb.de/de/9039.php>

[136] <https://www.test.de/thema/weiterbildungsberatung/>

[137] <https://www.bibb.de/veroeffentlichungen/en/publication/show/8596>

[138] Deutsches Institut für Erwachsenenbildung (DIE).

[139] <https://wbmonitor.bibb.de>

- [140] 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

CHAPTER 12.

Validation of prior learning

Validation of non-formal learning: external candidate final exams

The most important tool for assessing non-formal learning outcomes is admission to final vocational examinations under the Vocational Training Act (*BBiG*) and the Trade and Crafts Code (*HwO*), known as the *Externen-Prüfung* (examination for external candidates, i.e., those not involved in a formal vocational training programme). Under this provision, people can be admitted to a final examination for a recognised occupation requiring formal training (training occupation) if they provide evidence that they have been employed in the relevant occupation for a period that is equal to or longer than one and a half times the initial training.

Credit can be obtained for a higher level of general education attainment, such as the entrance qualification for specialised upper secondary school (141) , which shortens the period of employment for which evidence must be produced. A previous relevant initial VET programme in a different training occupation can also be credited towards the required periods of employment.

Apart from the practical part of the examination, where relevant professional competences are tested, external candidates must prove their theoretical knowledge in a written examination. Candidates can prepare either on their own or by following preparatory classes offered by the relevant chambers (142) .

In 2019, 5.3% of all final examinations for a recognised occupation were external examinations, almost identical with the previous year. There is, however, considerable variation in the proportions of external examinations between individual fields. Housekeeping is the area where external examinations are most significant for acquiring a vocational qualification, with just below 47.2% of candidates in the reporting year taking external examinations. In contrast, external examinations are virtually irrelevant for skilled crafts and liberal occupations, at 1.3% and 1.1%. Between these two extremes, other figures include 4.3% in the public sector, 6.7% in trade and industry and 9.1% in agriculture (BIBB 2021, p 158).

Project to set up a validation system

The ValiKom project (143) , agreed between the education ministry and the national organisations of German chambers (DIHK and ZDH), has been operational since 2015. ValiKom is considered as the reference project to set up a validation system in Germany. It addresses adults who acquired skills and competences through work but lack a formal qualification, including those who wish to access further training. The approach refers to the prevailing training regulations and occupational profiles and leads to certificates (144) expressing the extent to which the skills demonstrated are equivalent to those normally gained under the Vocational Training Act. The participating chambers of industry, commerce and skilled crafts started piloting in 2017 (145) . The results of this reference project in developing a validation system are presented in a handbook with process description, admission criteria, instruments, certificate of validation and recommendations (2018).

The follow-up project ValiKom-Transfer aims to expand and broadly transfer the standardised procedure for recording, reviewing, assessing and certifying informally and non-formally acquired vocational competences developed and tested in ValiKom, in about 40 selected occupations for people without vocational qualifications and for qualified career changers. By the end of 2020, more than 700 validation procedures were carried out by the 30 chambers (now also chambers of agriculture) participating in ValiKom-Transfer (146) .

Assessment and recognition of foreign vocational qualifications

The Vocational Qualifications Recognition Act (BQFG), introduced in April 2012, provides individuals with the right to have their foreign-acquired qualifications matched to a German qualification by an appropriate authority. The act relates to over 600 regulated occupations including those in dual training, the master craftsperson or other advanced vocational qualifications. It also covers occupations such as nurses, medical doctors and lawyers. Depending on the sector, assessment and recognition of foreign occupational qualifications is carried out by IHK Fosa (147) or lead chambers (*Leitkammern*). The implementation of the Recognition Act is monitored and documented in a yearly report (148) . In June 2017, the report evaluated the first 5 years of implementing the act.

Information and guidance are essential to success in the recognition process. The federal government has established a range of comprehensive services, such as the 'Recognition in Germany' website (149) , the counselling network of the Integration through qualification (IQ) programme and the 'Working and living in Germany' telephone hotline, a project run jointly by the Federal Employment Agency and the Federal Office for Migration and Refugees (150) . Where documentation of the acquired qualification is missing or incomplete, a skills analysis (151) can help to demonstrate professional competences in a practical way (via a work sample, a work test at a company or an interview). Since 2019, the NetQA network supports regional chambers in conducting skills analyses.

A project of the education ministry and the association of German chambers of commerce and industry, which started at the end of 2015, offers recognition consultants to provide personal consultancy for people interested in having their qualifications recognised while still in their countries of origin (ProRecognition). The funding and residency options available for upskilling training where a foreign qualification has not been judged fully equivalent to a German qualification were substantially expanded in 2015. In March 2020, the Skilled Immigration Act came into force. This grants applicants from non-EU-countries with a recognised VET qualification the possibility to live and work in Germany. There is one exception: IT specialists with highly developed practical professional knowledge can come to Germany without recognition and practice their occupation. The new Central Service Agency for Professional Recognition (ZSBA) makes the entire recognition procedure more transparent and efficient for applicants through counselling. Another new feature is the possibility to enter Germany for up to 6 months to look for a training place.

The federal government's law on assessing professional qualifications has proven an effective instrument in helping people with qualifications acquired outside Germany to integrate into the labour market and in securing a supply of skilled workers. Between 2012 and 2019, 173 800 applications for recognition were made in professions governed by federal law alone. Between half and two thirds of these qualifications acquired abroad (100 000) were certified as being fully equivalent to the relevant German reference qualifications. Most of the qualifications recognised were in the regulated professions, especially in healthcare (nurse, doctor) (152) (153) .

[141] *Fachoberschulreife.*

[143] <http://www.bildungsspiegel.de/news/weiterbildung-bildungspolitik/17-valikom-chancen-fuer-menschen-ohne-berufsabschluss>; www.validierungsverfahren.de;

[144] *Gleichwertigkeitsfeststellung.*

[145] <https://www.valikom.de/fachtagung/content/impressionen/>

[146] <https://www.validierungsverfahren.de/en/home>

[147] www.ihk-fosa.de

[148] <https://www.bibb.de/en/68882.php>

[149] <https://www.anerkennung-in-deutschland.de/html/de/>

[150] Bundesamt für Migration und Flüchtlinge (BAMF).

- [151] <https://www.anerkennung-in-deutschland.de/html/en/skillsanalysis.php>
- [152] <https://www.anerkennung-in-deutschland.de/html/en/pro/data-reports.php>
- [153] 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

CHAPTER 13.

Incentives for learners

Promoting participation in VET

To promote participation in VET, the initiative Alliance for initial and further training (*Allianz für Aus- und Weiterbildung*) was launched in 2015. The initiative was signed by representatives of the federal government, Federal Employment Agency, trade unions, employers' organisations and Federal States. The Alliance aims to:

- (a) increase the number of training companies and apprentices and avoid drop-outs;
- (b) increase the attractiveness and quality of dual training and promote vocational training;
- (c) strengthen continuing vocational training and higher VET.

In 2017, the Pact for VET followed, bringing together diverse activities and initiatives of the education ministry for the development of a modern, attractive and dynamic VET to form an overall strategy, which increases the visibility and esteem of VET pathways. One important accomplishment was to modernise the Vocational Training Act (*BBiG*), which came into force in 2020 and is explained in the new portal on dual training: www.die-duale.de.

The National skills strategy, launched in 2019 and signed by all main actors in continuing and advanced VET, is another pillar for promoting VET. The new legislations that followed (Qualification Opportunities Act, Work of Tomorrow Act and Upgrading Training Assistance Act AFBG) expanded funding to promote participation in qualifying CVET measures and to secure employment of skilled workers despite changes brought by digitalisation, demography, and the climate and pandemic crises. Two competitions (InnoVET and INVITE) are supporting innovative projects for a modern and excellent CVET as well.

In the care and nursing sector, which is in great need of skilled staff, an important reform was introduced in 2019-20, making the training and working conditions much more attractive. The government launched a programme in 2020 to secure apprenticeship placements put at risk due to the pandemic.

Incentives for initial VET learners

Apprentice remuneration

According to the Vocational Training Act, the training company shall pay apprentices an appropriate allowance. The amendment of the Act in 2020 introduced minimum training wages (154). The amount and payment procedure are specified in the training contract. Training allowances are based on collective wage agreements or on minimum training wages.

Average apprentice remuneration across Germany for 2020 was EUR 963 gross per month (increasing from the first year of training at EUR 869 to the fourth year at EUR 1081). There are significant differences in the level of remuneration between the training sectors and occupations. In 2020, the highest monthly allowances were for the skilled craft occupation of carpenter (EUR 1235) followed by bricklayer (EUR 1174). At the other end, the lowest monthly remuneration was for the apprentices as chimneysweep (EUR 599) followed by maker of orthopaedic footwear and stonemason / stone sculptor (EUR 621 and EUR 628). (155)

Apprentices starting their training in 2020 receive a minimum wage of EUR 515 per month. This will increase by 18% in the second year of training and by 35% (based on the first year) in the third year. For apprenticeships starting in 2021, the minimum wage is EUR 550 in the first year of

training, for apprenticeships starting in 2022 it will be EUR 585, and for apprenticeships beginning in 2023 the minimum wage will be EUR 620. In subsequent years, the minimum training remuneration will be adjusted annually to the average development of all training allowances. This regulation does not apply to apprentices in companies with collective bargaining agreements, where the wages are part of the social partner agreements. (156)

Basic vocational training grant (157)

Financial support is offered during IVET and prevocational training organised by the federal employment agency to help apprentices overcome the economic difficulties that can stand in the way of appropriate vocational qualification. The overall monthly needs of the apprentice not living with his or her parents are estimated and the amount which cannot be covered by own/parents' income is subsidised. In 2020, 62 000 persons undergoing vocational training and 18 000 participating in pre-vocational training measures received funding and support through such a grant (maximum EUR 723 per month) (158) . There are also vocational training grants specifically adapted to the needs of learners with disabilities (159) .

Support during training (160)

This support is targeted at all young people who need help to start and complete vocational training. Enrolment is voluntary. Mentors help apprentices to improve German language and other academic skills through special classes during at least 3 hours a week. The law establishing this measure came into force in May 2015 and in 2019, 38 000 young people were beneficiaries (161) . It helps apprentices to avoid dropping out of training, to stabilise training relationships, to complete vocational training, and to support starting a new job (up to 6 months). 6 months after completing a measure, 83% of participants were in jobs subject to social insurance contributions.

Pre-VET measures (162)

Prevocational education and training measures as defined in the German Social Code (SGB III) prepare young people who need extra support for vocational training or, if they cannot yet start training for inherent personal reasons, to enter employment in the mainstream labour market.

Pre-VET measures give participants opportunities to assess their skills and abilities as part of the process of choosing a possible occupation, e.g. through internships. The measures also provide them with the knowledge and skills they need to start initial vocational training. They can support them in their preparation to acquire a secondary general school-leaving certificate or equivalent school leaving qualification; if this is not or not yet possible, it helps place participants in employment and sustainably integrate into the training and/or labour market.

Around 49 000 young people in need of extra support participated in a prevocational training measure in 2020 (163) .

Introductory training for young people (164)

The primary goal of introductory training is to give young people (although there is no actual age limit) with limited prospects of being placed in training an opportunity to acquire modular qualifications towards a recognised occupation. Introductory training also offers companies providing training an opportunity to get to know young people, not just in a brief job application interview, but to observe their skills and abilities over a period of 6 to 12 months in daily work processes.

Companies which offer introductory training enter into a contract with the young people concerned. Employers receive a subsidy of up to EUR 243 per month to remunerate apprentices, plus a flat-rate contribution towards the average total social security amount payable. On completion of the work placement, participants receive a certificate issued by the competent body (e.g. chamber of industry and commerce, chamber of skilled crafts). In certain circumstances, up to 6 months' credit for the work placement can be offset against the qualifying period of a subsequent apprenticeship. In 2020, around 13 000 young people began introductory

training (165) .

Training placements

Training placements are offered to all young people through employment agencies and jobcentres. The agencies also offer employers specific consultancy services and approach them to enquire about training places. In the 2019/20 reporting year, 530 000 training places and 473 000 training applicants were registered with the federal employment agency (166) .

Special measures for integrating refugees into IVET

Integrating young people with migration background and refugees in the education and VET system and in the labour market is a priority. Keys to integration are learning the host language, validation of formal and non-formal and informally acquired skills, provision of vocational orientation and access to pre-VET and VET programmes, apprenticeships, upskilling measures and employment. Following the arrival of about one million refugees at the end of 2015, existing programmes aiming to integrate disadvantaged groups into the labour market and the VET system opened up with an additional focus on refugees. New programmes were established in 2016, specifically addressing refugees. A synopsis of integration measures for refugees was updated by the federal government in April 2019 (167) . The ESF-supported permanent programme *German for professional purposes* (168) helps people with migration background learn the German language and integrate into society and the world of work. 180 000 people participated in the programme in 2019. An information hub for German language courses and work in Germany, *Handbook Germany* (169) , was also set up, funded by the federal office for migration and refugees (BAMF). Here are two examples of programmes:

- as part of the Educational Chains initiative, the vocational guidance programme for refugees (*Berufsorientierung für Flüchtlinge, BOF*) targets young migrants who are no longer subject to compulsory education. The objective is to prepare them for entry to VET. BOF courses last between 13 and 26 weeks. They take place in apprentice workshops and companies. They give insights into up to three training occupations. Since 2016, about 4 730 young people have participated in these programmes, and about half of the participants could be placed in an apprenticeship or an introductory training (170) ;
- the Federal ESF integration guideline for asylum seekers and refugees (IvAF) and its networks (2015 to 2021) contribute to the sustainable integration of asylum seekers and refugees in training and employment through comprehensive counselling including qualification, placement and support during the first weeks of employment or training. The networks act as door openers for the target group in companies and vocational schools, public administration and trade associations. Starting in 2015 and up to December 2020, around 63 000 asylum seekers and refugees have been integrated into training or employment thanks to IvAF networks. (171)

Since a 2016 amendment to the Social Code, young refugees with tolerated residence status who participate in dual VET are entitled to financial support after 15 months' stay in Germany instead of the previously required 4 years. Support is in the form of training loans, pre-vocational training measures, and the so-called assisted training scheme (see above). The Integration Act (172) was adopted in July 2016 and intends to facilitate refugee integration into society through a 'support and challenge' approach. Refugees with prospects of staying permanently will take integration courses at an early stage, and have legal certainty while in vocational training: up to 3-year right of residence for those in apprenticeship until successful completion of training, followed by 2-year right to reside, if the person works in the profession s/he was trained in. Asylum seekers will be granted temporary residence permits once they have submitted their application for asylum, so they have legal certainty and early access to the integration courses and labour market.

Against the background of demographic changes and current and future skilled labour shortages in some sectors, Germany needs to attract skilled professionals both from EU and non-EU countries. The Skilled Immigration Act came into force on 1 March 2020. The law facilitates the immigration, expands labour market access (e.g. with fast-track recognition procedure) and

offers good perspectives for qualified professionals from non-EU countries. Another new feature is the possibility to enter Germany for up to 6 months to look for a training place. From 1 March 2020 to 31 December 2020, in spite of the pandemic, German diplomatic missions abroad issued almost 30 000 visas to qualified specialists and trainees from non-EU countries (173) .

Incentives for CVET learners

The State promotes participation in continuing VET with various support and funding instruments anchored in the Social Code SGB (grants, subsidies and loans to cover CVET and living costs), addressing various target groups. Some of them are regulated by law and others are in the form of programmes. The 2019 National skills strategy and the recent legal acts related to CVET and advanced vocational training described below aim to:

- expand funding to acquisition of advanced vocational qualifications, making VET more attractive through career pathways and excellence, and meeting the growing need for highly qualified skilled labour:
Upgrading Training Assistance Act (AFBG) last amended in 2019;
- open access to CVET funding regardless of qualifications, age or company size, if there is need of CVET because of digital structural change or structural change in any other way:
Act promoting further training (AWStG) amended in 2016; Qualification Opportunities Act adopted in 2019 and Work of Tomorrow Act adopted in 2020.

The following funding programmes promote the participation in CVET of different target groups:

Upgrading Training Assistance Act (*Aufstiegsfortbildungsförderungsgesetz, AFBG*, known as *Meister-BaföG*)

This law gives craftspeople and other skilled workers a statutory entitlement to financial assistance to cover costs of advanced vocational training and living expenses to acquire higher VET qualifications (at tertiary education level). This financial support, jointly covered by the Federal and State governments, comprises subsidies (or, from a certain amount, bank loans at favourable rates) for a master craftsperson course and exam fees or other programmes leading to a comparable qualification. The AFBG, the equivalent to university student grants (BAföG), was last amended in 2019 to improve the funding, support and expand available funding options to new target groups. It increases VET career attractiveness and its equivalence to academic education.

In 2019, the number of funding recipients was approximately 167 000. In 2021, EUR 537 million funding was available for this programme. The new portal AufstiegsBAföG – BaföG for vocational advancement (174) explains who can apply for funding, how to get funding, gives examples of beneficiaries and features a blog full of information.

AFBG is the most comprehensive CET funding instrument. It is a major pillar and driver of skills upgrading and occupational advancement.

Continuing training grant (*Weiterbildungsstipendium*) (175)

Since 1991, the education ministry (176) has offered particularly gifted and motivated young workers a specific CVET grant (there is a similar programme in academic education). Grants are awarded to approximately 6 000 new recipients every year and more than 150 000 grants have been provided since the programme started. Funding is provided for the measure itself, for travel and accommodation costs and for costs of work materials. Scholarship recipients may apply for a total of EUR 8 100 for an unlimited amount of continuing training courses eligible for funding within the 3-year funding period. They are required to bear 10% of costs themselves per course (177) .

Upgrading scholarship (*Aufstiegsstipendium*) (178)

The education ministry's upgrading scholarship offers incentives to study for skilled workers with

professional experience, whether or not they gained a higher education entrance qualification at school. It was established for professionals with at least 2 years' work experience and with outstanding talents. When qualified skilled professionals are already working, financial issues often prevent them from starting a course of studies. It is the only academic programme supporting talented students who are combining work and study (over a third of the scholarship holders) or studying full-time for the duration of their course of studies (standard prescribed study period). The funding provided for full-time study is EUR 941 a month (plus a one-off childcare payment) and EUR 2 700 a year offered for those combining work and study (179) . Scholarships are awarded to approximately 1 000 new recipients every year and about 12 900 were provided from 2008 to 2020 (180) .

Continuing education bonus (*Bildungsprämie*) (181)

To encourage groups of people that tend to have lower rates of participation in company-based continuing vocational training (workers on low incomes, women, employees in small and medium-sized enterprises (SMEs), people working part-time and healthcare professionals), the federal government approved an additional financing scheme in 2008: premium and savings vouchers. The premium voucher reduces training costs by up to 50% of tuition fees (max EUR 500) for job-related training courses or courses that help improve people's employability. It targets employees and the self-employed who work at least 15 hours a week and have a maximum taxable annual income of EUR 20 000 (or 40 000 for couples; child allowances are taken into account) or are on parental leave. The voucher is valid for 6 months. People can receive vouchers every 2 years. This measure is supported by the European Social Fund. The savings voucher provides a right to withdraw money from capital formation saving plans without losing the savings grant. This is open to all people who have such saving plans, regardless of their income. Since the programme started in 2008, around 385 000 premium vouchers have been issued and 29 000 individual CVET savings plans established.

CVET for the unemployed and those at risk

One important national strategy is the prevention of unemployment through nation-wide standard upskilling programmes (under the German Social Code), specifically addressing those at risk of long-term unemployment: the low-skilled and the unemployed (182) .

Education and training voucher for the unemployed

To be eligible for a CVET voucher, participation must be considered necessary to enable occupational integration, to avert pending unemployment or because the candidate does not have a vocational qualification. When identifying the need for CVET measures, the employment agency or the authority providing basic income support for jobseekers must always consider labour market conditions. They must decide, among others, whether the candidate could find employment without continuing VET; whether other labour market policy instruments could be more appropriate; and whether the candidate could, in all likelihood, return to the labour market as a result of the training.

Persons meeting the general eligibility criteria are granted an education and training voucher (*Bildungsgutschein*) by the employment agency or the authority providing jobseeker support. This voucher contains data on the education objective, the time required to reach this objective and information as to where the voucher applies in the region. The holder can redeem it at any education institution of their choice which is accredited for funding under the conditions specified in the education voucher. The continuing VET activity must also be approved for funding and support. Information on approved continuing VET measures and providers can also be found in the database of the federal employment agency (183) . The CVET measure may lead to acquiring a recognised VET qualification (for the first time for the low-qualified or retraining in a second occupation if necessary). It can also take place through successive partial (modular) qualifications (*Teilqualifikation TQ*) preparing for the final examination. (184)

By issuing an education and training voucher, the reimbursement of some or all of the following CVET expenses is confirmed: course costs, travel expenses, costs for external board and lodging,

and childcare expenses. Candidates are also entitled to receive unemployment benefit for the duration of the CVET programme if specific requirements are met. Regulations related to unemployment benefits remain unchanged for the duration of the continuing VET programme.

The FbW programme (185) promoting CVET

This is available both to the unemployed and employees under threat of imminent unemployment, as well as to workers with low levels of qualifications and employees in SMEs. Eligibility for funding also depends on labour market conditions, as with the education and training voucher. Eligible CVET courses aiming to obtain, update or upgrade a vocational (also partial) qualification are listed in the KURSNET (186) database of the Federal Employment Agency.

Expanding financial support for CVET

In 2016, the legislation promoting further training (AWStG) was amended. It improved the financial conditions under which the low-qualified, the long-term unemployed and older workers could access CVET, in particular through allowances during training and financial incentives for passing exams (up to 1500 EUR). (187)

The Qualification Opportunities Act (*Qualifizierungschancengesetz*) introduced in January 2019 went one step further. The Act introduced the right of people in employment to access CVET funding regardless of their qualification, age or company size, if they needed CVET because of digital or any other structural change. The expansion of financial support also addressed those striving for further training in a shortage occupation. The funding covers CVET costs as well as salary compensations, subject to shared financing by the employer and proportional to the size of the company. (188)

The Work of Tomorrow Act (*Arbeit-von-Morgen-Gesetz*) adopted in 2020 builds on these two acts. The objective is to improve the promotion of further (vocational) education for employees and the regulations governing education support: simplified application and approval procedures; higher subsidies; qualification in transfer companies; legal entitlement to further education for low-skilled workers; consolidation of assisted training programme by merging with assistance during training programme; extension of the scheme for payment of further education bonuses for successful examinations. (189)

The two new acts replaced the WeGeBAU and IFlaS programmes with expanded funding and beneficiaries under the German Social Code.

Future Starters programme

The initiative Future starters (*Zukunftsstarter*) targets young people between 25 and 35 years old without initial vocational training and aimed to attract 120 000 young adults to IVET between 2016 and 2020. This objective has been exceeded. This initiative offers support not only to the unemployed but also to employees who do not yet have a vocational qualification. Young adults with disabilities and refugees can also profit from this initiative. (190)

[154] https://www.bmbf.de/bmbf/de/home/_documents/die-novellierung-des-berufsbildungsgesetzes-bbig.html

[155] BIBB Datenreport 2021 [VET data report 2021], Chapter A9.1
https://www.bibb.de/datenreport/de/datenreport_2021.php

[156] https://www.die-duale.de/dieduale/de/home/home_node.html

[157] 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>
- [159] <https://www.arbeitsagentur.de/en/training-allowance-disabled-persons>
- [160] 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>
- [161] Actual expenditures 2020: EUR 107.38 million (BMBF, 2021 p 106).
- [162] Berufsvorbereitende Bildungsmaßnahmen – BvB (SGB III, 51). www.arbeitsagentur.de
- [163] Actual spending for 2020: EUR 193,53 million. (BMBF (2021). *Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BMBF, p. 108.
- [164] Einstiegsqualifizierung – EQ (SGB III, 54a) <https://www.arbeitsagentur.de>
- [165] Actual spending 2020: € 26,72 million (BMBF (2021). *Berufsbildungsbericht 2021 [VET data report 2021]*, Bonn: BMBF, p.111.
- [167] Integration measures for refugees (BMWf, 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
- [168] www.bamf.de
- [169] <https://handbookgermany.de/en.html>
- [170] Vocational orientation – provision for refugees (BOF)
<https://www.berufsorientierungsprogramm.de/angebote-fuer-zugewanderte/de/berufsorientierung-fuer-fluechtlinge-bof-1955.html>
- [171] 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>
- [172] <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
- [173] 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>
- [174] https://www.aufstiegs-bafoeg.de/aufstiegsbafoeg/de/home/home_node.html
- [175] <https://www.bmbf.de/de/das-weiterbildungsstipendium-883.html>
- [176] Bundesministeriums für Bildung und Forschung (BMBF).
- [178] <https://www.bmbf.de/de/das-aufstiegsstipendium-882.html>
- [180] Funding volume in 2020: EUR 29.3 million. BMBF VET report 2021, p. 105.
- [181] <http://www.bildungspraemie.info/>
- [183] KURSNET: <http://kursnet-finden.arbeitsagentur.de/kurs/>
- [184] 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/berufsanschlussfaehigte-teilqualifikationen>

- [185] www.arbeitsagentur.de
- [186] <http://kursnet-finden.arbeitsagentur.de/kurs/>
- [187] Legislation promoting further training amended (AWStG) (7.2016)
<https://www.bmas.de/DE/Service/Gesetze-und-Gesetzesvorhaben/arbeitslosenversicherungsschutz-weiterbildungsstaerkungsgesetz.html>
- [188] Qualification Opportunities Act (Qualifizierungschancengesetz) (12.2018)
<https://www.bmas.de/DE/Service/Gesetze-und-Gesetzesvorhaben/qualifizierungschancengesetz.html>
- [189] <https://www.bmas.de/DE/Service/Gesetze-und-Gesetzesvorhaben/arbeit-von-morgen-gesetz.html>
- [190] BA website on the Future starters programme <https://www.arbeitsagentur.de/karriere-und-weiterbildung/foerderung-berufliche-weiterbildung>

CHAPTER 14.

Incentives for enterprises to boost their participation in VET provision

For many German companies, it is a tradition and a matter of course to provide and to carry most of the costs for apprenticeship. In this way, they can meet their need for future skilled staff. However, the readiness to provide apprenticeship has been declining in the last decade (191) , especially among the smallest companies (1 to 9 employees) who face increasing difficulties in filling the apprenticeship places they offer – even more so during the COVID-19 pandemic. This shows that companies, especially small and medium-sized enterprises (SMEs), need support, which is provided in various forms, as described below (192) :

Programme securing apprenticeship placements during pandemic

With the federal programme Securing apprenticeship placements, the federal government wants to support training companies in all sectors of the economy and training institutions in the health and social professions in the difficult economic situation due to the COVID-19 pandemic. Specifically, training capacities are to be maintained and expanded with bonuses (2000/3000 EUR), short-time work for apprentices is to be avoided (subsidy to cover 75% of training allowance), contractual and joint training is to be promoted (4000 EUR) and incentives for taking over apprentices in the event of insolvency (3000 EUR) are to be created (193) .

Inter-company vocational training centres and training structures

SMEs, in particular crafts companies, are important training suppliers, but are unable, or not fully able, to provide all the facets of training required by regulations. This is primarily due to the increasing division of labour in production processes, increasing specialisation and, in some cases, financial problems or accelerated technological change. The limited suitability of such enterprises as training providers is compensated for by supplementary external training measures in inter-company vocational training centres or through training structures. Inter-company training centres also have an essential position in further and continuing training in SMEs, especially in the commercial and technical sectors. Such training centres also exist in the skilled trade sector (194) . Funding is offered for the modernising and restructuring of inter-company training centres to adapt them to changing education and training policy and economic conditions, as well as the challenge of digitalisation. Since 2016, a programme has focused on the digital transformation of these training centres by funding the purchase of digital equipment and through selected pilot projects on adaptation of teaching and learning processes (195) .

Support for SMEs:

Training placement

The employment agencies offer employers specific consultancy services and approach SMEs to enquire about training places. Employers are free to register any training places they are offering. In the 2019/20 reporting year, 530 000 training places and 473 000 training place applicants were registered with the federal employment agency (196) .

Alliance training guarantee

As of 2016, a process to help find training places / apprentices has been put in place: every young person who is still looking for an apprenticeship on 30 September of a given year will receive three offers of company-based training from an employment agency. (197)

Jobstarter plus

The federal ministry of education funds and supports projects in the national JOBSTARTER plus programme (198) with part-finances from the European Social Fund (ESF) to improve regional training structures and trial innovative training policy approaches to solving training market problems. The programme is designed to respond flexibly and actively to current training market developments with a range of variable funding priorities:

- advise and support SMEs in the process of (re-) starting participation in dual training and increasing their commitment to training;
- counteract matching problems and the difficulties that companies have in filling training places in certain industries;
- advising and supporting SMEs in the process of adapting their training to the challenges posed by the increasing automation and digitalisation of the economy.

Passgenaue Besetzung (199) (Perfect match)

The *Passgenaue Besetzung* programme (200) , financed jointly by the ESF and federal ministry for economic affairs (201) , works to counteract matching problems in the training market. The programme provides funding for consultants (130 in 2020) at the chambers (84 in 2020) who support SMEs in filling the training places they offer with suitable young people. Since the programme began in 2007, *Passgenaue Besetzung* has successfully placed more than 90 000 young people in training and 11 000 in introductory training. In 2020, more than 6 000 SMEs and almost 16 000 young people received an individual counselling.

Federal employment agency consultancy on qualification for employers (202)

The federal employment agency (BA) supports personnel development measures in SMEs as part of its preventative approach to securing a supply of skilled workers. It informs and advises employers and identifies the possibilities for further developing the potential in companies through company-based qualification measures. This consultancy makes employers aware of the advantages of more frequently including groups of employees who are often not considered for participation in measures (e.g. those without formal qualifications and older employees) in further training measures. By offering consultancy on qualification and support for personnel development to employers, the federal employment agency is helping companies to fill training and employment vacancies from within their own ranks.

Support measures to help integrate refugees in dual VET and work

The following support measures, helping to integrate refugees in apprenticeship, address especially SMEs and skilled trade companies:

- the network *Companies integrate refugees* (203) funded by the federal ministry for economic affairs and the umbrella organisation of the chambers of industry and commerce (DIHK) is aimed at companies that are involved, or want to get involved, with refugees. The aim is to bring refugees to training and employment. The network offers its more than 2800 member companies (three quarters of which are SMEs) the opportunity to exchange experiences and practical information on the employment of refugees;
- the chambers' *Welcome guides* (*Willkommenslotsen*) are available to companies on all issues relating to the operational integration of refugees. Since the start of the programme in March 2016, the *Welcome guides* have facilitated numerous placements of refugees in employment, training or internship (204) . In 2020, more than 4400 companies made use of individual counselling by one of the 95 consultants;

The 20 KAUSA training and migration service centres (205) aim to increase the participation of

migrants and refugees in VET. They provide guidance and counselling to companies opening up their training places for migrants and refugees, and to young migrants and their parents with regard to VET.

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- [191] 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.
 - [192] For further information on this, please consult: Hippach-Schneider, U.; Huisman, 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
 - [193] Information on federal government website (English)
<https://www.bundesregierung.de/breg-en/news/ausbildung-corona-1774334>
 - [194] www.bmwi.de/Redaktion/DE/Text-sammlungen/Mittelstand/hand-werk.html?cms_artId=243216
 - [195] BIBB website on the special programme on digitalisation in ÜBS
<https://www.bibb.de/uebs-digitalisierung>
 - [197] Website of the Alliance for initial and further training <https://www.aus-und-weiterbildungsallianz.de/AAW/Navigation/DE/Home/home.html>
 - [198] JOBSTARTER website <https://www.jobstarter.de/index.html>
 - [199] www.bmwi.de/passgenaue-besetzung
 - [201] Bundesministerium für Wirtschaft und Energie, BMWi.
 - [202] www.arbeitsagentur.de/personalentwicklung
 - [203] <https://www.unternehmen-integrieren-fluechtlinge.de/>
 - [204] Information on the chambers Welcome Guides (ZDH)
<https://www.zdh.de/fachbereiche/gewerbefoerderung/passgenaue-besetzung-willkommenslotsen/willkommenslotsen/>
 - [205] KAUSA training and migration service centres
<https://www.bildungsketten.de/de/3135.php>

CHAPTER 15.

Guidance and counselling

Guidance and counselling provision is embedded in Germany's overall employment strategy as well as in its education sector and lifelong learning strategy. Labour market policy has a long tradition of guidance and counselling by the employment agencies. The federal employment agency (BA) is the largest and most important service provider for lifelong learning and guidance, even though the private and semi-private market has grown significantly. This includes services for the long-term unemployed from jobcentres under the social code (SGB II) (206) .

Due to the country's constitution and its federal structure, with split responsibilities between the Federal Government, sixteen State governments and local municipalities, and between education, labour and youth ministries, guidance policy and provision is also split between these sectors. There are several institutional links and cooperation agreements between labour market and education policy; in the last decade, cross-sectoral national guidance programmes have been set up, including the Educational chains leading to vocational qualifications initiative, the Youth employment agencies (JBA) and the National skills strategy (including guidance) for adults.

Umbrella initiative Educational chains leading to vocational qualification

Guidance and counselling in the education sector mainly focuses on vocational education, guidance on education career paths or individual learning difficulties. Services vary between States and schools. School career education (also part of the general education curricula) and the local employment agencies' vocational guidance services cooperate closely, e.g. with visits to the local employment agency, to enterprises and by compulsory 1- to 3-week work placements in companies in grades 8, 9 or 10. The umbrella initiative Educational chains leading to vocational qualifications (*Abschluss und Anschluss - Bildungsketten bis zum Ausbildungsabschluss*) (207) gathers existing and new programmes at Federal, State and local levels. The initiative, as its name indicates, provides a close-meshed support net and its coverage is very comprehensive. Its final goal is the completion of a qualification for all young people by supporting them in the following fields:

- (a) obtaining a general school-leaving certificate;
- (b) making the transition from school to training;
- (c) completing training successfully.

The range of support instruments is very broad and most are now nationwide standard offers anchored in the Social Code SGB:

- analysis of individual areas of potential (starting from school grade 7): young people learn about their strengths;
- vocational orientation (starting from grade 8): young people become aware of various occupational fields through internships in companies or inter-company vocational training centres. They can test their predispositions and talents;
- individual coaching and support (during school and apprenticeship):
 - career start coaching (starting from grade 8): salaried career start mentors accompany disadvantaged young people until they obtain a general school-leaving certificate and as they make the transition from school to training;
 - VerA initiative to prevent training dropouts (from first day of apprenticeship): young people who have trouble in their apprenticeship can receive individual coaching by senior experts volunteers. Senior experts are retired professionals with broad experience in their respective field of work;

- apprentices may also receive assistance via special training support measures provided by the employment agency;
- measures in the transition period (between school leaving and apprenticeship placement): pre-VET measures and introductory training;
- KAUSA service offices were set up to facilitate the integration of migrants and refugees in VET. They provide guidance and counselling to companies opening up their training places for migrants and refugees, and to young migrants and their parents with regard to VET.

Youth employment agencies - *Jugendberufsagenturen* (JBA)

In many regions, the employment agency, the jobcentre and the youth welfare office are joining forces to form a youth employment agency and offer their services jointly to young people in the transition from school to training and work. This is not a new authority, but close cooperation at working level, with locally different models of cooperation and designation. For young people, guidance and support becomes a one-stop-shop. JBA targets young people at risk of dropping out of education and training, as well as those facing obstacles in (entering) the labour market. The first JBAs were established in Mainz, Düsseldorf and Hamburg (208) ; by January 2017, there were about 290 JBAs in Germany. The Federal Employment Agency and the new coordination office at the Federal Institute for Vocational Education and Training (BIBB) are monitoring and supporting their development and activities (209) .

Some measures (210) address young refugees specifically as well as disadvantaged young people who are no longer reached by regular services (new section in Social Code: 16h SGB II) (211) . The website www.klischee-frei.de provides information and supports young people in their career choice, with a brief to disregard gender clichés. In addition to regular student counselling services, universities have increasingly established career services to ease the transition from academic education to the labour market. In 2014, the federal education ministry started an initiative to attract university drop-outs (drop-out rate of 29% in bachelor courses) into vocational training (212) .

National skills strategy and guidance for adults

The National skills strategy, signed by all continuing education and training (CET) actors in 2019, aims to develop and join up the existing lifelong CET guidance and counselling services, especially those of the Federal State, with its employment agencies, the *Länder*, chambers, associations and education organisations, to create a nationwide, high-quality counselling structure for lifelong learning. CET counselling must also aim, in close consultation with companies (in particular SMEs), to boost the motivation of the relevant groups of people (low-skilled individuals, skilled workers, future managers) to participate in CVET, and must seek to ensure that the threshold for access to CVET is as low as possible.

For example, the federal labour ministry, the social partners and the Federal States are supporting the Federal Employment Agency Lifelong career counselling (LBB) project (counselling before entering working life, counselling during working life, and a career counselling self-discovery tool), with a focus on the needs of organisations and in close consultation with the social partners and regional business self-governance structures. The LBB systematic career guidance and counselling service was introduced nationwide in 2019 and 2020, followed in 2021 by the online self-exploration tool New plan, which shows possibilities for development or further training on the job (213) . Another example is the telephone and online guidance service funded by the federal education ministry (214) .

At local level, several initiatives and networks support the transition of learners into the labour market as well as lifelong learning for adults:

- the regional transition management programme (*Regionales Übergangsmanagement*) supports less well-performing school leavers and refugees to find an apprenticeship place (215) ;
- the Transfer initiative municipal education management (*Transferinitiative Kommunales*

Bildungsmanagement) supports municipalities in setting up efficient education management systems, including monitoring and guidance (216) .

Training providers, employment agencies, chambers, enterprises, local schools and municipalities, trade unions, as well as other local actors and stakeholders, participate in these networks.

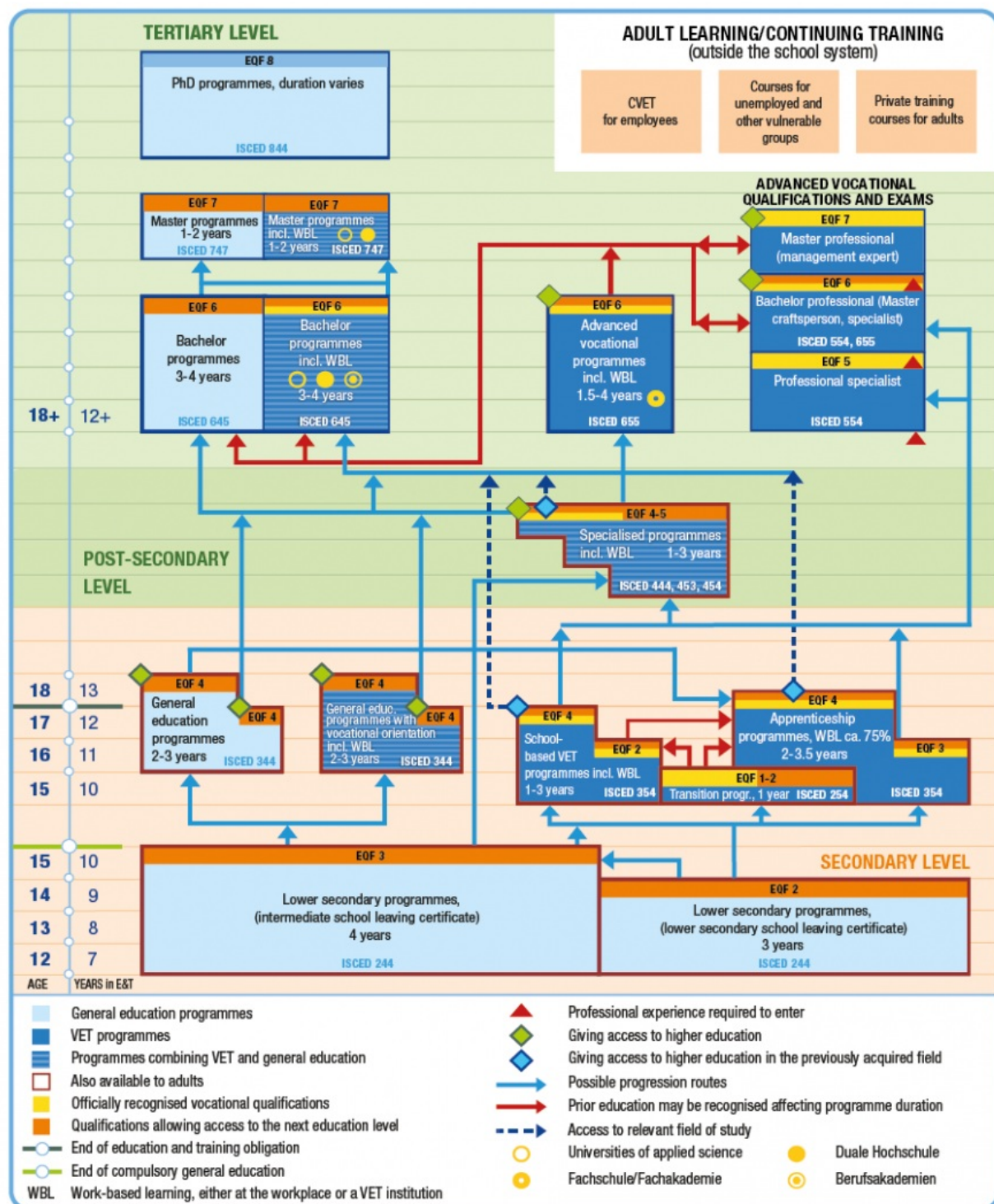
Examples of online information and guidance tools include the offers of the federal employment agency addressing different age groups and situations (217) , AusbildungPlus (218) , planet-beruf.de (219) , abi.de (220) , studienwahl.de (221) , bildungsserver.de (222) , InfoWebWeiterbildung iwwb.de (223) .

Please see:

- guidance and outreach German national report (224) ;
- Cedefop's inventory of lifelong guidance systems and practices (225) .

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- [207] <https://www.bildungsketten.de/> and <https://www.berufsorientierungsprogramm.de/>
- [208] <https://www.jba-hamburg.de/English-71>
- [209] <https://www.servicestelle-jba.de/www/9.php#/www/ueber-uns.php>
- [210] <https://www.berufsorientierungsprogramm.de/angebote-fuer-fluechtlinge/de/english-1993.html>
- [211] <https://www.bmas.de/DE/Themen/Arbeitsmarkt/Modellprogramme/respekt-pilotprogramm.html>
- [212] <https://www.studienabbruch-und-dann.de/>
- [213] <https://www.arbeitsagentur.de/karriere-und-weiterbildung>
- [214] https://www.der-weiterbildungsratgeber.de/weiterbildungsratgeber/de/home/home_node.html
- [215] BIBB. *Überaus*. <https://www.ueberaus.de/www/dossier-uebergangsmanagement.php>
- [216] BMBF. *Die Transferinitiative [the transfer initiative]* <https://www.transferinitiative.de/>
- [217] <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>
- [218] <https://www.bibb.de/dienst/abp/de/index.php>
- [219] <https://planet-beruf.de/schuelerinnen>
- [220] <https://abi.de/>
- [221] <https://studienwahl.de/>
- [222] <https://www.bildungsserver.de/>
- [223] <https://www.iwwb.de/kurssuche/startseite.html>
- [224] <http://www.cedefop.europa.eu/events-and-projects/networks/refernet/thematic-perspectives/guidance-outreach>
- [225] <https://www.cedefop.europa.eu/en/publications-and-resources/country-reports/inventory-lifelong-guidance-systems-and-practices-germany>

Vocational education and training system chart



NB: ISCED-P 2011. This is a simplified chart, based on the unified approach used for the spotlights on VET in all EU-27 countries plus Iceland and Norway.
Source: Cedefop and ReferNet Germany, 2022.

VET Programme Types

EQF 4			
General education programmes with vocational orientation incl. WBL 2-3 years ISCED 344			
General education programmes with vocational orientation incl. WBL, 2-3 years EQF level 4, ISCED 344 (Berufliches Gymnasium or Fachgymnasium)			
	EQF level	4	ISCED-P 2011 level
			344
Usual entry grade	minimum 11	Usual completion grade	minimum 12/13
Usual entry age	minimum 15/16	Usual completion age	minimum 17/19
Length of a programme (years)	2-3		
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	Information not available		
Learning forms (e.g. dual, part-time, distance)	<ul style="list-style-type: none"> • school-based learning; • work-based learning parts (with vocational subjects such as economics and technology as well as internships). 		
Main providers	Vocational grammar school (Berufliches Gymnasium or Fachgymnasium)		
Share of work-based learning provided by schools and companies	Information not available		

Work-based learning type (workshops at schools, in-company training / apprenticeships)	Information not available
Main target groups	Programmes are mainly available for young people.
Entry requirements for learners (qualification/education level, age)	An intermediate secondary school leaving certificate is required.
Assessment of learning outcomes	<i>Abitur</i> examination as in a general <i>Gymnasium</i> but with career-oriented subjects in addition; leading to a general higher education entrance qualification.
Diplomas/certificates provided	These programmes lead to the general higher education entrance qualification.
Examples of qualifications	These programmes lead to the general higher education entrance qualification.
Progression opportunities for learners after graduation	<p>Graduates can continue their education at tertiary level, by following a bachelor programme offered at:</p> <ul style="list-style-type: none"> • university; • university of applied science; • university of cooperative education; • dual university. <p>Graduates can also continue their education at secondary level in the following programmes:</p> <ul style="list-style-type: none"> • apprenticeship programmes; • school-based VET programmes; • specialised VET programmes at post-secondary level.
Destination of graduates	<i>Information not available</i>
Awards through validation of prior learning	<i>Information not available</i>
General education subjects	✓
Key competences	✓
Application of learning outcomes approach	<i>Information not available</i>
Share of learners in this programme type compared with the total number of VET learners	<i>Information not available</i>

EQF 2-4

School-based VET

programmes incl. WBL,

1-3 years

ISCED 354

School-based VET programmes at EQF level 2-4, ISCED 354 (Berufsfachschule)

EQF level	2-4	ISCED-P 2011 level	354
Usual entry grade	minimum 10	Usual completion grade	minimum 10/12
Usual entry age	minimum 14/15	Usual completion age	minimum 15/18
Length of a programme (years)	1-3		
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 Information not available

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

- school based learning
- work-based learning elements

Main providers

Full time vocational schools (*Berufsfachschule*)

Share of work-based learning provided by schools and companies

Varies

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




- practical training at school
- in-company practice

Main target groups

Programmes are available for young people and also for adults.

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

Minimum entry requirement is either the lower or the intermediate secondary school leaving certificate.

Assessment of learning outcomes	Assessment methods vary; some schools are governed by the Federal States; some are governed by federal law (226) .
Diplomas/certificates provided	Vocational school at upper secondary level offering a wide range of branches and courses of varying duration. A full-time school, it prepares or trains learners for a specific occupation at different levels of qualification.
Examples of qualifications	Chemical technician, business assistant, technical designer, tourism assistant, childcare assistant (227)
Progression opportunities for learners after graduation	<p>Graduates are qualified to enter the labour market directly or can continue their education at:</p> <ul style="list-style-type: none"> • secondary level by following an apprenticeship programme. If it is in a related professional field, the study duration can be reduced; • upper secondary level by following specialised programmes; • VET tertiary level, preparing advanced vocational qualifications and exams at EQF level 5 (Professional specialist) or entering advanced vocational programmes under certain conditions; • general tertiary level if they also gained the higher education entrance qualification (double qualification). Graduates can enter advanced vocational programmes as well as bachelor programmes offered at universities of applied science, Duale Hochschule or Berufsakademie in the field in which they graduated.
Destination of graduates	<i>Information not available</i>
Awards through validation of prior learning	 <p>In cases where such schools do not provide a full vocational qualification, the successful completion of the <i>Berufsfachschule</i> may be credited, under certain conditions, as part of the training period in occupations requiring formal training (Art. 7 of the Vocational Training Act). In order to prove the equivalence of a vocational qualification at a <i>Berufsfachschule</i> with dual VET, successful graduates can sit an examination before the competent authority. Admission to this so-called chamber examination is possible if the <i>Land</i> in question has adopted appropriate regulations pursuant to Article 43, paragraph 2 of the Vocational Training Act or if there are arrangements to this end between the vocational schools and the competent authorities.</p>
General education subjects	
Key competences	
Application of learning outcomes approach	<i>Information not available</i>
Share of learners in this programme type compared with the total number of VET learners	<i>Information not available</i>

- [226] https://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2013/2013_10_17-RV-Berufsfachschulen.pdf
- [227] <https://www.kmk.org/themen/berufliche-schulen/schulische-berufsausbildung/europass-zeugniserlaeuterungen/downloads-berufsfachschulen.html>

EQF 1-2

Transition programmes,

1 year

ISCED level 254

Transition programmes leading to EQF level 1-2 and ISCED level 254 and include the following programmes: pre-vocational training year (Berufsvorbereitungsjahr - BVJ); basic vocational training year (Berufsgrundbildungsjahr - BGJ); introductory training (Einstiegsqualifizierung - EQ).

EQF level	1-2	ISCED-P 2011 level	254
Usual entry grade	minimum 10	Usual completion grade	minimum 10
Usual entry age	minimum 14/15	Usual completion age	minimum 15/16
Length of a programme (years)	1		
Is it part of compulsory education and training?	✓	Is it part of formal education and training system?	✓
Is it initial VET?	✓	Is it continuing VET?	✗
Is it offered free of charge?	✓	Is it available for adults?	✓
ECVET or other credits	Information not available		

Learning forms (e.g. dual, part-time, distance)	<p>School and work-based learning:</p> <ul style="list-style-type: none"> • pre-vocational training year (<i>Berufsvorbereitungsjahr</i> – BVJ): the BVJ is a one-year course of training, usually offered full-time by schools and designed to prepare young people for the demands of vocational training. The majority of participants do not have a secondary school leaving certificate. However, this can be acquired in the course of the BVJ, thus improving the holder's prospects in the market for training positions; • basic vocational training year (<i>Berufsgrundbildungsjahr</i> – BGJ): basic vocational education can be completed either as a year at school (full-time) or in joint fashion at an enterprise and school. Successful completion of the BGJ can be credited as the first year of vocational training in the training occupations assigned to the relevant occupational field. In the BGJ, learners receive basic educational knowledge in a specific occupational field (e.g., metalworking techniques, electrical engineering, business and administration); • Introductory training (<i>Einstiegsqualifizierung</i> – EQ): EQ provides young people whose prospects of being placed in VET are limited due to individual reasons with an opportunity to acquire or enhance personal and vocational competences and gives companies offering training the chance to get to know these young people. It has proved to be a 'door-opener' to apprenticeship for approx. 70% of participants.
Main providers	Varies
Share of work-based learning provided by schools and companies	Varies
Work-based learning type (workshops at schools, in-company training / apprenticeships)	<ul style="list-style-type: none"> • practical training at school • in-company practice
Main target groups	Young people and adults with social disadvantages, learning difficulties or handicap or insufficient German language skills (migrants) have different possibilities for pre-vocational education and training measures.
Entry requirements for learners (qualification/education level, age)	The minimum entry requirement is the lower secondary school leaving certificate for BGJ and EQ; for the BVJ, the certified attendance of grade 1 to 9 is enough.
Assessment of learning outcomes	<i>Information not available</i>

Diplomas/certificates provided	<p>a) BVJ: lower secondary school certificate, in case not yet obtained;</p> <p>b) Successful completion of the BGJ can be credited as the first year of vocational training in the training occupations assigned to the relevant occupational field;</p> <p>c) EQ does not lead to a certificate but it has proved to be a 'door-opener' to apprenticeship for approx. 70% of participants.</p>
Examples of qualifications	In the BGJ, learners receive basic educational knowledge in a specific occupational field (e.g. metalworking techniques, electrical engineering, business and administration).
Progression opportunities for learners after graduation	Progression is possible to school-based VET programmes and apprenticeship programmes (even in the second year, in case of the BGJ).
Destination of graduates	The former participants in these programmes mostly start an apprenticeship or a school-based VET programme (228) .
Awards through validation of prior learning	<i>Information not available</i>
General education subjects	✓
Key competences	✓
Application of learning outcomes approach	<i>Information not available</i>
Share of learners in this programme type compared with the total number of VET learners	<p><i>Information not available</i></p> <p>However, the share of apprentices having taken part in such a so-called transition or preparatory VET programme before starting the apprenticeship amount to approx. 8% (2019: 39 291 out of 513 309 first-year-apprentices) (229) .</p>

[228] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 133-138. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>

[229] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*, p. 133. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>

EQF 3-4

Apprenticeship programmes,

WBL ca. 75%

2-3.5 years

ISCED level 354

Apprenticeship scheme (dual system: duale Ausbildung) according to the Vocational Training Act (BBiG) and the Trade and Crafts Code (HwO) at EQF level 3-4 and ISCED level 354 (in 2020: 324 programmes, one for each occupation that can be learnt in the apprenticeship scheme).

EQF level	3-4	ISCED-P 2011 level	354
Usual entry grade	minimum 10	Usual completion grade	minimum 11-13
Usual entry age	minimum 14/15 but in practice, average age of entry is higher: 20 years old in 2019 (230)	Usual completion age	minimum 16/17 but in practice from 22 upwards
Length of a programme (years)	2-3.5		
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?	✓ Apprentices are paid (231) .	Is it available for adults?	✓

ECVET or other credits Information not available

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

- school-based and practical learning in schools and inter-company vocational training centres (*überbetriebliche Berufsbildungsstätten, ÜBS*), (e.g. 1 or 2 days per week or 1 week per month);
- company-based learning (share of approx. 70%).

The system is described as dual because training is conducted in two places of learning: companies and vocational schools. Apprentices attend a vocational school 1 or 2 days per week, where they are mainly taught theoretical and practical knowledge related to their occupation; they attend classes on general subjects such as economics, social studies and foreign languages. Systematic teaching at vocational school is a necessary supplement to process-oriented training within a company, which is more based on specific in-company requirements. The primary aim of training is to enable young people to acquire comprehensive vocational competence. Training programmes are designed on the principle that they should be as broad as possible and as specific as necessary.

Main providers Companies in cooperation with vocational schools

Apprenticeship places are offered in both enterprises and public institutions. The professional competences to be acquired through in-company training are specified in training regulations and included by the training enterprise in an individual training plan. The binding requirements of the training regulations guarantee a uniform national standard. However, SME are often unable to provide all the stipulated learning content: they may lack suitable training personnel, or, owing to their particular specialisation, may not cover all the training content themselves.

There are various ways to overcome these problems:

- inter-company vocational training centres (*überbetriebliche Berufsbildungsstätten*, ÜBS) designed to supplement in-company training: training centres, which are often sponsored by autonomous bodies in the relevant sectors of industry. The federal ministry of education supports sponsors with investment subsidies (for buildings and infrastructure). The BIBB is responsible for promoting inter-company training centres and supporting the planning, establishment and development of these facilities. Since 2016, an additional programme is promoting the digital transformation of these training centres by funding the purchase of digital equipment as well as selected pilot projects on adaptation of teaching and learning processes (232) ;
- enterprises can form joint training structures (*Ausbildungsverbünde*). There are four traditional models for this:

- lead enterprise with partners (*Leitbetrieb mit Partnerbetrieben*): one enterprise takes the lead and bears overall responsibility for training; however, parts of the training are conducted in various partner enterprises;

- training to order (*Auftragsausbildung*): some training takes place outside the regular enterprise, perhaps in a nearby large enterprise with a training workshop, on the basis of an order and against reimbursement of costs;

- training consortium (*Ausbildungskonsortium*): several SMEs sign a cooperation agreement and work together on equal footing. They take on apprentices and train them independently. If an enterprise cannot cover a specific area of content, the apprentice moves to another enterprise (rotation principle);

- training association (*Ausbildungsverein*): enterprises establish an organisation which takes over administrative tasks such as contracting, while the enterprises conduct training. Association structures usually comprise a general meeting and an honorary committee. A statute regulates members' rights and obligations.

Share of work-based learning provided by schools and companies

About 75%

Work-based learning type (workshops at schools, in-company training / apprenticeships)	<ul style="list-style-type: none"> • in-company practice (about 70%), • practical training at school, • practical training in inter-company vocational training centres (<i>überbetriebliche Berufsbildungsstätten, ÜBS</i>).
Main target groups	Programmes are available for young people and also for adults.
Entry requirements for learners (qualification/education level, age)	<p>Completion of full-time compulsory education, no further requirements for access (but companies select their apprentices).</p> <p>The majority of apprentices hold either the intermediate secondary school leaving certificate (<i>mittlerer Schulabschluss</i>) or the lower secondary school leaving certificate (<i>Hauptschulabschluss</i>). However, the share of apprentices with a higher education entrance qualification has been rising as well: in 2019, almost one in three apprentices (29.3%) was a high-school graduate (233) . This group followed <i>successively both paths</i> of education at upper secondary level: first the general, followed by the vocational qualification. Indeed, despite being classified as 'upper secondary', initial VET is also considered by high-school graduates as an alternative option to tertiary education.</p>
Assessment of learning outcomes	<p>A final exam is testing the practical and general knowledge of the learner based on the work requirements and processes of the occupation. As a rule, a final exam covers four or five fields relevant to the occupation. Performance in general subjects is evaluated via school reports. The exams are regulated by law (Vocational Training Act – BBiG) and are performed by the chambers. For this task, the chambers are authorised by the State and are officially acting as a public institution. Upon passing the final examination, apprentices receive a chamber certificate to document that training was successfully completed. This certification of qualification is fully recognised and highly trusted among employers.</p> <p>In 2019, 413 052 apprentices took the final exams (234) . The success rate was 92.8%, and after retaking the exam by those who first missed, even 99.2% in total.</p>
Diplomas/certificates provided	<ul style="list-style-type: none"> • certificate from the training company; • certificate from the vocational school; • final examination certificate of apprenticeship (<i>Gesellen- oder Facharbeiterbrief; IHK-Prüfungszeugnis</i>)
Examples of qualifications	Among Top 10 dual apprenticeship programmes (out of 324) in 2020 (235) : office manager, management or sales assistant for retail services, motor vehicle mechatronics technician, medical assistant, IT specialist, industrial clerk and electronics technician. The four most popular apprenticeship programmes in skilled crafts are carpenter, hairdresser, cook, joiner and painter (236) .

Progression opportunities for learners after graduation	<p>In general, graduates of dual apprenticeship programmes are fully qualified to enter the labour market and most of them do so.</p> <p>Those who successfully completed their apprenticeship programme, have several possibilities to further progress to post-secondary programmes, such as specialised and technician programmes, or and master craftsperson. Access to certain tertiary vocational programmes are restricted to related subject of the graduate's apprenticeship programme. Short term apprenticeship programmes do not always provide access to tertiary education programmes.</p>
Destination of graduates	<p>Graduates of dual apprenticeship programmes are fully qualified to enter the labour market and most of them do so. They have very good prospects of finding a work placement in a short delay.</p>
Awards through validation of prior learning	<p>✓</p> <p>The most important tool for assessing non-formal learning outcomes is admission to final examinations under Section 45 (2) of the Vocational Training Act (BBiG), known as the '<i>Externen-Prüfung</i>' (examination for external candidates, i.e., those not involved in a formal vocational training programme). Under this provision, people can be admitted to a final examination for a recognised occupation requiring formal training (training occupation) if they furnish evidence that they have been employed in the relevant occupation for a period at least one and a half times as long as prescribed for the period of initial training.</p>
General education subjects	<p>✓</p> <p>General subjects such as mathematics, economics, social studies and foreign languages, depending on the programme.</p>
Key competences	<p>✓</p> <p>The primary aim of apprenticeship is to enable young people to acquire comprehensive vocational competence. Apprenticeship programmes are designed on the principle that they should be as broad as possible and as specific as necessary. After finishing the apprenticeship, they should be able to fulfil their duties as employees efficiently, effectively, innovatively, autonomously and in cooperation with others.</p> <p>The professional competences to be acquired through in-company training are specified in training regulations and included by the training enterprise in an individual training plan. The binding requirements of the training regulations guarantee a uniform national standard.</p> <p>For teaching in vocational schools, a framework curriculum is drawn up for every recognised training occupation in accordance with the training regulations.</p>

Application of learning outcomes approach	<p>As part of the implementation of the DQR (German qualification framework), the Federal Institute for Vocational Education and Training (BIBB), together with the social partners and the ministries, adopted in June 2014 a recommendation of the BIBB Board on the structure and design of training regulations which addresses the issue of competence orientation.</p> <p>According to this recommendation, 'the Vocational Training Act equates vocational action capacity with the DQR's understanding of action competence. The four competence dimensions of the DQR are to be systematically taken into account in all training regulations that are to be developed from 2015 onwards, so that competence orientation is increasingly incorporated into the regulatory work.'</p> <p>These are:</p> <ul style="list-style-type: none"> • professional competences: knowledge and skills, • social competences: social competence and independence, <p>which together form the vocational action competence (<i>Handlungskompetenz</i>) (237) .</p>
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Share of learners in this programme type compared with the total number of VET learners

The data available is on a different base: **almost two thirds (64.2%)** of new entrants in upper secondary VET programmes in 2020 chose the dual apprenticeship scheme (dual system), while 35.8% enrolled in a school-based VET programme (238) .

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- [232] <https://www.bibb.de/uebs-digitalisierung>
- [233] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*, p. 121. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [234] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*, p. 162. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [235] Ranking 2020 of apprenticeship occupations by number of new graduates: Table 67 - 2020 <https://www.bibb.de/de/124920.php>
- [236] A list of qualifications (in DE/E/F) can be found at: https://www.bibb.de/en/occupationsinfo.php/certificate_supplements/en
- [237] BIBB (2017). *Ausbildungsordnungen und wie sie entstehen [Vocational training regulations and the process behind them]*. Bonn: BIBB, p. 22f . <https://www.bibb.de/dienst/veroeffentlichungen/de/publication/show/8269>
- [238] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*, p. 78 (iABE). <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>

EQF 4-5

Specialised programmes

incl. WBL

1-3 years

ISCED 444, 453, 454

Specialised programmes (Berufsoberschule BOS - Fachoberschule FOS - Schule für Gesundheits-, Erziehungs- und Sozialberufen GES nach Bundes- und Landesrecht) leading to EQF level 4-5, ISCED 444, 453, 454

EQF level	4-5	ISCED-P 2011 level	444, 453, 454
Usual entry grade	minimum 11 (239)	Usual completion grade	minimum 12
Usual entry age	minimum 15/16 but higher in practice	Usual completion age	minimum 16/17 but higher in practice
Length of a programme (years)	1-3		
Is it part of compulsory education and training?	in some cases	Is it part of formal education and training system?	✓
Is it initial VET?	✓	Is it continuing VET?	✗
Is it offered free of charge?	Varies	Is it available for adults?	✓

ECVET or other credits Information not available

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

- school-based learning;
- work-based learning (practical training at school and work practice);

BOS: full time vocational schools;

FOS: school- and work-based VET programmes;

GES: Many of these health VET programmes are attached to hospitals providing both theoretical and practical training.

Main providers Regulated by Federal or State law

- senior vocational school (*Berufsoberschule* BOS)
- specialised upper secondary school (*Fachoberschule* FOS)
- schools of health, education and social care (GES)
- other vocational schools such as *Fachschule* and *Fachakademie*

Share of work-based learning provided by schools and companies	Varies from low share (BOS) to high share (FOS and GES)
Work-based learning type (workshops at schools, in-company training / apprenticeships)	<ul style="list-style-type: none"> • practical training at school • work practice (e.g. in attached hospital in the case of healthcare schools)
Main target groups	Programmes are available for young people and also for adults.
Entry requirements for learners (qualification/education level, age)	<p>Leaving certificate from intermediate secondary school (<i>mittlerer Schulabschluss</i> at the end of grade 10) and</p> <p>(1) 2 years' successful vocational training or</p> <p>(2) 5 years' practical experience</p>
Assessment of learning outcomes	final examinations
Diplomas/certificates provided	Specialised programmes at post-secondary level aim at increasing the permeability between secondary (for holders of general intermediate secondary leaving certificate) and tertiary education, by acquiring a higher education entrance qualification (subject-specific or not).
Examples of qualifications	<p>Health/education/social sector schools: nurse, physical therapist, pharmaceutical-technical assistant, educator, social worker</p> <p>Post-secondary specialised programmes at ISCED level 454 correspond to cases having acquired <i>two</i> qualifications: a higher education entrance qualification and a dual VET qualification or two VET qualifications.</p>
Progression opportunities for learners after graduation	<p>Specialised programmes at post-secondary level aim at increasing the permeability between secondary (for holders of general intermediate secondary leaving certificate) and tertiary education, by acquiring a higher education entrance qualification.</p> <p>Depending on their chosen programme and duration, graduates from specialised programmes can further progress to vocational and general bachelor programmes, as well as to advanced vocational programmes.</p>
Destination of graduates	Information not available
Awards through validation of prior learning	Information not available
General education subjects	✓
Key competences	✓
Application of learning outcomes approach	Information not available

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

Information not available

EQF 5-7

Advanced vocational qualifications and exams

Master professional

(Management expert);

Bachelor professional

(Master craftsperson, specialist);

ISCED 554, 655

Professional specialist

ISCED 554

Advanced vocational qualifications and exams at three levels: - EQF level 5: professional specialist (Berufsspezialist), - EQF 6: Bachelor professional (master craftsperson, specialist: Fachwirte und Meister) and - EQF 7: Master professional (management experts: Betriebswirt).

EQF level	5-7	ISCED-P 2011 level	554, 655 (240)
Usual entry grade	Varies	Usual completion grade	Varies
Usual entry age	Varies	Usual completion age	Varies
Length of a programme (years)	Varies: depends on preparation classes		
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?	✓
			It is advanced VET.
Is it offered free of charge?	✗ (241)	Is it available for adults?	✓

ECVET or other credits Information not available

Learning forms (e.g. dual, part-time, distance) These advanced vocational qualifications do not contain a curriculum; however, they do define and describe examinations. The candidates can prepare themselves while continuing to work. Most candidates attend preparatory courses. These courses may be full-time, part-time or distance learning.




Main providers	Exams: Assessment/certification by the chambers; Preparatory courses: provided by the chambers.
Share of work-based learning provided by schools and companies	The candidates can prepare themselves while continuing to work. Most candidates attend preparatory courses (full time or part time after work), which mostly do not include any work-based learning. However, <u>professional practice is required</u> to access each new level of qualifications.
Work-based learning type (workshops at schools, in-company training / apprenticeships)	The candidates can prepare themselves while continuing to work. Most candidates attend preparatory courses (full time or part time after work), which mostly do not include any work-based learning. However, <u>professional practice is required</u> to access each new level of qualifications.
Main target groups	Programmes are aimed at people who have already completed vocational or professional training and/or have a number of years of professional experience. They are designed to offer further professional development. Advanced vocational qualification as a master craftsperson (<i>Meister</i> , at EQF level 6) entitles the holder to practise a craft trade independently, to employ and train apprentices and opens up access to courses at craft academies, universities of applied sciences (UAS, <i>Fachhochschulen</i>) as well as universities.
Entry requirements for learners (qualification/education level, age)	The admission requirements to the examination are threefold: <ul style="list-style-type: none"> • IVET qualification, • work experience, • advanced vocational qualification at EQF level 6 to obtain an advanced vocational qualification at EQF level 7.
Assessment of learning outcomes	Unlike the training regulations for IVET in the dual system, these federally regulated advanced training regulations do not contain a curriculum; however, they do define and describe examinations. Other features, which must be specified in the advanced training regulations, include (§ 53 para. 2 BBiG, § 42 para. 2 HwO): <ul style="list-style-type: none"> • designation of the advanced qualification, • the aim, contents and requirements of the examination, • admission requirements and • examination procedure. <p>The assessment and certification is carried out by the Chambers.</p>

Diplomas/certificates provided	<p>The 2019 amendment of the Vocational Training Act introduced new designations for advanced vocational qualifications at the three levels of tertiary or higher VET, to underline the equivalence to academic qualifications and to improve international visibility and recognition. The new designations are:</p> <ul style="list-style-type: none"> • Certified professional specialist (EQF 5), • Bachelor professional (master craftsperson, specialist, etc.) (EQF 6), • Master professional (management expert; vocational pedagogue, IT-Professional) (EQF 7). <p>Existing and recognised professional terms such as master craftsperson (<i>Meister</i>) will not be replaced but supplemented.</p>
Examples of qualifications	<p>EQF 5</p> <p>Technical consultant, foreign language correspondent, automotive service technician</p> <p>EQF 6</p> <ul style="list-style-type: none"> • <u>Skilled crafts</u>: e.g. Master painter, baker, hairdresser • <u>Commerce and industry</u>: e.g. certified industrial supervisor specialising in footwear manufacturing, certified audio-visual media production specialist, certified financial services consultant, certified commercial specialist for logistics systems. <p>EQF 7</p> <p>Certified Business Manager, Certified Technical Business Manager, Certified Professional Educator and Strategic Professionals</p>
Progression opportunities for learners after graduation	Completion of advanced vocational training at EQF level 6 (Bachelor professional) and at EQF level 7 (Master professional) opens up access to higher education.
Destination of graduates	Information not available
Awards through validation of prior learning	These advanced vocational qualifications do not contain a curriculum; however, they do define and describe examinations. Validation of prior learning is therefore not relevant for those advanced vocational qualifications.
General education subjects	Varies according to the qualification and corresponding examination
Key competences	Varies according to the qualification and corresponding examination
Application of learning outcomes approach	Information not available
Share of learners in this programme type compared with the total number of VET learners	Information not available

EQF 6
Advanced vocational programmes
incl. WBL
1.5-4 years
ISCED 655

Advanced vocational programmes in trade and technical schools (Fachschule) leading to EQF level 6 and ISCED 655.





EQF level	6	ISCED-P 2011 level	655
Usual entry grade	Varies	Usual completion grade	Varies
Usual entry age	Varies	Usual completion age	Varies
Length of a programme (years)	1.5 up to 4 years		
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?	✓ advanced VET
Is it offered free of charge?	Varies	Is it available for adults?	✓
ECVET or other credits	Information not available		
Learning forms (e.g. dual, part-time, distance)	Depends on the field of study: mostly school-based learning but also work-based learning required in the fields of curative education care and social pedagogy (one third of the learning).		
Main providers	State regulated technical and trade schools They exist for the following occupational fields: agriculture, design, technology, business and social care.		
Share of work-based learning provided by schools and companies	Depends on the field of study: mostly school-based learning but also work-based learning required in the fields of curative education care and social pedagogy (one third of the learning).		
Work-based learning type (workshops at schools, in-company training / apprenticeships)	work practice		



Main target groups	<p>Programmes are available to graduates from apprenticeship and school-based VET programmes after a certain number of years working in the related profession.</p> <p>They qualify learners to take on management tasks and encourage them to become self-employed. They can also be used to prepare the master craftsperson, bachelor and master professional examinations.</p>
Entry requirements for learners (qualification/education level, age)	<p>Entrance requirements vary by subject area: an applicant normally needs a qualification in a recognised training occupation relevant to the chosen subject and relevant work experience of at least 1 year, or a qualification from a full-time vocational school and relevant work experience of at least 5 years.</p>
Assessment of learning outcomes	<p>They end with a final State examination under State law.</p>
Diplomas/certificates provided	<p>The programmes end with a final State examination under State law with a state certified qualification.</p>
Examples of qualifications	<p>State vocational qualification (e.g. educator; technician)</p>
Progression opportunities for learners after graduation	<p>Progression to bachelor programme is possible (242) and prior education may be recognised affecting the programme duration.</p> <p>They qualify learners to take on management tasks and encourage them to become self-employed. They can also be used to prepare the master craftsperson, bachelor and master professional examinations.</p>
Destination of graduates	<p>They qualify learners to take on management tasks and encourage them to become self-employed. They can also be used to prepare the master craftsperson, bachelor and master professional examinations.</p>
Awards through validation of prior learning	<p></p> <p>An applicant normally needs a qualification in a recognised training occupation relevant to the chosen subject and relevant work experience of at least 1 year, or a qualification from a full-time vocational school and relevant work experience.</p>
General education subjects	<p></p> <p>Depends on the field of study (243)</p>
Key competences	<p></p> <p>Depends on the field of study</p>
Application of learning outcomes approach	<p>Information not available</p>
Share of learners in this programme type compared with the total number of VET learners	<p>Information not available</p>

- [242] KMK resolution of 5.6.1998 in the version currently in force.
- [243] http://www.kmk.org/fileadmin/Dateien/veroeffentlichungen_beschluesse/2002/2002_11_07-RV-Fachschulen.pdf

EQF 6
Bachelor programmes
incl. WBL
3-4 years
ICSED-645

Dual study bachelor programmes (Duales Studium im Bachelor Programm) leading to EQF level 6 and ISCED level 645

EQF level	6	ISCED-P 2011 level	645
Usual entry grade	13-14	Usual completion grade	Varies
Usual entry age	Varies but minimum 17-18	Usual completion age	Varies
Length of a programme (years)	3-4		
Is it part of compulsory education and training?		Is it part of formal education and training system?	
Is it initial VET?	 (244)	Is it continuing VET?	 Some dual study programmes are considered as continuing education. The prerequisite is that the full- or part-time dual study programme is thematically linked with the job and has a designed frame of reference of study and work. The employer is informed about the enrolment in studies and regularly exchanges information about the contents with the student. Other courses of study during employment are not considered dual study programmes. (245)

<p>Is it offered free of charge?</p> <p></p> <p>In most Federal States, no general tuition fees during the minimum period of study.</p>	<p>Is it available for adults?</p> <p></p>
ECVET or other credits	Graduate need to prove a minimum of 180 to 210 ECTS points (246) .
Learning forms (e.g. dual, part-time, distance)	<p>Dual learning:</p> <ul style="list-style-type: none"> • school-based learning • work-based learning
Main providers	<p>Dual programmes (EQF levels 6, 7) are offered by</p> <ul style="list-style-type: none"> • universities of applied sciences (UASs, Fachhochschulen): 71% of all dual study programmes (247) ; • the dual university (Duale Hochschulen):14.5%; • universities of cooperative education (Berufsakademien): 9%; • as well as some universities.
Share of work-based learning provided by schools and companies	Percentage of in-company training varies, but at least 40-50%
Work-based learning type (workshops at schools, in-company training / apprenticeships)	<ul style="list-style-type: none"> • practical training at school • in-company practice <p>The initial dual study programmes have the following characteristics:</p> <ol style="list-style-type: none"> 1. alternation between theory phases in the institution of higher education or academy and practical phases in the training enterprise; 2. a regulation about the practical training; 3. learners have the status as a student/employee or a mostly unpaid trainee, based on a contract with the company; 4. closely interwoven learning activity in the company and acquisition of theoretical knowledge in the higher education institution / academy; 5. close coordination and cooperation between the higher education institution and company.
Main target groups	The continuing VET dual study programmes with an employment component are primarily aimed at people who have already completed vocational or professional training and/or have a number of years of professional experience.

Entry requirements for learners (qualification/education level, age)	<p>As a rule, enrolling in an IVET dual study programme requires a higher education entrance qualification (<i>Allgemeine Hochschulreife</i> or <i>Fachhochschulreife</i>). However, vocationally qualified applicants without a higher education entrance qualification obtained at school can be granted the right of entry to higher education under standard preconditions. (e.g. successful completion of apprenticeship, years of work experience in the field).</p> <p>The programme with a training component also requires an employment contract. In some cases, the completion of an internship (8 to 12 weeks) in a company working in the field of study is required before the start of studies (<i>Vorpraktikum</i>).</p> <p>The CVET dual study programmes with an employment component are primarily aimed at people who have already completed vocational or professional training and/or have a number of years of professional experience. They are designed to offer further professional development and combine a course of study with professional experience that is directly relevant to the course. No higher education entrance qualification is required.</p>
Assessment of learning outcomes	<p>The examinations are in general performed as an accompaniment to studies. The study courses are provided with a credit point system (at least 180 to 210 ECTS for a Bachelor's degree). A written dissertation (Bachelor's thesis) is obligatory. Learners are to demonstrate the ability to independently address a problem from their subject within a specified period of time using academic methods. The examinations regulations (<i>Prüfungsordnungen</i>) prescribe the objectives of and subject-matter on the examinations, the required standards and the examining procedures for each study course.</p>
Diplomas/certificates provided	<p>Programmes lead in general to a bachelor qualification, which can differ in the following way:</p> <ul style="list-style-type: none"> • initial dual study programmes with an integrated training component combine a course of study with practical training in a recognised occupation in a company. In addition to the bachelor degree, learners obtain a formal IVET qualification; • initial dual study programmes with a work experience component combine a course of study with extended practical placements with an employer (about 40-50% in-company training). Learners obtain a bachelor degree but not a recognised vocational qualification; • continuing VET dual study programmes with an employment component are primarily aimed at people who have already completed vocational or professional training and/or have a number of years of professional experience. They are designed to offer further professional development and combine a course of study with professional experience that is directly relevant to the course.

Examples of qualifications	The most common combination for initial dual study programmes is a business management programme plus commercial training, as well as an engineering or computer science programme combined with technical training. There is a wide range of possible subject areas, such as insurance, mechatronics, commercial law, health economy, mathematics, biology, architecture, and media informatics.
Progression opportunities for learners after graduation	<p>Graduates can further progress to professional or general Master programmes.</p> <p>The CVET dual study programmes with an employment component are designed to offer further professional development and combine a course of study with professional experience that is directly relevant to the course.</p>
Destination of graduates	<i>Information not available</i>
Awards through validation of prior learning	<i>Information not available</i>
General education subjects	✓
Key competences	<i>Information not available</i>
Application of learning outcomes approach	<i>Information not available</i>
Share of learners in this programme type compared with the total number of VET learners	<i>Information not available</i>

[248] For further information on ECVET read: https://ec.europa.eu/education/resources-and-tools/the-european-credit-system-for-vocational-education-and-training-ecvet_en

[249] AusbildungPlus
[TrainingPlus]2019:https://www.bibb.de/dienst/abp/dokumente/pdf/06072020_AiZ_duales_Studium-2019.pdf

EQF 7







Master programmes

incl. WBL

1-2 years

ICSED 747

Master programme (Master Programm) leading to EQF level 7, ICSED 747

EQF level	7	ISCED-P 2011 level	747
Usual entry grade	Varies	Usual completion grade	Varies
Usual entry age	Varies	Usual completion age	Varies
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?	 can be both initial and continuing VET	Is it continuing VET?	 can be both initial and continuing VET
Is it offered free of charge?	 in most Federal States, no general tuition fees during the minimum period of study.	Is it available for adults?	
ECVET or other credits	For a Master programme on average 30 credits have to be achieved each semester. A 1-year programme has therefore typically 60 credits, a 2-year programme 120 points in line with the European Credit Transfer System (248) .		
Learning forms (e.g. dual, part-time, distance)	Dual learning: <ul style="list-style-type: none"> • school-based learning • work-based learning 		
Main providers	Dual programmes (EQF levels 6, 7) are offered by: <ul style="list-style-type: none"> • universities of applied sciences (UASs, <i>Fachhochschulen</i>): 71% of all dual study programmes (249) ; • the dual university (<i>Duale Hochschulen</i>):14.5%; • universities of cooperative education (<i>Berufsakademien</i>): 9%; • as well as some universities. 		

Share of work-based learning provided by schools and companies	Information not available
Work-based learning type (workshops at schools, in-company training / apprenticeships)	<ul style="list-style-type: none"> • practical training at school • in-company practice <p>Initial dual study programmes have the following characteristics:</p> <ul style="list-style-type: none"> • alternation between theory phases in the institution of higher education or academy and practical phases in the training enterprise; • a regulation about the practical training; • learners have the status as a student-employee or a mostly unpaid-trainee, based on a contract with the company; • closely interwoven learning activity in the company and acquisition of theoretical knowledge in the higher education institution / academy; • close coordination and cooperation between the higher education institution and company.
Main target groups	The continuing VET dual study Master programmes with an employment component are primarily aimed at people who have already completed vocational or professional training and/or have a number of years of professional experience as well as the bachelor diploma.
Entry requirements for learners (qualification/education level, age)	To enter the dual study Master programmes, learners must have successfully graduated from a general or vocational Bachelor programme.
Assessment of learning outcomes	The examinations are in general performed as an accompaniment to studies. The study courses are provided with a credit point system (at least 60 to 120 ECTS for a Master's degree). A written dissertation (Master's thesis) is obligatory. The examinations regulations (<i>Prüfungsordnungen</i>) prescribe the objectives of and subject-matter on the examinations, the required standards and the examining procedures for each study course.
Diplomas/certificates provided	<i>Information not available</i>
Examples of qualifications	The most common combination for initial dual study programmes is a business management programme plus commercial training, as well as an engineering or computer science programme combined with technical training. There is a wide range of possible subject areas, such as insurance, mechatronics, commercial law, health economy, mathematics, biology, architecture, and media informatics.
Progression opportunities for learners after graduation	Graduates holding a Master degree can progress to do a PHD programme and degree.
Destination of graduates	<i>Information not available</i>

Awards through validation of prior learning	<i>Information not available</i>
General education subjects	<i>Information not available</i>
Key competences	<i>Information not available</i>
Application of learning outcomes approach	<i>Information not available</i>
Share of learners in this programme type compared with the total number of VET learners	<i>Information not available</i>

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- [248] For further information on ECVET read: https://ec.europa.eu/education/resources-and-tools/the-european-credit-system-for-vocational-education-and-training-ecvet_en
- [249] AusbildungPlus
[EducationPlus]2019:https://www.bibb.de/dienst/abp/dokumente/pdf/06072020_AiZ_dualesStudium-2019.pdf
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References

- [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/Arbeitsmarktstrukturen-Covid19.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-

- [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&auswahloperation=abruftabelleAuspraegungAuswaehlen&auswahlverzeichnis=ordnungsstruktur&auswahlziel=werteabruf&code=21211-0001&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>
- [26] BIBB (2021): *Verzeichnis der anerkannten Ausbildungsberufe 2021 [List of recognised training occupations 2021]*. Bonn: BIBB. <https://www.bibb.de/de/65925.php>
- [27] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 78. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [28] Cedefop (2021). *Spotlight on VET – 2020 compilation: vocational education and training systems in Europe*. Luxembourg: Publications Office.
<http://data.europa.eu/10.2801/667443>
- [29] BBiG: http://www.gesetze-im-internet.de/bbig_2005/_53b.html
- [30] Hauptausschuss; <https://www.bibb.de/de/463.php>
- [31] Fachhochschulen
- [32] 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>
- [33] BIBB (2021): *Verzeichnis der anerkannten Ausbildungsberufe 2021 [List of recognised training occupations 2021]*. Bonn: BIBB. <https://www.bibb.de/de/65925.php>
- [34] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 90. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [36] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p.164. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [37] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn:

- BIBB, p. 131. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [38] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 92. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [39] Standardberufsbildpositionen: <https://www.bibb.de/en/134898.php>
- [41] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 35. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [42] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 23. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [43] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 119. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [44] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 286. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [48] BIBB (2018). *Datenreport zum Berufsbildungsbericht 2018 [VET data report 2018]*. Bonn: BIBB. <https://www.bibb.de/datenreport/de/index.php>
- [50] Bundesministerium für Bildung und Forschung (Federal ministry of education and research)
- [51] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB. https://www.bibb.de/datenreport/de/datenreport_2021.php
- [59] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 225. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [61] 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
- [62] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 232. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [65] Bundesministerium für Bildung und Forschung (BMBF)
- [66] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 239. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [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>
- [69] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 238. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [70] Bundesagentur für Arbeit (BA)
- [71] assistierte Ausbildung (AsA)
- [72] 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
- [74] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 352. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [75] Bundesagentur für Arbeit (BA)

- [76] 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
- [77] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB. p. 352. <https://www.bibb.de/dokumente/pdf/bibb-datenreport-2021.pdf>
- [78] 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>
- [79] 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>
- [90] 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>
- [94] Bundesinstitut für Berufsbildung (BIBB)
- [96] Gesellschaft für wirtschaftliche Strukturforchung (GWS)
- [97] <https://www.bibb.de/de/11727.php> [accessed 22.9.2021]
- [101] Bundesministerium für Bildung und Forschung (BMBF)
- [102] <https://www.bibb.de/en/12138.php>
- [103] Deutsches Institut für Erwachsenenbildung (DIE)
- [104] <https://www.bibb.de/en/2160.php>
- [112] 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
- [116] Berufsbildungsgesetz (BBiG)
- [117] BIBB (2017a). *Training regulations and how they come about*. Bonn: BIBB. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8277>
- [120] BIBB (2017). *Training regulations and how they come about*. Bonn: BIBB. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8277>
- [121] BIBB (2017). *Training regulations and how they come about*. Bonn: BIBB. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8277>
- [124] BIBB (2017). *Training regulations and how they come about*. Bonn: BIBB. <https://www.bibb.de/veroeffentlichungen/en/publication/show/8277>
- [126] 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>
- [127] Standardberufsbildpositionen: <https://www.bibb.de/en/134898.php>
- [129] 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.
- [133] 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>

- [142] 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>
- [158] 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
- [166] BMBF (2021). *Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BMBF, p. 108.
- [177] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 346.. <https://www.bibb.de/datenreport/>
- [179] BIBB (2021). *Datenreport zum Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BIBB, p. 348. <https://www.bibb.de/datenreport/>
- [182] Huismann, 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_ReferNet.pdf
- [196] 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
- [200] BMBF (2021). *Berufsbildungsbericht 2021 [VET data report 2021]*. Bonn: BMBF, p. 120.
- [206] Huismann, 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_ReferNet.pdf