



Vocational education and training in Germany

Short description

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The European Centre for the Development of Vocational Training (Cedefop) is the European Union's reference centre for vocational education and training, skills and qualifications. We provide information, research, analyses and evidence on vocational education and training, skills and qualifications for policy-making in the EU Member States.

Cedefop was originally established in 1975 by Council Regulation (EEC) No 337/75. This decision was repealed in 2019 by Regulation (EU) 2019/128 establishing Cedefop as a Union Agency with a renewed mandate.

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Foreword

Germany's EU Presidency is taking place during the second half of 2020 and has the overarching aim to strengthen Europe and make it competent enough to overcome current challenges. During the Presidency, the German education ministry will focus on providing important input to future European education, research and innovation policies to address overcoming the current Covid-19 pandemic crisis, the fight against climate change and the opportunities and challenges of digitalisation. These dynamic transformation processes affect the national vocational education and training (VET) system, requiring appropriate policy responses.

In the German education system, learning on the job is a traditional component and work-based learning (WBL) plays a major role in most of the VET programmes offered at secondary and tertiary levels. The dual VET system is an attractive model for structuring the transition from school to working life and VET graduates profit from a high employment rate. It attracts a high number of learners with a university entrance diploma. Nevertheless, overall the attractiveness of upper secondary VET decreased during recent years and learners tend to follow general higher education programmes. Several strategies, initiatives and incentives are in place to counteract this development, targeting learners and training providers. The revised Vocational Training Act 2020, promotes higher VET by underlining the equivalence to academic education through new designations of bachelor professional and master professional, and through the revision of the Upgrading Training Assistance Act, a major funding instrument for advanced vocational qualifications.

Companies provide the work-based training part and so play an important role in the dual system. Several measures and initiatives have been launched to support them in this role, most targeting small and medium-sized enterprises (SMEs); in 2018 around 99% of companies were SMEs offering a training place to around 90% of all apprentices.

The importance of learning as a continuous process throughout life, to adapt to the changing skill needs of the labour market, is emphasised through the Qualification Opportunities Act (2019). This introduces the right of employees to access continuing VET (CVET) funding, if they are affected by structural changes or desire further training to access an occupation lacking employees.

In Germany, there is still a high number of potential learners available; people with an own migration background have much higher representation in this group. Several programmes are in place to facilitate the transition to VET and ensure successful completion. The initiative *Alliance for initial and further training* has committed to providing access for all interested learners to a VET programme.

This short description, drawn up in collaboration with Cedefop's national ReferNet partner, aims to offer an insight into the German VET system, its challenges and success. We hope that the information in this publication will be useful as a source of inspiration for policy-makers, researchers, VET providers and other readers across Europe and beyond.

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Germany



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| | |
|--|--|
| Area | 357 582 km² |
| Capital | Berlin |
| System of government | Federal parliamentary democracy |
| Population (2019) ⁽¹⁾ | 83 019 213 |
| Per capita gross domestic product (GDP) (current prices, 2019) ⁽²⁾ | EUR 39 310 |
| Legislative power | Federal Council of Germany |

⁽¹⁾ Eurostat, tps00001 [extracted on 22.1.2020].

⁽²⁾ <https://www.statista.com/statistics/270180/countries-with-the-largest-gross-domestic-product-gdp-per-capita/> [accessed 19.8.2020].

CHAPTER 1.

External factors influencing VET



1.1. Demographics

Germany's population was 83 019 213 people as of 1 January 2019. The population had been steadily falling between 2008 and 2011 (from 82 217 837 to 80 222 065) ⁽³⁾, but then increased due to migration surpluses (net migration in 2015: +1.1 million).

As in many other European Union (EU) countries, the population is ageing and this trend is predicted to continue. In 2019, 13.6% of the population were below 20, 64.9% were between 20 and 64, and 21.5% were 65 or older (Figure 1). The German Federal Statistical Office predicts that, by 2060, almost one in three (28.4%) will be at least 65, while the number of the working-age population (20-65) will decrease by 7.7 percentage points to 57.2% (compared to 2019). The old-age dependency ratio is foreseen to increase steadily to reach 50% in 2060, an increase of 17 percentage points compared to 2019. This development affects the vocational and education and training (VET) ⁽⁴⁾ system, for example a falling number of apprentices and higher demand for learners in care and health (Sections 4.1 and 4.5).

At the end of 2018, almost 11 million foreigners lived in Germany, most coming from Turkey (1.48 million), Poland (860 000) and Syria (746 000) ⁽⁵⁾. Foreigners belong to the group of people with a migratory background, which was 25.5% of the total population in 2018, 4.5 percentage points higher than in 2015 ⁽⁶⁾. At the end of 2018, 1.06 million refugees lived in Germany (UNHCR, 2018). The peak of asylum applications was in 2016 with a total of 745 155 applications; this fell by 2018 to 184 180 applications (European Commission, 2018b). People with a migratory background (including refugees) are on average much younger than those without such a background (35.5 vs 47.4 average age) ⁽⁷⁾, which has a positive effect on the old-age dependency ratio. In 2018,

⁽³⁾ Eurostat, tps00001 [extracted on 22.1.2020].

⁽⁴⁾ The term VET is used throughout this report in line with the common practice at European level. In national information on VET addressed to a non-German audience, the term 'vocational training' is used to signal a graduate's comprehensive professional qualification, which enables him/her to practice a particular occupation. There is a broad consensus in Germany that this type of training, beyond the technical content, also comprises an important general education dimension.

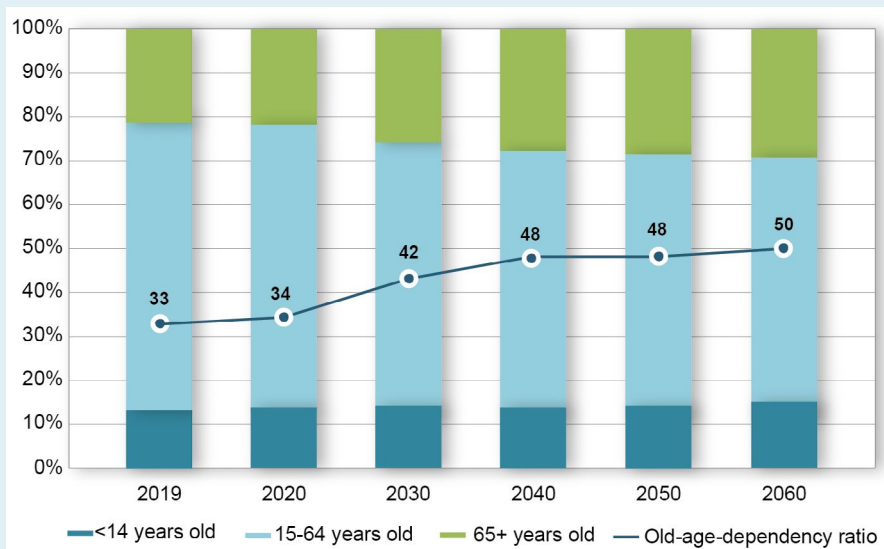
⁽⁵⁾ Statista: <https://de.statista.com/themen/4727/migration-und-integration/>

⁽⁶⁾ The population group with a migration background consists of anyone who immigrated into the territory of today's Federal Republic of Germany after 1949, as well as all foreigners born in Germany and all persons born in Germany who have at least one parent who immigrated into the country or was born as a foreigner in Germany. This definition typically covers first- to third-generation immigrants. <https://mediendienst-integration.de/artikel/wer-hat-einen-migrationshintergrund.html>

⁽⁷⁾ German Federal Statistical Office (Statistisches Bundesamt, Destatis). Migration und Integration: Bevölkerung in Privathaushalten nach Migrationshintergrund und Altersgruppen [population in

about 33.7% of the people of migrant origin were between 15 and 19 years old, requiring specific measures to attract these young people to vocational education and training (Section 4.2.1.2).

Figure 1. Population forecast and old-age dependency ratio in Germany



Source: Eurostat, proj_19ndbi [extracted on 7.5.2020].

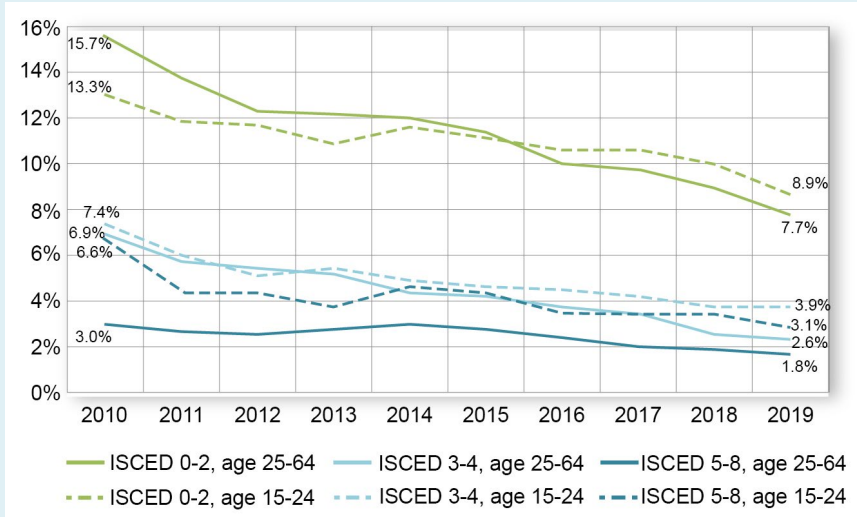
1.2. Economy and labour market indicators

German reunification (1990), the introduction of the euro (2002) and increased international competition have all had an impact on Germany's economy and labour market. The global financial crisis of 2008 led to an enormous decline in the German growth rate for gross domestic product (GDP) volume in 2009, which reached -5.7%. In 2010, however, it climbed to 4.2%, the highest level since reunification, only to fall again to 0.6% in 2019 ⁽⁸⁾. A significant discrepancy in economic capability persists between West and East Germany and also between the south and the north; this influences the financial situation of the Federal States and their education budgets (Section 2.4.2).

private households regarding migration background and age group]. <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Migration-Integration/Tabellen/migrationshintergrund-alter.html>

⁽⁸⁾ Eurostat, tec00115 [extracted on 23.1.2020].

Figure 2. Unemployment rate (aged 15-24 and 25-64) by education attainment level in 2010-19



NB: 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 on 5.5.2020].

The labour market situation has improved in recent years for all age groups and for all qualification levels. In 2019 the unemployment rate was 3.2% (EU-27 6.7%)⁽⁹⁾, which is the lowest ever for the reunified German State. This positive trend is reflected for all education levels and age groups. People with low qualification level (international standard classification of education (ISCED) 0-2), however, face the highest risk of unemployment. In 2019 the unemployment rate among low-qualified young people (aged 15 to 24) was 8.9%, while only 3.9% of young people with a qualification at ISCED 3-4 level and only 3.1% of young people with a qualification at ISCED level 5-8 faced unemployment. For all age groups the higher the qualification, the lower is the risk of unemployment. Younger people (aged 15 to 24) face a slightly higher risk of unemployment compared to those aged 25 to 64 having the same qualification in recent years (Figure 2). Compared to the EU-27 average, the unemployment rate of all young people in Germany is at a low level of 5.8% against the average EU-27 rate of

⁽⁹⁾ EU averages or other statistical parameters including the UK reflect the situation in the European Union before 31 January 2020 and should not be considered as representative of the situation in the EU thereafter.

15.1% ⁽¹⁰⁾. This is largely attributed to its successful VET system, and particularly apprenticeship.

The employment rate of VET graduates (20-34 years old, ISCED 3-4) has significantly increased in Germany in recent years to reach 90% in 2019. This is the fourth highest employment rate of VET graduates among the EU-27 countries (EU-27 average in 2019: 81%) and reflects the high value of VET qualifications in the German labour market ⁽¹¹⁾.

In 2019, most employed persons (71.86%) worked in the tertiary economic sector (mainly services), followed by 26.88% working in the secondary sector (production industry) and 1.25% working in the primary sector (agriculture, forestry and fishing) ⁽¹²⁾.

In 2018, almost 2.5 million (99.3%) of companies were small and medium-sized enterprises (SMEs) ⁽¹³⁾; they employed about 70.3%, (31.7 million) of the total of 45.1 million employees ⁽¹⁴⁾. Around 1.2 million young people completed an apprenticeship in SMEs in 2018 (90% of all apprentices) ⁽¹⁵⁾, reflecting the high importance of SMEs for the dual system.

1.3. Education attainment

Due to the longstanding tradition of VET in the form of the dual system ⁽¹⁶⁾ of apprenticeship, Germany has a high proportion of people of working age (aged 26 to 64) who have upper or post-secondary level qualifications (ISCED level 3-4): 56.7% in 2019 compared to an EU average of 46.7%. As for tertiary education (ISCED levels 5-8) ⁽¹⁷⁾, Germany has been below the EU average in recent years (29.8% compared to 31.5% in EU-27 in 2019) (Figure 3). At the same time, the proportion of people with a low qualification has consistently

⁽¹⁰⁾ Eurostat, tipsun20 [extracted on 24.6.2020].

⁽¹¹⁾ Eurostat, edat_ifse_24 [accessed 5.5.2020].

⁽¹²⁾ Statista. *Germany: distribution of employment by economic sector from 2009 to 2019*.
<https://www.statista.com/statistics/624297/employment-by-economic-sector-in-germany/>

⁽¹³⁾ According to an EU definition, a company with fewer than 250 employees and a turnover of less or equal to EUR 50 million or a total balance sheet of less or equal to EUR 43 million.
https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

⁽¹⁴⁾ https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Unternehmen/Kleine-Unternehmen-Mittlere-Unternehmen/_inhalt.html

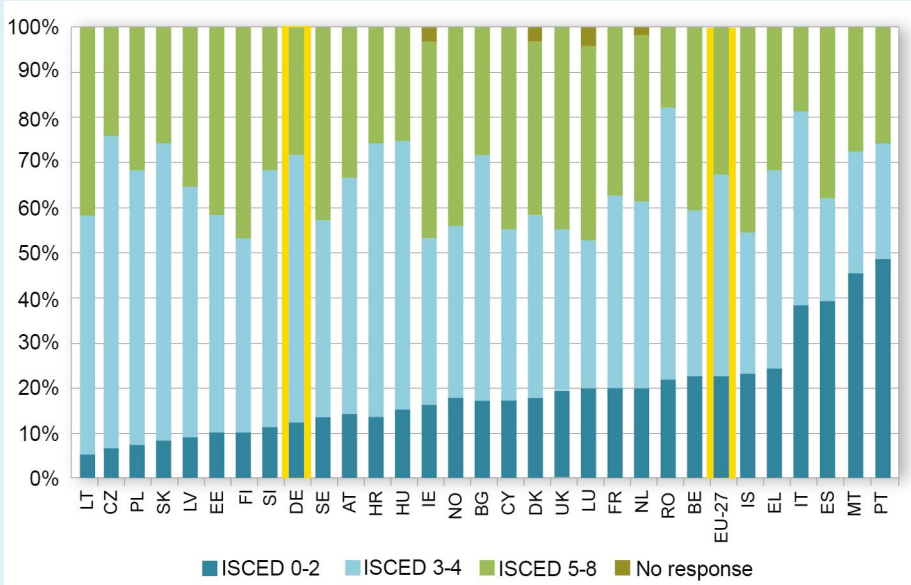
⁽¹⁵⁾ KfW. *Mittelstand ist der Motor der deutschen Wirtschaft [Middle class is the engine of the German economy]* <https://www.kfw.de/KfW-Konzern/KfW-Research/Mittelstand.html>

⁽¹⁶⁾ Apprenticeship is described as 'dual' because training is conducted in two places of learning (Section 2.2.1.4).

⁽¹⁷⁾ *Meister, Techniker or Fachwirt* qualifications have been lifted up to the European qualification framework (EQF) level 6 and belong now to tertiary education (Chapter 2).

been far below the EU average (in 2019, it was at 13.3% compared to an EU-27 average of 21.6%).

Figure 3. Population (aged 25-64) by highest educational attained in 2019



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

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 on 5.5.2020].

Since 2010, the share of early leavers from education and training has slowly decreased from 11.8% to 10.3% in 2019, which is almost equal to the EU average of 10.2% (Figure 4). Various State programmes have been developed to support these young adults to secure a training position or job (Section 4.2.1).

Figure 4. Early leavers from education and training 2010-19



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

Source: Eurostat, edat_lfse_14 [extracted on 5.5.2020]; European Commission.

The picture of participation of adults in lifelong learning (Section 2.3), varies depending on the data source. According to the EU labour force survey (LFS), the participation rate of 25- to 64-year-old adults in formal and non-formal learning in the four weeks before the survey is about 8%, much below the EU benchmark of 15%; it has been stable since 2011 and always below the EU average (2019: EU-27 10.7%; Germany: 8.2%).

However, according to the adult education survey (AES) asking about the participation of 25- to 64-year-old adults in education and training (formal, non-formal and informal learning) during the 12 months before the interview, Germany has a participation rate of 52%, above the EU-28 average 45.1% ⁽¹⁸⁾.

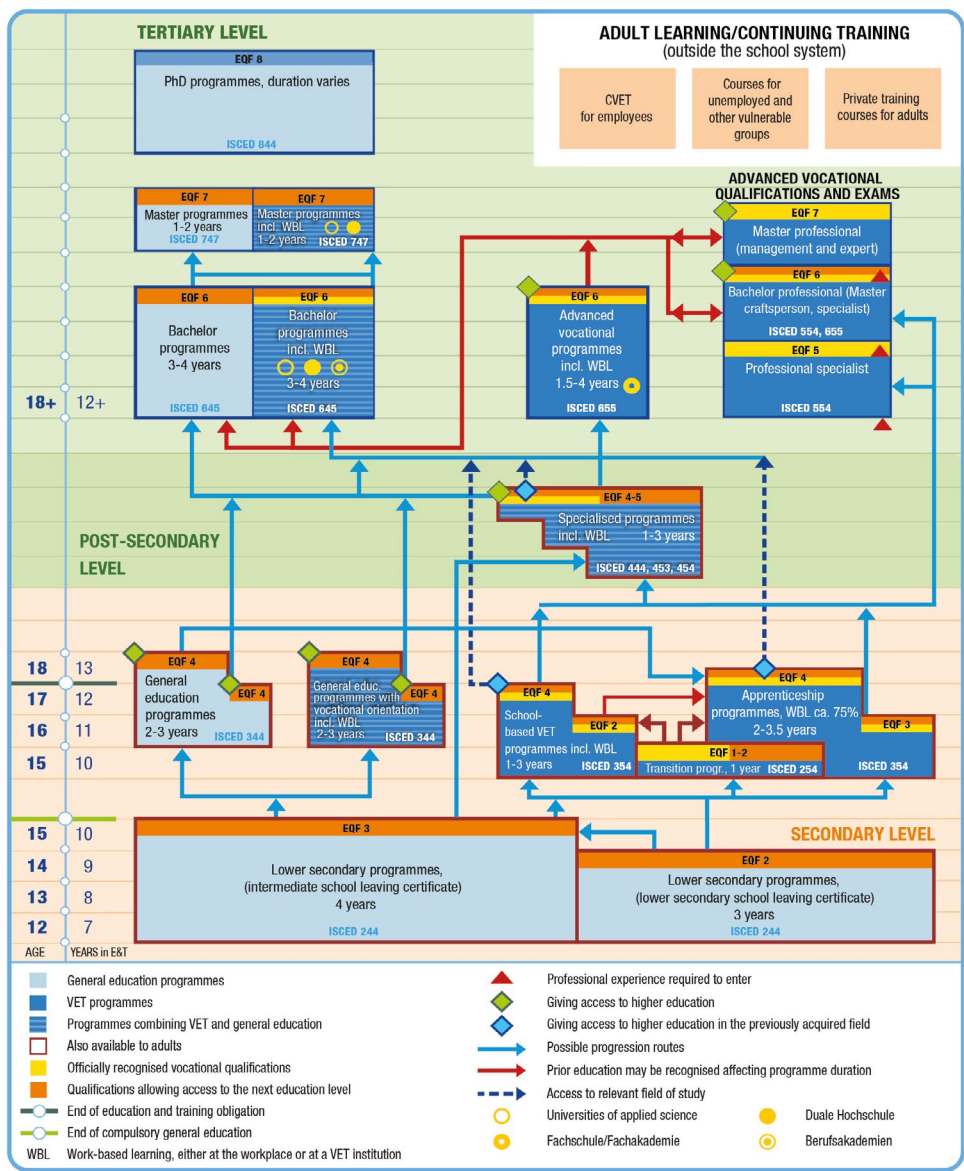
⁽¹⁸⁾ These data refer to 2016, the latest year when the AES data were collected (BIBB, 2019).

CHAPTER 2.

VET provision



Figure 5. VET in the German education and training system in 2020



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 ReferNet Germany.

2.1. Education and training system overview

Responsibility for the education system is shared between the Federation and the Federal States (*Länder*). While the Federal Ministry of Education and Research (BMBF) is responsible for VET-related issues, the Federal States are in charge of general education in schools (Section 2.4), which leads to differences among the Federal States in such aspects as programme titles, duration and curricula.

Compulsory full-time general education begins at the age of six and lasts nine years (10 years in five Federal States). After that, learners have to choose to follow either general or vocational education (Section 2.2.1).

The following education levels are available:

- (a) primary education (ISCED level 1; grade 1 to grade 4 or 6);
- (b) lower secondary education (ISCED level 2; until grade 9 or 10);
- (c) upper secondary education (ISCED level 3; until grade 12 or 13);
- (d) post-secondary and non-tertiary education (ISCED level 4-5);
- (e) tertiary education (ISCED level 5-8).

Learning on the job is a traditional component of the German education system and work-based learning (WBL) plays a major role in most of the VET programmes at secondary and tertiary levels. The VET system comprises initial and continuing education and is seen as a successful model, largely based on the dual system (apprenticeship) leading to high-quality vocational qualifications. Progression through the system is possible through various regulated VET programmes at post-secondary and, increasingly, tertiary levels (Cedefop and BIBB, 2019).

2.2. Government-regulated VET provision

Regulated VET provision starts at upper secondary level (Section 2.2.1). It provides learners with the possibility to choose among VET programmes which are more focused on the school-based part and others where the focus on WBL is more prominent. There are VET programmes at post-secondary and tertiary levels (Section 2.2.2). Additional qualifications (Box 1) allow learners and graduates to adjust to changing labour market needs.

Box 1. Additional qualifications

Additional qualifications were introduced in 2005 to enable learners to respond fast to changing skill needs. These subject-related additions or specialisations can be taken while doing initial vocational training or advanced training and are an attractive opportunity to upgrade vocational qualifications.

At the end of August 2018, 244 additional qualifications were offered; 214 by chambers of industry and commerce and 30 by chambers of skilled trades. Most were offered in the field of international qualification/foreign languages (96), followed by business administration/commercial field (42) and then by engineering and technology (38) (BIBB, 2020).

Additional qualifications for initial VET (IVET) programmes are listed in the *AusbildungsPlus* database ⁽¹⁹⁾ and are defined as measures:

- addressing apprentices of a State-recognised formal training occupation;
- complementing vocational training through additional occupation-related subjects;
- taking place during vocational training or, at the latest, half a year later;
- lasting over a certain duration, at least 40 hours;
- completed by a certificate/exam of the training company, a vocational training provider or a chamber, which are at the same time also the main provider of additional qualifications (BIBB, 2020).

Source: Cedefop.

2.2.1. Upper secondary VET

Various initial vocational education and training (IVET) programmes are available at upper secondary level; some are offered in full-time schools, some are acquired for the most part in WBL. In the framework of the dual system, the apprenticeship programme has been offered for decades and is the core of the German VET system. Transition programmes offer preparatory training that facilitates access to VET programmes leading to a vocational qualification.

In 2019, almost 50% of learners entering upper secondary education chose a VET programme: 12.9% entered a transition programme and 36.8% chose a vocational education qualifying them for the labour market, of these, 67.4% enrolled in apprenticeship (BIBB, 2020, p. 83). VET is an attractive model for structuring the transition from school to working life. It is the main option for graduates with the lower secondary school certificate (*Hauptschulabschluss* after grade 9) and the intermediate secondary school certificate (*Mittlerer Schulabschluss*, after grade 10). Recently it has increasingly been chosen also by graduates with the upper secondary school leaving certificate (Abitur) who enrol mainly in apprenticeship (BIBB, 2019).

⁽¹⁹⁾ *AusbildungsPlus*. <http://www.ausbildungsplus.de/webapp/suche?typ=zq&neuesuche=true>

However, the overall attractiveness of upper secondary VET has fallen in recent years and learners tend to follow general higher education programmes. Several strategies, initiatives and incentives are in place to counteract this development, targeting learners and training providers, with a special focus on SMEs (Section 4.3.1).

2.2.1.1. *Transition programmes*

For learners who face difficulties accessing VET programmes qualifying them for the labour market, various transition programmes leading to qualifications at European qualifications framework (EQF) levels 1-2 (ISCED level 254) ⁽²⁰⁾ are in place:

- (a) pre-vocational training year (*Berufsvorbereitungsjahr, BVJ*) ⁽²¹⁾: a one-year training course (usually full-time) offered at vocational schools, designed to prepare young people for the demands of vocational training and give them the possibility to acquire the lower secondary school leaving certificate;
- (b) basic vocational training year (*Berufsgrundbildungsjahr, BGJ*): a one-year course which can be completed either full-time at a vocational school or in alternation with an enterprise. Learners receive basic educational knowledge in a specific occupational field. Completion can be credited as the first year of vocational training which focuses on the same field;
- (c) introductory training (*Einstiegsqualifizierung, EQ*): a 6 to 12 months traineeship in an enterprise combined with training in a vocational school. Learners can get acquainted with the specific occupation and enterprises can get to know these young people. It has proved a 'door-opener' for approximately 70% of learners to access apprenticeship (Hippach-Schneider and Huismann, 2019). Completion of this programme can be credited as a qualifying period for a subsequent apprenticeship ⁽²²⁾.

2.2.1.2. *General education programmes with vocational orientation*

General education programmes with vocational orientation (ISCED level 344, EQF level 4, duration two to three years) are offered at full-time vocational schools (*berufliches Gymnasium*) ⁽²³⁾. The duration depends on the specific programme and learners can acquire a higher education entrance qualification. Graduates can then enter certain university programmes linked to their

⁽²⁰⁾ Here and in the following the ISCED-P 2011 levels are indicated.

⁽²¹⁾ In North Rhine-Westphalia this programme is called *Berufsorientierungsjahr*; in Schleswig Holstein *Ausbildungsvorbereitendes Jahr (AvJ)*.

⁽²²⁾ Companies which offer introductory training receive a subsidy of up to EUR 231 per month per apprentice as well as a contribution to the amount payable for social security.

⁽²³⁾ In two Federal States called *Fachgymnasium*.

specialisation. General education programmes focus on various fields, such as agricultural economy, technology or economics themes⁽²⁴⁾. Entry requirement is the intermediate secondary school certificate. Short traineeships in enterprises are recommended but not mandatory.

2.2.1.3. School-based VET programmes

School-based VET programmes (ISCED level 354, EQF level 4, duration one to three years) are offered at full-time at vocational schools (*Berufsfachschule*) and prepare learners to work in many occupations. The duration differs depending on the occupational field and the level of qualification. Work-based learning is offered directly in schools or/and in form of traineeships. If these programmes do not offer a full vocational qualification, attendance can be credited as the first year of training in the dual system. Full qualifications can be gained in areas such as the household and caring, commercial or health sector (for example physiotherapist, speech therapist). Entry requirement is the lower or intermediate secondary school certificate. Under certain conditions, and in addition to the vocational qualification, learners can also gain the higher education entrance qualification (double qualification).

2.2.1.4. Dual VET (apprenticeship)

Apprenticeship programmes (ISCED level 354, EQF level 3-4, duration two to three and a half years)⁽²⁵⁾ are the main pillar of the German VET system. They take place in at least two learning venues: companies and vocational schools (Figure 6). Entry requirement is the completion of compulsory education, although without a school leaving certificate young people have low prospects of finding a training company (in 2018, only 3.5% of the new apprentices had no school leaving certificate). High-school graduates can reduce training duration to about 12 months, which makes it an attractive alternative to higher education (Deutscher Bundestag, 2016). The share of these among apprentices increased from 2009 to 2018 by 9.6 percentage points to 29.6% (BIBB, 2020).

Enterprises and public institutions offer apprenticeship places and sign a contract with apprentices. They bear the costs of the in-company training and pay the apprentice remuneration; this increases with each year of training and differs in amount across occupations (Section 2.5.1). SMEs have an important role as providers for vocational training due to their high number (Section 1.2).

⁽²⁴⁾ <https://www.schulen-vergleich.de/informationen/schulformen/gymnasium/das-fachgymnasium.html>

⁽²⁵⁾ Some occupations only require two 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.

However, they face various difficulties in this role, as they often lack up-to-date infrastructure and competent and qualified trainers. Several measures support SMEs to overcome these obstacles (Section 4.3.1).

In alternation to the training in an enterprise, apprentices attend vocational school for one or two days per week or in blocks, such as one week per month; at school they gain mainly theoretical and practical knowledge related to their chosen occupation in school lab or workshops.

In both settings, dual VET is based on common standards (Section 3.4) ⁽²⁶⁾. To guarantee a uniform standard, learning is completed by final exams that are regulated by law and executed by the chambers. Learners have to demonstrate an array of competences and perform practical tasks (Vocational Training Act, *Berufsbildungsgesetz*, BBiG) ⁽²⁷⁾. At the end of apprenticeship, graduates are awarded a vocational qualification, giving them access as a skilled worker to the labour market; these qualifications are highly valued by employers.

Figure 6. Duality of vocational education and training

| | Company | Vocational school |
|---|---------------------|---|
| Regulated by | Federal Government | Federal States |
| Based on | Training contract | Vocational school compulsory attendance |
| Content stipulated in | Training regulation | Skeleton curriculum |
| Monitored by | Competent bodies | School inspectorate |
| Financed by | Training company | Federal States |
| ↓ ↓ | | |
| Skilled worker Skilled employee Journeyman | | |

Source: Cedefop, based on BIBB, 2017a.

2.2.2. Post-secondary and tertiary VET

VET offers attractive further training and career possibilities at post-secondary and tertiary level. The system is highly permeable and numerous routes enable learners to progress from upper secondary VET to post-secondary or tertiary VET.

2.2.2.1. Specialised programmes

Various specialised programmes are available at post-secondary level (ISCED level 444, 453, 454, EQF level 4-5, duration one to three years); these are regulated by Federal State legislation. Admission to such programmes requires the leaving certificate from intermediate secondary school or a qualification recognised as equivalent; sometimes also a vocational qualification or a certain number of years of practical experience are required. Many of these programmes provide the possibility to acquire both a vocational and general education qualification at the upper secondary level, granting access to higher education (some programmes only to subjects-specific higher education entrance qualification *fachgebundene Hochschulreife*). Certain programmes also include a traineeship in a company, for example the programme offered at the *Fachoberschule* (specialised upper secondary school). Other schools offering these specialised programmes are *Berufsoberschule* (senior vocational school), *Berufsfachschule* (full-time vocational school), and *Fachgymnasium* (specialised grammar school). Programmes include education in technical skills, business, agronomy, nutrition and home economics, social affairs and design.

School-based vocational programmes in the health sector (ISCED 453, duration of two to three years) are among those with the highest enrolment among the specialised programmes. Healthcare schools (*Schulen des Gesundheitswesens*) provide training for non-academic occupations in the healthcare sector, such as nursing and paediatric nursing, midwifery, therapeutic massage, occupational therapy and social helpers. Many of these schools are attached to hospitals providing both theoretical and practical training. These programmes offer a vocational qualification but no access to higher education. Due to demographic changes and the aging of the society, a high demand for graduates from these programmes is foreseen. Various measures have already been introduced to increase the attractiveness of these programmes (Section 4.5).

2.2.2.2. *Advanced vocational qualifications*

Advanced vocational qualifications at tertiary level are nationally recognised vocational qualifications at EQF levels 5 to 7; they can be acquired through exams and are equivalent to academic qualifications ⁽²⁸⁾:

- (a) professional specialist (*Geprüfte Berufsspezialist*) (EQF level 5, ISCED level 554);
- (b) bachelor professional: master craftsman, specialist (EQF level 6, ISCED level 554, 665);
- (c) master professional: management and expert (EQF level 7) ⁽²⁹⁾.

If no federal training regulation has been issued for a training qualification in a specific occupational field, the competent bodies (chambers of industry and commerce, chambers of skilled crafts) may issue training examination regulations (Vocational Training Act and the Trade and Crafts Code (*Handwerksordnung*, HwO)). The Federal Institute for Vocational Education and Training (BIBB) board makes recommendations on the application of the BBiG, especially as regards the competent bodies. The examinations are valid nationwide; however, the responsibility (implementation, testing, monitoring) lies solely in the issuing chamber's district (BMBF, 2012).

Access to master professional qualifications (EQF level 7) requires the completion of a bachelor professional qualification (EQF level 6), though access to the bachelor qualification does not require completion of a professional specialist qualification (EQF level 5). A candidate can start preparing for the examination after completion of an IVET qualification providing access to a recognised occupation and work in parallel in the relevant profession; this allows some professional experience to be gained by the time s/he is ready to take the exam.

The advanced vocational qualification of a master craftsman (*Meister*) entitles holders to run their own business, to employ and train apprentices or to take over a higher position in an enterprise. It also provides access to courses at craft academies, universities of applied sciences (UASs, *Fachhochschulen*) and universities (Hippach-Schneider, 2019).

⁽²⁸⁾ These new designations were introduced with the Amendment of the Vocational Training Act in 2020 (BMBF, 2019e).

⁽²⁹⁾ Data about these programmes are not fully recorded in the ISCED-97 statistics, as the examinations do not require participation in a preparatory course.

2.2.2.3. *Advanced vocational programmes*

Advanced vocational programmes (ISCED level 655; EQF level 6, duration one and a half to four years) are offered in trade and technical schools (*Fachschulen*), which are regulated according to the Federal State law. Entrance requirements include:

- (a) either qualification in a recognised training occupation relevant to the chosen subject and one year of relevant work experience;
- (b) or qualification from a full-time vocational school and five years of relevant work experience.

Students fulfil management functions at the workplace. Advanced vocational programmes are offered as part-time or full-time programmes in the following occupational fields:

- (a) agriculture;
- (b) design;
- (c) technology;
- (d) business;
- (e) social care.

They lead to a vocational qualification (for example educator, technician) and some programmes also to a formal entrance qualification for universities of applied sciences, where prior education may be recognised and affect programme duration (KMK, 2019).

2.2.2.4. *Dual study programmes*

Dual study programmes leading to bachelor and master qualification (ISCED level 645, EQF level 6, duration three to four years, and ISCED level 747, EQF level 7, duration one to two years) combine work-based training and academic education at the education institution. Enterprises bear the costs of in-company training and pay the trainee remuneration for training, which mostly includes also the theoretical training phase in the higher vocational training institution ⁽³⁰⁾.

The following three pathways are in place:

- (a) dual study programmes with an integrated vocational training component (*Ausbildungsintegrierender dualer Studiengang*) combine vocational training in a recognised occupation with academic studies. This is the only dual study pathway where graduates obtain an academic degree and a formal IVET qualification and is the most popular. However, in addition to the training in a company and studies at university, learners also need to

⁽³⁰⁾ <https://www.wegweiser-duales-studium.de/gehalt/infos/#sonderfaelle>

- attend a vocational school. Access requirements are a higher education entrance qualification (*Allgemeine Hochschulreife* or *Fachhochschulreife*) and an employment contract;
- (b) dual study programmes with a work experience component (*Praxisintegrierender, kooperativer dualer Studiengang*) combine academic studies with systematic, organised and extended practical placements in the form of a traineeship or employment. Students obtain a university degree but no recognised vocational qualification. Access requirement is a higher education entrance qualification (*Allgemeine Hochschulreife* or *Fachhochschulreife*);
 - (c) dual work-study programme with an integrated career component (*Berufsintegrierender dualer Studiengang*). These continuing vocational education and training (CVET) programmes are designed to offer further professional development in the field. No higher education entrance qualification is required. The study programme takes place alongside carrying out the profession. The employer is informed about the studies of the employee and either agrees to reduce overall working time or provide opportunity for special leave. If the programme sits alongside carrying out a full-time profession, classes often take place in the evening or as distance learning.

These programmes are offered in various fields, but mainly focus on economic science, engineering technology and computer science. Lately the offer of dual study programmes in the field of welfare, education, health and care has been increasing ⁽³¹⁾.

Training providers offering dual bachelor and master programmes are private and public institutions. The main providers are:

- (a) universities of applied sciences;
- (b) dual university Baden-Württemberg (*Duale Hochschulen*) ⁽³²⁾;
- (c) universities;
- (d) universities of cooperative education (*Berufsakademien*) (BIBB, 2019).

Overall, the attractiveness of these programmes has greatly increased in recent years. From 2004 to 2016 the number of study programmes more than tripled, the number of learners more than doubled (from 40 982 to 100 739 learners) and 47 500 companies participated (BIBB, 2019).

⁽³¹⁾ <https://www.wegweiser-duales-studium.de/infos/studienmodelle/#studienmodelle>
<https://www.daad.de/en/study-and-research-in-germany/plan-your-studies/dual-study-programmes/>

⁽³²⁾ <https://www.dhbw.de/english/home.html>

2.3. Other forms of training: non-formal continuing training

Continuing training is becoming increasingly important considering the ageing of the population and changing skill needs through developments such as digitalisation and automation. Alongside regulated continuing training there is a wide range of less regulated continuing training offered outside the school system.

Non-formal continuing training is designed, organised and offered by different training providers. Many collective agreements on the provision of continuing education and training have been set up in recent years. About 25% of all working contracts include continuing education and training regulations in different models and forms (BIBB, 2012). Two-thirds of in-company continuing training is either offered by employers directly (46%) or by other companies (21%). The participation rate in continuing training is higher for employees in larger companies. While only 48% of employees participated in continuing training in micro companies ⁽³³⁾, the share for companies with at least 1 000 employees is 62%. In 2018, 54% of 18- to 64-year-old adults participated in non-formal continuing training, mostly followed due to professional needs (81%). In such cases, continuing training usually takes place during working time ⁽³⁴⁾ and is paid by the employer (BMBF, 2019a).

Participation rates rise with the level of school-leaving certificate and with the level of vocational qualification; the rate is the highest among those aged 35- to 49. Foreigners take part in job-related CVET less often (BIBB, 2020). Considering the shortage of skilled workers and the outlook that unskilled jobs are becoming increasingly automated, it is important to increase the participation rate of low-skilled adults, migrants and foreigners ⁽³⁵⁾.

⁽³³⁾ Micro companies are defined as companies with less than 10 employees and an annual turnover of less than EUR 2 million. <https://de.statista.com/statistik/daten/studie/321958/umfrage/anzahl-der-kleinen-und-mittleren-unternehmen-in-deutschland/>

⁽³⁴⁾ In 2018, 62% of the continuing training took place during working time.

⁽³⁵⁾ BIBB. *Strategies for the training of persons with little or no educational background*. https://www.bibb.de/en/pressemitteilung_78429.php

2.4. VET governance

In line with the Constitutional Law of 1949 ⁽³⁶⁾, the responsibility for the education system belongs to the Federal States, but the Federal Government has the jurisdiction for the regulation of in-company training. This legal basis requires close cooperation between the two. Overall, the governance of the VET system is defined by a strong partnership between the Federation, Federal States, employers and trade unions; any VET regulation is issued in consensus with the social partners. The Vocational Training Act of 2005 defines which institutions are in charge of organising, developing and monitoring VET in Germany.

2.4.1. National level

VET is based on nationally recognised occupations and vocational training regulations, which guarantee a national standard. The federal government is responsible for the non-school part of VET and ensures that vocational training is always up to date. The Federal Ministry of Education and Research is responsible for general VET policy issues; it coordinates and guides VET policy developments for all training occupations. It implements strategies and programmes to promote and improve VET. BMBF is responsible for monitoring developments in VET and presenting their findings in annual reports ⁽³⁷⁾. It is supported in this by the Federal Institute for Vocational Education and Training, which publishes the accompanying VET data report ⁽³⁸⁾. BIBB's four-party board, consisting of representatives of employers, trade unions, Federal States and the Federal Government, is an executive body and acts as the statutory advisory organ of the Federal Government. BIBB's mandated tasks include developing VET, identifying future challenges in VET, conducting research and providing advice and services to the Federal Government (for example supporting the BMBF in setting up standards, see Section 3.2). The institute works to stimulate innovation and develops practical solutions for both IVET and CVET. It is the task of the federal ministries responsible for each occupational field to recognise individual occupations requiring formal training, which is in most cases the Federal Ministry for Economic Affairs and Energy (*Bundesministerium für Wirtschaft und Energie*, BMWi). The approval of the BMBF is always required.

⁽³⁶⁾ Constitutional Law for the Federal Republic of Germany (BMJV, 1949).
<https://www.gesetze-im-internet.de/gg/index.html>

⁽³⁷⁾ BMBF. *Der Berufsbildungsbericht [Report on vocational education and training]*.
<https://www.bmbf.de/de/berufsbildungsbericht-2740.html>

⁽³⁸⁾ <https://www.bibb.de/veroeffentlichungen/en/publication/series/list/6>

2.4.2. Regional level

At regional level, the Federal State ministries of education and cultural affairs are in charge of general and vocational education at schools, the higher education sector, adult education, as well as continuing professional development (CPD) of VET school teachers. This results in differences among the Federal States in aspects such as programme names, duration and curricula of certain programmes. To ensure a certain degree of uniformity, the State ministers participate in the standing committee (Standing Conference of the Ministers of Education and Cultural Affairs, *Kultusministerkonferenz*, KMK) ⁽³⁹⁾, where recommendations are brought forward; these need to pass individual State parliaments before becoming legally binding. Vocational training committees, in which members equally represent employers, employees and the highest State authorities, advise the State government on vocational training issues.

2.4.3. Social partners

Employer organisations ⁽⁴⁰⁾ and trade unions ⁽⁴¹⁾ have a major influence on the content and form of IVET and CVET (Section 3.4.3) and guarantee that the needs of employers and employees are taken into account. Social partner representatives are members of the BIBB's main board, of the vocational training committees at Federal States level and in the competent bodies.

Social partner contributions at different levels are important, as they ensure that vocational training responds to labour market needs. The social partners are involved in:

- (a) collectively defining agreed training allowances;
- (b) drafting occupational standards requirements (Section 3.2);
- (c) developing new training regulations and framework curricula (Section 3.2);
- (d) assuring quality of IVET (Section 3.4);
- (e) referencing process of German qualifications framework (DQR) to EQF (Section 3.4.4).

2.4.4. Competent bodies

Competent bodies (*zuständige Stellen*) are mainly represented by professional chambers; where no chamber exists for a certain professional field, the Land defines the competent body. Each competent body sets up a tripartite vocational

⁽³⁹⁾ <https://www.kmk.org>

⁽⁴⁰⁾ With the umbrella organisation of the Confederation of German Employers' Associations, *Bundesvereinigung der Deutschen Arbeitgeberverbände*, BDA
<https://www.arbeitgeber.de/www/arbeitgeber.nsf/ID/home>

⁽⁴¹⁾ With the umbrella organisation of the German Trade Union Confederation, *Deutscher Gewerkschaftsbund*, DGB <https://www.dgb.de/>

training committee, composed of representatives of employers, trade unions and teachers. These committees must be informed and consulted on all important VET issues and decide on regulations for implementing VET. Competent bodies are responsible for vocational training in the industrial sector and region they represent. In dual training, competent bodies:

- (a) ensure the suitability of training centres;
- (b) monitor training in enterprises;
- (c) advise apprentices, trainers and enterprises;
- (d) establish and maintain lists of training contracts;
- (e) organise and hold exams (Hippach-Schneider and Huismann, 2019).

2.5. Financing VET

Various public and private stakeholders are involved in financing IVET and CVET. These include several ministries at federal and State level (mainly ministries of education, of economics and of employment). The Federal Employment Agency, local authorities, unions, chambers, associations, companies, private institutions and individuals also contribute to the financing of VET.

2.5.1. Financing of initial VET

Dual IVET programmes take place in companies and in schools, the funding for those two places being different.

The company which offers the practical training bears the costs for the workplace training part. Employers are contractually obliged to pay their apprentices remuneration, which differs depending on the training sector/field of occupation, in which Federal State it is done and the training year (in each year of apprenticeship learner remuneration increases). In 2019, enterprises paid an average EUR 939 per month to learners (BIBB, 2020), with, for example, a carpenter earning an average of EUR 1 240, the highest apprenticeship payment, while chimney sweeps and hairdressers were paid the lowest at an average of EUR 610 (BIBB, 2019). The amendment of the Vocational Training Act (2020) defined a gradual increase in minimum salary from 2020 to 2023. For an apprenticeship started in 2020, the minimum salary must be at least EUR 515, which should increase to at least EUR 620 by 2023 (BMBF, 2019e). Companies also have additional costs for trainers as well as other costs, such as additional equipment; however, it is estimated that 70% of their costs are recuperated by the productive contribution of apprentices during training (Cedefop and BIBB, 2019).

Inter-company vocational training centres (*überbetriebliche Berufsbildungsstätten*, ÜBS) (Section 4.3.1), which are mainly established by chambers and their organisations, receive funds from the Ministry of Education and the Federal Ministry of Economic Affairs and Energy, as stated in the BBiG (BMBF, 2019b). The amount of funds and their purpose are specified in common guidelines (last update in 2015) for funding ÜBSs and their development into competence centres (BMAS, 2015; BMBF).

The school-based part of dual training and full-time schools is financed by the State and local authority. While the States pay the costs of internal school affairs (for example teachers' pay, teacher training, supervision of schools), the local authorities finance external school affairs (for example maintenance and renovation of school buildings). In 2019, these costs were around EUR 8.7 billion (BIBB, 2020).

Various measures to promote VET are also funded, to create additional training places in certain sectors or in less popular regions, or focusing on disadvantaged young people.

2.5.2. Financing of continuing VET

CVET programmes are funded by the Federation via its ministries, Federal States, the Federal Employment Agency, local authorities, enterprises and private individuals. Often one party takes over the costs for CVET, but sometimes several parties are involved.

The Federal Government contributes to financing continuing training through funding programmes of the BMBF, BMWi and Federal Ministry of Labour and Social Affairs (BMAS). Some important programmes are the upgrading-BAföG (*Bundesausbildungsförderungsgesetz*, Federal Education and Training Assistance Act), the continuing training grant, upgrading scholarship and the continuing education bonus (BIBB, 2018a). Almost all Federal States offer programmes to promote participation in continuing training. The employment agency has the highest amount of public funds for provision of CVET programmes, targeting the unemployed or people at risk of becoming unemployed; this is in line with the German Social Code (*Sozialgesetzbuch*, SGB) book III, which focuses on employment promotion.

The Federal States, in cooperation with local governments (sometimes also with municipal associations), fund continuing training institutions, such as adult education centres (*Volkshochschulen*, VHSs) and teacher training institutes.

Besides publicly funded CVET measures, many CVET programmes are offered to employees in their company or as job-related training at external

providers. Where a CVET measure requires a high contribution from the employer, companies often sign a contract with the respective employee, obliging him/her to reimburse the costs if s/he does not stay in the company for a certain number of years (*Rückzahlungsklausel*). According to continuing vocational training surveys (CVTSs), companies spent EUR 683 per employee in continuing education courses in 2015 (BIBB, 2018a).

2.6. VET teachers and trainers

In dual VET there are teachers working in vocational schools and trainers at the workplace. Specific qualifications are required to access these professions. In contrast, teachers or trainers who work in non-formal CVET do not need to have any specific formal qualification (Hensen and Hippach-Schneider, 2016).

2.6.1. Teachers in vocational schools

There are two categories of teachers in vocational schools:

- (a) general subject teachers who teach general and occupation-related theoretical subjects;
- (b) practical work teachers (*Werklehrer*, *Technische Lehrer* or *Fachlehrer*).

While general subject teachers must have a university degree at master level (EQF level 7), practical work teachers must hold a master degree in a specific technical field and also undergo practical training in a company and a vocational school. After their studies, both categories have to follow a probationary period (*Referendariat*) of 12 to 24 months, as specified in the framework agreement adopted by the KMK in 1995 and amended in 2013.

The conditions for CPD are stated in the Education Act (*Schulgesetz*) of the relevant State and might differ among the Federal States. In general, teachers are obliged to follow continuing training to maintain and further develop their skills and competences. Teachers can organise their own training offered by training providers, provided that their employer approves it or it can be offered as mandatory training by the employer. Schools receive a certain amount of money per year from the State for teacher CPD.

Vocational school teachers can choose among various CPD courses, for example focusing on digital skills, entrepreneurship or disadvantaged groups. Digitalisation is a key aspect and the Federal States are cooperating with the Federal Government in setting up initiatives to improve the digital competences

of teachers and to update teaching concepts accordingly; examples are the *Digital pact for schools* ⁽⁴²⁾ and the *Quality initiative in teacher education* ⁽⁴³⁾.

2.6.2. Trainers in companies

Trainers in companies are in charge of the apprentice workplace training and have an important role in developing their professional identity and occupational competences.

According to the Vocational Training Act of 2005 ⁽⁴⁴⁾ and the Trade and Crafts Code of 1953 ⁽⁴⁵⁾, to become a trainer a person should:

- (a) be at least 24 years old;
- (b) have a relevant VET qualification at EQF level 4;
- (c) have sufficient relevant professional experience and occupation-related knowledge;
- (d) have competences in pedagogy in line with the requirements of the Ordinance on trainer aptitude (*Ausbilder-Eignungsverordnung*, AEVO) proved by an exam (Cedefop, 2020).

To support trainers in the acquisition of the required pedagogical and professional competence, the relevant bodies (Section 2.4.4) organise initial training courses which are offered in different formats (attendance courses, distance learning or blended formats). Competent bodies are also in charge of organising the AEVO examination; they adopt examination regulations and set up examination boards. As recommended by BIBB, aspiring trainers could follow a 115-hour course to prepare for the AEVO examination ⁽⁴⁶⁾. Every company which trains apprentices needs to have at least one trainer who has passed the AEVO examination. In a company, apprentices can work with other employees competent in the field of studies, for example skilled workers, journeymen or foreperson (Hensen and Hippach-Schneider, 2016).

⁽⁴²⁾ BMBF. *Der DigitalPakt Schule kommt* [The digital school pact is approaching].
<https://www.bildung-forschung.digital/de/der-digitalpakt-schule-kommt-2330.html>

BMBF. *Wissenswertes zum DigitalPakt Schule*. [Worth knowing about the digital school pact].
<https://www.bmbf.de/de/wissenswertes-zum-digitalpakt-schule-6496.html>

⁽⁴³⁾ BMBF. *Qualitätsoffensive Lehrerbildung* [Quality offensive: teacher training].
<https://www.bmbf.de/de/qualitaetsoffensive-lehrerbildung-525.html>

⁽⁴⁴⁾ Vocational Education and Training Act (BMJV, 2005).

⁽⁴⁵⁾ Crafts Code (BMJV, 1953).

⁽⁴⁶⁾ AEVO online. *Wie lange dauert die Vorbereitung auf die AEVO-Prüfung?* [How much time is needed for the preparation for the AEVO examination?].
<https://aevo-online.com/dauer-vorbereitung-auf-die-aevo-pruefung/>

Since 2009, there are two new qualifications for trainers besides AEVO, which are not mandatory but provide the opportunity to upgrade trainer qualifications: the certified vocational pedagogue for initial and continuing training (*Geprüfter Aus- und Weiterbildungspädagoge, AWP*) and the certified vocational pedagogue (*Geprüfter Berufspädagoge/Geprüfte Berufspädagogin, BP*), an advanced training qualification, including professional skills in education and management. These qualifications entitle trainers to take additional tasks, such as searching and selecting apprentices or managing training (Cedefop, 2020). The occupational profiles include, among others, online tutoring, development of teaching materials, ability to identify trainee skills, and leadership skills (European Commission and Cedefop, 2014).

The portal *foraus.de* ⁽⁴⁷⁾ is the biggest trainer information and exchange forum. It also provides the possibility for trainers to qualify themselves further through online learning modules.

The BMBF has started digitalisation-related projects, including CPD for trainers such as the initiative *Digital media in vocational training* ⁽⁴⁸⁾, which includes training of trainers who can act as multipliers, and also the *Competence workshop toolbox* ⁽⁴⁹⁾, which provides conceptual and digital support to training in companies.

⁽⁴⁷⁾ Foraus.de. *Portal for trainers in companies*. <https://www.foraus.de/html/>

⁽⁴⁸⁾ Foraus.de. *Digitalisierung der Arbeits- und Berufswelt. [Digitalisation of the world of labour and occupations]*. https://www.foraus.de/de/foraus_107718.php

⁽⁴⁹⁾ BMBF. *Kompetenzwerkstatt [Competence workshop]*. <https://www.qualifizierungdigital.de/kompetenzwerkstatt-1930.php>

CHAPTER 3.

Shaping VET qualifications



3.1. Anticipating skills needs

The skills anticipation process is well established in Germany and data are shared across a wide range of users. Many skills anticipation activities are undertaken, including skills forecasts, skills assessments and surveys, as well as employee and employer surveys. Overall, skills anticipation activities regularly produce outputs and recommendations that feed into policy, allowing relevant institutions to react promptly to the changing needs of the labour market.

The BIBB and the Institute for Employment Research (*Institut für Arbeitsmarkt und Berufsforschung*, IAB) are the main producers of data on skills for the BMBF. They are legally mandated to provide labour market information and research on the German VET system (Cedefop, 2017). Currently, the BIBB monitors new skills requirements and leads the main projects in this field:

- (a) the qualification and occupational fields projections (*Qualification und Beruf*, the QuB project) observes labour market demands and supplies in regard to qualifications and occupations and develops a forecasting model on future developments ⁽⁵⁰⁾;
- (b) the research network FreQueNz aims to identify future skill needs at an early stage. The BMBF launched this project and various stakeholders present related information on this platform allowing interlinking of their research results. Among the participating bodies are research institutions, social partners and the BIBB;
- (c) the reference company system (*Referenz-Betriebs-System*, RBS), was set up by the BIBB and is currently based on a network of 1 400 participating companies, varying in size and sector. Once or twice per year those companies participate in a survey focusing on technological and organisational developments and IVET and CVET ⁽⁵¹⁾;
- (d) telephone interviews with people in employment have been conducted every sixth year since 1979 (the last occasion was in 2018). About 20 000 employees are interviewed about their workplace, their job profile in relation to their vocational qualification, working conditions and continuing education and training needs ⁽⁵²⁾;

⁽⁵⁰⁾ BIBB. *The QuBe data portal*.

https://www.bibb.de/en/qube_datenportal.php

BIBB. *The QuBe project: qualifications and occupations in the future*.

<https://www.bibb.de/en/11727.php>

⁽⁵¹⁾ BIBB. *Referenz-Betriebs-System [Reference company system]*.

<https://www.bibb.de/de/12471.php>

⁽⁵²⁾ BIBB. *Baua Erwerbstätigenbefragung [Survey of employees]*.

<https://www.bibb.de/arbeit-im-wandel>

- (e) the VET 4.0 initiative (2016-18) investigated the effects of digitalisation on qualifications and competence requirements. Launched by BIBB and BMBF, this initiative included various projects, such as the research project *Skills, qualifications and competences for the digitised work of tomorrow* and the programme *Digital transformation in inter-company vocational training centres and competence centres* (Section 2.2.1.4) ⁽⁵³⁾.

3.2. Designing qualifications

The training regulations in the dual VET system (apprenticeship) specify the professional competences to be acquired through in-company training, guaranteeing a uniform national legal standard. The framework curricula for the training regulations for companies are coordinated with the corresponding ones of vocational schools, so that they complement each other (BIBB, 2017a). In the part-time vocational schools, the theoretical and practical knowledge related to an occupation is based on a framework of training curricula, which is drawn up for every recognised training occupation in accordance with the training regulations ⁽⁵⁴⁾.

The initiative to update and develop new training regulations is usually taken by trade associations, trade unions, the employers' umbrella organisations or the BIBB. Once a proposal is handed in, the responsible federal ministry, in consultation with the State governments, asks all parties involved for their opinion. In many cases, BIBB also provides its opinion, especially when larger scale revisions are considered, then the institute conducts research before the ministry takes its decision. The BIBB provides the platform for and moderates and coordinates the process. The central feature of the VET system, the close partnership between employers, trade unions and the government (Section 2.4), applies also to designing VET qualifications. The cooperation is based on consensus and no regulation on initial or further VET may be issued against the declared will of one of the social partners.

Training regulations are formulated in a broad perspective to support the process of adapting to new developments. Due to continuous change in skills required on the labour market, training regulations are regularly updated and new ones defined. In 2019, out of the 324 existing training regulations, four

⁽⁵³⁾ BIBB. *Launch of pilot initiative for vocational education and training 4.0.*
<https://www.bibb.de/en/49603.php>

⁽⁵⁴⁾ BIBB. *Register of recognised training occupations.*
<https://www.bibb.de/en/65925.php>

were updated, and three newly developed training regulations entered into force (BIBB, 2020).

The update of existing training regulations and the development of new ones follow a standardised procedure and should not take longer than one year (BIBB, 2019). Training regulations are drawn up in four steps (Figure 7; BIBB, 2017a; BIBB, 2017c):

- (a) step 1: specifying benchmarks for the training regulations;
- (b) step 2: development and harmonisation;
- (c) step 3: adoption of the training regulation and framework curricula;
- (d) step 4: piloting, evaluation and adaptation.

3.2.1. Step 1: specifying benchmarks for the training regulations

Upon receiving a proposal from the social partners, the relevant ministry (for example BMWi, BMBF) initiates the formal reshaping procedure on the basis of the agreed benchmarks in line with the BBiG⁽⁵⁵⁾ of the relevant training regulation:

- (a) title of the recognised training occupation;
- (b) duration of training (between two and three years);
- (c) training occupation profile (minimum expected requirements for learners' vocational knowledge, skills and competences);
- (d) framework training curriculum (guide to structure the learning process in terms of time and content);
- (e) examination requirements⁽⁵⁶⁾.

3.2.2. Step 2: development and harmonisation

In this phase, training regulations for the enterprises and framework curricula for vocational schools are prepared in a coordinated way. Social partner umbrella associations assign experts to design the training occupation in cooperation with the BIBB: these experts have practical experience in companies, usually both in training and examination of apprentices. In parallel, experts from the Federal States draw up the corresponding framework curricula for vocational schools. At the end, a joint discussion on the two drafts takes place to harmonise them regarding the time/schedule correspondence and the content.

3.2.3. Step 3: adoption of the training regulation and framework curricula

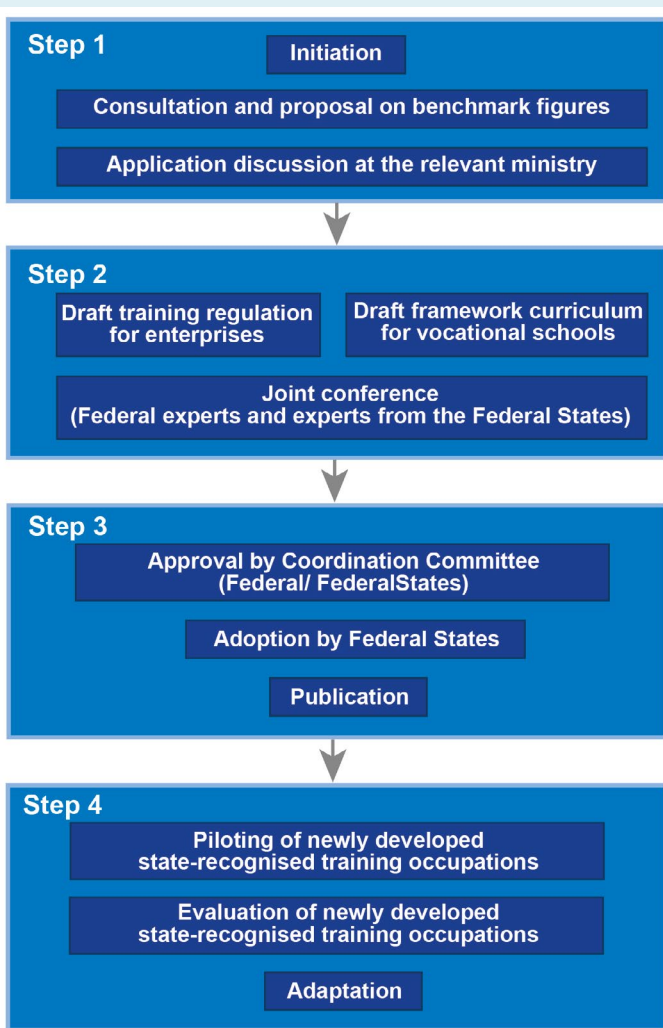
The Federal/State Coordinating Committee on Training Regulations/Framework Curricula (KoA) approves the training regulation and the school framework

⁽⁵⁵⁾ BMBF, 2019e.

⁽⁵⁶⁾ BIBB, 2017a.

curriculum coordinated with it. The committee comprises representatives from the 16 Federal State ministries responsible for VET, the BMBF and the ministries responsible for the respective training regulations (usually the BMWi). Federal States directly adopt the framework curriculum or transform it into State-specific curricula for vocational schools. They are published in the *Federal law gazette* and enter into force at the beginning of the next training year.

Figure 7. Procedure for updating training regulations



Source: Cedefop ⁽⁵⁷⁾.

⁽⁵⁷⁾ Illustration based on BIBB, 2017c.

3.2.4. Step 4: piloting, evaluation and adaptation

When newly developed training regulations enter into force, they are first subject to piloting (usually over five years) so that potential weak points can be identified. The evaluation is usually conducted by representatives of the social partners, the Federal Government and the Federal States. From their findings, the stakeholders, under the lead management of BIBB, adapt the pilot training regulations accordingly and award them so-called permanent legal status.

3.3. Recognition of prior learning

People without recognised vocational qualifications face difficulties of integration into the labour market. Compared to people holding a vocational qualification, their risk of unemployment is more than five times higher. In 2018, 17.4% of people without a vocational qualification were unemployed as opposed to 3.4% among people with a vocational qualification (Bildungsspiegel, 2019). Therefore, recognition of prior learning, either non-formal or informal learning, or of foreign vocational qualifications, is of high importance for the integration of those groups in the labour market.

3.3.1. Validation of non-formal and informal learning

3.3.1.1. Examination for external candidates

People who did not follow any formal vocational training programme have the option to take an examination for external candidates (so-called *Externen-Prüfung*) in line with the Vocational Training Act (2005) and the Trade and Crafts Code (1953).

Admission to the final examination for a recognised occupation is granted if the candidate can prove that s/he has worked in the relevant profession at least one and a half times as long as the duration of the initial training programme. Elements such as certificates, working contracts, and business registration in case of self-employment can be provided as proof.

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.

In 2018, 5.6% of all final examinations for a recognised occupation were external, though the proportion varied greatly between occupational fields: 44.7%

in housekeeping, 10.4% in agriculture, 7.2% in trade and industry, 4.4% public sector, 1.3% craft trades and 1.2% liberal occupations (BIBB, 2019; BMBF) ⁽⁵⁸⁾.

3.3.1.2. Validation system

People without recognised vocational qualifications face a difficult time in the working world. As they do not have formal recognition of their professional skills, they especially face problems when they become unemployed, as they are undervalued on the job market. The ValiKom project ⁽⁵⁹⁾, agreed between the BMBF and the Association of German Chambers of Industry and Commerce (*Deutscher Industrie- und Handelskammertag*, DIHK) and German Confederation of Skilled Crafts (*Zentralverband des Deutschen Handwerks*, ZDH) has been running since 2015 with the aim of setting up a validation system for non-formal and informal learning to increase skills visibility, improving the job market prospects of the applicant. A standardised procedure to identify, assess and certify vocational skills has been developed. The skills of a candidate are assessed against a recognised vocational qualification. At the end, the relevant chamber issues a certificate (*Gleichwertigkeitsfeststellung*), documenting whether the gained skills partly or fully comply with the requirements of the recognised vocational qualification. The final results of the Valikom project were published in a report at the end of 2018, with process description, admission criteria, instruments, certificate of validation and recommendations.

The follow-up project ValiKom transfer (2018-21) sets up further chamber locations where the validation procedures are to be carried out. Along with chambers of industry and commerce and chambers of skilled crafts, chambers of agriculture are also involved; at the end of 2018, 30 chambers were offering validation of non-formal and informal learning. It is intended to establish validation procedures for 32 occupations in commerce, industry, skilled crafts and agriculture.

3.3.2. Recognition of foreign vocational qualifications

The recognition of foreign vocational qualifications was unified and simplified in April 2012, when the Act to improve the assessment and recognition of

⁽⁵⁸⁾ BMBF. *Externenprüfung: Voraussetzungen, Beratung und Vorbereitung [Examination for external candidates]*.<http://www.perspektive-berufsabschluss.de/de/501.php>

⁽⁵⁹⁾ Bildungsspiegel (2015). *Valikom: Chancen Für Menschen Ohne Berufsabschluss [Valikom: chances for people without vocational qualification]*.

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

Valikom. *Assess and certify vocational skills*.

<https://www.validierungsverfahren.de/en/home/>

professional qualifications acquired abroad (known also as the Federal Recognition Act) was introduced (BMBF, 2020a). This gives individuals the right to have their foreign vocational qualifications recognised, validated and matched to a German vocational qualification.

The act relates to over 600 occupations including those in dual training, the master craftsman, or other further training qualifications including occupations regulated by sectoral laws, such as medical doctors and lawyers. Recognition of occupations under the State Government's responsibility take place at the Federal State level, such as engineers, nursery teachers or social education workers.

Applicants who want to have recognised a vocational qualification gained abroad need to provide relevant documents proving this qualification. If applicants lack these relevant documents, they can prove their professional competences in a practical way, for example through the so-called 'skills analysis', where they demonstrate such competences in a work sample, interview or a work test in a company.

Authorised bodies (such as chambers) carry out the assessment and recognition of foreign vocational qualifications. In support, central leading bodies were set up, mainly the Chamber of Industry and Commerce (*Industrie- und Handelskammer*, IHK) IHK Foreign Skills Approval (IHK FOSA) ⁽⁶⁰⁾ and the central advisory body for occupation in the healthcare sector.

Information portals and various online guidance tools and services were set up, guiding foreigners in the recognition process.

The implementation of the Federal Recognition Act is regularly monitored and documented by BMBF. According to its latest report, from 2012 till 2018 a total 140 700 applications for recognition of foreign qualifications were submitted. In 2018, 39 000 applications were submitted, 34% of which were related to nursing. Of all submitted applications, 52.2% received full recognition, 9.7% received partial recognition, only 2.3% did not receive any recognition and 35.5% of the cases could not be decided in 2018 and are still on hold. Twenty per cent of the applications came from people not living in Germany at that time. The project ProRecognition supports people applying from abroad, by offering individual advice through the chambers of foreign trade (BMBF, 2020a).

The Federal Recognition Act has proved a successful instrument in promoting the integration of qualified migrants into the German labour market, an important step towards responding to the high demand for skilled workers ⁽⁶¹⁾. In line with

⁽⁶⁰⁾ IHK FOSA: www.ihk-fosa.de

⁽⁶¹⁾ BIBB. *Recognition in Germany*.

<https://www.anerkennung-in-deutschland.de/html/en/index.php>

this objective, the Law on the immigration of skilled workers was adopted on 1 March 2020, granting applicants with a recognised full vocational qualification or higher general education the possibility to live and work in Germany (BMI) ⁽⁶²⁾. The Skilled Immigration Act provides one exception: IT specialists with 'highly-developed practical professional knowledge' can come to Germany without recognition and practise their occupation.

3.4. Quality assurance

Quality assurance is conducted by various bodies, at different levels and through different tools. The BMBF and the BIBB are the main players in reporting and conducting research on VET and thereby contributing to quality assurance. One of the main reports, providing a wealth of information on VET, is a yearly published BMBF VET report, accompanied by the BIBB data report. These reports identify areas which require updates, leading to the setting up of projects or policy changes, such as updating of training regulations (Section 3.2). Quality assurance is conducted differently for company-based training, theoretical training at schools or CVET. The national qualification framework classifies formal qualifications by level.

3.4.1. Quality assurance in company-based training

National standards for company-based training are defined in the Vocational Training Act (2005) and the Trade and Crafts Code (1953). They concern training regulations (Section 3.2), training facilities, trainers and examinations.

Employer organisations working with trade unions have a key role in quality assurance of company-based training. The Confederation of German Employers' Associations is a major stakeholder in defining minimum standards for company-based initial VET and in developing training regulations (BIBB, 2017c).

Local chambers monitor regulations on trainers and training facilities, as well as on competences gained in the programmes. Employer and employee organisations and teachers are equally represented on their examination boards. The competent body also plays a major role in quality assurance not only by monitoring but also by advising companies. All apprenticeship contracts have to be registered by the chambers.

Works councils, youth and apprentice representatives contribute to ensuring compliance with minimum standards by the employer-provided training.

⁽⁶²⁾ <https://www.bmi.bund.de/SharedDocs/faqs/DE/themen/migration/fachkraefteeinwanderung/faqs-fachkraefteeinwanderungsgesetz.html>

3.4.2. Quality assurance in vocational schools

The Federal State ministries of education have their own quality assurance programmes for their schools. The curriculum, which defines the theoretical content to be acquired in vocational schools, is regularly revised by the KMK (Section 2.4.2). Local school authorities monitor whether schools meet quality requirements for initial VET. Educational standards, quality frameworks, centralised exams, monitoring and school inspection are tools for quality assurance.

Schools apply a quality assurance system internally through evaluation and improvement focusing on development of the teaching staff, learner satisfaction and employability. In some Federal States, specialised agencies for quality development supervise vocational schools (for example *Baden-Württemberg Landesinstitut für Schulentwicklung*).

3.4.3. Quality assurance in continuing VET

The main basis for quality assurance in CVET is laid down in the Ordinance on accreditation and certification of continuing training (*Akkreditierungs- und Zulassungsverordnung Arbeitsförderung, AZAV*), which was also included in the SGB III. The Ordinance was introduced by the Federal Ministry of Labour and Social Affairs in 2004, revised in 2012; it regulates the accreditation of CVET providers and programmes which receive public funding. This accreditation process is controlled by private certification bodies, which are consulted by an advisory council. The council consists of representatives of Federal States, employers (BDA) and employees (DGB), representatives of the BMBF and BMWi (Federal Republic of Germany, 2004). Training providers must demonstrate that they apply a recognised quality assurance system. In line with the SGB III, learners can redeem any placement vouchers issued by employment agencies only in certified programmes offered by certified training providers. This means that CVET providers generally have a high interest in being accredited.

BIBB publishes a regularly updated CVET quality checklist (latest version published in 2018), assisting learners to find a CVET offer and provider of good quality (BIBB, 2018b). The online platform *wbmonitor* is operated by BIBB in cooperation with the German Institute for Adult Education (DIE) and provides information and exchange on CVET ⁽⁶³⁾. A yearly survey is conducted among CVET providers regarding their training offer, business development, and

⁽⁶³⁾ <https://wbmonitor.bibb.de>

selected theme of interest ⁽⁶⁴⁾. The results are published on the platform and in the BIBB data report (Sections 2.4.1).

3.4.4. National qualification framework

Germany has set up an eight-level national qualifications framework for lifelong learning (Cedefop, 2019). The framework is based on a learning outcomes approach, underlining the importance of what a learner knows, understands and can do rather than the place and duration of learning. Following the referencing of formal qualifications to the DQR, the referencing of non-formal qualifications is under discussion (Ball, 2019). The DQR was referenced to the European qualification framework in 2012, making the German dual system understandable and comparable throughout the European Member States. DQR and EQF levels are shown on IVET and advanced vocational certificates, making the acquisition of competences more transparent ⁽⁶⁵⁾.

⁽⁶⁴⁾ BIBB. *Die Umfrage 2017: Qualitätsmanagementsysteme in der Weiterbildung [Survey 2017: quality management systems in continuing training]*.
<https://www.bibb.de/de/79521.php>

⁽⁶⁵⁾ BIBB. *DQR: German qualifications framework*.
<https://www.bibb.de/en/596.php>

CHAPTER 4.

Promoting VET participation



4.1. Promoting VET: background

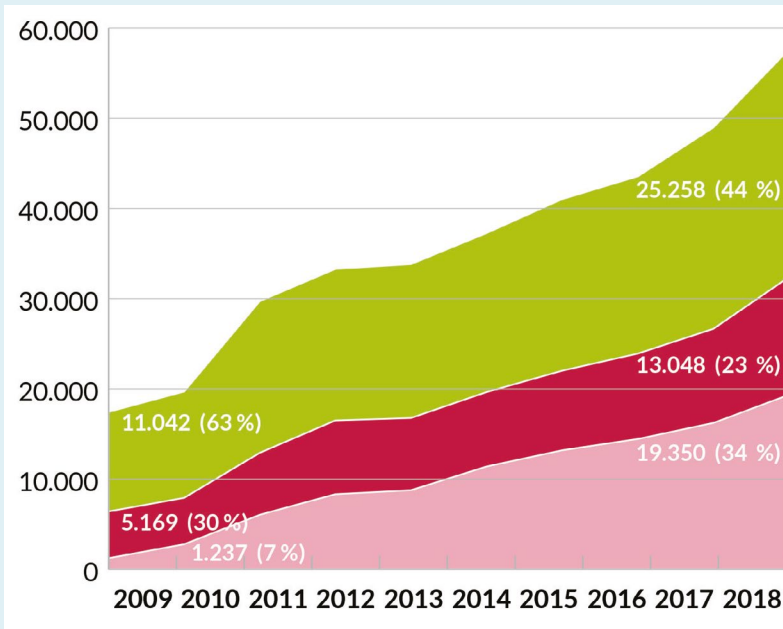
The dual system with its two learning venues, especially the apprenticeship system, has for many decades been a popular education pathway to entering the labour market (Section 2.2.1). However, demographic changes and an increasing attractiveness of academic education caused a fall in the number of apprentices since 2007, with the exception of the years 2016 and 2017, where the number slightly increased due to the interest of refugees.

The number of young people searching for an apprenticeship place for the school year 2018/19 was lower than the number of available training places (549 000 versus 578 200). Nevertheless, in 2019 about 53 100 training places remained unoccupied and 24 500 applicants could not be placed (BIBB, 2020). This matching problem increased over the last 10 years (Figure 8), mainly for the following reasons: the training place is not close to training seeker's place, is not in line with the career aspirations of the training seeker or is based on missing characteristics (either the company does not have certain characteristics, such as a certain size, or the training seeker is rejected by company due to lack of diploma). In the school year 2018/19, eight Federal States had more training places than applicants, while the other Federal States faced the reverse challenge; many more applicants than training places were registered in Berlin, Hessen and North Rhine-Westphalia (Bundesagentur für Arbeit, 2019a). Certain sectors, such as office clerk and automotive mechatronics technician, are popular and have many applicants for training places, while others, such as cook or butcher, are the reverse with training places unoccupied. In this respect, the 'four-wave concept' for (post-) placement of young people in in-company training with joint activities over the course of the vocational guidance year has proven its worth. The business community and the Federal Employment Agency will further establish their commitment to placing young people in companies (Allianz für Aus- und Weiterbildung, 2019).

There is still a high number of potential learners available. In 2018, 14.4%, or about 2.12 million of those aged 20 to 34 did not have a professional qualification; of these 32.9% were young people with an own migratory background (BMBF, 2020b). The number of refugees seeking asylum, mostly since 2015, and applying for an apprenticeship placement (with registration at an employment agency) had more than tripled, from 10 253 in 2016 to about 38 113 in 2019. This number corresponds to almost 6.9% of all registered dual VET applicants, which can be seen as reflecting the success of certain incentives set up for enterprises and

refugees in getting involved in vocational training (Sections 4.3.3 and 4.2.1.2) (BIBB, 2019; BIBB 2020) ⁽⁶⁶⁾.

Figure 8. Matching problems between training seeker and companies



- Companies do not accept training seeker due to missing characteristics (e.g. lack of a certain certificate, or training seeker rejects company due to certain characteristics, e.g. size).
- Training offer fits to career aspiration but is not located in the same district of the employment service of the training seeker.
- Training offer does not fit to career aspiration of training seeker.

Source: Bertelsmann Stiftung, 2019.

In response to the need to promote VET, in 2015 the government launched the initiative Alliance for initial and further training (*Allianz für Aus- und Weiterbildung*) ⁽⁶⁷⁾, which has been renewed for the period of 2019-21 (*Allianz für Aus- und Weiterbildung*, 2019). The initiative was signed by representatives

⁽⁶⁶⁾ The BMBF has engaged the BIBB to collect data and to report on the integration of refugees in education and labour. A specific survey was carried out between September 2016 and September 2017 among refugees who had applied for an apprenticeship placement (BIBB, 2018c).

⁽⁶⁷⁾ BMWi. *Dual vocational training: a recipe for success*.

<https://www.bmwi.de/Redaktion/EN/Dossier/vocational-training-and-work.html>

of the Federal Government, Federal Employment Service (BA), trade unions, employers' organisations and Federal States. Important aims of the Alliance are to:

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

The BMBF launched the *Pact for VET* (2017-21) bringing together its diverse activities and initiatives for the development of modern, attractive and dynamic VET to form an overall strategy, which increases the visibility and esteem of VET pathways in public opinion (Cedefop, 2020).

4.2. Incentives for learners

4.2.1. Incentives for initial VET learners

4.2.1.1. Financial incentives and support for IVET learners

Many learners are attracted to start an apprenticeship as it allows them, directly after school, to earn their own money and gain financial independence (Section 2.5.1). Besides remuneration, several financial measures are in place to provide learners financial support during their IVET programme:

- (a) the vocational training grant BAB (*Berufsausbildungshilfe*), which is part of SGB III, offers learners of IVET and pre-vocational programmes financial support to finance their living costs through the federal employment service. The amount of this allowance is calculated for each single case and includes such variables as the amount of apprenticeship pay, financial situation of the family, rent (especially if the learner needs to move to another place to follow the training), and transportation costs ⁽⁶⁸⁾;
- (b) the 'BAföG' grant (BMBF, 2019c) provides financial support to learners following school-based IVET programmes, assisting them in covering costs for nutrition, clothes, housing, or costs arising from training, such as books and transportation. The final amount of the grant is calculated for each

⁽⁶⁸⁾ Azubi.de. *Vocational training grant*.
<https://www.azubi.de/beruf/tipps/berufsausbildungsbeihilfe>

single case and considers different variables, such as the financial situation of the family against the costs of housing, transportation and educational material ⁽⁶⁹⁾;

- (c) the *Vocational training worldwide programme* (2018-24) ⁽⁷⁰⁾ provides financial support for apprentices who decide to do the practical part of their vocational training abroad. About 35 mobility counsellors from the chambers advise learners. Since 2018, more than 1 000 young people have received this kind of financial support (BMBF, 2020b).

In addition to financial aspects, learners also receive support aiming to avoid them dropping out of their IVET programme. Support during the vocational training (*ausbildungsbegleitende Hilfe*, abH) (Bundesagentur für Arbeit, 2017a) or the assisted vocational training (*Assistierte Ausbildung*, AsA) (Bundesagentur für Arbeit, 2017b) provide learners in need with individual and social pedagogical support as well as private lessons in German or subject-specific topics. An accompanying mentor can help, among others, to stabilise the relationship with the training enterprise while special classes (such as languages) offer the chance to gain required theoretical knowledge. The assisted vocational training measure 2015-18 proved successful in helping disadvantaged young people to gain a vocational qualification and was extended for another two academic years; in 2019 around 8 000 young people participated in this measure (BMBF, 2020b).

4.2.1.2. *Incentives targeting the integration of migrants and refugees into IVET*

In 2018, about 25.5% of the German population had a migration background and about 1.06 million refugees lived in Germany (Section 1.1). This high number calls for relevant programmes and incentives to attract migrants and refugees to IVET programmes and integrate them in the labour market.

The Integration Act (July 2016) intends to facilitate refugee integration into society through the ‘support and challenge’ approach. It defines the details of integration courses, access to vocational training and labour market, as well as residence (Cedefop and ReferNet Germany, 2017). Refugees with prospects to stay permanently will receive integration courses at an early stage and legal

⁽⁶⁹⁾ BMBF. *Bildungskredit* [Education credit].

<https://www.bmbf.de/de/bildungskredit-2118.html>

Bundesverwaltungsamt. *Das Bildungskreditprogramm der Bundesregierung* [The vocational training grant of the Federal Government].

www.bildungskredit.de

⁽⁷⁰⁾ BMBF. *Rund Um Ausbildungsweltweit* [Vocational training worldwide].

<https://www.ausbildung-weltweit.de/>

certainty while undergoing vocational training: up to three years right of residence for those in apprenticeship until successful completion of training, followed by two-year right to reside, if the person works in the profession s/he was trained in. This so-called '3+2' rule is to be extended to well-integrated immigrants with a 'toleration' status (which is not the right of residence, but simply a temporary suspension of deportation). The corresponding law came into effect on 1 January 2020 ⁽⁷¹⁾. The Act also grants refugees the right to access financial support measures when participating in IVET programmes (Section 4.2.1.2) after 15 months in Germany instead of the previously required four years.

One important step in regard to the integration of people with a migration background into IVET programmes is the provision of German language courses. In 2015, a specific European Social Fund (ESF) supported programme *German for professional purposes* ⁽⁷²⁾ started; this had been expanded by the Federation and the job-related language training course and became a standard instrument for promoting German language. In 2019, about 180 000 people participated in job-related language training courses (BMBF, 2020b). The *Handbook Germany* ⁽⁷³⁾ was published, funded by the federal office for migration and refugees (BAMF).

Within the Education chains initiative, the vocational guidance programme for refugees (*Berufsorientierung für Flüchtlinge*, BOF, 2016-21), is offered to young refugees and migrants who have access to the labour market and are above the age where they are obliged to follow full-time general education. For 13 to 26 weeks they learn technical language and knowledge related to the occupation of their interest. During this time they receive individual support on socio-pedagogical matters ⁽⁷⁴⁾. Since 2016, over 3 400 young people have participated in these programmes, and about half could be placed in a vocational training or an introductory training (BMBF, 2020b).

4.2.2. Incentives for continuing VET learners

The demographic and technological changes leading to economic and structural changes on the labour market demand better adaptation by workers. The high importance of CVET has led to major legislative changes.

⁽⁷¹⁾ Informationsportal für Arbeitgeber [Information portal for employers].

<https://www.informationsportal.de/neue-gesetze-aus-migrationspaket-der-bundesregierung/>

⁽⁷²⁾ BAMF (2019). *German for professional purposes*.

<https://www.bamf.de/EN/Themen/Integration/ZugewanderteTeilnehmende/DeutschBeruf/deutsch-beruf-node.html>

⁽⁷³⁾ Handbook Germany. <https://handbookgermany.de/en.html>

⁽⁷⁴⁾ BMBF. *Vocational orientation: provision for refugees*.

<https://www.berufsorientierungsprogramm.de/angebote-fuer-fluechtlinge/de/english-1993.html#BOF>

The amendment of the legislation promoting further training, 2016, (*Arbeitslosenversicherungsschutz- und Weiterbildungsstärkungsgesetz*, AWStG) improves the financial conditions under which the low-qualified, the long-term unemployed and older workers can access CVET, particularly through allowances during training and financial incentives for passing exams.

The Qualification Opportunities Act (2019) goes one step further and introduces the right of people in work to have access to CVET funding regardless of their qualifications, age or company size, if they are affected by structural changes (such as digital changes) or seek further training to access an occupation which lacks employees. Interested employees can receive grants (as with the Upgrading Training Assistance Act (*Aufstiegsfortbildungsförderungsgesetz*, AFBG)), or/and indirect support (such as educational leave) (BIBB, 2018b). The funding covers the CVET costs and compensation for the salary, subject to joint financing by the employer, proportional to the company size ⁽⁷⁵⁾.

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

- (a) upgrading Training Assistance Act ⁽⁷⁶⁾;
- (b) continuing training grant (*Weiterbildungsstipendium*) (BIBB, 2019);
- (c) upgrading scholarship (*Aufstiegsstipendium*);
- (d) continuing education bonus (*Bildungsprämie*).

4.2.2.1. *Upgrading Training Assistance Act* ⁽⁷⁷⁾

The upgrading-BAföG (short name of Upgrading Training Assistance Act) is the most comprehensive CVET funding instrument in Germany and a major driver of skills upgrading and occupational advancement. It entitles skilled workers to receive financial support for preparation in more than 700 CVET qualifications, such as master craftsperson, technician, specialist, educator and business economist. This financial support is provided jointly by the federal and State governments and is an equivalent to the BAföG for students. To receive this grant, a candidate must enrol in a training programme of at least 400 hours with a certified training provider. Since it was introduced in 1996, more than 2.2 million learners have received grants (BMBF, 2019d). The AFBG is currently

⁽⁷⁵⁾ BMAS. *Qualifizierungschancengesetz [Qualification Opportunities Act]*.
<https://www.bmas.de/DE/Service/Gesetze/qualifizierungschancengesetz.htm>

⁽⁷⁶⁾ BMBF. *The Funding* (in DE).
<https://www.aufstiegs-bafoeg.de/de/was-wird-gefoerdert-1698.html>

⁽⁷⁷⁾ BMBF. *Die Förderung [The funding]*.
<https://www.aufstiegs-bafoeg.de/de/was-wird-gefoerdert-1698.html>

being revised with comprehensive modernisation and improved benefits and is due to come into force in August 2020 ⁽⁷⁸⁾.

4.2.2.2. *Continuing training grant (Weiterbildungsstipendium)*

The continuing training grant is offered to particularly talented young VET graduates who have entered the labour market (a similar grant exists in academic education) and want to follow a CVET courses, such as master craftsperson, technician and specialist, or to attend cross-disciplinary courses such as digital or language classes. Funding is provided for travel and accommodation costs as well as for expenses for work materials. Scholarship recipients can receive up to EUR 7 200, which they can use during a period of three years to follow as many continuing training classes as they wish. They need to pay 10% of the costs themselves. Since this grant was offered in 1991, about 145 000 young people have benefitted so far. The Federal Government has spent above EUR 500 million on this programme up to 2019 (BIBB, 2020).

4.2.2.3. *Upgrading scholarship (Aufstiegsstipendium) ⁽⁷⁹⁾*

The BMBF's upgrading scholarship programme targets qualified skilled professionals with outstanding talents who have at least two years of work experience and want to gain their first academic degree. Those who follow full-time studies receive a grant of EUR 815 per month (plus EUR 130 if they have children below 10) and those following part-time studies receive an amount of EUR 2 400 per year. If their studies include a period abroad, EUR 200 will be paid in addition for a maximum of one year. This programme started in 2008 and distributes about 1 000 grants annually; by 2019, about 12 000 grants had been distributed (BMBF, 2020b; BIBB, 2019).

4.2.2.4. *Continuing education bonus (Bildungsprämie)*

The continuing education bonus programme (2008-22) promotes individual occupation-related CVET where such training is important for the current or

⁽⁷⁸⁾ BMBF. *Aufstiegsfortbildungsförderungsgesetz (AFBG) Änderungen ab 1.8.2020 auf einen Blick [The upgrading-BAföG: amendments at a glance].*

https://www.bmbf.de/files/095_19_Handout_AFBG_V4.pdf

Cedefop; ReferNet Germany (2020). *Focus on excellence in VET through updated Training Assistance Act (AFBG).*

<https://www.cedefop.europa.eu/en/news-and-press/news/germany-focus-excellence-vet-through-updated-training-assistance-act-afbg>

⁽⁷⁹⁾ BMBF. *Das Aufstiegsstipendium [The upgrading grant].*

<https://www.bmbf.de/de/das-aufstiegsstipendium-882.html>

a future planned job. So far 360 000 education bonuses have been granted (BMBF, 2020b). Bonuses are offered as premium and savings vouchers:

- (a) premium vouchers cover 50% of the costs for tuition and examination fees to a maximum of EUR 500. To be eligible for this voucher, people need to meet certain conditions, such as working at least 15 hours per week or being in parental or care leave, having an annual taxable income of maximum EUR 20 000 (or 40 000 for couples), having the right to work in Germany;
- (b) savings vouchers are offered to people who have capital formation saving plans, allowing them to withdraw money from these plans without losing the savings bonus. The age, current income and the current activity status are not relevant for receiving this voucher (BMBF, 2019d) ⁽⁸⁰⁾.

4.2.3. Incentives for the unemployed and those at risk

In line with the national strategy to prevent unemployment, several measures promote participation in IVET and CVET, which can be offered also in the form of partial qualifications (Box 2). Those measures are provided by the employment service (based on SGB III) with the focus on the unemployed and low-skilled people, those at risk of becoming unemployed and older people (Huisman, 2018; BIBB, 2019).

Before people access any of the support programmes offered, the employment service checks whether there is a need for continuing training: whether the applicant is able to find employment without further education and training or whether other measures are more appropriate. Counselling of the applicant by the employment service or the job centre needs to take place at an early stage (Bundesagentur für Arbeit, 2019b). After the employment service confirms that the applicant needs continuing training, several programmes are available:

- (a) the main measure is the education and training voucher (*Bildungsgutschein*). Its aim is two-fold, depending on the beneficiary: activation and occupation integration, on the one hand, and promotion of further vocational training, on the other hand. The education and training voucher specifies educational objective and duration of the training, the region this voucher applies to, which costs are covered (for example tuition fee, transportation costs) and the period of validity. The voucher can be redeemed at any education institution accredited for funding as specified in the voucher. Eligible courses aiming to obtain, update or upgrade a vocational qualification (also in form

⁽⁸⁰⁾ BMBF. *Weiterbildungssparen: der zweite Baustein der Bildungsprämie [Further education saving vouchers]*.

https://www.bildungspraemie.info/_medien/downloads/BiP_SGS-Infos-WBI.pdf

- of partial qualifications, see Box 2) are listed in the database KURSNET ⁽⁸¹⁾;
- (b) the *Future starters* programme (*Zukunftsstarter*) lasts from 2016 to 2020 and aims to motivate those aged 25 to 35, including low-qualified employees, to gain a qualification. Possible pathways to gaining a qualification are retraining, vocational training or external examination (Section 3.3.1.2). By 2020, this measure aims to reach 120 000 young adults;
 - (c) the *Initiative to accompany the structural change* (*Initiative zur Flankierung des Strukturwandels*, IFlaS) offers low-qualified unemployed people the opportunity to complete modular (partial) qualifications (Box 2) or to acquire a recognised vocational qualification. In 2017, about 30 000 people took part in this programme (BIBB, 2019);
 - (d) the 'WeGebAU' (*Weiterbildung Geringqualifizierter und beschäftigter älterer Arbeitnehmer in Unternehmen*, continuing education for low-qualified and elderly employees in companies) programme supports low-qualified and older employees by subsidising their further training. One part of the WeGebAU programme ⁽⁸²⁾ focuses on financial support to CVET conducted for the employees of SMEs, taking place outside their facilities. For employees below 45 years of age, the employment agency covers up to 50% of their CVET costs. For employees above 45, the employment service subsidises their CVET also where they do not have any vocational qualification. However, the CVET needs to last at least four weeks or include about 160 hours of the courses. For companies with less than 10 employees, full costs can be covered (BMBF, 2019d);
 - (e) retraining (*Umschulungen*) is offered to people who face difficulties finding a job with their current professional qualification. It gives adults the opportunity to follow vocational training, with the possibility of a reduced training duration, of another profession which is needed on the labour market. The employment agency pays the cost of the training in addition to the payment of further unemployment benefits ⁽⁸³⁾. In the school year 2018/19, for example, about 7 000 people underwent retraining as a geriatric nurse, 43% of them with retraining of reduced training duration (less than three years which is the normal duration).

⁽⁸¹⁾ KURSNET: <http://kursnet-finden.arbeitsagentur.de/kurs/>

⁽⁸²⁾ Bundesagentur für Arbeit; DGB; BDA (2017). *WeGebAU: Weiter durch Bildung [WeGebAU: continue through education]*.
[https://www.arbeitgeber.de/www/arbeitgeber.nsf/res/WeGebAU_Brosch%C3%BCre.pdf/\\$file/WeGebAU_Brosch%C3%BCre.pdf](https://www.arbeitgeber.de/www/arbeitgeber.nsf/res/WeGebAU_Brosch%C3%BCre.pdf/$file/WeGebAU_Brosch%C3%BCre.pdf)

⁽⁸³⁾ Bundesagentur für Arbeit.
<https://www.arbeitsagentur.de/beruf-wechseln/rahmenbedingungen>

Box 2. Partial qualifications

In the light of how dynamic transformation processes are changing the skills demanded on the labour market, the offer of partial qualifications is important to secure the needed skilled labour forces.

Partial qualifications (*Teilqualifikationen, TQ*) are educational offers, which allow learners to gain vocational qualifications through systematic, successive qualifications. Once the total of the partial qualifications is completed, the learner can take an examination for external candidates (Section 3.3.1.1) (BIBB, 2020).

The work on procedures for certifications and the development of training modules is continuing and several projects on TQ are taking place, such as:

- the employer initiative partial qualification *One TQ better!* ⁽⁸⁴⁾, setting up a seal of quality for partial qualification;
- the BMBF-funded TQ project ETAPP (2019-21) ⁽⁸⁵⁾, aiming to develop nation-wide standardised partial qualifications;
- the chambers of industry and commerce initiative USE OPPORTUNITIES! with partial qualifications towards recognised vocational qualification (2017-22) ⁽⁸⁶⁾, also aiming to develop nation-wide standardised partial qualifications.

Source: Cedefop.

4.3. Incentives for enterprises

Apprenticeship has a long tradition in Germany ⁽⁸⁷⁾ and many companies have been offering training places for apprentices for decades. Employers have an interest in offering apprenticeship to young people, as this is the most appropriate way to meet their future need for skilled staff. At the same time, training companies face difficulties in providing training places, especially SMEs. In 2018, the share of enterprises in Germany entitled to provide apprenticeship

⁽⁸⁴⁾ *Bundesweite Initiative zur Fachkräftegewinnung und -entwicklung [Employer initiative on partial qualification]*. <https://www.nachqualifizierung.de/>

⁽⁸⁵⁾ ETAPP. *Etablierung eines Teilqualifizierungsstandards für An- und ungelernete Erwachsene über 25 unter Praxisrelevanten und Pädagogischen Anforderungen*. *Establishing of partial qualification standards for low-qualified adults above 25 while considering practise relevant and pedagogical requirements*. <https://www.etapp-teilqualifizierung.de/>

⁽⁸⁶⁾ DIHK. *Ausbildung [Vocational training]*. <https://www.dihk.de/themenfelder/aus-und-weiterbildung/ausbildung/ausbildungspolitik/positionen/teilqualifikation>

⁽⁸⁷⁾ The 1969 Vocational Training Act defined common standards for dual training: <https://www.bundesregierung.de/breg-de/aktuelles/erfolgsmodell-duale-ausbildung-1674226>

rose for the first time since 2010, to 54%. Of the establishments that were entitled to provide training, the participation rate (54%) in western Germany was much higher than in eastern Germany (47%) ⁽⁸⁸⁾. The number of companies offering apprenticeship varies considerably among sectors and company size. The number of training companies decreased notably, especially among the micro enterprises representing a high number of the companies in Germany; this is partly based on the fact that micro companies face difficulties in finding apprentices ⁽⁸⁹⁾ (BIBB, 2019; BMBF 2019d).

4.3.1. Support for small and medium-sized enterprises

SMEs face problems in providing all training aspects required by regulations. Increasing specialisation and continuous technological changes imply high costs, which often cannot be covered by micro and small enterprises. To help overcome these obstacles, the following support measures are in place:

- (a) inter-company vocational training centres have supplemented in-company training since the 1970s. They are often sponsored by autonomous bodies in the relevant sectors, with investment subsidies for buildings and infrastructure from the BMBF. The BIBB is responsible for promoting these centres and supports their planning, establishment and development. Since 2016, a project 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 ⁽⁹⁰⁾;
- (b) joint training structures (*Ausbildungsverbünde*) of several enterprises can be created in various forms ⁽⁹¹⁾. An example is a training consortium (*Ausbildungskonsortium*), where several SMEs sign a cooperation agreement and work together on an 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 (the rotation principle);
- (c) the *Jobstarter plus* programme is funded by the BMBF, cofounded by ESF

⁽⁸⁸⁾ Not every company is authorised to offer training. According to IAB Establishment Panel data for 2018, almost half (54%) of companies were permitted by a chamber (according to the conditions in the Vocational Training Act, Section 1) to provide training (Söstra, 2019).

⁽⁸⁹⁾ In 2018, 53% of small enterprises with up to 19 employees could not find an apprentice, while the percentage for medium-sized companies with up to 199 employees was only at 34% and for big companies only 24%.

⁽⁹⁰⁾ BIBB. *Förderung von Digitalisierung in überbetrieblichen Berufsbildungsstätten (ÜBS) und Kompetenzzentren [Promoting digitalisation in UBS and competence center]*.
<https://www.bibb.de/uebs-digitalisierung>

⁽⁹¹⁾ *Ausbildernetz [Trainer network]*:
http://www.ausbildernetz.de/plus/waehrend/planen_organisieren/ausbildung/ausbildungsverbund.rsys

to support mainly SMEs, especially micro enterprises, that provide training places. BIBB is responsible for the implementation of this programme and since the project started in 2006 (originally as Jobstarter), more than 500 projects have been put in place. Projects are designed and funded to respond flexibly to training market developments, such as:

- (i) promoting apprenticeship to university dropouts, which are about 28% of all bachelor students according to calculations made by the German Centre for Research on Higher Education and Science Studies. Counselling services were set up at the main higher education institutions, emphasising the advantages and potentials of apprenticeships in SMEs (Huismann, 2018). The website *Dropping out of studies: what happens next?* provides information on training options, both within and outside universities including vocational training ⁽⁹²⁾;
- (ii) promoting apprenticeship among small enterprises that do not yet offer training places and support them in finding apprentices and training during the first year;
- (iii) supporting and advising SMEs in adapting their training to the challenges of the increasing automation and digitalisation of the economy (for example projects, such as *KungFu: plastic goes future* or *DIGI agrar*) (BIBB, 2019) ⁽⁹³⁾.

Further, the programme *Perfect match (Passgenaue Besetzung, 2015-20)* aims to counteract matching problems in the training market by providing special support to SMEs. Jointly financed by the Federal Ministry for Economic Affairs and the ESF, the programme funds advisors at Chamber of Industry and Commerce, Chambers of Liberal Professions and other business organisations. These advisors support SMEs in filling their training places with young suitable people from Germany and abroad, without any refugee status ⁽⁹⁴⁾. In 2018, 160 advisors worked for the programme and, from 2007 to 2018, about 84 000 young people have been successfully placed (BIBB, 2019). In 2019, 7 200 SMEs and more than 30 000 young people received counselling through this programme; 4 371 people could be placed in the dual system and 470 in introductory training (BMBF, 2020b).

⁽⁹²⁾ BMBF. *Studienabbruch - und dann? [Dropping out of studies and now?]*.

<https://www.studienabbruch-und-dann.de/>

⁽⁹³⁾ BMBF. *Jobstarter plus*.

<https://www.bmbf.de/de/jobstarter-fuer-die-zukunft-ausbilden-1072.html>

⁽⁹⁴⁾ BAFA. *Passgenaue Besetzung [Perfect match]*.

https://www.bafa.de/DE/Wirtschafts_Mittelstandsfoerderung/Fachkraefte/Passgenaue_Besetzung/passgenaue_besetzung_node.html

4.3.2. Supporting enterprises to integrate refugees

The network Companies integrate refugees ⁽⁹⁵⁾ aims to integrate refugees into the labour market through training and employment. Initiated by the umbrella organisation of the chambers of industry and commerce, DIHK, and financially supported by the BMWi, this network brings together companies that want to or already employ refugees or who want to get involved on a voluntary basis. The network offers to its members general information and material on legal issues and integration initiatives, practical tips and experience exchange. In April 2019, the network included 2 000 companies, which employed on average 10 refugees.

Through the programme Welcome pilots (*Willkommenslotsen*) promoted by the BMWi, chambers support companies by finding suitable apprentices among refugees to fill their training places ⁽⁹⁶⁾. In 2019, about 6 300 enterprises and about 7 400 refugees received individual counselling (BMBF, 2020b).

4.4. Guidance and counselling services

Career guidance and counselling schemes and programmes are laid down in the SGB III ⁽⁹⁷⁾. The Federal Government, the Federal States and local authorities, private training providers and non-profit organisations offer guidance and counselling services. The federal employment agency, with its local employment agencies, is the largest and most important guidance and counselling service provider. Vocational information centres (*Berufsinformationszentren*, BIZ), run by the employment agencies, offer personal counselling to young people under the age of 25 and to adults, especially the unemployed or those at risk of becoming unemployed, such as the unskilled and those aged over 55. The Federal States ensure the implementation of national guidance and counselling schemes and programmes in their region.

One of the most important measures at national level is the Educational chain, leading to vocational qualifications initiative (*Abschluss und Anschluss*

⁽⁹⁵⁾ DIHK. *Netzwerk Unternehmen [Network companies]*.

<https://www.unternehmen-integrieren-fluechtlinge.de/>

DIHK. *Netzwerk Unternehmen integrieren Flüchtlinge [Network companies integrate refugees]*.

<https://www.dihk.de/de/themen-und-positionen/fachkraefte/integration-von-gefuechteten/netzwerk-unternehmen-integrieren-fluechtlinge-15498>

⁽⁹⁶⁾ BMWi. *Willkommenslotsen [Welcome pilots]*.

<https://www.bmwi.de/Redaktion/DE/Artikel/Wirtschaft/willkommenslotsen.html>

HWK Köln. *Willkommenslotsen [Welcome pilots]*.

<https://www.hwk-koeln.de/artikel/willkommenslotsen-32,981,1247.html>

⁽⁹⁷⁾ Social code volume III: employment promotion (BMJV, 1997; last amendment 2020).

– *Bildungsketten bis zum Ausbildungsabschluss*). It is a joint initiative of the BMAS and the BMBF, aiming to support young people during their transition from general education into professional life. To realise this aim, the Federal Government, the Federal States and the federal employment agency concluded agreements at the federal level. The initiative provides support at the following levels:

- (a) the vocational orientation programme (*Berufsorientierungsprogramm*) ⁽⁹⁸⁾ analyses the potential of school pupils. Based on the results, pupils will test at least three different occupations through practical placements in companies and inter-company vocational training centres. Programme titles and duration vary among Federal States ⁽⁹⁹⁾. From the programme start in 2008 up to mid-2019, it has received more than EUR 600 million of funding; it has provided guidance to more than 1.5 million pupils by summer 2020. To counteract gender cliché based choices, the ‘Girls’ day’ ⁽¹⁰⁰⁾ and the ‘Boys’ day’ are nationwide career guidance days, offering learners from each gender the possibility to get acquainted with occupations where their gender is only marginally represented; for example, during girls’ days, girls learn about such occupations as computer scientist, carpenter, industrial mechanic;
- (b) career start mentors (*Berufseinstiegsbegleiter*) ⁽¹⁰¹⁾ offer individual coaching to pupils at risk and support them towards achieving a school leaving certificate, setting a realistic professional aim and applying for apprenticeship. Once learners have started apprenticeship, the main aim is to support them to complete it. In addition to career start mentors, voluntary coaching is also provided by senior experts (VerA initiative). Special programmes are in place for migrants and for young people with disabilities, such as the vocational counselling programme BOF (Section 4.2.1.2) or Welcome pilots (Section 4.3.3);

⁽⁹⁸⁾ BMBF. *Berufs orientierung [Vocational orientation]*.

<https://www.berufsorientierungsprogramm.de/de/allgemeine-informationen-1694.html>

⁽⁹⁹⁾ For example, North Rhine-Westphalia has launched the initiative *No school-leaving certificate without future prospects (KAoA)* to offer specific help for young people transitioning from school to work. The initiative *BRAFO: Choosing the right career at an early stage* is a joint initiative in Saxony-Anhalt and promotes early career choice among secondary education pupils at year seven and eight of secondary education or comprehensive schools and schools for children with learning difficulties. <https://eacea.ec.europa.eu/national-policies/en/content/youthwiki/34-career-guidance-and-counselling-germany>

⁽¹⁰⁰⁾ *Mädchen-Zukunftstag [Girls’ day]*.

<https://www.girls-day.de/maedchen/mitmachen/so-geht-s>

⁽¹⁰¹⁾ BMBF. *Berufseinstiegsbegleitung – die Möglichmacher [Career start mentors]*.

https://www.bmbf.de/pub/Berufseinstiegsbegleitung_die_Moeglichmacher.pdf

- (c) the coordination office KAUSA, part of the *Jobstarter plus* programme (Section 4.3.1), aims to facilitate the integration of migrants and refugees in VET. Several KAUSA service offices were set up, providing guidance and counselling to enterprises with the aim of opening up their training places for migrants and refugees. Since 2013, the KAUSA service offices are also providing guidance and counselling to young people and their parents with regard to VET (BMBF, 2019d).

The programme RESPEKT offers support to disadvantaged young people (15-25) who can no longer be reached by regular education/social/employment support services. The aim is to establish a personal long-term relationship with these young people, built on trust and giving them a sense of safety, while enabling them to return to training and work (Huismann, 2018) ⁽¹⁰²⁾.

At regional level, several initiatives support the transition of learners into the labour market:

- (a) the regional transition management (*Regionales Übergangsmanagement*) ⁽¹⁰³⁾ programme supports less well-performing school leavers and refugees to find an apprenticeship place;
- (b) the transfer initiative municipal education management (*Transferinitiative Kommunales Bildungsmanagement*) ⁽¹⁰⁴⁾ supports municipalities in setting up efficient education management systems, including monitoring and guidance.

Apart from these comprehensive guidance services, many other initiatives and programmes aim to support the transition from school to labour market. A wealth of guidance tools is also provided online (Box 3), and a telephone service is offered by BMBF, where individuals can receive information and guidance on further education ⁽¹⁰⁵⁾.

⁽¹⁰²⁾ BMAS. *Funding guidelines RESPEKT*. https://www.bmas.de/SharedDocs/Downloads/DE/Thema-Arbeitsmarkt/foerderrichtlinie-respekt-pilotprogramm.pdf?__blob=publicationFile&v=2

⁽¹⁰³⁾ BIBB. *Überaus [Acutely]*. <https://www.ueberaus.de/wvs/dossier-uebergangsmanagement.php>

⁽¹⁰⁴⁾ BMBF. *Die Transferinitiative [Transfer initiative]*. <https://www.transferinitiative.de/>

⁽¹⁰⁵⁾ <https://www.der-weiterbildungsratgeber.de/>

Box 3. Online information and guidance tools

At national level, the BMBF and federal employment agency provide many guidance and counselling services for different target groups aiming to attract them to a VET pathway:

- planet-beruf.de ⁽¹⁰⁶⁾: website on topics relating to career choice, applications and training. Targets lower secondary school pupils (13 to 17 years old);
- berufe.tv ⁽¹⁰⁷⁾: website providing over 300 short films on apprenticeship occupations and study careers;
- *AzubiWelt app* ⁽¹⁰⁸⁾: an app aiming to match enterprises and applicants through a database by indicating open training places;
- abi.de ⁽¹⁰⁹⁾: website on university studies, vocational programmes and career possibilities;
- studienwahl.de ⁽¹¹⁰⁾: database on higher education studies;
- berufsfeld-info.de and *Bildungsserver* ⁽¹¹¹⁾: websites offering information on IVET, CVET and careers;
- KURSNET ⁽¹¹²⁾: database on available IVET, CVET and rehabilitation programmes;
- *InfoWebWeiterbildung (iwwb)* ⁽¹¹³⁾: database on CVET offer;
- *Typisch ich* (Typically me) and *klischeefrei* (cliché free) ⁽¹¹⁴⁾: websites to guide people to discover their strengths and interests;
- studienabbruch-und-dann.de ⁽¹¹⁵⁾: providing guidance to students who drop out or consider to stop their higher education studies;
- *AusbildungsPlus* ⁽¹¹⁶⁾: website on dual study programmes;
- JOIN ⁽¹¹⁷⁾: supports refugees seeking an internship in a company.

Source: Cedefop.

4.5. Challenges and development opportunities

During recent years, demographic changes and an increasing attractiveness of academic education caused a fall in the number of apprentices (Section 4.1). Securing the future skilled workforce, by increasing the attractiveness of VET,

⁽¹⁰⁶⁾ <https://planet-beruf.de/schuelerinnen/>

⁽¹⁰⁷⁾ <http://www.berufe.tv/>

⁽¹⁰⁸⁾ <https://www.arbeitsagentur.de/bildung/ausbildung/azubiwelt>

⁽¹⁰⁹⁾ <https://www.abi.de/>

⁽¹¹⁰⁾ <https://studienwahl.de/>

⁽¹¹¹⁾ <https://berufsfeld-info.de/>; <https://www.bildungsserver.de/>

⁽¹¹²⁾ <https://kursnet-finden.arbeitsagentur.de/kurs/>

⁽¹¹³⁾ <https://www.iwwb.de/>

⁽¹¹⁴⁾ <https://www.dasbringtmichweiter.de/typischich/>;
<https://www.klischee-frei.de/de/index.php>

⁽¹¹⁵⁾ <https://www.studienabbruch-und-dann.de>

⁽¹¹⁶⁾ <https://www.bibb.de/ausbildungsplus/de/index.php>

⁽¹¹⁷⁾ <http://www.join-now.org/>

will continue to be part of the national policy agenda. Modernising IVET and CVET to adapt to digital and ecological transitions, as well as providing guidance and coaching to reduce matching problems and support inclusive VET, are also currently high priorities on the political agenda.

The attractiveness of VET is further strengthened through:

- (a) promoting vocational educational pathways up to EQF levels 6 and 7 (higher VET) and underlining the equivalence to academic education through new designations of bachelor professional and master professional (revised Vocational Training Act 2020). The revision of AFBG, a major funding instrument for advanced vocational qualifications, includes comprehensive modernisation and improved benefits, due to come into force in August 2020 (Section 4.2.2);
- (b) promoting excellence in VET, through the funding scheme InnoVET, which supports high-quality cooperation between learning locations, for the transfer of knowledge and new developments (including artificial intelligence) from universities and research institutions via VET into company practice;
- (c) promoting training for care and nursing occupations forecast to be in growing demand, for example by broadening the qualification, abolishing school fees and introducing appropriate remuneration for trainees in hospitals and nursing institutions. The policy target is to increase the number of trainees in the nursing professions by 10% by 2023 (Bundesregierung, 2019).

VET needs to modernise and prepare for digital and ecological transitions. The VET 4.0 initiative (Section 3.1) investigates the effects of digitalisation on qualifications and competences requirements for skilled professionals. It includes various projects, which contribute to implementing the changes needed, such as the funding programme *Digital transformation in inter-company vocational training and competence centres*. The Covid-19 crisis, and its immediate challenges to education and training systems, demonstrated that there is still a way to go to adapt quickly and act digital.

The Qualification Opportunities Act (2019) introduces the right of employees to access CVET funding (including salary compensations), if they are affected by structural changes or seek further training to access an occupation lacking employees (Section 4.2.2). The National skills strategy (2019) responds to the challenges of the increasing digitalisation of the world of work, which changes qualifications and job profiles. The overall goal is to establish a new culture by understanding occupational CVET as a lifelong necessity.

Recent years have shown mismatch problems between demand for and supply of learners in VET programmes; companies cannot find enough apprentices to fill training places, while there are still many potential learners in the country, including those with a migratory background and refugees. There are also differences among regions, sectors and occupations (Section 4.1). Providing guidance to young people and adults and support to companies, especially SMEs, will continue to be a priority. Employment agencies play a major role in matching enterprises (especially SMEs) and applicants through databases, campaigns and support measures. 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 use their potential and aid their transition to VET and successful completion.

Acronyms and abbreviations

| | |
|--------------|--|
| abH | <i>Ausbildungsbegleitende Hilfe</i> support during vocational training |
| AES | adult education survey |
| AEVO | <i>Ausbilder-Eignungsverordnung</i> Ordinance on trainer aptitude |
| AFBG | <i>Aufstiegsfortbildungsförderungsgesetz</i> Upgrading Training Assistance Act |
| AsA | <i>Assistierte Ausbildung</i> assisted vocational training |
| AZAV | <i>Akkreditierungs- und Zulassungsverordnung Arbeitsförderung</i> Ordinance on accreditation and certification of continuing training |
| BA | federal employment service |
| BAföG | <i>Bundesausbildungsförderungsgesetz</i> Federal Education and Training Assistance Act |
| BBiG | <i>Berufsbildungsgesetz</i> Vocational Training Act |
| BDA | <i>Bundesvereinigung der Deutschen Arbeitgeberverbände</i> Confederation of German Employers' Associations |
| BIBB | <i>Bundesinstitut für Berufsbildung</i> Federal Institute for Vocational Education and Training |
| BMAS | <i>Bundesministerium für Arbeit und Sozialordnung</i> Federal Ministry of Labour and Social Affairs |
| BMBF | <i>Bundesministerium für Bildung und Forschung</i> Federal Ministry of Education and Research |
| BMJV | <i>Bundesministeriums der Justiz und für Verbraucherschutz</i> Federal Ministry of Justice and Consumer Protection |
| BMWi | <i>Bundesministerium für Wirtschaft und Energie</i> Federal Ministry for Economic Affairs and Energy |
| BOF | <i>Berufsorientierung für Flüchtlinge</i> vocational guidance programme for refugees |
| CPD | continuing professional development |
| CVET | continuing vocational education and training |
| CVTS | continuing vocational training survey |

| | |
|-----------------|---|
| Destatis | <i>Statistisches Bundesamt</i> German Federal Statistical Office |
| DGB | <i>Deutscher Gewerkschaftsbund</i> Federation of German Trade Unions |
| DIE | <i>Deutsches Institut für Erwachsenenbildung e.V.</i> German Institute for Adult Education |
| DIHK | <i>Deutscher Industrie- und Handelskammertag</i> Association of German Chambers of Industry and Commerce |
| DQR | <i>Deutscher Qualifikationsrahmen</i> German qualifications framework |
| EQF | European qualifications framework |
| ESF | <i>Europäischer Sozialfonds</i> European Social Fund |
| EU | European Union |
| Eurostat | statistical office of the European Union |
| GDP | gross domestic product |
| HwO | <i>Handwerksordnung</i> Trade and Crafts Code |
| HWK | <i>Handwerkskammer</i> chambers of skilled trades |
| IAB | <i>Institut für Arbeitsmarkt und Berufsforschung</i> Institute for Employment Research |
| IHK | <i>Industrie- und Handelskammer</i> Chamber of Industry and Commerce |
| IHK FOSA | Chamber of Industry and Commerce Foreign Skills Approval |
| ISCED | <i>Internationale Standardklassifikation für das Bildungswesen</i> international standard classification of education |
| IVET | initial vocational education and training |
| KMK | <i>Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland</i> Standing Conference of the Ministers of Education and Cultural Affairs of the States |
| KoA | Federal/State Coordinating Committee on Training Regulations/Framework Curricula |
| LFS | labour force survey |
| RBS | <i>Referenz-Betriebs-System</i> reference company system |
| SGB | <i>Sozialgesetzbuch</i> German Social Code |
| SME | small and medium-sized enterprise |

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| UAS | <i>Fachhochschulen</i> university of applied sciences |
| ÜBS | <i>Überbetriebliche Berufsbildungsstätte</i> inter-company vocational training centre |
| VET | vocational education and training |
| WBL | work-based learning |
| ZDH | <i>Zentralverband des Deutschen Handwerks</i> German Confederation of Skilled Crafts |

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Vocational education and training in **Germany**

Short description

This short description contributes to better understanding of vocational education and training (VET) in Germany by providing insight into its main features and highlighting system developments and current challenges.

Learning on the job is traditional in German education. Work-based learning (WBL) features in most secondary and tertiary VET programmes and graduate employment is high. However, demographic changes and the attractiveness of academic education have reduced the appeal of upper secondary VET. To address this, new designations of professional bachelor and professional master emphasise equivalence to academic programmes

Transformations currently influencing VET require political responses. Digital and green economy transitions are already being addressed, with digitalisation emphasised in Covid-19 pandemic responses. Continuing VET is increasingly important, highlighted in the Qualification Opportunities Act (2019); this gives access to CVET funding to all employees affected by structural change or seeking training in an occupation lacking employees. The National skills strategy (2019) sees occupational CVET within lifelong learning as part of Germany's training culture.

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