VOCATIONAL EDUCATION
AND TRAINING IN EUROPE

DENMARK
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This VET in Europe report is part of a series prepared by Cedefop’s ReferNet network. VET in Europe reports provide an overview of national vocational education and training (VET) systems of the EU Member States, Iceland and Norway. The reports help to understand VET’s main features and role within countries’ overall education and training systems from a lifelong learning perspective, and VET’s relevance to and interaction with the labour market.

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CHAPTER 1. External factors influencing VET

1.1. Demographics
In 2016, the population of Denmark reached approximately 5.7 million, representing a steady increase during the previous two decades (Figure 1).

Figure 1. Population of Denmark

A fertility rate decreased to 1.71 in 2015 compared with 1.88 in 2010 (Statistics Denmark, 2016). This decrease has been widely attributed to factors such as growing job insecurity and a stagnant housing market resulting from the global financial crisis. Nevertheless, fertility rates in Denmark remain well above European averages. One explanation for the relatively high fertility rate is the extensive system of heavily subsidised public day-care centres and Danish laws regarding maternity and paternity leave. These factors allow both parents to return swiftly to the labour market or participate in education and training activities after becoming parents, with most children entering day-care at an early age.

Like the rest of Europe, the Danish population is getting older. The average age was 41.2 years in 2016 (40.3 years for men and 41.2 years for women) (Statistics Denmark, 2016). Average life expectancy in 2016 was 78.6 years for men and 82.5 for women. While life expectancy has increased, Denmark continues to lag behind most other European countries, not least its Scandinavian neighbours (Eurostat). Nevertheless, Danes are living longer: since 1980, the number of people over the age of 80 has increased dramatically by 66% (Statistics Denmark, 2016). This trend is expected to continue, with the proportion of the population over the age of 70 expected to increase rapidly (Figure 2).
The next two decades are expected to see a considerable increase in the number of citizens receiving public benefits and a decrease in the active workforce due to ageing population. The government is therefore encouraging the population to remain within the labour market beyond the minimum pensionable age and is offering retraining initiatives to increase the attractiveness of older generations to employers. The 2009 welfare settlement means that the pensionable age will gradually rise from 65 to 67 (and 68 by 2030), while the existing early retirement scheme is being phased out.

1.2. Migration
Immigration is higher than emigration (in 2015 immigration was 98 872 and emigration 56 340, resulting in net migration of 42 532) (StatBank Denmark). It is considerably lower than in the neighbouring countries such as Germany and Sweden. Migration figures, however, include Danish citizens returning home after a period abroad and Danish citizens entering Denmark having been born outside the country. Similarly, Danes comprise only 23% of the total annual emigration (in 2015), with the remainder being foreign citizens leaving again following a period of residence. Nevertheless, an increasing proportion of the total population is made up of foreign immigrants and their descendants. In January 2016, this group comprised 12.3% of the Danish population.
these, 52% originate from another European country. Turkey is the most common country of origin, followed by Poland and Germany (Statistics Denmark, 2016).

Providing education and training opportunities to those with a non-Danish ethnic background to ensure their integration within the labour market continues to be a policy focus. In the beginning of 2016 the Government launched a new VET training programme for immigrants, called IGU, with the aim of facilitating labour market integration.¹

1.3. Labour market
The Danish labour market is characterised by a high participation rate, partly due to the high activity rate of women: in 2015, the employment rate for women was 70.4%, compared to an EU-27 average of 64.4% (the corresponding figures for men were 76.6%, EU28 75.9%) (Eurostat). In terms of where people are employed, Figure 3 shows that public administration, education and health constitute the largest employment sectors in Denmark.

Figure 3. Employment by sector (2014)

Unemployment rates have risen steeply since the onset of the financial crisis in 2008, from a low of 3.4% to 6.1 % in 2010 and a current rate of 4.2 % (²). It is below the EU28 average of 8.9%. Youth unemployment, at 12.6%, likewise remains well below EU28 figures of 22.2% (Eurostat, 2014). Nevertheless, tackling rising youth unemployment levels is seen as a political priority. Education and training are considered crucial to these efforts. One in five young people has yet to

² http://www.statistikbanken.dk/10315
embark on a course of education or training providing genuine job qualifications at a time when demand for unskilled labour continues to fall.

This follows a period when extremely low unemployment levels meant it was relatively easy to find work even without qualifications. However, education and training provide little guarantee of employment for, for example, young people with training in the most market-sensitive sectors, such as construction, and young academics, who have been affected by cutbacks in the public sector, which has been particularly hard hit by the economic downturn.

Even though there are job insecurities in many sectors, there are expected to be big shortages of skilled labour in the future.

The Economic Council of the Labour Movement (3) estimates that there will be a shortage of 70,000 skilled workers, 25,000 in the academic profession and 40,000 with a professional bachelor’s degree in 2025, as well as 110,000 people without any education or only a general upper secondary education that will not be sufficient for the labour market. In May 2014, the Danish government launched a plan for growth (Vækstplan.dk), one of the targets of which is to create 1,000 new apprenticeship places per year. This initiative aims to strengthen the dual system and enhance the number of young people completing VET. The education ministry (4) commissioned a report by the consultancy company Deloitte on ‘Apprenticeship potential and Benchmarking of VET colleges’ (5). Deloitte’s analysis estimates that the potential number of additional apprenticeship agreements is 33,755 — that is, over 59% more than the actual number of apprenticeship agreements in 2012. In order to use this potential, the partners in the tripartite negotiations in 2016 have agreed on a plan for creating 8,000 to 10,000 new apprenticeship places before 2025.

Reintegrating the growing number of long-term unemployed within the workforce and ensuring that young people are not left estranged from the labour market is likely to pose one of the major challenges to education and training in Denmark, not least adult VET, over the coming years.

In 2013-14, the Parliament has passed two major reforms to address and solve labour market-related problems:

- in 2013, the Government passed a reform of the unemployment benefit system with the aim of enhancing the provision of labour;
- since 2014, due to the reform of the social security system, unemployed people under the age of 30 who receive social benefits will be obliged to take part in education or training.

Both reforms will mean new challenges for the Danish VET system (see Chapter 3).

The large number of refugees in Europe and their ability to enter the labour market is also on the political agenda. Within the tripartite negotiation process, the social partners have agreed on a new vocational programme for refugees in Denmark. This provides an opportunity for refugees to

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(4) The official name is the Ministry for Children, Education and Gender Equality.
(5) Praktikpladspotentiale og benchmarking af erhvervsskolerne. Deloitte, January 2015, UVM.
enter a job-training programme for up to 24 months, plus a financial incentive for companies that employ and train refugees. The programme was in place by July 2016. The government and the social partners continued their discussions in April 2016 on the anticipated shortage of skilled workers and the attempt to ensure an increasing number of practical placements in VET (6).

CHAPTER 2. Providing VET in a lifelong learning perspective

2.1. VET in the Danish education and training system

Figure 4. VET in Denmark’s education and training system

NB: ISCED 2011-P.  
Source: Cedefop and ReferNet Denmark.
The Danish education and training has two parallel systems:

- the mainstream education;
- the (vocational and general) adult education and continuing training.

Children participate in mainstream education from the age of six and progress through the system during their youth and adulthood. Adult education and continuing training (CVT) mirrors the qualifications provided within the mainstream system designed specifically for adults. It also provides opportunities to acquire supplementary qualifications. As such, the two parallel systems combined provide a framework for lifelong learning. For an overview of the Danish qualifications framework for lifelong learning, see Annex 2.

2.1.1. Primary and lower secondary education (basic schooling)

Basic schooling is compulsory from the ages of six to 16, that is, from pre-school class to ninth grade. In 2016, 45.4% of the youth cohort decided to continue within the optional tenth grade, rather than directly enter an upper secondary (youth education) programme. The tenth grade is an option for young people to acquire academic competence and clarity about their choices before entering youth education (either general or vocational upper secondary education). An initiative in the recently adopted VET reform is to create a combination of 10th grade and VET programme called EUD10.

Primary and lower secondary education is generally integrated and located within the comprehensive Danish Folkeskole although other types of institutions, such as private independent schools, also exist. Of the youth cohort, 80.8% went to the comprehensive Danish Folkeskole in the school year 2014/15. There is a tendency towards private compulsory schooling. In the school year 2014/15, 16% attended a private school. Of the rest of the youth cohort, 3.2% attend special programmes. Primary and lower secondary education is completed by taking an examination that provides access to upper secondary (youth) education.

Within the adult education and continuing training system, there are two programmes at EQF level 2. Preparatory adult education (FVU) provides courses in basic literacy and mathematics, as well as courses for those with learning difficulties and those with Danish as their second language. General adult education (AVU) is provided to adults who, for whatever reason, did not complete lower secondary education or need supplementary education in particular subjects. Qualifications at this level are equivalent to the ninth or tenth grade leaving examination.

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(9) In summer 2014, the Danish Parliament agreed on a large reform of the VET system in Denmark called ‘Improving Vocational Education and Training’. The reform has been implemented from 1st of August (Ministry of Education, 2014c).
(10) Municipal primary and lower secondary school, literally ‘folk’ or ‘people’s school’
2.1.2. Upper secondary education (youth education)

Upper secondary education consists of both general upper secondary education and vocational upper secondary education and training (erhvervsuddannelse - EUD). General upper secondary education programmes usually last three years and prepare students for higher education at tertiary level. Four different qualifications result from four corresponding programmes (12):

- upper secondary leaving qualification (studentereksamen - STX);
- higher preparatory examination (højere forberedelseseksamen - HF) (13);
- higher commercial examination (højere handelseksamen - HHX);
- higher technical examination (højere teknisk eksamen - HTX).

The last two are sometimes referred to as vocationally oriented upper secondary education and specifically target higher education at business schools and technical and engineering courses of higher education respectively; however, as they do not provide direct vocational qualifications, meaning that students have to complete higher education before entering the labour market, they are placed in the general education category. Despite their different emphases, all four programmes offer access to all areas of higher education, depending on the student's choice of subjects and the grades achieved. On 1 December 2014, the Danish Government launched a proposal for a reform of the entire upper secondary general education system with a focus on enhanced level of general skills, a simpler structure, new forms of evaluation and testing and demands for entry level grades (Ministry of Education, 2014). Reform of upper secondary education has been on the political agenda since spring 2015. There has been no agreement yet on a comprehensive reform, but in May 2016, a partial agreement was reached. The main focus is specific access requirements for attending the general upper secondary level, and the possibility of cooperation between different tracks (STX, HF, HHX, HTX) and institutions has been enhanced, for example, in the form of mixed classes in specific subjects. This will come into force in 2017/18.

Vocational upper secondary education and training (EUD) includes agricultural, commercial, technical, and social and healthcare programmes. EUD qualifications provide access to the labour market as skilled workers or to specific short- and medium-cycle higher education programmes at vocational colleges and academies or university colleges. EUD will be explored in more detail below (Section 2.3.1).

In 2012, the EUX programme was introduced with the aim of bridging the gap between general upper secondary education and vocational upper secondary education and training, and of offering highly motivated young people the opportunity to gain both vocational qualifications providing direct access to the labour market and general qualifications providing similar opportunities to continue in higher education as students in the four general upper secondary programmes. From 2012 until August 2015, a number of VET programmes acquired experience

(12) In these four programmes, there are several opportunities to specialise to some extent in, for example, modern languages or the natural sciences, but the final qualification remains the same.

(13) The higher preparatory examination will in the future be profiled as a pathway for students with non-academic profile and can be completed without a formal examination.
with EUX. In the 2015 VET reform, EUX is highlighted as a priority and a strategic focus in order to enhance the attractiveness of VET. The VET reforms emphasise that EUX programmes must be implemented in as many different VET fields where it makes sense and where the trade committee supports it. At the moment 39 different technical VET fields (approximately one-third) and an increasing number of business programmes have implemented EUX. Social and healthcare will begin implementing EUX in the second semester of 2016 (see Section 2.3).

2.1.3. Adult education
The adult education (age 25 and above) and continuing training system includes three types of programmes at upper secondary level: higher preparatory single subjects (HF-enkeltfag), basic (vocational) adult education (EUV, Erhvervsuddannelse for voksne), which is equivalent to EUD, and adult vocational training programmes (AMU, Arbejdsmarkedsuddannelser).

One of the main target groups for the first programme is adults needing to supplement an existing upper secondary qualification to gain access to a particular higher education programme. With the correct combination of subjects, however, a full higher preparatory examination (Højere Forberedelseseksamen) can be sat. EUV programmes target low-skilled workers with at least two years relevant work experience and allow acquisition of qualifications equivalent to EUD, which incorporate validation of prior learning (see Section 2.2).

AMU programmes provide specific work-related skills training aimed at both skilled and unskilled workers. The programmes enable acquiring:

- general skills;
- specific job/sector-related skills;
- labour management skills.

AMU programmes are offered at a wide array of different levels, not only upper secondary.

2.1.4. Higher education
In broad terms, higher education comprises:

- professionally oriented short- and medium-cycle programmes where short programmes lead to an academy profession degree and are offered at academies of professional higher education, while the medium-cycle programmes lead to a professional bachelor’s degree and are offered by university colleges;
- research-based long-cycle programmes offered at universities where most students continue to a master’s degree programme after completing a bachelor’s degree. The former can then provide access to doctoral programmes.

There are corresponding programmes within the adult education and continuing training system: short-cycle further (vocational) adult education (VVU), medium-cycle diploma programmes, and long-cycle master’s programmes. As part-time courses, these programmes allow participants to combine education with a working career, as well as improving the integration of the individual’s professional and life experience.
2.2. Participation rates in education and training

Tables 1 and 2 comprise enrolment data in mainstream, adult and continuing training.

Table 1.  **Learners in the mainstream education in October 2015**

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Primary and lower secondary</td>
<td>364 834</td>
<td>51</td>
<td>343 914</td>
</tr>
<tr>
<td>10th form, etc. (*)</td>
<td>3 387</td>
<td>52</td>
<td>1930</td>
</tr>
<tr>
<td>General upper secondary education</td>
<td>69 429</td>
<td>47</td>
<td>79 187</td>
</tr>
<tr>
<td>Vocational upper secondary education and training (EUD)</td>
<td>67 700</td>
<td>55</td>
<td>52 996</td>
</tr>
<tr>
<td>Short-cycle tertiary education</td>
<td>14 202</td>
<td>54</td>
<td>12 223</td>
</tr>
<tr>
<td>Medium-cycle tertiary education</td>
<td>36 049</td>
<td>41</td>
<td>56 218</td>
</tr>
<tr>
<td>Bachelor's education</td>
<td>38 310</td>
<td>47</td>
<td>42 499</td>
</tr>
<tr>
<td>Long-cycle tertiary education</td>
<td>30 844</td>
<td>39</td>
<td>39 459</td>
</tr>
<tr>
<td>PhD (*)</td>
<td>4 620</td>
<td>47</td>
<td>4 881</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>629 375</strong></td>
<td><strong>49.8</strong></td>
<td><strong>633 307</strong></td>
</tr>
</tbody>
</table>

(*): Includes the other forms of preparatory course
(**): the PhD figures are from 2014

http://www.statistikbanken.dk/statbank5a/default.asp?w=1024
Table 2. **Full-time equivalent students in adult education and continuing training 2010/11**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Full-time equivalent students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower and upper secondary level</strong></td>
<td></td>
</tr>
<tr>
<td>• Preparatory adult education (FVU)</td>
<td>1,885</td>
</tr>
<tr>
<td>• General adult education (AVU)</td>
<td>8,428</td>
</tr>
<tr>
<td>• Supplementary examination courses (GSK)</td>
<td>4,063</td>
</tr>
<tr>
<td>• Higher preparatory single subject course (HF-enkeltfag)</td>
<td>12,367</td>
</tr>
<tr>
<td>• Other general ((^*))</td>
<td>15,215</td>
</tr>
<tr>
<td>Vocation-oriented level</td>
<td></td>
</tr>
<tr>
<td>• Adult vocational training (AMU)</td>
<td>12,254</td>
</tr>
<tr>
<td><strong>Tertiary level</strong></td>
<td></td>
</tr>
<tr>
<td>• Short-cycle tertiary education ((^3))</td>
<td>5,215</td>
</tr>
<tr>
<td>• Medium-cycle tertiary education</td>
<td>12,294</td>
</tr>
<tr>
<td>• Long-cycle tertiary education</td>
<td>4,037</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>76,244</td>
</tr>
</tbody>
</table>

**NB:** Includes education programmes under the responsibility of ministries other than the education ministry.

\(^1\) Also includes all other supplementary examination courses than higher preparatory single subject course.

\(^*\) Includes participants in another adult education and continuing training: Danish for adult migrants, training of dyslexic, teaching in folk high schools, etc.

\(^3\) Does not include further adult education programmes (VVU) at vocational colleges in the first half of 2010.

\(^*\) Like HF-enkeltfag, GSK offers single subjects at general upper secondary level. GSK is specifically tailored to individuals who have completed a general upper secondary programme (this is an entry requirement) but are missing a particular subject or a subject at a particular level, or who need to improve their grade in a particular subject, to enter a specific higher education programme.


Table 2 shows that total participation in adult education and continuing training in 2010/11 was 76,244 full-time learner equivalent. Many adult education and continuing training programmes have a short duration, and in total about 659,000 persons participated in one or more adult education and continuing training programmes in 2012 (Ministry of Education, 2012).

Denmark has the highest levels of participation in adult education and continuing training within the EU, regardless of educational attainment levels. In 2013, Danish participation in education and training among the population aged 25-64 with an attainment level of at most ISCED 0-2 was 22.1% compared with an EU28 average of 4.4%. At ISCED 3-4 the respective figures were 28.1% and 8.7%; and for ISCED 5-6, 40.9% and 18.7% respectively (Eurostat, 2014). These figures refer to all forms of education and training activity, both formal and non-formal. The high participation rates reflect several specific characteristics such as the national strategy to focus on knowledge-intensive specialist sectors and lifelong learning, a large public sector, and a tradition of strong ties between educational institutions and social partners. Adult vocational training programmes (arbejdsmarkedsuddannelser – AMU), offering short vocational training programmes to skilled and unskilled workers, as well as to the unemployed, have a significant role to play in this regard.

\(^{14}\) The most recent data.
After completing ninth or tenth grade in 2016, 93% of all students had commenced some form of further education or training activity, either general upper secondary education (74.3%), or vocational upper secondary education and training (VET) (18.4%) (Ministry of Education, 2016). In terms of total student enrolment, approximately 114 000 students enrolled in upper secondary education in 2014 were more or less evenly split between VET and general upper secondary education (Table 1). As suggested by the discrepancy in these two sets of figures, students in VET are generally older than those in general upper secondary education. While the average age for young people commencing general upper secondary education is 17, the equivalent for those entering VET is 21 (Ministry of Education, 2016). Young people also take longer to complete VET programmes: the average age for those completing a general upper secondary qualification is 20, while in VET, the average age is 28. There is a very wide spread in age in VET that is not found within general upper secondary education. Since 2007, the average age for entering a VET programme has increased by 1½ years (Det Økonomiske Råd, 2014).

One reason why young people generally start later and spend more time completing VET programmes than general upper secondary programmes is that the transition from lower secondary to general upper secondary education is often seen as a more natural transition than the transition to VET, as this involves a move away from the classroom into the workplace. Also, many young people enrol in general upper secondary education, but later transfer to a vocational pathway. A typical duration of three to four years for a VET programme compared with three years for general upper secondary education is another explanation.

The 2014 VET reform addresses this issue by focusing on establishing an attractive learning environment at the VET colleges in the EUD10 and EUX programmes, so that young people with both academic and practical skills will find VET programmes attractive and can see themselves at a VET college. However, there is also a final and more worrying explanation: at any time, a considerable number of students enrolled in VET are likely to be inactive, not currently attending classes, or not being in a training placement, although they have not (as yet) officially dropped out. This also happens in general education, but completion rates are considerably lower in VET.

Since in the dual VET system in Denmark all VET students need to sign a contract with a company to complete the programme, the high share of students on the verge of dropping out can also be explained by the lack of apprenticeship agreements in companies and the fact that the Centres of Placements have not yet had an impact. Completion rates in VET in 2015 were 51%, compared to almost 90% in the general upper secondary programmes (Ministry of Education, 2016). The VET reform addresses this skewing by setting a clear target that by 2020, 25% of a youth cohort must chose VET after compulsory school and 30% in 2025 (18% in 2016).

Improving pathways from VET to higher education is currently a political priority, and recent figures demonstrate why further efforts are necessary: the most recent figures for students completing an EUD programme in 2010 show that, 27 months later, only 13% were continuing in education. Of these, less than half commenced another EUD programme. The rest entered some
form of higher education \(^{(15)}\). In part, these figures can be seen as a reflection of the limited opportunities available for EUD students frequently needing to gain additional general subject qualifications \(^{(16)}\) at higher levels to gain access to higher education.

2.3. Government-regulated VET provision

2.3.1. Vocational upper secondary education and training (EUD)

Since 2015, VET consists of four vocational entries, each with their own broad basic programmes providing access to several more specialised main programmes:

- Care, health and pedagogy;
- Office, trade and business service;
- Food, agriculture and experience.

Technology, construction and the basic programme consists of two basic courses twenty weeks each (half a year). The first one provides general and broad vocational skills. It devotes more time and provides a better foundation for making the final choice of education. The second one is targeted at the main course of a specific VET programme. Young people who start a VET more than one year after they have completed level 9 or 10 can go straight to the second part.

The basic programme alone do not provide students with the necessary qualifications for entering the labour market; however, having completed a basic programme, students are eligible to enter one of the 106 main programmes, each leading to a specific full vocational qualification ranging from flight mechanic to event coordinator and from fitness instructor to multimedia animator. The main programmes also include several 'steps' \((\text{trin})\) and specialisations, each corresponding to a specific position in the labour market.

The steps allow students to leave college without completing one of the main programmes in its entirety while still achieving a partial qualification providing access to the labour market. An additional advantage is that students can easily return – and have the right to do so - at a later date and pick up where they left off to acquire additional qualifications corresponding to the relevant main programme.

Specialisations, meanwhile, divide the main programmes into branches, each providing more specific competences targeted at a particular area of the vocational field. An example is the main programme ‘veterinary nurse’: there are two specialisations – ‘veterinary nurse, small animals’, and ‘veterinary nurse, horses’ – each taking three years and two months to complete. However, there is also a step ‘veterinary nursing aide’, which takes one year and ten months. Students completing the latter qualification will be able to assume a position as a veterinary nursing aide within the labour market, but will also be able to return at a later date and resume their studies to become a qualified veterinary nurse.

Considering these steps and specialisations, a total of over 300 different vocational qualifications are available (Ministry of Education, 2016). The main programmes in technical


\(^{(16)}\) These courses can be obtained at Adult Education Centre (VUC).
subjects typically take three to three-and-a-half years, although they range from one to five years. Commercial programmes are generally shorter, typically lasting two years.

In terms of the number of main programmes, specialisations and steps, Technology, Agriculture and Transportation is by far the largest area of VET.

**Table 3. Students entering VET basic programmes in August 2015**

<table>
<thead>
<tr>
<th>Foundation Courses</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care, Health and Pedagogy</td>
<td>5 108</td>
</tr>
<tr>
<td>Office, Trade and Business Service</td>
<td>9 212</td>
</tr>
<tr>
<td>Food, Agriculture and Experience</td>
<td>6 090</td>
</tr>
<tr>
<td>Technology, Construction and Transportation</td>
<td>16 507</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36 917</strong></td>
</tr>
</tbody>
</table>

Source: Statistics Denmark

In general, there are more male than female students in VET: 53% men and 47% women in 2016. However, the distribution is very uneven among the various strands. In commercial training and social and health-care training, for example, there are more female apprentices, while the opposite applies to technical training.\(^{(17)}\)

**2.3.2. Admission**

Admission to basic programmes is offered to anyone who has completed compulsory schooling at *Folkeskole* (or equivalent) and obtained the passing mark in the subjects Danish and maths in the leaving examination from 9\(^{th}\) or 10\(^{th}\) grade respectively, unless they have an apprenticeship contract with a company. Young people attending the first part of the basic programme just after compulsory school must be declared ‘study-ready’ based on an assessment of their academic, personal and social competences conducted by either the college or the local youth guidance centre (*Ungdommens Uddannelsesvejledning*). These assessments consider a broad range of factors such as grades, motivation and conflict management skills and are used in compiling individual education plans (*Elevplan*).

All students completing a basic programme are entitled to complete one of the associated main programmes. These programmes generally commence with an on-the-job training placement. As such, the student must not only have completed the relevant basic programme, but also have an apprenticeship contract with an approved training company\(^{(18)}\) prior to being admitted to the main programme. The students are duty-bound to seek out suitable placements. When no suitable placements are available in a desired programme, students are offered admission to another associated main programme where placements are available. Another possibility is for the student

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\(^{(18)}\) See below for further details of the approval process and opportunities for training placements within a college.
to enter a training agreement with the college itself, where practical training also takes place in a Centre of Placement.

There are some main programmes (16) where admission is limited. This is to ensure that the number of students is in accordance with labour market needs. In these cases, all students are either admitted according to a quota or are required to have a training agreement with an enterprise prior to commencing the second part of the relevant foundation course.

VET is free of charge and also entitles the student to an apprentice’s salary and/or student grant (the latter only for students aged 18+).

2.3.3. Content
Virtually all VET programmes are organised according to the dual principle whereby students alternate between periods spent at a training placement, generally in an enterprise, and periods of college-based learning (19).

Basic programmes are predominantly college-based (20) and combine theoretical, classroom-based learning with more practical workshop-based learning to varying degrees with, for example, the commercial programme concentrating more on classroom-based learning than many of the more technical programmes. Basic programmes combine common competence goals, where students are given a broad introduction to the competences to be acquired in the associated main programmes and specific competence goals aimed at individual programmes.

While exact distribution varies according to both the programme and the needs of the individual student, the main programmes generally comprise alternating periods of workplace-based training and college-based learning with a ratio of 2:1.

College-based teaching in the main programmes can be divided into four types of subjects:

- **general subjects** are often familiar to students from their previous schooling, including English, mathematics, Danish, etc. However, in VET, the content of these subjects is adapted to the particular programme so that, for example, mathematics for carpenters will concentrate on areas relevant to working as a carpenter and will be quite different to mathematics for veterinary nurses. General subjects also include other broad subjects such as product development and basic materials science;
- **sector-specific area subjects**, e.g. for carpenters, which may include subjects such as introduction to carpentry tools and basic technical drawing;
- **specialized subjects** will often build on the competences provided by area subjects, but will be further geared to specific job functions. Specialized subjects for carpenters might be timber construction or carpentry tools level 2;
- **optional subjects** provide students with an opportunity to gain either specific vocational competences aiding transition to the labour market or competences providing access to further education such as qualifications in general subjects at a higher level.

(19) There are two exceptions where training is entirely college-based: building montage technician and web integrator.

(20) Other possible pathways are presented later in this chapter.
College-based teaching in the main programmes is organized according to an integrated approach, and students frequently work on projects where they are expected to incorporate what they have learned in different subjects and combine both general and more specialized competences.

2.3.4. Training placements
Training placements are based on a contract or training agreement between an apprentice and a company. All training companies are approved by the social partners via the relevant trade committee and thus have to live up to certain requirements, for example, a certain level of available technology and the ability to offer various tasks in an occupation. Currently over 60 000 companies are approved to offer apprenticeship training in at least one training field. Many can offer apprenticeships in several fields, representing over 140 000 approvals (Ministry of Education, 2014g). Once a company has been approved to provide training placements, it does not need to renew this accreditation unless it has not been active for five years or more.

Colleges and companies work closely together to make sure that training takes place in accordance with the law when compiling an individual education plan for the student in question. These plans are compiled for every student to ensure coherence between the student’s wishes and the actual training programme. Students also have a personal educational portfolio that is intended to increase their awareness of the learning process. While the educational plan indicates learning pathways and shows how the various elements of the training programme, both college-based and workplace-based, combine to provide the student with the necessary competences, the portfolio documents indicate the actual learning and skills acquired by the student.

Improving the availability of training placements is a political priority. Due to the lack of practical placements and full-scale apprenticeship contracts, in 2011 the government decided to create 50 practical training centres around the country affiliated with vocational institutions. These centres, which have been implemented since 2013, provide an alternative for apprenticeship training, as they can engage in shorter training agreements with companies and can take responsibility for part of the practical training.

2.3.5. Assessment
Foundation courses are completed with a project which forms the basis of an externally graded examination. This examination constitutes an assessment of students’ achievements in relation to the competence goals necessary to enter their chosen main programme. Students are issued with a certificate documenting the subjects and levels they have achieved; this certificate forms the basis for entering the main programme.

In the main programmes, there are various forms of assessment throughout the course, including both oral and written examinations, and both theoretical and practical project work. The exact form of assessment can differ from programme to programme.

(21) A corps of external examiners is appointed by the college.
Programmes include both subject-specific examinations (for example, in English or mathematics) and broader assessments to evaluate students’ abilities to combine knowledge, skills and competences acquired from the programme as a whole.

At the end of each training placement, the company issues a certificate to the college, the student and the trade committee – that presents the student’s achievements.

The final examination, which generally takes place during the final period of college-based learning, also varies from programme to programme. In some cases it consists entirely of a college-based examination; in others it comprises a combination of a college-based examination and a journeyman’s test (svendeprøve); in others it involves only the journeyman’s test conducted by local training committees. However, most common is a combination assessing both project-based practical assignments and a theoretical examination, either oral, written or both.

The relevant local trade committee nominates external examiners. Generally, two external examiners assess individual students in cooperation with the teacher. The training college in consultation with the trade committees develops the content of examinations. After passing the journeyman’s certificate, the graduate acquires a qualification at skilled-worker level and is able to enter the labour market (Ministry of Education, 2014h). Qualifications are linked to different levels in the Danish qualifications framework for lifelong learning; for further details, see Annex 2.

2.4. Quality assurance

For quality assurance of vocational colleges, various approaches are employed. Self-assessment remains the primary mechanism, but external monitoring is increasing. Since the 1980s, a shift has taken place from detailed regulation on input to framework regulation on output. The aim of output regulation is to increase the focus on results and quality so that the practices of institutions meet political objectives, including adaptation to the needs of regional and local business sectors for education and competence development (Ministry of Education, 2014i).

Monitoring is conducted at two levels:

- **System level.** This looks at the effectiveness of the 106 different main programmes in terms of employment frequency among graduates. The education ministry then enters into dialogue with national trade committees about any programmes which fail to reach the targets to assess their relevance in terms of labour market needs and possible steps for improvement.

- **Institutional level.** At this level, monitoring can be divided into content monitoring and financial monitoring. The first concerns the degree to which a vocational college is providing the programmes in accordance with the legislative framework. The second monitors a college’s compliance with budgetary constraints set out by the education ministry.

Completion/dropout rates and examination pass rates likewise enter into the quality appraisal of a vocational college. Within companies, the social partners supplement ministerial monitoring via national trade committees and local training committees, appraising the quality of graduates, curricula, apprenticeships within enterprises, etc.
2.5. Teachers and trainers
Two distinct teacher profiles can be identified in VET:

- general subject teacher - usually university graduates or graduates with a professional bachelor’s degree in teaching;
- vocational subject teacher - usually with a VET background and substantial experience in the field (normally at least five years of professional experience is required).

There are no requirements for teachers to have a pedagogical qualification prior to their employment. Pedagogical training (Diplomuddannelsen i Erhvervspædagogik) is part-time in-service training based on interaction between theory and practice. This programme was introduced for all teachers employed in VET and AMU recruited after 15 January 2010 and replaces the previous teacher-training course (Pædagogikum). The objective is to improve teaching skills to a level equivalent to teachers in compulsory education with a professional bachelor’s degree. The broader objective is related to the government’s goal of a 95% completion rate resulting in several new challenges facing VET teachers due to an increasingly heterogeneous student body. The new programme is the equivalent of one year of full-time study (60 ECTS), and the acquired qualification is placed at EQF level 6. It is, however, generally conducted as a part-time study to root training in practical teaching experience. New teachers must enrol in the programme within one year of gaining employment at a VET college or AMU centre. The programme must be completed within a period of six years. The programme was developed by the Danish National Centre for the Development of Vocational Education and Training (Nationalt Center for Erhvervspædagogik, NCE), a centre of excellence collecting, producing and disseminating knowledge on VET based in the Metropolitan University College in Copenhagen. The programme was developed in cooperation with an advisory group comprised of representatives of teacher associations and college management organisations, as well as the education ministry. There are three compulsory and two optional modules, as well as a final examination project. Both NCE and other providers at different university colleges offer the programme.

2.5.1. Recruitment
Colleges and training centres have autonomy in staff recruitment. The education ministry is not involved in teacher recruitment procedures, and teachers are not civil servants entering the system through tests. Many part-time teachers have no formal pedagogical competences, but are well respected within their fields of work and are able to ensure that VET students acquire knowledge which is up-to-date with developments in their respective trades.

(23) For further information, see: https://cumulus.cedefop.europa.eu/files/vetelib/2016/ReferNet_DK_TT.pdf
2.5.2. Role/functions
As to roles and functions, teachers are involved in developing local educational plans, research and development projects, quality development and the daily management of lessons, often through teacher teams. The role of teachers has changed into one of facilitator of learning, coach, and guidance counsellor. These changes have happened due to the introduction of new pedagogical and didactical principles, for example, focusing more on individual learning needs than a fixed body of knowledge to be acquired by the student, and changing qualification and curricula structures with increased modularisation.

2.5.3. In-service training
Once qualified to teach in VET, there is no general legislation on in-service training. Individual teachers are obliged to keep their subject-specific and pedagogical knowledge up to date. The college is required to draw up a plan for the competence development of the teachers at the college. On this basis, and in cooperation with the teacher, the college determines the individual’s professional in-service training plan. Courses are offered locally by many providers according to market conditions. A certificate is normally awarded to participants, but no recognised qualification is generally awarded. The new VET reform requires skills updating for teachers and leaders in VET institutions at a level equivalent to 10 ECTS points. The updating will continue until 2020, and 400 million DKr (53 million Euros) has been granted for it.

2.5.4. Training of trainers
In-company trainers play an important role in VET, given the dual training principle characteristic of all Danish VET. There are different types of trainers with different responsibilities: planners, training managers and daily trainers. However, there are very few legal requirements to become a trainer.

Trainers in enterprises who are responsible for apprentices must be craftsmen. They must have completed a VET programme for which they have received a ‘journeyman’s certificate’ and have work experience.

Trade committees for each VET programme consisting of social partner representatives are in charge of approving enterprises as training enterprises. Committees consider technical equipment, the variety of products produced and tasks performed by the enterprise and, in some instances, the number of qualified staff available to perform the training, allowing them to assess whether the training provided is at an acceptable level.

Just as there are no pedagogical qualification requirements for in-company trainers, there are also no in-service training requirements or control mechanisms. Quality assurance, beyond that undertaken voluntarily by the enterprise, is restricted to informal contacts between the VET college and enterprise. The AMU systems provide a number of courses of one to two weeks duration to support the training of trainers. The courses are not mandatory and are mostly used by the social- and health-care professions.
2.6. Alternative pathways to vocational qualifications

2.6.1. New apprenticeships
As well as entering a main programme through one of the foundation courses, since 2006 it has been possible for learners to start directly in a company with which they have an apprenticeship contract. This pathway is known as the new apprenticeship (*Ny Mesterlære*). New apprenticeships were introduced as an alternative pathway into the main programmes and are part of the government’s strategy for reducing dropout rates within VET. Pupils undertaking a main programme via the new apprenticeship pathway will typically spend the first year of their education receiving practical training in a company. The initiative is aimed in particular at pupils who may struggle or lack motivation to complete the more theoretical school-based education without first gain a practical insight into the field. However, pupils will still have to follow some school-based teaching as agreed in their individual education plans.

New apprenticeships have been introduced in all areas of EUD (technical, commercial, etc.), although a few national trade committees have chosen to opt out, meaning that students cannot enter the associated main programmes (such as electricians and plumbers) via this route. The school and the company, together with the pupil, are responsible for planning and organising the form and content of practical training and developing the pupil’s individual education plan based on a description of the competences to be gained from the main programme in question and assessment of the pupil’s actual competence.

New apprenticeships, along with other new programmes such as combined vocational and general upper secondary education (see below for further details), increase the flexibility of the various pathways in VET and reflect an overall policy trend throughout the educational sector towards more differentiated and individualized teaching methods.

Most students still choose to start their education with a foundation course at a vocational college. In 2013, the number of new ‘regular’ apprenticeship contracts was 44410, while the number of new ‘new apprenticeship’ contracts was 2090. Those entering latter were generally younger. There were also considerable differences between programmes. New apprenticeships were most popular in the areas of body and style – training as a hairdresser accounted for the largest single number of new apprenticeship contracts in any field – and human food. In other fields, new apprenticeship contracts were more or less non-existent (Ministry of Education, 2014j).

2.6.2. Combined vocational and general upper secondary education
Combined vocational and general upper secondary education (EUX) was introduced in 2010 and offers an opportunity for young people to obtain both general and vocational upper secondary qualifications, thereby providing full access to both higher education and the skilled labour market. The programme is still in its early stages and is currently only offered in conjunction with 24 of the main programmes and at a few VET colleges, although others are under development. Programmes are developed by relevant national trade committees and approved by the education ministry. EUX is high on the political agenda, as a mean to raise both the attractiveness of VET and the general permeability of the Danish education system. In addition, EUX plays a large role in
the new VET reform and will be implemented in all VET fields. From the summer of 2016, EUX will be an option in 44 VET programmes (24), including social- and health-care programmes.

2.7. VET pathways at tertiary level
Several short-cycle higher education programmes (Erhvervsakademiuddannelser) lasting two years are offered by the nine (25) business and technical academies (erhvervsakademier), resulting in the award of an academy profession degree (erhvervsakademigrad, AK). Medium-cycle professional bachelor’s programmes lasting typically three and a half year are generally offered by seven university colleges (26) and award professional bachelor’s degrees. Admission requirements for academy profession and professional bachelor’s programmes are either relevant vocational upper secondary education and training (EUD) or general upper secondary education combined with relevant labour market experience. There can be more specific requirements regarding certain attainment levels within particular general subjects for some programmes (applicants with a VET background may have to take additional general education qualifications as a supplement). An academy profession degree can provide access to a supplementary diploma degree programme. The latter allows graduates to build on an academy profession degree to a bachelor’s-equivalent level in the same field. A professional bachelor’s degree, meanwhile, can provide access to certain university-based master's programmes. With the exception of EUX qualifications, VET does not provide direct access to university-based bachelor’s programmes.

Academy profession programmes, professional bachelor's and diploma degree programmes qualify students to perform practical tasks on an analytical basis. Apart from theoretical subjects, programmes are usually completed with a project examination and always contain some degree of workplace training.

Examples of KVU programmes (93 in total) include:
- dental hygienist,
- installation electrician,
- multimedia designer,
- laboratory technician,
- marketing manager, etc.

Professional bachelor’s programmes (50 in total) include:
- schoolteacher,
- social educator,
- midwife,

(24) [https://www.ug.dk/uddannelser/erhvervsuddannelser/eux](https://www.ug.dk/uddannelser/erhvervsuddannelser/eux)
(26) These were established on 1 January 2010 by amalgamating several existing colleges from various areas (such as teaching colleges and nursing colleges). In addition to these seven university colleges, two engineering colleges and the Danish School of Media and Journalism can award professional bachelor's degrees.
• radiographer,
• nurse,
• leisure manager,
• software developer,
• journalist,
• social worker,
• a wide array of different engineering programmes.

These programmes are state-financed and part of the higher education system. In 2015, 25,425 students were enrolled in KVU, and 80,809 students in professional bachelor’s programmes\(^{27}\). Both figures indicate significant increases on previous years. To strengthen cohesion at the tertiary level, since autumn 2011 all higher education from KVU to Ph.D. has been placed under the jurisdiction of the Ministry of Higher Education and Science.

2.7.1. VET pathways for adults

The VET reform has established a new VET pathway for adults, called EUV. VET for adults (EUV) takes as its starting point the education and experience that the adult already possesses. Essentially this means that adults with at least two years of relevant work experience will receive an education without a basic programme or internship.

Adults who do not fulfil the requirement of two years of relevant work experience will essentially receive an education with a shorter internship of a maximum of two years. These adults may also follow the second part of the basic programme.

2.7.2. VET pathways for adults at tertiary level

Adults have full access to the mainstream tertiary education system. However, there is also a parallel system at tertiary level specifically tailored to the needs of adults, for example, by providing courses over a longer duration on a part-time basis, largely during evenings and weekends, to allow ongoing employment. Further vocational adult education (Videregående Voksenuddannelse, VVU) provides qualifications equivalent to an academy profession degree. Like academy profession programmes, VVU programmes are offered at business and technical academies, but, in addition to an appropriate VET qualification or a general upper secondary qualification, they also require two to three years of relevant work experience. By drawing on participants’ prior learning in the labour market, the same qualifications can be gained over a shorter period of study, VVU programmes being the equivalent of one year of full-time study compared to between two and two-and-a-half years for mainstream academy profession programmes. However, as VVU programmes are offered as part-time programmes, the actual duration will usually be between two and three years — students must complete the programme within six years of commencing. A total of 47

VVU programmes are offered, including areas such as retail, interpreter, international transport and logistics, and information technology.

Both mainstream KVU and adult VVU qualifications can provide access to a supplementary diploma degree programme allowing graduates to build on an academy profession degree to bachelor’s-equivalent level within the same field, while VVU qualifications also provide access to relevant full-time professional bachelor programmes. As such, there is full horizontal permeability between the mainstream and adult education and continuing training systems.

2.8. Other forms of training
2.8.1. Programmes for young people
2.8.1.1. Basic vocational training (EGU)
Basic vocational training is aimed at unemployed young people aged below thirty who are unable to complete another form of education or training which might equip them with qualifications to enter the labour market. The purpose is to improve their vocational and personal skills and inspire them to enter the labour market or pursue further training possibilities.

Training is full-time and lasts for two years on average. It is primarily practical, with little theoretical content, and combines alternating school-based (one third) and workplace-based training (two thirds). The training programme is set on an individual basis and may contain elements from the main programmes; training may take place at vocational colleges, agricultural colleges, social- and health-care colleges, etc., but is not anchored in one particular institution. Each training period should be concluded as an individual training element which may be accredited for other training programmes. Statements are issued giving details of training content, job function, marks, etc. On completion of the entire training programme, a certificate is issued by the college. Any completed elements from a main programme can later be transferred as credit if entering the relevant programme.

Trainees receive a salary during periods of workplace training and financial support from the state during training at college. The wage level is set by collective agreement in the trade. The provision for basic vocational training is at the discretion of the municipality in which the trainee lives.

Table 4. Students within EGU

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 081</td>
<td>2 323</td>
<td>2 331</td>
<td>2 360</td>
</tr>
</tbody>
</table>

Source: Statistics Denmark

2.8.1.2. Production schools
Production schools are aimed at young people aged below 25 who have not completed upper secondary education or find it difficult to see a way forward in further education or in the labour market. Most either come from compulsory schooling or have completed a VET foundation course without completing a main course. The purpose is to help clarify the individual’s future career path, and individual guidance is provided on a day-to-day basis. Furthermore, production schools have
the task of helping young people fulfil the admission requirements in Danish and mathematics (grade 2 - passed).

The 83 production schools base activities on workshops and give priority to learning through experience and practical work cooperation. Workshop subjects range from carpentry or metalwork to media or theatre.

Learning mainly takes place by doing, but theoretical training is also offered, although it is not mandatory. There are no examinations, but participants must attend practical training if they want to stay at the school for the entire training period.

Participation is limited to one year or shorter. The schools are independent institutions, but they receive funding from the municipality and state, as do participants. A certificate of attendance is issued at the end of the stay, but there are no exams and no marks given.

Table 5. Students at a course of training at a production school

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>5 866</td>
<td>5 836</td>
<td>5 378</td>
</tr>
</tbody>
</table>

Source: Ministry of Education

Of the total number of graduates in 2009, 37% participated in courses of less than three months duration (Ministry of Education, 2011b). On completion of a course at a production school, 37% continue in the educational and training system (generally entering one of the VET foundation courses), while 12% gain employment (Pedersen, 2010, p. 4).

2.8.1.3. Youth education for young people with special needs (STU)

Youth education for young people with special needs is intended for young people with intellectual disabilities or other special needs, 16 to 25 years of age, who are unable to complete another upper secondary programme, even with special needs assistance. The Act on Young People with Special Needs (2007) stipulates that local authorities are obliged to offer young people with special needs a three-year youth-education programme upon completion of compulsory schooling.

The programme is not necessarily vocational, but generally combines general, vocational and practical elements. The three-year programme begins with a twelve-week clarification period, on the basis of which an individual education plan is drawn up in collaboration with local youth guidance services, students and their parents. The objective is that students acquire personal, social and academic competences enabling them to have as independent and active adult lives as possible, perhaps with access to further education and training and/or employment as well. In preparing students for adult life, the programme seeks not only to continue academic development begun during compulsory schooling, but also to ensure students encounter everyday practical situations and develop socially. As such, an education plan can consist of periods spent at various institutions, including VET colleges, production schools, folk high schools, continuation schools and schools of domestic science, as well as various work placements. On completion, students receive documentation of the competences acquired. STU has become more popular in recent years, with
an increase of 700 students between 2010 and 2011. The average age is 18.2 years, and 63% are men, 37% women. Since 2010, 74% of the students have completed the programme, the rest having dropped out or enrolled in another programme. 66% of the students who attend STU have general learning difficulties, and more than one-third have development disorders (Ministry of Education, 2014).

Table 6. **Students in youth education for young people with special needs**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 428</td>
<td>3 987</td>
<td>4 522</td>
<td>5 047</td>
<td>5 431</td>
</tr>
</tbody>
</table>


2.8.1.4. Combined post-compulsory education

Combined post-compulsory education is an occupation-oriented, qualifying post-compulsory education offered for people aged 15-24 who do not possess the necessary vocational, social or personal skills to complete a VET or an upper secondary education. Students may also obtain a foundation qualifying them for further education.

Combined post-compulsory education is aimed at young people who are motivated to undertake education but do not possess a realistic chance of completing it. Combined post-compulsory education has a maximum duration of two years and leads to the title of “occupation assistant” within a specified job area. At the same time, students will have an opportunity to transfer to another post-compulsory education programme if they obtain the necessary skills, and they may leave the program for an occupation after one and a half and two years respectively.

This education is offered within approximately ten centrally decided occupational themes. It is the intention that this form of education is provided through institutional cooperation within a specific geographical area.

2.8.1.5. **Eud10 VET programme**

EUD10 is an option for transition from compulsory school to VET. It prepares learners for VET and ensure that they meet admission requirements. This is aimed at pupils who are motivated to undertake a VET, but who do not meet the admissions requirements nor are uncertain whether this form of education is the right choice for them.

The programme is organised in such a way that it makes up for the pupils' lack of educational readiness, including poor skills in Danish and maths, and it must introduce young people to the four main basic vocational clusters of VET.

2.8.2. Programmes for adults

2.8.2.1. Adult vocational training (AMU)

AMU programmes provide participants with skills and competences applicable in the labour market and primarily directed towards specific sectors and job functions. The programmes may either deepen the participant's existing knowledge in a particular field, or broaden it to related fields.
AMU programmes target both low-skilled and skilled workers, but are open to all citizens who are either resident or employed in Denmark, irrespective of educational background. Some AMU courses are also targeted at the unemployed\(^{(28)}\). The objectives are threefold:

- to contribute to maintaining and improving the vocational skills and competences of participants in accordance with the needs of the labour market and to furthering the competence development of participants;
- to contribute to solving problems in labour-market restructuring and adaptation in accordance with the needs of the labour market in both the short and long terms;
- to give adults the possibility of upgrading competences for the labour market as well as personal competences through opportunities to obtain formal competences in vocational education and training\(^{(29)}\).

To meet these objectives, AMU is set up as a flexible system responsive to changing demand for different skills and competences within the labour market. As such, approximately 3 000 AMU programmes meet the continuing training needs of adult unskilled and skilled workers and technicians in a wide range of sectors and trades. About two hundred new programmes are developed each year, while existing programmes that are considered outdated for current labour market requirements may be scrapped. However, to provide an easy overview, these programmes have been gathered into approximately 130 joint competence descriptions, equivalent to 130 job areas. These descriptions consist of a description of a typical workplace, relevant competences in the job area, and a list of adult training programmes or single subject courses leading to these competences. As such, joint competence descriptions group programmes relevant for upskilling in a particular area of the labour market. The same programme can figure in more than one joint competence description. AMU programmes and joint competence descriptions are compiled by the social partners in the form of ten national, trade-specific adult education and continuing training committees and are approved by the Ministry of Education\(^{(30)}\). The exception is programmes specifically developed for and funded by a particular enterprise to meet their training needs.

The programmes are generally of a relatively short duration, ranging from half a day to fifty days, with an average duration of one week. AMU programmes can be grouped into three broad categories:

- specific job- or sector-related competences, such as gaining new technical knowledge;
- general competences, such as use of (non-job specific) ICT;
- personal competences, such as communication skills.

Depending on what best corresponds to the needs of enterprises and participants, courses can take the form of traditional classroom teaching, in open workshops, as distance learning or at the workplace and be spread over several consecutive days, over a longer period or conducted as

\(^{(28)}\) For further details of education and training opportunities for the unemployed, see Section 2.3.2.2.


\(^{(30)}\) See section 3.2. for further details of the shaping of VET qualifications within AMU.
evening classes. Programmes can be combined both within and across qualification areas and alternate between theory and practice. Each participant has an individual training plan (Eleveplan) which outlines the goals to be achieved and can combine any programmes covering different areas and competences relevant to his or her job sector.

In compiling individual training plans, an assessment of prior learning often plays a key role. In 2007, a legal framework was implemented for the recognition of prior learning in the adult education and continuing training system. This gives all adults the right to an assessment of non-formal and informal learning, which can act as the basis for designing the individual educational plan or be detailed on a certificate officially recognising competences acquired through informal or non-formal learning. The individual competence assessment procedure ensures that the needs for further education are determined on an individual basis. The plans have to consider the following core elements:

- labour-market policy needs as the basis for the AMU programme;
- programme aims and objectives;
- purpose of the individual educational plan (initial or specialised training, etc.);
- the participant’s skills and required entrance qualifications;
- certification.

AMU providers — vocational colleges, AMU training centres and private providers — are responsible for providing adequate training according to individual training plans and ensuring that aims and objectives are met\(^{(31)}\). Upon completion, participants receive a certificate. In around 120 programmes, this certification is a formal requirement for fulfilling certain job functions (such as operating certain machinery). However, the certificates do not provide direct access to further education and training, although they can be included in an assessment of prior learning resulting in credit transfer, for example, if entering a mainstream VET programme in the same field. AMU certificates are also included in the Danish qualifications framework for lifelong learning, placed anywhere from level 2 to level 5 (for further information, see Annex 2). In 2015, there were approximately 487 000 participants in AMU courses, a significant fall of almost 565 000 since 2010. However, as many of these courses are of very short duration (as little as half a day), the figures for full-time equivalent students are much lower at just 76 500. This again represents a significant fall (50%) in comparison with 2010 figures. Most participants in the programmes either have VET as their highest level of education (51%) or compulsory schooling (25%) \(\text{(VEU-rådet, 2011, p. 45)}\).

In terms of teacher training, the same qualification requirements apply as within VET.

### 2.8.2.2. Measures to help job-seekers and people vulnerable to exclusion from the labour market

Some training provisions are specifically targeted at the unemployed and people at risk of exclusion, such as those with a criminal background or with a history of substance abuse, refugees and the disabled. Previously, two stakeholders were central: the public employment service

\(^{(31)}\) For more details of AMU providers and their responsibilities, see Section 3.2.2.
(Arbejdsformidling, AF), and local municipalities, with the latter being responsible for persons who had not contributed to unemployment insurance. However, since 2007, these efforts have been concentrated in 94 job centres under municipal jurisdiction, which use the following labour market instruments:

- activation offers for young unemployed persons comprising education and training opportunities in the mainstream VET system, special courses at AMU training centres, production school courses, folk high school courses and adult education centres\(^{(32)}\). The objective is to improve skills and competences, thus improving individuals’ opportunities in the mainstream education and training system and in the labour market. Duration and certification differ greatly depending on the individualized educational plan;
- specialised AMU courses requested by municipalities. These help ensure that training offers correspond to local skills needs and that they are organised according to the same principles as the remaining AMU system;
- municipal activation schemes, which may include production school courses, courses at folk high schools, adult education centres or other activities initiated by the municipality;
- basic (vocational) adult education programmes (VEU, see above), although this offer is not restricted to the unemployed;
- wage subsidies — individuals who are unemployed can be employed with a public wage subsidy. Those employed within the public sector receive up to DKK 109.06 per hour (EUR 14.5) for up to a year when meeting the criteria (2016 figures\(^{(33)}\)). Employers receive a grant at DKK 145,14 and are obliged to pay full pension contributions for/to the individual according to the labour market agreement\(^{(34)}\). Employment with wage subsidies can be combined with participation in training programmes. The general objective is primarily that the workplace may decide to retain an employee under regular conditions after completion of the subsidized period, and secondarily, that the individual gains work experience and relevant labour market competences. It is generally the task of the individual to find such a position, although social workers will sometimes be able to provide assistance.
- IGU, a new VET programme for immigrants\(^{(35)}\).

The precise requirements for entering the various activation schemes, as well as their form and content, vary considerably, as they fall under municipal jurisdiction and are thereby subject to local conditions and priorities. They are also greatly dependent on the economic situation, with demands on the unemployed generally being greater during periods of economic growth.

\(^{(32)}\) Folk high schools (folkehøjskoler) provide non-formal, non-vocational adult education.


\(^{(34)}\) https://www.retsinformation.dk/Forms/R0710.aspx?id=177118

2.8.3. Private providers of VET

According to the VET policy in Denmark, private providers should be more involved in vocational adult education and training efforts as independent providers, both through cooperation and as competitors of the traditional providers in terms of institutions for business education.

Therefore, the legal framework for VET states that private providers can be officially approved – alongside public VET institutions – by the education ministry to provide VET training and education or part thereof.

It is also the objective that institutions for vocational training or other private institutions that are authorized to provide training programs should as far as possible outsource training tasks to private institutions when jobs provided through outsourcing can be acquired better either for the same rate or at the same level, but less expensively.

Against this background, once a year the institutions’ boards are obliged to adopt a procurement policy to support the institutional management’s concrete decisions on the management of this obligation.

Recently, a number of private providers are approved by the education ministry to provide VET training programmes. Most of the private provision falls within the legal framework of AMU in the form of shorter courses (typical one-week).
CHAPTER 3. Shaping VET qualifications

VET in Denmark is organised according to the dual principle, meaning that the social partners play a key role in relation to both the content and organisation of VET. Moreover, the Danish VET system is characterized by a high level of stakeholder involvement, where not only the social partners, but vocational colleges, teachers and students are involved in the development of VET qualifications based on consensus and shared responsibility.

While there is much common ground between VET and adult education and continuing training, with some vocational colleges offering both, the exact composition of the two organizational frameworks differs in terms of precisely which organizations and institutions are involved. As a consequence, the two fields will be dealt with separately here.

3.1. Shaping VET qualifications
VET is centralised in terms of providing nationally recognised qualifications (decision-making level), but to some extent decentralized (i.e. pedagogically), as VET providers are autonomous when it comes to adapting VET to local needs and demands (implementation level). Figure 5 presents the Danish model of stakeholder involvement.
3.1.1. Public authorities
Parliament sets out the overall framework for VET, which is administered by the education ministry. The ministry has overall parliamentary, financial and legal responsibility for VET, laying down the overall objectives for programmes, and providing the legislative framework within which stakeholders, social partners, colleges and enterprises are able to adapt curricula and methodologies to the needs of both students and the labour market. The ministry is responsible for ensuring that VET programmes have the breadth required for a youth education programme and can allocate the necessary resources. Since the beginning of the 1990s, the ministry has regulated VET provision through a system of targeted framework governance based on providing ‘taximeter’ grants per student (36).

(36) The Danish taximeter system links the majority of state funding to grants determined by activity level. The system is described in detail in a fact sheet (Ministry of Education, 2014n).
3.1.2. Social partners
Social partners play an institutionalized role at all levels of VET, from the national advisory council on vocational upper secondary education and training (Rådet for de grundlæggende Erhvervsrettede Uddannelser), which advises the education ministry on principal matters concerning VET, to playing an advisory role at the local level through local training committees comprised of representatives of the social partners who advise colleges on local adaptations of VET. Their most important role is to ensure that VET provision is in line with the needs of the labour market(37).

3.1.2.1. Advisory council
The national advisory council consists of 31 representatives from the social partners. In its advisory capacity, the council monitors developments in society and highlights trends relevant to VET. The council makes recommendations to the ministry regarding the establishment of new VET programmes and the adaptation, amalgamation or discontinuation of others.

3.1.2.2. National trade committees
National trade committees (faglige udvalg) constitute the backbone of the VET system. Approximately fifty trade committees are responsible for 106 main programmes. The committees normally have between ten and fourteen members and are formed by labour market organisations (with parity of membership between employer and employee organisations).

Among their core responsibilities, national trade committees:
- perform a central role in the creation and renewal of VET courses by closely monitoring developments in their particular trade and have a dominant position in formulating learning objectives and final examination standards based around the key competences that are deemed to be required in the labour market;
- conduct relevant analyses, development projects, etc., and maintain close contact with relevant stakeholders;
- decide the regulatory framework for individual courses within boundaries set by the legislative framework. They decide which trade is to provide the core of the training, the duration of the programme, and the ratio between college-based teaching and practical work in an enterprise;
- approve enterprises as qualified training establishments and rule on conflicts which may develop between apprentices and the enterprise providing practical training;
- function as gatekeepers to the trade, as they are responsible for issuing journeyman’s certificates in terms of content, assessment and the actual holding of examinations.

Trade committees and their secretariats are financed by participating organisations (Ministry of Education, 2008).

(37) See Annex 1 for a detailed presentation of the role of social partners in matching VET provision to labour market needs.
3.1.2.3. Local training committees
Local training committees, meanwhile, are affiliated to each vocational college and ensure close contact between vocational colleges and the local community, thus improving responsiveness to particular local labour-market needs. They consist of representatives of local employers and employees appointed by national trade committees, as well as representatives of staff, management and students appointed by colleges. Training committees work closely alongside colleges in determining the specific curriculum of colleges, including which optional subjects are available. They assist and advise national trade committees in approving local enterprises as qualified training establishments and in mediating conflicts between apprentices and enterprises. Finally, training committees help to ensure that enough suitable local training placements are available.

3.1.3. VET providers
Colleges assume everyday responsibility for teaching and examination. As already noted, they work closely with local training committees in determining course content. As self-governing institutions, vocational colleges are led by a governing board with overall responsibility for the administrative and financial running of the college and educational activities in accordance with the framework administered by the education ministry. The board consists of teachers, students and administrative staff representatives, as well as social partner representatives. The board takes decisions regarding which programmes are offered at the college and their capacity, imposes local regulations and guidelines, guarantees responsible administration of the college’s financial resources, including approval of budgets and accounts, and hires and fires the operational management (director, principal, dean or similar). The operational management, meanwhile, is responsible for implementing the overall objectives and strategies set out by the governing board.

Around ninety institutions offer VET programmes at upper secondary level under the remit of the education ministry. These include:

- 21 business colleges;
- 13 technical colleges;
- 24 combined colleges with, for example, both business and technical departments;
- 8 agricultural colleges;
- 16 basic health-care colleges;
- several specialized institutions such as hairdressers’ school.

In addition to VET, these colleges may offer the general upper secondary qualifications higher commercial examination HHX (højere handelseksamen) and/or higher technical examination HTX (højere teknisk eksamen), EUX (combined upper secondary and vocational education) and AMU (adult vocational training courses). Furthermore, courses and programmes specifically commissioned by enterprises and short-cycle higher education programmes are offered in cooperation with other colleges. In recent years, the trend has been towards institutional

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(38) Typically, more than one local training committee is associated with each college, with the various committees covering different fields of EUD.
(39) Danske Erhvervsskoler (Danish Business and Technical Colleges), 2016.
consolidation, with a series of mergers leading to a considerable reduction in the number of institutions, which, in turn, are larger and can offer the student a greater choice of programmes.

To provide students with the relevant transversal competences, vocational colleges focus on learning instead of teaching. Students therefore work on a project-oriented basis and in groups, learning how to collaborate to achieve a goal. Students play an active role in their own learning processes, rather than passively receiving knowledge from teachers.

3.1.4. Danish VET system reform
Since 2000 there has been a decline in the number of young VET students entering directly from compulsory school. Another recurring problem is high dropout rates. Therefore the Danish government launched a proposal for a reform of the Danish VET system, *Improving Vocational Education and Training*. This proposal was ratified in Parliament in the summer of 2014 and contains a lot of initiatives aiming to enhance the attractiveness of the Danish VET system.

The 2014 reform establishes four overall objectives for vocational education and training, which are translated into measurable targets for monitoring VET development at the central and provider levels:

- **objective 1**: more students choose VET immediately following compulsory schooling (grade 9 or 10);
  - **result target 1.1**: at least 25% of a cohort must choose VET immediately following compulsory schooling. This share must increase to at least 30% by 2025;

- **objective 2**: more students complete VET;
  - **result target 2.1**: the completion rate must be improved from 52% in 2012 to at least 60% by 2020 and at least 67% by 2025;

- **objective 3**: VET must challenge all students so they may reach their fullest potential;
  - **result target 3.1**: the share of the most gifted students – measured as the share of students who complete a total number of subjects at a level which exceeds the compulsory minimum level set by vocational committees – must increase year by year. A baseline will be established using the 2013/14 school year as a benchmark;
  - **result target 3.2**: the high employment rate (92%)\(^{[40]}\) for newly (one year after final examination) graduated students must be maintained;

- **objective 4**: trust in VET and the well-being of VET students must be strengthened;
  - **result target 4.1**: the well-being of the students and the satisfaction of the businesses that hire the students must be gradually increased until 2020.

The objectives provide a clear framework and direction for vocational institutions during the coming years. In addition, the objectives provide a well-defined foundation for results-based follow-up and evaluation for both the government and the individual vocational institutions.

\(^{[40]}\) Torben Pilegaard Jensen & Britt Østergaard Larsen (2011): Unge i erhvervsuddannelserne og på arbejdsmarkedet, AKF-rapport
Some of the most important elements in the reform are:

- clear targets;
- an attractive education environment for youngsters;
- a simpler structure and greater clarity in the VET system;
- better opportunities for further education and training;
- a new VET pathway for adults aged 25 and over;
- clear entry requirements and better training options for all young people;
- new vocational tenth grade (EUD10);
- new combined youth education;
- more and better teaching to provide more highly skilled graduates;
- continued efforts to create apprenticeships and enhanced training guarantees;
- focus on guidance.

The reform was introduced in August 2015 and is closely followed by KORA, the Danish Institute for Local and Regional Government Research, and EVA, the Danish Evaluation Institute.

3.2. Shaping AMU qualifications (41).

3.2.1. Public authorities and social partners

Cooperation with the social partners is an integral part of national labour-market policy, including in areas primarily regulated by legislation: for example, health and safety at work, job placement services, measures to combat unemployment, and unemployment insurance. Likewise, while adult vocational training (AMU) is the overall responsibility of the education ministry, the social partners are involved at both the national and local levels, playing a key role in management, development, priority-setting, organization and quality assurance, as well as being represented on school boards and educational committees (Ministry of Education, 2014m).

In the adult education and continuing training system, the same institutional structure exists as in EUD (Figure 4), with the following bodies ensuring involvement of the social partners in the development of adult education and continuing training:

- National Council for Adult Education and Continuing Training (Voksen og efteruddannelsesrådet, VEU-rådet), responsible for advising the Minister for Education on all matters concerning adult education and continuing training;
- ten national, trade-specific adult education and continuing training committees (efteruddannelsesudvalg) responsible for developing the form and content of programmes and courses within the frameworks set out by this legislation and for drawing up joint competence descriptions;
- local training committees advising colleges and AMU training centres on local adaptations of adult education and continuing training.

(41) Applies to AMU and any elements of GVU provided as AMU (GVU is intended to provide equivalent qualifications to EUD and as such is largely governed by the same educational objectives).
Until 2009, there were two advisory councils, one for general adult education, and one for vocational adult education and continuing training. Their amalgamation into the National Council for Adult Education and Continuing Training is part of efforts to increase links between the two areas, thereby better enabling a holistic view of the individual’s competence requirements (VEU-rådet, 2010, p. 3).

3.2.2. VET providers
There are approximately ninety public providers of AMU in Denmark, including colleges also offering VET programmes, as well as some private providers.

To receive accreditation as a public AMU provider, an institution must participate in the local VEU centre (Voksen- og Efteruddannelses Centre or VEU centre). The thirteen VEU centres were established in January 2010 to provide a unified gateway to both general adult education and vocational adult education and continuing training, including educational and career guidance, with a greater focus on quality and effectiveness. Within AMU, where short-term responsiveness to local and regional labour-market training needs is essential, VEU centres have the identification and integration of skills needs as one of their five primary functions.

Providers of programmes are locally based, with programme success dependent on close cooperation between local enterprises and training institutions and on the degree to which programmes are adapted to local needs. As such, another objective in associating all public AMU providers with a local VEU centre is to improve their ties with the local and regional labour markets and of the potential for closely coordinating local educational, employment, and business and growth policy.

Colleges’ and AMU training centres’ governing boards are responsible for appointing local training committees. These must consist of an equal number of representatives from employee and employer organisations. A college or AMU centre determines whether to appoint one or several committees (separate committees for different vocational fields). They can also decide to cooperate with local vocational colleges (VET providers) and appoint local committees covering both VET and AMU. This is part of a government strategy to encourage collaboration and synergy between AMU and other VET providers.
CHAPTER 4. Promoting participation in vocational education and training

In Denmark, public financing of VET is a fundamental characteristic of the system, and there is no sign that this is going to change. The government attaches great importance to improving the quality and efficiency of education and training systems to equip all individuals with the skills required for a modern workforce in a knowledge-based society, while at the same time permitting career development and reducing skills mismatches and bottlenecks in the labour market.

The basis for achieving these objectives is a highly developed and publicly financed system for basic, secondary and further education and training which also recognises relevant non-formal and informal competences and, in particular, practical work experience.

4.1. Financing mainstream (‘youth’) VET

VET is based on alternative models where training takes place in turns at college and in an enterprise. The state finances training at colleges, and enterprises finance on-the-job training; apprentices receive an apprentice’s salary while in the company, as laid down in the collective agreements.

4.1.1. Financing training colleges

In 2015, the state spent a total of DKK 8006 million (EUR 108 million) on basic courses and main programmes (Table 6). A considerable proportion of these funds were distributed to colleges in accordance with the ‘taximeter’ principle, whereby funding is linked to some quantifiable measure of activity, for example, the number of full-time equivalent students, with a set amount awarded per unit. Among other things, such a system provides an incentive for colleges to increase retention within the system.

Besides the ‘taximeter’ rate, VET providers also receive an annual fixed grant for the maintenance of buildings, salaries, etc. The total state grant is provided as a block grant which institutions use at their own discretion within the boundaries of the legislative framework and specific institutional objectives.

Table 7. Expenditure on main youth education pathways (2015)

<table>
<thead>
<tr>
<th>VET youth education</th>
<th>EGU and production schools</th>
<th>General upper secondary education</th>
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<tbody>
<tr>
<td>DKK 8 006 million</td>
<td>DKK 1 257 million</td>
<td>DKK 12 178 million</td>
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<td>(EUR 1 008 million)</td>
<td>(EUR 167 million)</td>
<td>(EUR 1 623 million)</td>
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4.1.2. Financing training in companies

All employers, both public and private, pay an amount into the ‘employers’ reimbursement scheme’ (Arbejdsgivernes Uddannelsesbidrag), regardless of whether or not they provide apprenticeship placements. This fund finances both VET and AMU. From 2016, all employers will be obliged to pay an annual contribution of DKK 2 775 (EUR 373) per full-time employee. These funds are then
allocated to work places that take in apprentices so that they do not bear the cost of training alone. These employers receive wage reimbursements during apprentices’ periods of college-based training.

4.2. Financing VET for adults - AMU
AMU is largely publicly financed. Providers receive ‘taximeter’ funding and must annually negotiate budgets and targets with the education ministry. In addition, there is a participant fee for most courses, on average corresponding to approximately EUR 100 per week, which is generally paid by the employer. Unemployed participants taking part in AMU as part of their individual employment plan are exempt from any fees. These costs are covered by the employment ministry.

Participants are entitled to a fixed allowance, the state grant system for adult training (VEU-godtgørelse). In 2016, the amount available is DKK 3 344 (EUR 450) per week, corresponding to 80% of the maximum unemployment insurance benefit rate. As most participants are employed and receive a full salary during the training period, this allowance is primarily paid to employers as partial wage reimbursement. As with apprenticeship training (EUD, see above), expenditure for the allowances is covered by the employers’ reimbursement scheme, to which all enterprises contribute a fixed amount regardless of levels of participation in adult education and continuing training activities.

Participants may also receive a transport allowance and financial support for board and lodging, covered by AUB, if programmes are offered at a considerable distance from the participant’s home.

4.3. Guidance and counselling for learning, career and employment
The provision of educational and vocational guidance for young people is given a high priority in Denmark. The Danish act on guidance aims to develop a transparent guidance system with easy access to high quality services. Guidance is regarded as a continuous process that should help young people become more conscious of their abilities, interests and possibilities, thus enabling them to make informed decisions regarding education and employment. The act defines seven main aims of guidance, according to which education, training and career-related guidance must:

- help to ensure that the choice of education and career will be of the greatest possible benefit to the individual and society, and that all young people complete education or training leading to vocational or professional qualifications;
- be targeted particularly at young people, who, without specific guidance, will have difficulties in relation to choice and the completion of education, training and career;

(42) For a more detailed description of the Danish guidance system, see Annex 2.
(43) According to the law on guidance all young people have the right to guidance, but guidance must be differentiated and targeted at young people with the most obvious need for guidance.
• take into account the individual’s interests and personal qualifications and skills, including informal competencies and previous education and work experience, as well as the expected need for skilled labour and self-employed business people;
• contribute to limiting, as much as possible, the number of students who drop out or who change from one education and training programme to another and ensure that the learner completes the chosen education with the greatest possible academic or vocational and personal benefits;
• contribute to improving the individual’s ability to seek and use information, including ICT-based information and guidance about choice of education, educational institution and career;
• help to ensure coherence and progression in the individual’s guidance support;
• be independent of sectorial and institutional interests, meaning that guidance should be provided by practitioners with an approved guidance education or recognized competencies at the same level.

Today, the education and higher education ministries are responsible for guidance and have a coordinating role in relation to the guidance system.

The act on guidance covers guidance in the education system, especially in connection with transition within the system, and supports the Danish government’s declared goals that by 2015, 95% of all young people should complete a youth education programme, and that by 2020, 60% should complete a higher education programme. The government wishes to make it easier for citizens to make realistic decisions about learning opportunities and careers for the individual’s own sake and for the good of society as a whole. The Danish guidance system should be seen in this perspective. The system consists of the following key elements:
• 56 youth guidance centres to provide guidance services for young people up to the age of 25, focusing on the transition from compulsory to upper secondary education or, alternatively, to the labour market;
• seven regional guidance centres to provide guidance for students in upper secondary programmes and those outside the education system who wish to enter a higher education programme;
• e-guidance, which can be provided by email, chat, phone or SMS seven days a week from morning to evening, for all citizens – young persons and adults. E-guidance was launched in January 2011;
• national guidance portal: www.ug.dk is a careers information and guidance portal, which helps people to make informed decisions about education, training and careers by providing careers information; adult educational centres, which provide guidance for adults in the field of further adult education.

4.4. Role of social partners in matching provision with labour market needs in mainstream education
National trade committees and national advisory councils on initial vocational education and training (Rådet for de Grundlæggende Erhvervsrettede Uddannelser, REU) and on adult education
and continuing training (*Rådet for Voksen- og Efteruddannelse*, VEU) (Chapter 3) are responsible for updating VET programmes and ensuring that they integrate the skills and competence needs of the labour market at the national level.

A new VET programme is set up after a need has been identified by one of the national trade committees. They draw up a proposal containing some recommendations and information regarding projected job and apprenticeship opportunities, estimated intake, and analyses and forecasts regarding the skills and competence needs within the field. This proposal is sent to the education ministry, which, based on advice from REU or VEU, has the final word on whether or not to establish a suggested VET programme. Should the education ministry decide to approve the proposal, the national trade committee is responsible for outlining the objectives and scope of the programme, after which the ministry determines the financial aspects and other details before issuing a regulation describing the aims of the programme, its content, assessment, examinations, etc.

The education ministry annually compiles reports on developments in all vocational fields and the need for changes in the supply of VET programmes based on responses submitted by national trade committees. These reports are produced for each of the four basic access routes\(^{(44)}\).

VET programme curricula are agreed between national trade committees (*faglige udvalg*) and the education ministry for each individual programme. Trade committees submit recommendations to renew curricula so that VET programmes and qualifications keep up with the demands of industry, based on qualification analyses and in-depth knowledge of the field in question. Recommendations must be accompanied by quantitative and qualitative data. Committees must, for example, provide information on opportunities for employment and practical work training, on the annual intake for the scheme, and on any existing analyses and forecasts concerning qualification requirements in this area.

In a report on modernising VET, the education ministry put forward the idea of centralising VET analysis and forecasting to ensure that new skills demands, changing labour-market conditions and new occupational profiles are detected early. As a consequence, the ministry launched a survey of the trade committees’ analysis and prognosis practices to clarify the need for supplementary analyses and prognoses. At the regional and local levels, vocational colleges and social partners are able to influence VET programmes so they are adapted to the specific skills needs of local business and industry, and to regional development plans through local training committees. Their main function is to provide assistance to colleges regarding the local planning of VET programme content \(^{(45)}\), as well as strengthening contacts between colleges and the local labour market. Each college is attached to at least one local training committee to assist with its VET provision.

\(^{(44)}\) Most recent reports are available (in Danish) from https://www.ug.dk/job/artikleromjobogarbm/omarbejdsmarkedet/organisationer/faglige-udvalg [accessed 9.9.2015].

\(^{(45)}\) The local planning must respect the national framework of VET and
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AMU</td>
<td>Arbejdsmarkedsuddannelserne</td>
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<td>AVU</td>
<td>Almen Voksen Uddannelse</td>
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<tr>
<td>DE</td>
<td>Danske Erhvervsskoler</td>
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<td>EGU</td>
<td>Erhvervsgrunduddannelse</td>
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<td>EUD</td>
<td>Erhvervsuddannelse</td>
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<td>EUV</td>
<td>Erhvervsuddannelse for Voksne</td>
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<td>EUX</td>
<td>EUX</td>
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<tr>
<td>EVA</td>
<td>Danmarks Evalueringinstitut</td>
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<tr>
<td>FVU</td>
<td>Forberedende Voksenuddannelse</td>
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<tr>
<td>GSK</td>
<td>Gymnasiale Suppleringskurser</td>
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<td>GVU</td>
<td>Grunduddannelse for voksne</td>
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<tr>
<td>HF</td>
<td>Højere Forberedelseseksamen</td>
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<tr>
<td>HHX</td>
<td>Højere handelseksamen</td>
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<tr>
<td>HTX</td>
<td>Højere teknisk eksamen</td>
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<tr>
<td>KVU</td>
<td>Kortere videregående uddannelse</td>
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<tr>
<td>NCE</td>
<td>Nationalt Center for Erhverspædagogik</td>
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<td>REU</td>
<td>Rådet for de grundlæggende erhvervsrettede uddannelser</td>
</tr>
<tr>
<td>STU</td>
<td>Særligt tilrettelagt Ungdomsuddannelse</td>
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<tr>
<td>STX</td>
<td>Studentereksamen</td>
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<tr>
<td>UG</td>
<td>Uddannelses Guiden</td>
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<tr>
<td>UU</td>
<td>Ungdommens Uddannelsesvejledning</td>
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<tr>
<td>VUC</td>
<td>Voksen Uddannelses Center</td>
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<tr>
<td>VVU</td>
<td>Videregående Voksenuddannelse</td>
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Annex 1. Danish qualifications framework for lifelong learning

The various qualifications offered in the Danish education and training system are organized in accordance with the national qualifications framework set out below. The Danish qualifications framework for lifelong learning was developed by an interdepartmental working group with representatives from four separate ministries, as well as some other stakeholders from the Danish education system. At the end of 2006, the Minister for Education launched a project to draw up a Danish national qualifications framework. A proposal was approved in 2009 to place existing qualifications in the framework and was completed at the end of 2010.

In total, the Danish qualifications framework has eight levels covering all levels from the leaving examination of primary and lower secondary school to the PhD degree. It also covers supplementary qualifications, such as adult VET\(^\text{46}\). Only officially recognized, validated and quality-assured programmes are included in the qualifications framework. Informal and non-formal learning are only recognized to the extent that they are formalized through a process of the validation of prior learning corresponding to one of the included qualifications.

Quality assurance mechanisms are part of the validation process when it comes to including new qualifications in the framework. In terms of VET, trade committees (at the upper-secondary level) and further education and training committees (adult VET) assess programmes and make recommendations for their placement in the framework to be approved by the Ministry of Education. For each educational field, guidelines have been produced to aid committees in their assessment and quality-assured through consultation with independent experts. Procedures and criteria for including VET qualifications in the framework are the subject of an evaluation report compiled by the Danish Evaluation Institute (EVA, 2011).

\(^{46}\) A full overview of the various qualifications covered and their placement within the framework is available from: http://ufm.dk/uddannelse-og-institutioner/anerkendelse-og-dokumentation/dokumentation/kvalifikationsrammer/europaeisk-kvalifikationsramme-eqf?searchterm=EQF [accessed 7.7.2016].
The Danish national qualification framework (NQF)

<table>
<thead>
<tr>
<th>Level</th>
<th>Degrees and certificates</th>
<th>Certificates for supplementary qualifications</th>
</tr>
</thead>
</table>
| 1     | Certificate for the 9th grade Folkeskole (primary and lower secondary school) leaving examination | Certificate for preparatory adult education (FVU)  
Certificate for single subject courses at general adult education level G (9th grade) (AVU) |
| 2     | Certificate for the 10th grade of the Folkeskole (primary and lower secondary school) | Basic vocational education and training certificates (VET foundation course)  
Certificate for single subject courses at general adult education levels F and E (10th grade) (AVU)  
Adult vocational training certificates (AMU) |
| 3     | Certificate/ journeyman’s certificate for vocational education and training (e.g. social and health-care helper, industrial assistant) (VET) | Basic vocational education and training certificate  
Higher Preparatory Examination, single course subject (HF-enkeltfag)  
Certificate for single subject courses at general adult education level D (AVU)  
Adult vocational training certificates (AMU)  
Certificates for single subject VET courses |
| 4     | Certificate for general upper secondary education programmes (STX, HHX, HTX, HF)  
Certificate/ journeyman’s certificate for vocational education and training (e.g. social and health-care assistant, industrial technician) (VET)  
Combined general upper secondary education certificate and certificate/ journeyman’s certificate for vocational education and training (EUX) | Certificates for supplementary single subject courses at the upper secondary level (GSK)  
Higher Preparatory Examination, single course subject (HF-enkeltfag)  
Adult vocational training certificates (AMU)  
Certificates for single subject VET courses |
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<tr>
<th></th>
<th>Certificate/ journeyman’s certificate for vocational education and training (e.g. film and TV production technician, aircraft mechanic) (VET)</th>
<th>Adult vocational training certificates (AMU)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Academy profession degrees (erhvervsakademigrad)</td>
<td>Certificates for single subject VET courses</td>
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<td>Further adult education degrees (VVU)</td>
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<td>Bachelor’s degrees (Ba/Bsc)</td>
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<td>Professional bachelor’s degrees</td>
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<td>Diploma degrees</td>
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<td></td>
<td>Master’s degrees (candidatus)</td>
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<td>Master’s level degrees</td>
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<td>PhD degrees</td>
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*Source: EVA, 2011, p. 63ff.*
Annex 2. Guidance system

Provision

Four different types of guidance centre exist:
- youth guidance centres — Ungdommens Uddannelsesvejledning;
- regional guidance centres — Studievalg;
- a virtual guidance centre — e-guidance centre;
- centres for adult education and continuing training — VEU centres.

All educational institutions are obliged to provide educational support, which includes guidance to their students, particularly with regard to helping students complete their education and training. A national guidance portal, www.ug.dk, is an education guide containing information and different kind of supportive guidance tools.

Youth guidance centres: Ungdommens Uddannelsesvejledning

Local authorities must ensure that guidance is provided on choices in youth education and careers. The 56 municipal youth-guidance centres provide guidance services to young people up to the age of 25. The 56 centres represent the 98 local authorities in Denmark, each centre covering a ‘sustainable’ area in terms of the number and variety of upper secondary institutions, as well as geographical distance.

Youth guidance centres focus on guidance in relation to the transition from compulsory to upper secondary education or, alternatively, to the labour market. The main target groups are:
- pupils in compulsory school — forms 7 to 9 (10) — with focus on 15- to 17-year-olds. In cooperation with schools, guidance practitioners assess the ‘educational readiness’ of pupils before they can enter youth educational programmes. Under current legislation dating from 2014, schools will play a more dominant role in assessing pupils’ social and personal skills from 8th grade. Individual guidance will primarily be given to pupils who in 8th grade are assessed as not yet ready for youth education. All pupils will have collective guidance regarding information about possibilities in youth educational programmes, the labour market etc.:
- young people under the age of 25 who have not yet completed a youth education or training programme and are not in employment. The centres are obliged to establish contact with this group of young people and to help them get back into education and training or employment.

Local authorities define the overall framework for guidance activities in their areas. The objectives, methods, planned activities and performance (results, outcome) of each youth guidance centre are published on the Internet.

The importance of cross-sectoral cooperation is emphasised in Danish legislation on guidance to ensure a coherent guidance system and regular sharing of experience, knowledge and best practice. Youth guidance centres must thus work closely with:
- primary and lower secondary schools and youth education institutions in their respective areas;
• local businesses and the public employment service.

In cooperation with school principals, youth guidance centres organize guidance activities at schools. Teachers are responsible for the provision of general careers education from form 1 to forms 9 or 10, and youth guidance centres must participate in planning these activities in cooperation with schools. Guidance in relation to the transition to youth education is provided by youth guidance centres.

Guidance is regarded as a continuous process that should increase young people’s awareness of their abilities, interests and possibilities, thus enabling them to make informed decisions regarding education and employment. Youth guidance centres may be considered the first step in a lifelong process of guidance.

**Regional guidance centres: Studievalg**

Seven regional guidance centres have responsibility guiding:

• students in upper secondary programmes;
• young people and adults outside the education and training system who wish to enrol in a programme of higher education.

Guidance is offered on a regional basis in collaboration with institutions of youth education and higher education institutions.

Regional guidance centres are responsible for:

• guidance on the transition from upper secondary programmes to programmes of higher education;
• provision of information about all higher education programmes in Denmark and the occupations or professions that higher education programmes may lead to.

Regional centres organize a wide variety of careers education and careers guidance activities for all students in upper secondary education at students’ schools. This includes workshops, seminars and careers fairs, as well as individual and group guidance sessions.

Further, people from both of the above-mentioned target groups are welcome to call, e-mail or visit the centres to obtain information or to make an appointment for a guidance session. The regional guidance centres are contracted with the Ministry of Education for periods of four years. Like youth guidance centres, regional guidance centres are obliged to cooperate with relevant partners in their regions to ensure a coherent guidance system and a regular exchange of experience, knowledge and best practice. Relevant partners include:

• youth education and higher education institutions;
• the social partners;
• local authorities;
• eguidance centre (see below).

**E-guidance centre**

In January 2011 the Ministry of Education launched the national virtual guidance portal (www.evejledning.dk), where the national guidance unit offers its services through virtual
communication and guidance tools to guide applicants. Guidance counsellors can be contacted seven days a week from morning to evening and can be reached by e-mail, phone, text message or online chat. The unit consists of full-time staff in a centre in Copenhagen and part-time staff spread geographically and connected to local and regional guidance centres.

**VEU centres**
The national network of 13 VEU centres (see Section 3.1.3) was established in January 2010. As part of their objective of improving the quality and effectiveness of vocational and general adult education at the non-tertiary level, they provide a common gateway for guidance in this area available to both enterprises and individuals.

Enterprises can arrange a consultation where they learn more about opportunities for further education and training of their employees, available courses and opportunities for specially tailored courses to suit their particular needs, and practical matters concerning, for example, financing.

For individuals, whether in employment or not, an individual skills development plan will be compiled working towards the achievement of career-oriented goals.

As well as responding to requests for information and guidance, VEU centres also operate an outreach programme aimed at making contact especially with small and medium-sized enterprises that might otherwise not have considered the possibilities available to them. The guidance offered is independent of any individual educational institutions tied to a VEU centre.

**National guidance portal: Uddannelsesguiden.dk**
The ‘education guide’ is an Internet-based information and guidance tool. This guidance portal contains information about all education programmes and up-to-date labour-market information.

The target groups of the guidance portal are all citizens, young people, adults and parents, as well as pupils and guidance centres.

The Ministry of Education is responsible for the portal and has operational responsibility for it, as it is run in-house by its own editors.

**Virtual resource centre**
The Ministry of Education’s Department of Guidance functions as a national centre of guidance expertise for guidance practitioners. The centre is mainly aimed at professional guidance counsellors, people working with guidance-counsellor training, public authorities and decision-makers. The most important task is to contribute to the coordination and quality development of guidance by making information about guidance-related subjects available to people involved in guidance.

The resource centre processes and disseminates information about all aspects of guidance and produces some information itself. The centre covers all areas of education, training and career guidance across educational and occupational boundaries. Information about the resource centre is available to the public at www.uddannelsesguiden.dk.