VOCATIONAL EDUCATION AND TRAINING IN EUROPE

NORWAY
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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.


The opinions expressed here do not necessarily reflect those of Cedefop.

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Kingdom of Norway

Area: 385 252 square kilometres
Capital: Oslo
Population: 5 302 778 (May 2016)
System of government: Norway is a constitutional monarchy in which the power is divided between three branches: a legislative branch, which is also responsible for appropriations, the Storting (parliament); an executive branch, the Government; and a judicial branch, the courts.
Legislative power: Legislative power is vested in both the government and the Storting, elected within a multi-party system.
1. External factors influencing VET

1.1 Economy and labour market indicators

Norway is a small, open economy. Exports constitute an important part of the economy thanks to a large oil and gas sector, fishing and fish farming, shipping, and power-intensive manufacturing sectors such as metals production, industrial chemicals and paper.

For many years, Norway has had a gross domestic product (GDP) on top of the list in the OECD area. Due to the low oil price over the last two years the GDP has dropped and Norway is now number four on the list (Statistics Norway, a).

Norway’s access to energy resources has been important in the development of energy-based business sectors, wealth and growth. Unlike many other countries, the main part of Norwegian industry is located outside the metropolitan areas. Production was traditionally established at locations either close to an energy source or offering good transport links. Norway is a modern industrial economy.

A high level of investment ensures continuing modernisation of machinery and production equipment. Small and medium-sized enterprises (SMEs), defined as enterprises with less than 250 employees, constitute more than 99 per cent of all enterprises. 17 per cent of SMEs have fewer than five employees, mainly because 65.3 per cent of enterprises have no registered employees. Only 0.6 per cent of the total number of enterprises has 100 or more employees (Statistics Norway, b). These numbers indicate that apprenticeship training in Norwegian upper secondary VET often takes place in SMEs. Most people in the production sector are employed in non-marketed services, business and transport and domestic trade. Below is an overview of employment by production sector (Table 1).

Table 1. Employment by production sector 2017

<table>
<thead>
<tr>
<th>Sector</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary and utilities sector</td>
<td>4.2</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>7.9</td>
</tr>
<tr>
<td>Construction</td>
<td>9.5</td>
</tr>
<tr>
<td>Transport and domestic trade</td>
<td>18.5</td>
</tr>
<tr>
<td>Business and other services</td>
<td>24.4</td>
</tr>
<tr>
<td>Non-marketed services</td>
<td>35.4</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Statistics Norway, c
Norway’s unemployment rate was 3.6 per cent in 2010; due to an oil crisis it increased to a peak of 4.8 in 2016. The rate is decreasing again and in 2018 it was registered to 3.9 per cent (Statistics Norway, d). The youth unemployment rate, defined as the age group 15–24 years, is relatively stable and was registered to 8.9 per cent the first quarter of 2018 (Statistics Norway, e).

Demographic changes and structural and technological developments pose challenges to the education system because they affect skills demands in different ways. A report (1) by the Official Norwegian Committee on Skills Needs (Kompetansebehovsutvalget (KBU) (2018)) shows that the level of competence in Norway is good, but has potential to become better; there are considerable recruiting challenges to some vocations and there is only partly a match between skills supply and employer demand. Digitalisation and automation will contribute to a change in skills need. A survey (2) from 2017, conducted by the Confederation of Norwegian Enterprise (NHO), shows an increased need for skilled workers. 6 out of 10 enterprises reported a need for skilled workers and 4 out of 10 lost customers due to lack of skills. Over the next five years the greatest need for skills will be in crafts, engineering and technical subjects. Many enterprises report a priority of raising the skills of the people already employed, secondly through new recruitment.

1.2 Population and demographics

Norway has a population of 5.3 million. It covers a wide geographic area (385 252 km²) and ranks sixth in Europe in terms of size (3). The average population density is 13.8 persons per sq. km. 30 per cent of the population is located in the five counties (4) surrounding the Oslo fjord. 81.6 per cent of the population lives in urban settlements (5), with a population density of 2191 persons per sq.km, (Statistics Norway, f).

Demographic projections indicate that the growth in the number of young people will be lower than the average population growth. Moreover, the age group 67+ is expected to increase more than other age groups in the years to come. Currently this age group constitutes 14.8 per cent, an increase of 0.8 per cent from 2017,

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(1) https://www.regjeringen.no/no/dokumenter/nou-2018-2/id2588070/sec1
(2) https://www.nho.no/tema/kompetanse-og-utdanning/artikler/bedriftenes-kompetansebehov
(3) Including Svalbard and Jan Mayen
(4) Five counties surrounding the Østfjord: Østfold, Akershus, Oppland, Buskerud and Vestfold
(5) Urban settlements are defined as a settlement with at least 200 people and less than 50 meters between the houses.
and is expected to increase to 15 per cent by 2020, 20 per cent by 2040, 22 per cent by 2060, and 21 per cent by 2060 (Statistics Norway, g).

In 2018, immigrants and those born in Norway to immigrant parents increased with 1 per cent from 2016, representing 17.3 per cent of the total population. 48.7 per cent (370 000) of this segment of the population originates in other European countries (Statistics Norway, h). The immigrant population is spread all over the country: 55 per cent live in Oslo and the five surrounding counties, constituting 22.5 per cent of the population in the area (Statistics Norway, i).

1.3 Political and socio-economic context

Norway is a parliamentary democracy. Through the European Economic Area (EEA) Agreement, Norway is a member of the single market and participates in several EU programmes and institutional arrangements. The Norwegian parliament (Storting) decides major political principles and goals, as well as budgets and legal frameworks for activities under each ministry. Education and training is a public responsibility, where equal access to quality education is a fundamental political principle. No school fees apply at any level in the public education system, including higher education. Only a small proportion of learners and learners receive private education.

Norway has three administrative levels: state, county (fylkeskommuner) and municipality (kommuner). There are 18 counties and 422 municipalities. Each unit has a locally elected decision-making body and an executive body appointed by the relevant assembly. Local autonomy is a strong political principle. The municipalities are responsible for primary and lower secondary education, while county authorities are responsible for public upper secondary education and training.

Central to the Norwegian education and training system is the Education Act of 17 July 1998 no. 61 (Opplæringsloven), most recently amended on 01 August 2018. It covers primary, lower and upper secondary general education and VET, including apprenticeship training, for young people and adults, delivered by both public and private institutions. It states that the Ministry of Education and Research (Kunnskapsdepartementet) has overall responsibility for national policy development and administration of all levels of education and training. The counties (fylkeskommuner) and municipalities (kommuner) are responsible for developing comprehensive plans and for organising and financing within their jurisdiction.

Norway has a well-established and regulated system of cooperation between social partners and the Government. They negotiate through collective
bargaining to control wage levels and influence prices. The tripartite cooperation is also important in upper secondary VET (see more in chapter 3).

**1.4 Labour market and VET qualifications**

The employment rate of people with upper secondary VET qualifications (trade or journeyman’s certificates) is generally high: statistics show that three years after taking their examination, almost 80 per cent are employed (Norwegian Directorate for Education and Training (Udir), a). This would indicate that they have the competence and skills demanded by the labour market. The average employment rate for the general population aged below 25 years is almost 20 per cent lower (Statistics Norway, j). The employment rate for people with a trade or journeyman’s certificate is relatively high and in total 82.5 per cent, as shown in the table below (Table 2).

**Table 2. Employment status for apprentices and learners who earned a trade or journeyman’s certificate during the school year 2015/16**

<table>
<thead>
<tr>
<th>Norwegian VET Programmes</th>
<th>In employment (%)</th>
<th>In education (%)</th>
<th>Outside work and education (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service and Transport</td>
<td>77.8</td>
<td>12.2</td>
<td>10.0</td>
</tr>
<tr>
<td>Restaurant and Food Processing Trades</td>
<td>77.7</td>
<td>11.5</td>
<td>10.8</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>66.9</td>
<td>20.2</td>
<td>12.9</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>77.8</td>
<td>14.2</td>
<td>7.9</td>
</tr>
<tr>
<td>Design, Arts and Crafts</td>
<td>75.9</td>
<td>11.0</td>
<td>13.1</td>
</tr>
<tr>
<td>Health Care, Childhood and early youth Development</td>
<td>84.9</td>
<td>10.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Building and Construction</td>
<td>86.5</td>
<td>6.0</td>
<td>7.5</td>
</tr>
<tr>
<td>Electrical Trades</td>
<td>78.4</td>
<td>13.7</td>
<td>8.0</td>
</tr>
<tr>
<td>Media and Communication</td>
<td>57.8</td>
<td>27.8</td>
<td>14.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>82.5</strong></td>
<td><strong>10.2</strong></td>
<td><strong>7.3</strong></td>
</tr>
</tbody>
</table>

Source: Udir, a

However, there are differences between the qualifications in the eight VET programmes offered in Norwegian upper secondary education. In some sectors, VET qualifications enjoy strong links to the labour market, and enterprises participate actively in the training through the apprenticeship scheme (see section 2.2.1). Sectors such as traditional crafts and industrial trades and holders of trade or journeyman's certificates tend to enjoy high status.
In other VET sectors, such as the health and service sectors, upper secondary VET qualifications have a slightly weaker link to the labour market. A VET qualification in these sectors is not the only qualification needed for employment.

1.5 Educational attainment

There are regional differences in educational attainment. In Oslo for instance, 20.4 per cent of the population has tertiary education of more than four years. In the counties of Akershus and Hedmark the corresponding figures are 5.6 and 5.3 per cent respectively (Statistics Norway, k).

Educational attainment in Norway’s immigrant population varies with country background. The proportion of people with long tertiary education is higher among immigrants than among the rest of the population. The proportion of immigrants without any education or with educational attainment below upper secondary level is also higher than the population as a whole (Statistics Norway, l). In June 2018 the unemployment rate for all immigrant groups was 6.1 per cent, which is higher than the national average (Statistics Norway, m)

Table 3. Education level for persons age 16 and above in June 2018, by percentage.

<table>
<thead>
<tr>
<th>Education level</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below upper secondary level</td>
<td>26.2</td>
</tr>
<tr>
<td>Completed upper secondary level</td>
<td>37.4</td>
</tr>
<tr>
<td>Vocational college</td>
<td>2.9</td>
</tr>
<tr>
<td>Tertiary education up to four years</td>
<td>23.7</td>
</tr>
<tr>
<td>Tertiary education more than four years</td>
<td>9.7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Statistics Norway, n

1.6 Historical context

Norway enjoys a high degree of decentralisation, and through various reforms the central government has delegated responsibility to the local level. The counties are responsible for all aspects of public upper secondary general education and VET, including apprenticeship training. The apprenticeship scheme is fully integrated in the upper secondary educational system. Vocational education at EQF level 5 is nationally referred as tertiary and has developed through one of the following four paths:
• county tertiary vocational education colleges' programmes building on vocational secondary education, often leading to qualifications of master craftsperson;
• state-funded private schools originally recognised as “secondary education without parallel to public provision”, several of which offer education in art, culture or Bible studies;
• state- and county-funded programmes in health and social studies;
• private provisions in media, design, communication, administration, logistics and ICT. These are generally developed through training needs resulting from new and emerging technologies and labour market demands.
2. Provision of VET

2.1 Chart of the Norway’s education and training system

NB: ISCED-P 2011.
Source: Cedefop and ReferNet Norway.
2.2 Introduction and government-regulated VET provision

The vocational education programs shall lead to a qualification that gives the opportunity to practice in a specific vocation. The programs shall also, in line with the objectives of the training and overall values, help the learners and apprentices in their personal development. The vocational education programs have an intrinsic value beyond promoting the learners' and apprentices' professional development.

Vocational education starts at upper secondary level (EQF4). From upper secondary VET there are some progress routes to higher education. One option is higher vocational education at vocational colleges (EQF 5). Two years higher vocational educations give access to higher education. Another option is the bridge course to access higher education. A few vocations also have a direct progress route to higher education (Y-veien).

2.2.1. Upper secondary VET structure

In 2006 there was a Norwegian school reform, the Knowledge promotion reform, which covered both lower and upper secondary education and training and led to changes in curricula, school organisation and school structure. The overall goal was to develop basic skills and competences for all learners to participate in the society. There was also an increased focus on the schools responsibility concerning equal opportunities for all. As a result basic skills were included in all subjects, all the curricula were re-written and a new structure was introduced. People who complete compulsory lower secondary education in Norway have a statutory right to three years of upper secondary education. The learner have the right to enter one of their top three wishes for upper secondary education, but the final grades from lower secondary school determine if top one wish is met. They may choose from five general education study programmes and eight VET programmes (see Table 4 below). Most upper secondary VET programmes lead to a trade or journeyman’s certificate (fag- og svennebrev) at NQF level 4A (EQF 4). Currently 194 certificates are available at this level of education. Norway has a well-developed upper secondary VET apprenticeship system, which is part of the formal education and training system and enjoys a high degree of confidence among stakeholders. 43.9 per cent of learners who entered upper secondary education in 2017 chose a vocational programme. Most learners in upper secondary education are in the age group 16–18 years and this group represents
85 per cent of all VET learners. The age group 19-24 represent 9.6 per cent, 25-29 = 2.1, 30-34 = 1.4 and 35+ represents 1.8 per cent (Statistics Norway, o).

Table 4. VET programmes at upper secondary level and share of learners in the programmes, EQF level 4A, 2018

<table>
<thead>
<tr>
<th>VET programme</th>
<th>No. of available trade and journeyman's certificates</th>
<th>Per cent of total number of VET learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction</td>
<td>23</td>
<td>12.2</td>
</tr>
<tr>
<td>Design, Arts and Crafts</td>
<td>49</td>
<td>5.7</td>
</tr>
<tr>
<td>Electrical Trades</td>
<td>21</td>
<td>15.3</td>
</tr>
<tr>
<td>Health Care, Childhood and early youth Development</td>
<td>8</td>
<td>28.0</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>8</td>
<td>6.4</td>
</tr>
<tr>
<td>Restaurant and Food Processing Trades</td>
<td>12</td>
<td>5.1</td>
</tr>
<tr>
<td>Service and Transport</td>
<td>8</td>
<td>11.5</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>65</td>
<td>15.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>194</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Udir, b

2.2.1.2 The 2+2 pathway (apprenticeship model)
Most upper secondary VET programmes follow the main 2+2 model. The model entails two years of education in school followed by two years of formal apprenticeship training. The final exam is a trade or journeyman’s test leading to an EQF level 4 qualification. The apprenticeship entails training and productive work in a training enterprise or public institution.

The schools are responsible for the first two years of education and training, while the enterprises are responsible for the final two years. The apprenticeship is formalised through a signed contract between the apprentice and the teaching company. However, the county authorities have an overarching responsibility for all aspects of public upper secondary education and training, including
apprenticeship training. The apprenticeship contract must be approved by the county municipality.

**Figure 1 - The 2+2 pathway (apprenticeship model) with structure of subjects**

<table>
<thead>
<tr>
<th>Upper Secondary Education and Training</th>
<th>4 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Core Subjects 30%</td>
<td></td>
</tr>
<tr>
<td>Common Core Subjects 25%</td>
<td></td>
</tr>
<tr>
<td>Common Programme Subject 50%</td>
<td></td>
</tr>
<tr>
<td>Common Programme Subject 50%</td>
<td>Apprenticeship in enterprise</td>
</tr>
<tr>
<td>Vocational specialisation 20%</td>
<td>Vocational specialisation 25%</td>
</tr>
<tr>
<td>Apprenticeship in enterprise</td>
<td></td>
</tr>
</tbody>
</table>

The curricula and the number of teaching hours per subject at each level are laid down in regulations, and the schools and training enterprises are required to comply with them. As shown in Figure 1, the subjects covered during the first two years of school-based VET are divided into three main categories. The common core subjects (fellesfag) (Norwegian, English, mathematics, physical education, natural sciences and social sciences) are the same for all VET programmes. Common programme subjects (programfag) cover trade-specific theory and practice. During the first year (upper secondary level 1) these subjects offer a general introduction to the vocational field. During the second year (upper secondary level 2) these subjects become more specific as learners decide which trade they want to pursue.
The vocational in-depth study subjects allow learners to alternate between school and enterprise and gain an early introduction to working life and gain a realistic working-life experience at an early stage of their education. Enterprises are invited to define the content of the training, based on local and regional needs. Vocational in-depth study subjects give learners the option to try out one or more recognised trades (yrkesfag).

Learners’ competencies are assessed continuously throughout the four years of education and training, in school by the teacher and in apprenticeship by the training supervisor. In addition, they have to take exams in individual subjects developed at local and county level. Learners may also be randomly selected to take nationally organised examinations in common core subjects. Most learners have passed exams in vocational subjects after two and four years of training. After two years in school, learners take an interdisciplinary local practical exam which covers all the vocational subjects.

72 per cent of the vocational educations available at upper secondary level have this as education pathway and it leads to a trade or journeyman’s certificate, EQF level 4. Examples of vocations are goldsmith, winder, painter and roofer.

2.2.1.3 The 3 years school-based pathway
This alternative entails three years of vocational education in school. The curricula and the number of teaching hours per subject at each level are laid down in regulations, and the schools are required to comply with them. As shown in the figure, the subjects covered during the first two years of school-based VET are divided into three main categories. The common core subjects (fellesfag) (Norwegian, English, mathematics, physical education, natural sciences and social sciences) are the same for all VET programmes. Common programme subjects (programfag) cover trade-specific theory and practice. The third year covers common programme subjects (programfag) with trade-specific theory and practise.

At upper secondary level, 10 per cent of the vocational programmes lead to a professional competence qualification at EQF level 4. Examples of vocations are: interior designer, piano repair, space technology, pharmacy technician, medical secretary and gardening.
2.2.1.4 Organising apprenticeship training in 2+2 VET programmes
After two years of school-based education, most VET programmes involve a two-year apprenticeship in a training enterprise. This period is equivalent to one year of practice-based training and one year of productive work for the training enterprise. During the first year as an apprentice with practice-based training the enterprise focus on teaching. There is no expectation to profit-making. The second year with productive work is expected to be profit-making for the company. After two years in school, the apprentice signs a legally binding apprenticeship contract with the training enterprise and a representative from the county authorities. By law, apprentices are employees of the enterprise, with the rights and obligations that follow. They are entitled to a salary that increases with the apprentice's productivity during the two-year apprenticeship period. Salary increases normally start at 30 per cent and increase to 80 per cent of a skilled worker’s salary. For the school year 2017/18, 66 562 vocational learners are registered in upper secondary education in Norway and there are 41 480 apprentices with apprenticeship contracts (Table 5).
Table 5. Number of apprentices and learners by VET programme in school year 2017/18

<table>
<thead>
<tr>
<th>Programme</th>
<th>Learners</th>
<th>Apprenticeships contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction</td>
<td>8 113</td>
<td>8 808</td>
</tr>
<tr>
<td>Design, Arts and Crafts</td>
<td>3 816</td>
<td>1 786</td>
</tr>
<tr>
<td>Electrical Trades</td>
<td>10 201</td>
<td>7 798</td>
</tr>
<tr>
<td>Health Care, Childhood and early youth Development</td>
<td>18 637</td>
<td>7 165</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>4 266</td>
<td>1 173</td>
</tr>
<tr>
<td>Restaurant and Food Processing Trades</td>
<td>3 347</td>
<td>2 054</td>
</tr>
<tr>
<td>Service and Transport</td>
<td>7 587</td>
<td>4 848</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>10 518</td>
<td>7694</td>
</tr>
<tr>
<td>Total</td>
<td>66 485</td>
<td>41 326</td>
</tr>
</tbody>
</table>

Source: Udir, c

There is no statutory right to an apprenticeship placement in a training enterprise. However; learners have a right to upper secondary education. In January 2018 there were 28 900 applicants for 20 800 approved apprenticeship contracts in training enterprises. Because learners have a right to upper secondary education, county authorities are required to provide one year of practical school-based training (Vg3 opplæring i skole), equivalent to the apprenticeship training. The practical school-based training prepares the learners for a trade or journeymen’s test, EQF level 4. The alternative is costly for the VET schools and, thus, the county authorities.

County authorities must approve enterprises seeking to provide apprenticeship training. Approval is granted if the enterprise meets training requirements for the trade curriculum. County authorities also have the right to revoke approval if training is not conducted according to the contractual agreement and national curriculum. In 2017 all training enterprises received a state grant of
approximately EUR 15 000 per apprentice for a 12-months training period. The grant covers the training period only, not the productive component. The grant is distributed evenly throughout the apprenticeship period in the company. The grant is supposed to cover costs related to training the apprentice. Additional grants are given to enterprises either for offering apprenticeships in rare and protected crafts (små og verneverdige fag) or for accepting apprentices or training candidates with special needs.

Training enterprises often establish umbrella organisations called apprenticeship training agencies (ATAs) (opplæringskontorer) to secure training according to curricula and regulations, and to reduce administrative burdens. These umbrella organisations are financed by the county municipality. About 70–80 per cent of training enterprises are associated with such agencies. The ATAs formally enter into contractual agreements with county authorities and assume responsibility for training apprentices. Nonetheless, county authorities must approve each individual training enterprise. ATAs often take responsibility for recruiting new training enterprises and for training staff involved in the tutoring of apprentices.

After two years of apprenticeship training, learners in upper secondary VET take a practical-theoretical trade or journeyman’s test (Fag- og svenneprøve). In the test, candidates demonstrate their vocational skills, and explain and justify the methods chosen to solve the test assignments. Successful candidates are awarded a trade certificate (fagbrev) for industrial and service trades, or a journeyman’s certificate (svennebrev) for traditional crafts. The two certificates have equal status based on similar sets of theoretical knowledge and practical skills. A county-appointed, trade-specific examination board prepares and assesses the examination. The minimum requirement for being a board member is a formal vocational education. The county authorities award the certificate. In 2017, 82.6 per cent of candidates who entered a VET programme in 2012 passed the exam, 5.8 per cent completed their apprenticeship but failed the exam, 10.8 per cent failed to complete their apprenticeship and 0.8 per cent are still undertaking their apprenticeship (Udir, d).

2.2.1.5 Supplementary studies qualifying VET learners for higher education

After two years in a VET programme, learners may transfer to a third year of supplementary studies that qualify them to enter higher education (Påbygging til generell studiekompetanse). This year leads to a qualification at NQF level 4B and EQF level 4. This pathway replaces the two-year apprenticeship period, and the learners will thus not receive a trade or journeyman’s certificate. In 2017, 8200 learners (27.8 per cent of the VET learners) selected this option after their second year in a VET programme (Udir, e). The third year is a 'packaged' course
in the six key academic subjects of Norwegian, English, mathematics, natural sciences, social sciences, and history, and successful candidates satisfy the general admission requirements to higher education (on par with those taking general study programmes). Apprentices also have a statutory right to a year of supplementary studies after passing the trade- or journeyman’s test, a fifth year of training. The fifth year is supplementary studies which qualify for higher education.

2.2.2 Alternative pathways
At upper secondary level, 72 % of the vocational educations are structured according to the two main models (2+2 and 3+0). 28 % of the vocational educations require an alternative structure. The alternative structures are a result of craft-specific requirements.

2.2.2.1 The 1 + 3 alternative
This alternative is for subjects with too small number of learners to create a learning environment the second year at upper secondary school. The model entails one year of education in school followed by three years as an apprentice in an enterprise, a total of four years. The first two years in an enterprise are training and the last year is value creation. The apprenticeship includes training in program subject and common core subjects. During the apprenticeships there is a compulsory exam in programme subjects; additionally the apprentices may be chosen for an exam in common core subjects (Norwegian, English, Social studies).

This path leads to a trade or journeyman’s certificate, EQF level 4. Examples of vocations are: building operations, chimney sweeper, masonry, gilding, engraving, ropemaking, locksmithing and industrial footwear production.

2.2.2.2 The 2 + 2.5 alternative
A few vocations require an expanded apprenticeships training and this alternative entails two years of education in school followed by 2.5 years of formal apprenticeships training.

The subjects covered during the first two years of school-based VET are divided into three main categories. The common core subjects (fellesfag) (Norwegian, English, mathematics, physical education, natural sciences and social sciences) are the same for all VET programmes. Common programme subjects (programmefag) cover trade-specific theory and practice. During the first year (upper secondary level 1) these subjects offer a general introduction to the vocational
field. During the second year (upper secondary level 2) these subjects become more specific as learners decide which trade they want to pursue.

The two years in school are followed by 2.5 years of apprenticeships training in an enterprise.

This path leads to a trade or journeyman’s certificate, EQF level 4. Examples of vocations are remotely operated subsea operator, telecom worker and lift installer.

**2.2.2.3 The 3 + 1 alternative**

A few vocations require an expanded training and this alternative entails three years of education in school followed by 1 year of formal apprenticeships training.

The subjects covered during the first three years of school-based VET are divided into three main categories. The common core subjects (fellesfag) (Norwegian, English, mathematics, physical education, natural sciences and social sciences) are the same for all VET programmes. Common programme subjects (programfag) cover trade-specific theory and practice. During the first year (upper secondary level 1) these subjects offer a general introduction to the vocational field. During the second year (upper secondary level 2) these subjects become more specific as learners decide which trade they want to pursue. The three years in school are followed by 1 year of apprenticeships training in an enterprise.

This path leads to a trade or journeyman’s certificate, EQF level 4. Vocation example is heavy equipment mechanic.

**2.2.2.4 The 3 + 1.5 alternative**

A few vocations are complex and require an expanded training period. This model entails three years of education in school followed by 1.5 years of formal apprenticeship training.

The subjects covered during the first two years of school-based VET are divided into three main categories. The common core subjects (fellesfag) (Norwegian, English, mathematics, physical education, natural sciences and social sciences) are the same for all VET programmes. Common programme subjects (programfag) cover trade-specific theory and practice. During the first year (upper secondary level 1) these subjects offer a general introduction to the vocational
During the second year (upper secondary level 2) these subjects become more specific as learners decide which trade they want to pursue.

The third year covers common programme subjects (programfag) with trade-specific theory and work based learning. The three years in school are followed by 1.5 years of apprenticeships training in an enterprise.

This path leads to a trade or journeyman’s certificate, EQF level 4. Examples of vocations are automation and computer electronics.

**2.2.2.5 The 3 + 2 alternative**

A few vocations require an expanded training and this alternative entails three years of education in school followed by 2 years of formal apprenticeships training.

The subjects covered during the first three years of school-based VET are divided into three main categories. The common core subjects (fellesfag) (Norwegian, English, mathematics, physical education, natural sciences and social sciences) are the same for all VET programmes. Common programme subjects (programfag) cover trade-specific theory and practice. During the first year (upper secondary level 1) these subjects offer a general introduction to the vocational field. During the second year (upper secondary level 2) these subjects become more specific as learners decide which trade they want to pursue.

The three years in school are followed by 2 years of apprenticeships training in an enterprise.

This path leads to a trade or journeyman’s certificate, EQF level 4. Examples of vocations are maritime electrician, avionic mechanic and aircraft power plant mechanic.

**2.2.2.7 Vocational and general education qualification (Yrkes- og studiekompetanse - YSK)**

This alternative is only available in some county municipalities and is not part of the national VET structure. The YSK is four years run which leads to both a craft- or journeyman certificate and a general education qualification at EQF level 4 after completion. Schools offering YSK have a close cooperation with enterprises in which the learners have training the first two years and apprenticeships training the last two last. The training is contract based from the first year. The theoretical training is at school. The learners receive a salary for the training in enterprise from day one, after two year they are legally apprentices with salary
accordingly. YSK is an option for learners who aim for higher education, but also wish a vocational education as a base. The scheme is demanding and the learners need a good academic base from lower secondary school, especially in mathematics and science. Below is a figure visualising the YSK model with possible structure of subjects.

Examples of vocations are; industrial machinery mechanic, welder, sheet metal worker and industrial plumber.

**Figure 3 - YSK alternative with possible structure of subjects**

![Diagram of YSK model with possible structure of subjects]

### 2.2.3 Other schemes

#### 2.2.3.1 The Training Candidate Scheme

The Training Candidature Scheme (læreknidatorndningen) targets learners who for various reasons struggle to achieve the requirements for the trade or journeyman’s certificate. The scheme started in 2000, and gives learners the possibility to obtain a specially adapted qualification at a lower level than a trade or journeyman’s certificate. The training candidate signs a training contract (opplæringskontrakt) with a training enterprise, which will lead to a skills test
While learners in the apprenticeship scheme must fulfil all the objectives set in the curriculum, a training candidate receives adapted training in a limited number of curricular goals. A training candidate therefore has a less comprehensive exam that leads to a vocational training certificate (kompetansebevis) at EQF level 3 when completed.

A training candidate may convert the training contract into an ordinary apprenticeship contract while in training should he/she decide to aim for a trade or journeyman’s certificate. The scope of the Training Candidate Scheme has increased by 5.8 per cent from 2016 to 2017.

2.2.3.2 Dual vocational education (Vekslingsmodellen)

This scheme introduces learners to the working life and their future occupations earlier and more extensively than in the main 2+2 pathway. This is done by alternating theory and practice or by carrying out more of the educational activity in enterprises. The dual vocational training system starts sending the learners to practise in companies one day a week the first semester and two days a week from the second semester. An apprenticeship contract is signed after the first school year, in contrast to the regular 2+2 with contract signing after two years in school.

The scheme is currently being tested in 13 county municipalities in Norway. The first learners started this training in 2013. The first two reports have been published and show that the scheme has a positive effect on motivation and learning and encourages a stronger cooperation between school and enterprises. On the other side, it is a challenging scheme to shape, establish and run. The project is ongoing till 2018. The Ministry will conclude if this scheme will be implemented or not after the final report.

2.2.3.3 Module structured training

Module structured training is offered in selected VET courses at upper secondary level. The pilot started in 2017 and expected duration is 3 years. It makes VET more available for adults through more flexible and tailored VET systems.

2.2.4. Routes to post-secondary and tertiary education and training

Holders of a trade or journeyman’s certificate may pursue further studies at post-secondary level programmes at EQF level 5 provided by tertiary vocational
education college (fagskole) (see also section 2.2.2). They can also qualify for higher education as outlined in the text below.

In Norwegian higher (tertiary) education, all vocationally oriented courses and programmes are part of the ordinary higher education system. There is no formal or other distinction between vocational, professionally oriented and non-vocational higher education. Access to higher education is facilitated through multiple pathways:

a) upper secondary school leaving certificate based on successful completion of one of the general or academic programmes in upper secondary education;

b) third year of supplementary studies qualifying VET learners for admission to higher education (see section 2.2.1);

c) an upper secondary vocational qualification (a craft or a journeyman's certificate), plus successful completion of the one-year supplementary study qualifying for admission to higher education;

d) the '23/5' pathway: Applicants aged 23 or above with at least five years of work experience, or a combination of education and work experience, and who have successfully passed the course in the six key subjects mentioned above; see section 2.2.4 below;

e) recognition of prior learning (RPL): Access based on individual assessment of formal, informal and non-formal qualifications is open to applicants aged 25 or above. Applications for admission on the basis of RPL are processed locally at each institution; see section 2.2.4 below;

f) VET pathway to higher education (Y-veien): Tailor-made engineering programmes at bachelor level (ISCED 655); specific relevant vocational qualifications from the upper secondary level satisfy the admission criteria; and,

g) graduating from two years vocational college (EQF level 5).

2.2.5 Post-secondary vocational education and training (nationally referred as tertiary)

In Norway, the term tertiary (tertiær) refers to all formal post-secondary education and training, i.e. both higher education (EQF levels; 6, 7 and 8) and tertiary vocational education (fagskoleutdanning) at EQF level 5.
2.2.5.1 Post-secondary vocational education

The Act relating to Post-secondary (nationally referred as tertiary) Vocational Education (Lov om fagskoler) of 2003, most recently amended in June 2018, regulates public and private vocational education colleges offering qualifications at EQF and NQF level 5. This level of education and training is not part of the higher education system. Providers at this level offer courses and programmes of 6 months’ to 2 years’ duration and in special cases up to 3 years. Providers design their own courses and curricula, with learning outcomes as an integral part of all programme designs. Programmes must be approved by the Norwegian Agency for Quality Assurance in Education (Nasjonalt organ for kvalitet i utdanningen (NOKUT)), the agency responsible for accreditation and quality control.

There are few learners at this level, 15,271 in 2017 compared to 293,123 in higher education (Statistics Norway, n). 47 per cent of these learners attended private colleges in 2017 (Statistics Norway, p). The public colleges at this level are administered by the county authorities (except for 14 funded directly by the Ministry of Education and Research). The public colleges are required by law to offer good quality training and to cover local/regional labour market demands for skills at this competence level (mainly in technical, maritime, and health and social studies).

Access is based on an upper secondary general or vocational qualification, depending on the branch of study, or validated prior learning (VPL) (see 2.2.4). No practical work experience is required. However, many programmes, particularly those aimed at the health and social service sector, are designed as part-time courses, where learners are required to work part-time and undertake project assignments at a workplace, often their own. No age restrictions apply.

Candidates who have completed a two-year post-secondary vocational education and training programme qualify for some engineer educations and some technical educations at higher level. The framework curricula for the bachelor programmes in engineering allow for the recognition of relevant two-year technical post-secondary vocational education as one year of the engineering programme. Some vocational education colleges have agreements with higher education institutions whereby their graduates are directly admitted to the second year of engineering programmes in the relevant field of study. However, such agreements often set conditions for technical vocational college learners. For
instance, engineering at higher education level requires college candidates to spend 3½ or 4 years on completing their bachelor’s degree.

The Norwegian Qualifications Framework of December 2011 contains two sets of learning outcome level descriptors for tertiary vocational education at EQF 5, called, ‘fagskole 1’ for partial-level completion (duration 0.5-1 year) and ‘fagskole 2’ for full-level completion (duration 1 – 2 years).

2.2.5.2 Tertiary (Higher) education

The Act relating to Universities and University Colleges (Lov om universiteter og høyskoler), most recently amended in 2016, applies to all tertiary (higher) education (state and private, vocational and non-vocational). The Act regulates organisational and management aspects, provides for the recognition of study programmes, admission, examinations and certification, quality assurance, and the learning environment for learners. NOKUT is the quality assurance and accreditation agency for higher education.

In Norwegian higher education, all vocationally oriented courses and programmes are part of the mainstream system. There is no formal or other distinction between vocational and non-vocational higher education.

Higher education institutions design their own courses and programmes in accordance with the Regulations on Quality Assurance in Higher and Tertiary Vocational Education. NOKUT has specified further quality criteria for evaluations and accreditation according to level (bachelor, master, and PhD). The criteria are laid down in regulations. The higher education institutions are required to develop their own quality assurance systems, which need to be re-accredited by NOKUT every six years. With the implementation of the National Qualifications Framework for Higher Education in 2009, now part of the Norwegian Qualifications Framework for Lifelong Learning (2011), which comprises all levels, learning outcomes are an integral part of all programme design.

There are no tuition fees at state higher education institutions for mainstream programmes, and no age limits for admission or attendance. Learners aged between 18 and 65 may receive financial support from the Norwegian State Educational Loan Fund (Statens lånekasse for utdanning).

To ensure relevance in provision, higher education institutions are encouraged to cooperate with business and industry. All higher education institutions are required to have a consultative council for cooperation with working life (Råd for
samarbeid med arbeidslivet (RSA)) and to develop a strategy for such cooperation.

The Norwegian agency for internationalisation and quality enhancement in higher education is an agency under the Ministry of Education and Research mandated to stimulate all levels of education to cooperate across border, enhance quality development in higher education and to develop and offer flexible programmes and courses based on ICT in higher education. The agency also stimulates to coordinated activities within the field of lifelong and flexible ICT-supported or multimedia learning in higher education. Flexible modes of provision (part-time, distance, decentralised, media- and/or ICT-based) are common, and the distinction between flexible and non-flexible modes is becoming blurred with the increasing flexibility of mainstream, on-campus programmes (web-based course provision and information, registration, assignments and feedback by e-mail, etc.), many programmes in higher education institutions are open to part-time study.

The first MOOCs (Massive Online Open Courses) were offered by Norwegian higher education institutions in 2013. Today Norway has an online MOOC platform with a wide selection of MOOCs from several universities and academies in Norway. The courses are open to everyone, and many of them are free of charge. Most of the courses conclude with a diploma, but some conclude with an exam and, possibly, credit points (ECTS).

2.2.6 Master craftsman education

The Act relating to Master Craftsman Certificates (Lov om mesterbrev) of 1986, most recently amended in 2015, establishes the framework for the master craftsman certificate (mesterbrev). Master craftsman education is VET for holders of a trade or journeyman’s certificate who also have several years of relevant work experience and wish to set up their own business or hold a managerial position in a craft enterprise. The training, which combines general business management, marketing, and vocational theory, is a public certification scheme under the responsibility of the Ministry of Trade, Industry and Fisheries (Nærings- og fiskeridepartementet). It is administered by the publicly appointed Master Craftsman Certificate Committee (Mesterbrevnemnda (MCC)), which determines training standards and practice requirements and awards the certificate.

The MCC defines the curricula based on input from professional master craftsmen and relevant social partners. In 2016 the curricula were revised in five fields of study to make them more relevant. Different institutions, such as
Folkeuniversitetet (FU), Norges grønne fagskole – Vea, Blimester (www.blimester.com) and post-secondary (tertiary) vocational education schools, provide master craftsperson education.

The training covers general administrative subjects, e.g. organisation and management, marketing and financial control, as well as craft theory. Common subjects are delivered part-time over the course of two years (the training is typically combined with full-time work as an employee or owner of an SME). ICT is integrated into the whole course. Both common subjects and craft theory are offered as evening and part-time courses. Distance education courses are also available.

Courses in common subjects conclude with a written examination. In craft theory, a written examination is held for each master craftsman subject. Learners may also take the examination as private candidates. In recent years, MCC has further extended the education system for master crafts persons. As a result, learning output-based degrees from other providers can also be recognised.

Successful candidates obtain the title “Master Craftsperson”. The master craftsman certificate is awarded in 73 different crafts covering all traditional trades in which journeyman’s examinations are held and journeyman’s certificates issued, as well as some (newer) trades with craft examinations and certificates. The Master Craftsman education is still to be linked to NKF / EQF.

2.2.7 VET for adults and reintegration into education and training

Dropping out of upper secondary education and training in Norway does not necessarily lead to a dead end. Combined with work experience, a well-developed adult education system and opportunities for validation of prior learning (realkompetansevurdering (VPL)) facilitates reintegration into education and training. More adults attend upper secondary VET education and the most recent numbers show an increase of 4.8 per cent from the school year 2013/14 to 2014/15 (Udir, f).

2.2.7.1 Reintegration into upper secondary VET

60 per cent of the adult population participate in life-long learning in general. An analysis of statistics for VET qualifications reveals a high level of participation by adult learners (see Table 6 below). Of all trade and journeyman’s certificates completed in 2015, 46 per cent of graduates were aged above 24 years.
A reason for the high participation rate of adults may also be that those without upper secondary education and training have a statutory right to receive it. Furthermore, adults may sign apprenticeship contracts with training enterprises. The grant given to training enterprises accepting adult apprentices (basistilskudd II) is about EUR 6,000 per year per apprentice. In addition, there are two documentation schemes where adults can assess their practical experience, namely validation of prior learning (realkompetansevurdering (VPL)) and experience-based trade certification (praksiskandidat).

The VPL targets adults who have worked in a trade for years with little schooling and no formal qualifications. According to the Education Act\(^{(6)}\), adults have a statutory right to have their prior informal and non-formal learning assessed against national curricula. The assessment process may result in an exemption from parts of the training schedule and a shorter period of training before taking the final exam. County authorities are required to provide adult education.

\(^{(6)}\) Education Act, Section 4A-3. “The right to upper secondary education and training for adults”. Adults who have completed primary and lower secondary education or the equivalent but who have not completed upper secondary education and training have on application the right to take upper secondary education and training. The first sentence applies to adults as of the year they become 25 years of age. […] Adults who have the right to upper secondary education and training have the right to an assessment of their formal, informal and non-formal competence and to a certificate of competence.”
adapted to individual needs and circumstances. For some adults the validation process is a step on the way towards obtaining a trade or journeyman’s certificate.

The Education Act (sections 3-5) gives the right to candidates for experience-based trade certification (praksiskandidat) to take the trade or journeyman's test without an apprenticeship. The candidate must demonstrate comprehensive competence in the field, and cover the objectives in the curriculum (apprenticeship training). The length of the candidate’s work experience in the field must be equivalent to the length of the apprenticeship period plus 25 per cent (normally five years of practice) and the candidate must pass a theoretical exam. Relevant previous education is recognised as practical training, according to established rules. Table 7 below shows the total number of completed trade and journeyman’s certificates and the number of certificates awarded under the experience-based scheme in 2013, 2014 and 2015.

**Table 6. Completed trade and journeyman’s certificate for experience-based candidates**

<table>
<thead>
<tr>
<th>Certificates</th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of trade and journeyman's certificates</td>
<td>24 148</td>
<td>25 197</td>
<td>25 670</td>
</tr>
<tr>
<td>Total number of experience-based candidate trade and journeyman's certificates</td>
<td>8 166</td>
<td>8 708</td>
<td>8 996</td>
</tr>
<tr>
<td>Total per cent of experience-based candidate trade and journeyman's certificates</td>
<td>33.82</td>
<td>34.56</td>
<td>35.04</td>
</tr>
</tbody>
</table>

Source: Udir, h

The total number of trade- and journeyman’s certificates completed with the basis of validation of prior learning has increased with 10.2 percent from 2014/15 to 2016/17. These certificates constitute 38.4 per cent of the total trade- and journeyman’s certificated successfully completed in 2017.

**2.2.7.2. Reintegration into tertiary education**

There is no single all-encompassing strategy for validation of prior learning (VPL, realkompetansevurdering) at national level. However, there are laws and regulations on validation of prior learning for each level of education and training.
The counties at regional level are responsible for validation of prior learning at primary and secondary level, and the Norwegian Directorate for Education and Training has developed guidelines for the validation process. There are also validation mechanisms in enterprises, such as documenting workers’ competences mentioned in the Basic Agreement between the Confederation of Norwegian Business and Industry (NHO) and the Norwegian Confederation of Trade Unions (LO).

Adults can be admitted to tertiary vocational education and to higher education based on an individual assessment of informal, non-formal and formal qualifications (VPL). For VPL-based admission to higher education, applicants must be aged 25 or above. In addition, vocational colleges and higher education institutions are free to recognise parts of a study programme based on non-formal and informal learning, making it possible for mature learners to qualify in less time than the prescribed period of study.

The Act relating to Post-secondary (nationally referred as tertiary) Vocational Education (Lov om høyere yrkesfaglig utdanning) provides for the use of VPL in connection with admission to and recognition of parts of programmes. Guidelines on the use of VPL (published by Skills Norway, the Norwegian Agency for Lifelong Learning) ensure quality. After an amendment to the Act in June 2016, it is now possible to apply for recognition of foreign post-secondary vocational education as equivalent in level and scope to Norwegian.

The Act relating to Universities and University Colleges (Lov om universiteter og høyskoler) provides for the use of VPL in connection with both admission to and recognition of parts of study programmes. The use of VPL is widely practiced in connection with admissions. It is less frequently used to recognise parts of study programmes. Skills Norway has published a guide, developed in cooperation with the Norwegian Association of Higher Education Institutions (UHR), to promote the use of VPL for recognising parts of study programmes.

2.8 Other forms of training

The Adult Education Act (Lov om voksenopplæring) of 1976, most recently amended in 2010, regulates different types of adult training not covered by the Education Act. Education and training for adults is provided by a variety of public and private institutions. Among the most important institutions are private adult learning study associations (studieforbund), labour market training institutions, work-based training and distance education.
2.8.1 Private VET at the initiative of the individual

Adults wanting VET outside the workplace and public education have many opportunities. Publicly recognised adult learning associations (studieforbund) and distance education and e-learning institutions (fjernundervisningsinstitusjoner) throughout the country offer all kinds of courses on a commercial basis, from work-related ones to the more personally oriented. In 2017, there were 15 recognised adult learning associations. Full-time, part-time and evening options are available for most courses, and delivery modes comprise traditional classroom, distance education, and e-learning. Many people use distance education to prepare for craft examinations and upper secondary school examinations. Most distance education courses are open to everyone. For courses leading to higher education qualifications, normal admission requirements apply; see description in section 2.2.1. The Government subsidises courses offered by recognised institutions.

The adult education associations are non-governmental umbrella organisations representing a total of 475 member organisations (www.vofo.no) voluntary organisations, including political parties, employers’ and sector organisations and trade unions, humanist organisations and other interest groups. In 2017, a total of 522 458 learners attended courses delivered by adult education institutions (Voksenopplæring, studieforbundenes opplæringsvirksomhet). 57 per cent were women and only 27.4 per cent were aged below 30 (Statistics Norway, q). Adult learners are, subject to certain conditions, entitled to financial support from the Norwegian State Educational Loan Fund (Statens lånekasse for utdanning).

Twenty-one publicly recognised distance education institutions provide needs-based training using specially adapted training materials and long-distance communication with a teacher. Courses cover training according to public, national curricula at secondary, post-secondary vocational and tertiary levels, and personally oriented courses. These learning opportunities are of particular interest in Norway and other sparsely populated countries. In 2018, there were 10 387 people undertaking a distance education course. 66.5 per cent were women and 46.1 per cent were aged below 30 (Statistics Norway, r).

VET courses offered by adult education associations (studieforbund) and distance education associations (fjernundervisningsinstitusjoner) are most often delivered part-time by school teachers from the upper secondary VET level. Hence, there is no distinction between VET teachers in these two types of training provision; see section 2.2.1 above.
2.8.2 Training for employment and integration

Labour market training for unemployed people and language and vocational training for immigrants also constitute important components in the Norwegian education and training system. Training is embedded in several of the public measures targeting unemployed people and other vulnerable groups in the labour market. Such measures vary according to fluctuations in the labour market and the number of people with specific needs for support.

The Youth Guarantee (ungdomsgaranti) is a measure to prevent long-term unemployment and inactivity among young people. The guarantee ensures that young people under the age of 20, who are not in employment, education or training, have access to labour market measures.

Training in sheltered workshops (Kvalifisering i arbeidsmarkedsbedrift) aims to supply vocationally challenged people with practical skills in order to find ordinary employment. The maximum duration is two years, but this may be extended if the participant wants to pursue a trade or journeyman’s certificate. The programme takes place in a labour market enterprise (Arbeidsmarkedsbedrift). The participants receive a financial compensation.

Labour market training (Arbeidsmarkedsopplæring (AMO)) aims to equip unemployed persons aged over 19 with vocational skills that will help them find (re)employment. Courses last between one week and 10 months, and may combine formal curricula of VET and informal work practice. They may be part of and lead to a trade or journeyman’s certificate or other formal qualification.

In-house training (bedriftsintern opplæring) aims to prevent exclusion from working life by strengthening the competence of employees who work in enterprises facing serious restructuring problems.

To counteract drop-out from working life because of poor basic skills, the Government established in 2006 CompetencePlus (Kompetansepluss), a programme aimed at developing basic competence for working life. The overall aim is to give adults the opportunity to acquire the basic skills they need to keep up with the demands of and changes in modern working life and civil society, and to encourage them to achieve further educational goals. The awarded funds are to be spent on courses in reading, writing, mathematics and basic ICT. The programme also includes funding for Norwegian language courses. The possibility for unskilled adults to combine basic skills with education that prepares them for experience-based trade certification (praksiskandidat) is currently being tested as part of the Competence Plus.
Since 2004, newly arrived refugees, persons granted residence on humanitarian grounds and family members reunited with them, are legally entitled and obliged to follow a two-year, full-time introduction programme (introduksjonskurs) covering Norwegian language training, social studies, and job training. The participants receive a salary from the Government.

Job-opportunity (Jobbsjansen) is a scheme for immigrant women where the goal is to become qualified for work or education. Participants in the introduction programme may also participate an additional year in the programme and immigrant children can get lower secondary education as well.

2.8.3 Enterprise-based learning

Enterprise-based training for employees is relatively widespread among Norwegian employers. Figures from Eurostat (Continuing Vocational Training Survey (CVTS4) 2010) show that 86 per cent of Norwegian enterprises offer training. Only Sweden and Austria have higher numbers.

An Adult Education Survey is conducted every five years in Norway and provides information on the extent of participation in formal- and non-formal education, level and subject areas.

More than half of the adult population is participating in non-formal education and four out of five participate in training during paid working hours. This share has remained stable since 2012, when the previous survey was completed. Of the adult population with completed university or university college education a total of 71 per cent participated in non-formal education in 2017, see figure below.

**Figure 5 - Participation in non-formal education 2017. Adults with completed university or university college**

![Pie chart showing participation in non-formal education](source)

Source: Statistics Norway, s
The numbers for adults with only upper secondary education were lower and 55 per cent participated in non-formal education in 2017, see figure below.

**Figure 6 - Participation in non-formal education 2017. Adults with completed upper secondary education**

<table>
<thead>
<tr>
<th>Participation in per cent</th>
<th>No participation in per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>45</td>
</tr>
</tbody>
</table>

In a rapidly changing working life the skills-requirements increase and the figures from the survey show the workplace as an important arena for non-formal education. Skills Norway’s survey confirms the figures, where nine out of ten enterprises participated in training the last twelve months. Two out of five enterprises have employees participating in formal education, half of the enterprises have employees participating in courses leading to a certification and four out of five have employees participating in non-formal training (Norske virksomheters deltakelse i opplæring, Skills Norway).

The previous education level influences the participation in non-formal education. While only every third with completed lower secondary school participated in education, three out of four university or university college graduates completed the same education. It is also more common that highly educated people have training in paid working hours. 72 per cent of upper secondary school graduates receive training in working hours, compared to 84 per cent among participants with a university or university college degree.

Source: Statistics Norway, s
2.9 VET funding

The county municipality has the financial responsibility for all apprenticeships contracts.

Enterprises with training contracts, according to the Education act, receive a grant (Basistilskudd I), approximately EUR 640 per month for two years (24 months) per apprentice. There are some grant variations depending on type of apprenticeship contract (main model (2+2) or 2, 3 or 4 years of training in enterprise). In addition, the enterprise receives a yearly funding of approximately EUR 6000 per contract.

The grant given to training enterprises accepting adult apprentices (basistilskudd II) is about EUR 6000 per year per apprentice.

Extra funding is also provided for enterprises signing contracts with apprentices in rare and protected crafts.

A EUR 2 million grant to encourage new enterprises to take on apprentices was introduced in 2014. From 2015, the county municipality could define regional criteria for the grant and from 2016 the grant may also be used to decrease unemployment amongst NEETs or ensure a high quality school based training as an alternative for those without an apprenticeships contract.

2.10 VET teachers and trainers

There are three main groups of VET training staff at upper secondary level:

- VET teachers who provide formal school-based education and training;
- training supervisors (faglige ledere); and,
- trainers (instruktører) who provide training in enterprises.

The formal qualification requirements for VET teachers in schools are specified in national regulations. In principle, there is no difference between VET teachers and other teachers. Both groups must have two sets of formal qualifications: qualifications in the relevant subject and in education (pedagogics and didactics). VET teacher education programmes follow the general degree system, with a three-year bachelor's degree and a two-year master's degree. To become a qualified VET teacher, candidates must complete either vocational practical-pedagogical education or vocational teacher education.
Vocational practical-pedagogical education (consecutive model) is a one-year programme (or two years part-time) for learners who already hold a vocational/professional degree or other qualification, see below. The main fields of study are pedagogical theory, vocational didactics and supervised teaching and training practice. The admission requirements are:

- a professionally oriented bachelor’s or master’s degree +;
- a minimum of two years of professional experience,

or:

- qualification as a skilled craftsperson/worker +;
- general university and college admission certification +;
- four years of relevant occupational experience +;
- two years of further studies (technical, professional, managerial).

Vocational teacher education is a comprehensive three-year bachelor programme covering both vocational training and pedagogy. It is also available as a part-time course of study and through work-based provision. The admission requirements are:

- general university and college admission certification +;
- mark requirements in mathematics and Norwegian +;
- trade or journeyman’s certificate; and,
- minimum two years of relevant work experience.

All teacher education programmes for the lower and upper secondary levels (grades 8–13), including those for VET teachers, were revised in the Norwegian National Qualifications Framework of 15 December 2011, following up both the European Qualifications Framework for Higher Education in the Bologna Process (QF-EHEA) and the European Qualifications Framework for Lifelong Learning (EQF). The new regulation on the relevant framework curricula came into force in March 2013 and was last amended in 2016.

Norway will need more vocational education teachers in the years to come to help provide skilled trades-people for the national workforce.
The Government gives priority to increased recruitment and qualification of VET teachers in the national competence development initiative from 2015. The Norwegian Directorate for Education and training is responsible for several VET competence development initiatives. Since 2015 there has been a mapping of skills development among VET teachers, for best possible adapted schemes to this target group. Course material for trainers (instruktør), qualified training supervisor (faglig leder) and examination board member is made easy accessible online, together with tips and guidance to apprentices preparing for the qualifying exam.

Secondment as a visiting trainee for VET teachers, trainers and qualified training supervisors has been introduced to facilitate a better cooperation between schools and enterprises. The teacher will become familiar with the enterprises and the trainers and qualified training supervisors will get an insight in how training in schools is organised for future apprentices.

Already employed teachers may apply for grants to do a one-year undergraduate teacher training programme for vocations (60 ECTS) or a vocational teacher education (180 ECTS). The size of the grant size is from EUR 11 000 to 22 000.

Another option for teachers is to do continuing education in common core subjects. While studying, the teacher may be released with up to 37.5 per cent of the employment.

Several new continuing education courses are available from the school year 2018/19, all 15 ECTS. The target group is vocational teachers who teach programme subjects.

A training enterprise with an apprentice must appoint a qualified training supervisor and one or more trainers. How training is conducted varies between enterprises, but other employees in the enterprise are often involved in the training. The training enterprise must be able to document how the training is planned, organised and assessed in order to ensure that apprentices can develop the necessary skills and competencies. These skills are not assessed by testing and grading, but rather through continuous evaluation by the enterprise and at two meetings a year between the trainer (instruktør) and the apprentice.

Training supervisors (faglige ledere) in enterprises or other workplaces with apprentices must ensure that the training meets the requirements stipulated in the Education Act. They must have one of the following qualifications:

- a trade or journeyman's certificate in the relevant trade or craft;
• master craftsman's certificate in the relevant craft;
• relevant higher education in the trade or craft;
• adequate educational background in the parts of the trade which, according to the curriculum, will be taught in the enterprise, or;
• six years of experience in the trade or craft.

Trainers (instruktører) in training enterprises are vocationally skilled, often with a formal vocational qualification. They are not required to hold a teaching certificate. Some trainers do not hold formal qualifications in their vocational skills, but have instead developed them through work experience. Formal regulations simply state that the management of the training enterprise must ensure that trainers have “the necessary qualifications” (Education Act).
3. Shaping VET qualifications

3.1 Anticipating skills needs

Norway has a longstanding tradition of close cooperation on upper secondary and post-secondary VET, both formal and informal, between education and training authorities and the social partners. As VET is of major importance to the social partners when it comes to working conditions, productivity and profitability, employers’, employees’, teachers’ and learners’ organisations have considerable influence. Moreover, close dialogue with the social partners is important to securing relevant provision of VET. Thus, social partner representatives from business, industry and the public sector hold the majority of seats in all advisory bodies in the decision-making system for upper secondary VET. This enables technological and labour market changes to be continuously communicated from the market actors to the decision-making bodies. For new programmes to be recognised in the VET structure, a needs assessment should be in place. The overall aim of the tripartite cooperation is to provide relevant VET skills.

The tripartite cooperation and participation of social partners is legitimised by the C142 – Human Resources Development Convention No. 142, 1975, ratified by Norway in 1976. It establishes that employer organisations and trade unions shall influence and participate in laying the framework for and developing vocational guidance and training. Tripartite cooperation is further emphasised in the Norwegian Education Act (Opplæringsloven), which stipulates and formalises procedures for representation in central bodies. Furthermore, the involvement of social partners in VET is institutionalised through formal agreements between the social partners. Both the quadrennial national collective labour agreements (Hovedavtalene) and the two-year wage agreements (tariffavtalene) include sections on objectives, rights, obligations and procedures regarding cooperation over the training of staff in member enterprises, including apprentices.

3.1.1 Tripartite cooperation in upper secondary VET

Pursuant to the Education Act, the social partners have (most often majority) representation in all important advisory bodies for upper secondary VET at national and county level:

- the National Council for Vocational Education and Training (Samarbeidsrådet for yrkesopplæring (SRY)) gives advice on an overarching level;
eight Vocational Training Councils (Faglige råd) give advice on training in specific groups of trades, one for each VET programme (see Table 3, section 2.2.1);

the County Vocational Training Board (Yrkesopplæringsnemnda) for each county gives advice on quality, career guidance, regional development and the provision in the county to meet local labour market needs;

the trade-specific Examination Boards (Prøvenemnder) are situated in each county;

National Appeals Boards (Klagenemnder) cater for candidates who fail the trade or journeyman’s final test at county level.

One element that may limit the social partners’ impact on upper secondary VET provision is the emphasis placed on the individual choices of learners. According to section 3-1 of the Education Act, learners are entitled to admission to one out of three preferred upper secondary programmes. In the school year 2017/18, 82 per cent of first-year learners were admitted to their first choice of upper secondary education (Udir, i). County authorities must provide programmes and subjects that correspond to these preferences. Thus, in order to balance the VET provision with labour market needs, social partners give advice concerning a wide range of topics related to upper secondary VET, such as: training programme structure, curriculum development, regional structure, volume of VET provision, examinations framework for trade and journeyman’s certificates, and quality control at national, county and local level.

3.1.2 Tripartite cooperation in post-secondary VET (nationally referred as tertiary)

For post-secondary vocational education (fagskoleutdanning), the social partners are consulted through the National Council for Tertiary Vocational Education (Nasjonalt fagskoleråd) established by the Ministry of Education and Research in 2010. This council has less of a formal function than the vocational training councils have at upper secondary level, as the education and training providers at this level design their own programmes. Skills Norway hosts the secretariat. In addition, two advisory bodies with social partner representatives consult tertiary vocational education, one for technical and maritime education and one for health and social education.

Tertiary vocational colleges (fagskoler) represent a significant alternative to higher education. The colleges are important for developing competence and specialisation in VET. The objective of the National Council for Vocational Education and Training is to improve cooperation between the colleges, the rest
of the education structure, working life, and society in general. The council acts as a coordinating body for the sector and as an advisory body to the Ministry of Education and Research. It comprises representatives from the education sector, employee and employer organisations and learners.

The Norwegian Association of Higher Education Institutions is composed exclusively of representatives of its member institutions, i.e. accredited Norwegian higher education institutions. The principle of academic freedom in higher education dominates provision, but cooperation with relevant labour market players is encouraged to ensure relevance of provision. A white paper for post-secondary VET institutions (naturally referred as tertiary) (Meld.St. 9 (2015-16) Fagfolk for fremtiden) was published in autumn 2016, in which these institutions was highlighted as independent and important education institutions. The most important implemented measures are:

- a yearly development fund of NOK 35 million;
- the right to be part of a learner welfare organisation;
- better transitions to study programmes at universities and university colleges;
- new grant schemes for vocational education;
- mapping and raising the competence of vocational college teachers;
- better knowledge about vocational education (VET year);
- new national admission system.

### 3.1.3 Anticipating skills needs and changing VET provision

Demands for new skills and changes in the labour market call for continuous adjustment and revision of the upper secondary VET programmes, their content and their modes of delivery. The Ministry, parents, learners, employers, trade unions and others may initiate a need for adjustments or changes.

All eight upper secondary VET programmes (see table 4 in section 2.2.1 above) are closely monitored by the trade-specific Vocational Training Councils. Changes are made continuously based on input and applications from social partners, counties or the Vocational Training Councils. In addition, the Vocational Training Councils must report on the situation to the national authorities once in the 4 years nomination period. The report also covers the potential need for changes in their respective VET programmes. The Directorate for Education and Training hosts the secretariats of both the National Council for Vocational Education and Training and the Vocational Training Councils.
The Norwegian Directorate for Education and Training completed, in cooperation with vocational Training Councils (fagligeråd), vocational committees (faglig utvalg), county municipalities and social partners, a review of the available VET programmes in 2016. The result is a new structure for vocational subjects in upper secondary schools from 2020, which will be the biggest change in vocational education since 2006. The new structure will strengthen the quality and relevance of the education.

In post-secondary vocational education, and in higher education, study programmes are designed by the provider. Each post-secondary vocational education programme must be recognised by NOKUT. In higher education, all accredited institutions can establish programmes at bachelor level, within the scope of their accreditation. Universities are free to establish programmes at all levels, including master and PhD programmes. All higher education institutions have external board members, and consultation with relevant labour market players on the design of programmes is common. In some fields there are national framework curricula to ensure some degree of similarity in training for all graduates (in teacher education, nursing, engineering, auditing, etc.). For other fields of training, the respective industries have national boards which offer advice to higher education providers. All higher education institutions are required to have a strategy and a consultative council for cooperation with working life (Råd for samarbeid med arbeidslivet) (section 2.2.2).

3.2 Designing qualifications

On 15 April 2016 a new white paper (Meld.St. 28 (2015-16 Fag – Fordypning – Forståelse — En fornyelse av Kunnskapsløftet) was approved by the Government. This white paper will lead to a renewal of the curricular reform (Kunnskapsløftet) from 2006. A changing society depends on schools that can adapt accordingly. The renewal of the school subjects in primary and lower- and upper secondary education, including VET, will give learners more in-depth training and a better subject understanding, more relevant content and links between subjects and the learning process progression will be made clearer. The new curricular will be ready autumn 2020.

3.2.1 The national curriculum

The National Curriculum for Knowledge Promotion (Kunnskapsløftet 2006) covers compulsory primary and lower secondary education and upper secondary education and training as a whole.

The curriculum consists of:
• the Core Curriculum – values and principles in education;
• subject curricula;
• a framework regulating the distribution of teaching hours per subject.

The Core Curriculum deepens appreciation of basic values such as moral outlook, creative abilities, preparation for working life and society, general education, cooperation, and ecological understanding. This part of the curriculum underlies all education in Norway from primary to adult education and constitutes the binding foundation and values for primary and upper secondary education and training.

The quality framework consists of the principles that clarify the school owners’ (municipalities and county authorities’) responsibilities. Key competencies are integrated into the quality framework, such as learning strategies, social competencies, cultural competencies, motivation to learn, and learner participation.

The subject curricula consist of outcome-based learning targets, the main subject areas and basic skills. The main subject areas describe what the learner and apprentice should be able to do. The basic skills are: the ability to express oneself orally and in writing, the ability to read, fluency in numeracy, and the ability to use digital tools. The subject curricula also describe which final assessment will be given on completion.

The distribution of teaching hours per subject is set at national level. This is an overview of how the total teaching hours should be distributed per subject per year for the 10-year compulsory education as well as for the upper secondary level, VET included.

The Key Competences defined in the Lisbon Strategy were taken into consideration when developing the curricula and included where relevant.

The National Curriculum encompasses 10-year compulsory education and upper secondary education and training as a whole. The competence objectives state what the learner/apprentice should be able to master at each level after grades 2, 4, 7 and 10, as well as after every stage of upper secondary education and training. Basic skills are decisive for acquiring subject-related knowledge and for communicating and cooperating with others in a wide range of situations. Their aims are integrated with, and adapted to each subject according to level. The subject curricula also describe the principles for assessment. However, decisions regarding teaching methods are left to the education and training institutions.
Curricular activities at local levels are essential in order to implement the National Curriculum, particularly the outcome-based competence aims in the subject curricula. The school owners must have a system in place for following up the quality of local curricular activities. The Norwegian Directorate for Education and Training develops web-based guidelines to support local curricular activities as well as other measures to raise competence among school owners and school managements.

3.2.2 Developing new curricula

The Directorate has responsibility for continuous curricular development. For this purpose it makes extensive use of expert groups from both schools and enterprises providing upper secondary education. When the need for a new qualification is identified, a tripartite group is set up to design vocational profiles. These form the basis for developing the subject curricula. The Directorate appoints teams for curricular development consisting of professionals (most often proposed by the employer and employee organisations) and VET teachers.

Within three months, the team submits a draft version of the curricula to the Directorate. The draft is distributed to the sector for a three-month consultation process. Relevant feedback is incorporated into the draft curricula. With support from external representatives from the sector, the quality of the curricula is assured by the Directorate. Depending on the subject, the curricula are finally set by the Ministry or the Directorate.

The identified labour market needs will have no direct influence on teachers’ training or assessment, but the training of teachers and the assessment of learners/apprentices will be dependent on the subject curricula.

In addition, the Directorate has a follow-up system for curricula (System for oppfølging av læreplan (SOL)). The purpose of the system is to obtain a more holistic and systematic overview of the situation for the curricula. SOL entails reviewing, compiling and analysing different sources that inform the situation for the curricula and how they function. These sources include studies, enquiries, evaluation reports and statistics. The intention is that SOL should contribute to making administration of the curricula more systematic, knowledge-based and predictable. The knowledge gained gives the Directorate a basis for initiating the necessary and adequate measures for strengthening implementation of the curricula. These measures can support and inform VET providers when adjusting the curricula.
Norway is in the process of renewing all subjects at all levels of education. The renewed subjects and a new core curriculum will be implemented in 2020.

### 3.3 Recognition of prior learning

Validation of non-formal and informal learning is possible in all levels of education and training in Norway and can be used to acquire modules and/or full qualifications. There are laws and regulations in place relating to each level of education and training, providing a general framework for validation of prior learning. The Norwegian system of validation is based on shared principles across all sectors. One of these principles is that the validation process should be voluntary and of benefit to the individual.

Differences in funding and governance mechanisms found in primary, upper secondary, post-secondary vocational and higher education affect the preconditions for setting up validation procedures. The sectors of education have developed schemes for validation of non-formal and informal learning according to their specific needs and preconditions. Higher education institutions exercise the greatest freedom in the design and delivery of validation, because responsibilities are devolved to each institution. This also concerns post-secondary VET. The national government and its underlying administrations provide guidelines for all educational sectors.

During the autumn of 2013, the Norwegian Directorate for Education and Training, in cooperation with stakeholders from the sectors, developed national guidelines relating to adults who claim the right to have their formal, non-formal and informal learning validated compared to lower or upper secondary level. The guidelines focus mainly on how to interpret the regulations relating to validation and how to implement the different points described in the regulations. The purpose of the national guidelines for validation is to ensure that sound validation procedures are carried out, leading to similar practices in all Norwegian counties and municipalities. By providing a national basis for local practice, the guidelines could spur confidence and legitimacy of the validation practices.

It is possible to acquire a full qualification on the basis of validation in the Programme for General Studies in upper secondary education (university-preparatory). In upper secondary VET, it is necessary to take the relevant final (trade) examination to achieve a trade or journeyman's certificate as a skilled worker.

In higher education, individuals can gain exemptions for parts of study programmes. On the diploma as well as on the Diploma Supplement, the relevant courses and credits will be identified as having been obtained through validation. In post-secondary VET, the possibility to give exemption from courses and
modules on the basis of validation was introduced through regulations of 1 August 2013.

In terms of awarding credits or partial qualifications after validation in primary and upper secondary education and training, the Education Act permits candidates to achieve a partial certificate qualification, called 'certificate of competence' (kompetansebevis) at any level through validation. Candidates then have the right to access further education and training, in order to achieve a full trade or journeyman’s certificate. The certificate of competence is awarded to recognise that an individual has achieved certain objectives (learning outcomes) within an upper secondary curriculum. The certificates can serve as a stand-alone evidence of competences and can be used, for example, to support a job application or participation in further education courses. These partial certificates of competence are recognised on the labour market, as a documentation of parts of the demands in the trade. It is also possible to access education through validation – the individual must be able to show (through documentation or other means) that s/he has the required skills and competences to enter a certain level of education and training.

3.4 Quality assurance

The tripartite cooperation presented in section 3.1 represents a crucial quality assurance mechanism for upper secondary VET. The Education Act requires the county authority (fylkeskommunen) to consult the County Vocational Training Board (Yrkesopplæringsnemda) on quality issues related to school-based and work-based VET. A main task for the Board is thus to give advice, especially related to accreditation of apprenticeship training enterprises. The County Vocational Training Board should also present proposals for quality development, including the enhancement of partnerships between schools and enterprises, and skills and competence development for teachers and trainers.

As quality assurance is embedded in the legal framework, the state is responsible for inspecting all activities stipulated in the Education Act. Furthermore, the state has the authority to issue legally binding orders to rectify unsatisfactory conditions. The Ministry of Education and Research (Kunnskapsdepartementet) has delegated this responsibility as the inspectorate at national level to the Norwegian Directorate for Education and Training (Utdanningsdirektoratet). The Directorate is responsible for developing and supporting inspections, to facilitate a unified inspection throughout the country, and to provide guidance on legislation. The county governors (fylkesmenn) serve as the operational inspection authority for basic training, and have responsibility
for activities at county level. They also serve as the appeal body for individual decisions regarding learners in primary and lower secondary school. However, the Ministry still has the authority to exercise supervision, and can instruct the Directorate for Education and Training and the county governors on how inspections should be performed.

Quality standards for VET providers are set out in the Education Act and relevant regulations. The legislation sets standards for examinations, trade- and journeyman's certification, approval of apprenticeship training enterprises, and teacher competence. The Education Act also regulates the county governors’ responsibility to provide guidance to school owners. This applies to guidance not only on academic matters but also on other matters related to the Education Act. This includes guidance on administrative rules, and is intended to provide the best possible cooperation between the state and the school owners.

In addition to the county governors’ more general inspections, joint national inspections may also be implemented. These inspections are incident-based, and are based on regional risk assessments made in cooperation with the county governors. Situations may arise that invoke immediate attention by the authorities, and give county governors the authority to perform inspections at their own initiative.

The Norwegian Agency for Quality Assurance in Education (Nasjonalt organ for kvalitet i utdanningen (NOKUT)) is responsible for recognition, accreditation and quality assurance in post-secondary vocational education and higher education. The frameworks for these activities are laid down in the respective laws and regulations on quality assurance in higher education and post-secondary vocational education, as well as in supplementary regulations, rules and procedures laid down by NOKUT.
4. Promoting participation in vocational education and training

Statistics show that 58 per cent of VET learners successfully complete their upper secondary training within five years. The success rate for the different vocational programmes is presented in the Table 7. The corresponding figure for learners in the five general study programmes is 86 per cent (www.udir.no).

<table>
<thead>
<tr>
<th>Programme</th>
<th>2011-16</th>
<th>2012-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction</td>
<td>54</td>
<td>56</td>
</tr>
<tr>
<td>Design, Arts and Craft</td>
<td>52</td>
<td>50</td>
</tr>
<tr>
<td>Electrical Trades</td>
<td>60</td>
<td>62</td>
</tr>
<tr>
<td>Health Care, Childhood and early youth Development</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>Media and Communication</td>
<td>81</td>
<td>80</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>58</td>
<td>60</td>
</tr>
<tr>
<td>Restaurant and Food Processing Trades</td>
<td>45</td>
<td>43</td>
</tr>
<tr>
<td>Service and Transport</td>
<td>54</td>
<td>55</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>54</td>
<td>57</td>
</tr>
</tbody>
</table>

Source: Statistics Norway, t

Norwegian youth have a statutory right to upper secondary education (ungdomsretten). Due to this right, 98 per cent of 16-year-olds who completed the lower secondary level were registered in upper secondary education during autumn 2017. Drop-out is defined as non-completion of upper secondary level within a five-year period after starting upper secondary level 1 (Vg1). This implies that learners and apprentices who after five years still receive education and training will be counted as drop-outs. According to Eurostat statistics, about 11.2 per cent of youth aged 18–24 leave school early in Norway, compared to 22 per cent in EU 28 (Eurostat 2018). The variations in drop-out figures between the Norwegian and the Eurostat statistics show differences in measurement methods and definitions of population groups.

Furthermore, learners defined as drop-outs may not necessarily drop out permanently from the education system. Some may take a break for a few years
(folk high school, studies abroad or employment) and re-enter later. The opportunities presented in section 2.2.4 enable many adult learners to re-enter the upper secondary system as much as ten years later. More than half of those who do not complete upper secondary education are within the statutory right as young people complete it by the age of 40.

However, drop-outs cause concern for the educational authorities at all levels, and the issue has been widely discussed in recent years. Measures to tackle the issue have and continue to be developed and implemented. Studies have identified factors that influence study progression, success rates, and drop-out rates. Two such factors are social background and learning achievements in primary and lower secondary education. Another factor is the lack of apprenticeship placements for VET learners in the transition from school-based training to apprenticeship training. In 2017, 28,900 learners applied for an apprenticeship contract, and about 20,800 (72 per cent) received an apprenticeship placement. Most of those who receive apprenticeship placements complete their VET training with a trade or journeyman's certificate. Nine out of 10 passed their final exam in 2015–16 (Education Mirror 2017).

Statistics show significant variations in drop-out rates between education programmes. For instance, in the restaurant and food processing around 40 per cent dropped out before completing the programme, compared to only 3.6 per cent in sport and physical education programmes (one of the general study programmes) the same year (udir.no). The differences in learners' grades at lower secondary level are seen as a key factor; learners admitted to general study programmes generally have higher marks than learners admitted to vocational programmes.

Based on this background, the following measures were implemented to promote participation and reduce drop-out from upper secondary VET.

4.1 Early intervention

White Paper 21 (2016-17) Desire to learn, early intervention and quality in schools (Lærelyst – tidlig innsats og kvalitet i skolen) focuses on knowledge and how this is key to the future of both individuals and society. In order to encourage children and young people to want to learn, to be motivated and to experience mastery, everyone involved in the education system should have a desire to learn, to learn from each other and to ensure there is room for testing, mistakes
and achievements. The key message is quality in schools and early intervention to prevent later dropouts.

The Ministry of Education and Research, the Ministry of Labour and Social Affairs, the Ministry of Children and Equality, the Ministry of Health and Care Services and the Ministry of Justice and Public Security have established cooperation on vulnerable children between 0 and 24 years of age. The 0-24 cooperation (7) focuses on early intervention, close individual follow-up and good interdisciplinary cooperation across the health, labour and education sectors. The 0-24 cooperation defines common challenges and promotes joint actions and strategies for better follow-up of vulnerable children and young people. The goal of the cooperation is to increase the number of learners who complete upper secondary education and engage in the labour market. A total of 25 measures will be implemented in the period 2015-20. The measures are divided into different areas: regulations across sectors, coordination of subsidy management, language difficulties and language training, asylum seekers and the development of the organisation of and cooperation practices between the directorates.

4.2 Guidance and counselling

Making uninformed choices of education programmes at upper secondary level may increase the risk of drop-out. Therefore, more emphasis has been put on career guidance. A regulation under the Education Act (Opplæringsloven) was put into effect on 1 January 2009 emphasising the right of every learner to receive both guidance regarding educational and vocational matters as well as for social or personal character. Guidance and guidance services are provided by different institutions according to level of education and relation to the labour market. The main guidance services are organised within the school system. The Education Act (Opplæringsloven) states that learners in primary and secondary education have the right to “necessary guidance on education, vocational opportunities, vocational choices and social matters”. The provision is organised by the individual schools. All learners/learners are entitled to guidance according to their needs.

A whole-school approach to guidance has been adopted, meaning that individual teachers, and all other personnel in schools, have a responsibility to provide guidance to learners. Moreover, one subject in the curriculum for lower secondary schools, Study Elective Programme Subject (Utdanningsvalg), is specifically aimed at providing learners with the competencies they need to make informed educational and vocational choices. A similar subject is offered in VET

(7) http://www.0-24-samarbeidet.no/
programmes in upper secondary schools. In addition to this, and with a different responsibility for guidance, guidance counsellors in lower and upper secondary education provide guidance to learners in school. Guidance counsellors in the Follow-up Service (Oppfølgingstjenesten) provide guidance to youth aged between 16 and 24 who are neither in education nor in employment.

All counties have allocated funding from the state budget to establish partnerships for career guidance, and most counties have established such partnerships or other forms of regional cooperation. Local and regional school authorities, the Norwegian Labour and Welfare Administration (NAV), the business sector, and social partners are often partners in these initiatives. Several counties have established career centres to provide guidance for everyone, primarily adults aged above 19. The career centres also play a role in helping improve the competence of guidance counsellors in schools, in local Labour and Welfare offices (NAV) and other institutions offering career guidance. The National Unit for Lifelong guidance in Competence Norway is in charge of managing and monitoring partnerships in career guidance.

In 2014 a master’s degree in career guidance was established in Norway Career guidance strengthens the individual’s ability and competence to make informed education and vocational choices. In Norway, all learners in upper secondary education have the right to guidance under the Education Act, but apprentices do not have this right. An official Norwegian report (NOU 2016:7 Norge i omstilling – karriereveiledning for individ og samfunn) recommends a right to guidance also for apprentices. The NOU additionally recommends an online guidance platform to increase the quality of guidance in both lower and upper secondary schools. Universities and some university colleges have established career centres to provide guidance to learners. Adults who need guidance may use the local offices of the Norwegian Labour and Welfare Administration (NAV) or visit regional career centres established by partnerships in career guidance. A small number of private agencies also provide career guidance on a commercial basis.

4.3 Financial incentives

The apprenticeship scheme is a critical component of the upper secondary VET 2+2 model. The government grant scheme for training enterprises (described in subsection 2.2.1 under "Organising apprenticeship training") is a financial incentive for enterprises to participate in the training of VET learners. The regulated salary during the apprenticeship training period is also a financial incentive to promote learner participation in VET.
The main purposes of the Act relating to Learner Grants (Lov om utdanningsstøtte) of 1985, most recently amended in 2015, are to:

- improve equity in access to education and training regardless of geography, gender, age and social background;
- improve learning environments and enable learners to study more effectively;
- ensure a qualified workforce for society at large.

Learner loans carry no interest charges during the period of study.

The Act states that all registered learners participating in formally recognised study programmes at both public and private institutions of higher education may receive grants and subsidised loans from the Norwegian State Educational Loan Fund (Statens lånekasse for utdanning) for subsistence expenses. Support is also provided to Norwegian learners abroad, who may receive additional support for travel, admission and tuition fees.

Learners in upper secondary school-based VET (learners and apprentices alike) may qualify for grants and subsidised loans from the Norwegian State Educational Loan Fund subject to a needs-based assessment. They may receive:

(a) relocation grants if they have to move away from home to attend school or enterprise-based training, and are also entitled to support from the Norwegian State Educational Loan Fund. The following grants are also available to adult learners;
(b) an additional subsistence grant to cover expenses if they live away from home;
(c) grants for purchasing compulsory equipment, according to study programme.

Support to learners at upper secondary level is mainly provided in the form of grants.

4.4 Year of VET 2018

The Ministry of Education and Research has designated 2018 as the year of vocational education and training. The year is an information and reputation campaign online and in social media to increase the interest for VET. The campaign is open for everyone and has its own webpage (http://www.yrkesfag.no). Three hashtags are relevant #yrkesfag #yrkesfagenesår and #mittyrkesfag (VET, VETyear and myVET).

Logos and rollups for the VET year 2018 are available for everyone attending.
World Skills and the School Learner Union of Norway (SSUN) are in charge of the follow-up of the VET year 2018. A kick off was arranged in February, with approximately 300 persons attending. The webpage has a calendar with an overview of VET activities in 2018.

**4.5 Subjects promoting VET and practice-based learning**

Several subjects both at the lower and upper secondary level focus on VET and practice-based learning. Some of them are also closely linked to the local labour market. These subjects may promote participation by motivating learners to choose and continue in VET.

The Study Elective Programme Subject (Utdanningsvalg), at the lower secondary level, seeks to link the lower and upper secondary education closer together. The subject is aimed at giving learners insight into and experience of the different upper secondary programmes and the relevant vocational programmes, thus providing a better decision-making basis.

A new practical and work related elective subject, practical craft, will be tested at lower secondary level from 2019. The subject aims at motivating more learners for school work and to see the value of the school through a practical-oriented subject.

Elective subjects were introduced as a fixed component in lower secondary education in autumn 2012. The elective Subjects comprise 15 subjects \(^{8}\) that focus on practical skills. The learners must choose from the subjects offered by their school. The schools must offer at least two of the 15 subjects. The content is set in accordance with the national curricula.

During the two first years of school-based training in all VET programmes (the 2+2 model), the vocational specialisation subject offers practice-based learning elements; see section 2.2.1 for more details. One objective is to give an early introduction to various occupations and relevant training in enterprises.

A second objective is to involve the business community in decisions on the content of the curricula, based on local and regional needs.

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4.6 Making common core subjects relevant to VET

To increase motivation, the teaching of common core subjects (e.g. Norwegian, English, mathematics, etc.) has been more closely related to the upper secondary vocational programme the learners are attending. Making common core subjects relevant to VET is provided for in section 1-3 of the Education Act and has been an objective in FYR (Fellesfag, Yrkesfag, Relevans), Common core subjects, VET, Relevance. FYR shall ensure VET learners training in vocationally orientated common core subjects such as mathematics, Norwegian, English and natural science.

Key elements in FYR are:
- Competence development for teachers
- Develop learning resources, methodical measures and a culture for school cooperation in order to increase VET relevance
- A culture for school cooperation in order to increase VET relevance
- Local and national networks for the sharing of experience and knowledge

FYR has been a priority from 2011 until 2017, although the priority period has ended, the work continues. A resource bank is available on The Norwegian Directorate of Education and Trainings homepage (udir.no).

4.7 Provision for learners with special needs

An important goal for Norwegian education is: “Teaching shall be adapted to the abilities and aptitudes of individual learners, apprentices and trainees” (Education Act, section 1-3). Accordingly, learners and learners with special needs are included in mainstream education and classes. All public and private training institutions operating with public support are obliged to mobilise the necessary resources and to create satisfactory physical and learning environments for individual learners. However, experience shows that the institutions often find this requirement difficult to comply with.

4.8 Regional Follow-up Service

The Education Act (section 3-6) requires the regional authorities to provide a follow-up service (oppfølgingstjeneste) responsible for contacting learners (aged between 16 and 21) who either do not enter or who drop out of upper secondary education and training, and endeavour to get them back on track, i.e. into education or employment. The Follow-up Service cooperates with the employment services.

As of June 2018, 35.5 per cent of the young people registered with the Follow-up Service had not applied for upper secondary education. 19.5 per cent had applied for upper secondary education but had not accepted the provision, while
30 per cent were registered because they had dropped out of upper secondary education. The situation for 15 per cent of the young people registered with the Follow-up Service is unknown. This means that the regional services had either not yet been in touch with them or had no information on their situation (Udir, j).

4.9 VET skills competitions

WorldSkills Norway manages the national skills competition (Yrkes NM) and organises the participation of Norwegian youths in the two international skills competitions EuroSkills and WorldSkills. WorldSkills Norway is an NGO financed by the social partners and the Norwegian Directorate for Education and Training, and through membership fees. The organisation's main objective is to promote VET through skills competitions. WorldSkills Norway aims to increase the use of skills competitions as a learning method in upper secondary schools. Experience indicates that skills competitions at schools can enhance motivation and interest in VET among learners and apprentices.

4.10 Social Contract for VET

A new version of the Social Contract for VET (Samfunnkontrakten) was signed by the Ministry of Education and Research, the Ministry of Government Affairs, the social partners and the regional authorities in March 2016. To meet future competency needs in the labour market, the Social Contract for VET is a major initiative aimed at increasing the number of learners completing vocational education at upper secondary level. The contract has one challenging objective: all qualified applicants for apprenticeship shall be offered an apprenticeship.

In order to achieve this objective, stakeholders have to cooperate on a joint, long-term contribution.

The signatories to the contract are expected to implement some of the following measures:

- increase financial support at different levels, including WorldSkills and similar events;
- prepare statistics that describe the needs for future labour-market competencies;
- develop guidelines for enterprise-based training;
- motivate employees to formalise their competencies and to train others;
- develop strategies for recruiting youth to vocational education programmes.
4.11 From general education to VET
As of the school year 2018/19 learners may transfer from general education pathway to vocational education pathway after the first year of upper secondary education. Until 2018 they have had no right to recognition of the first year at upper secondary school had to repeat the first year. The option is valid for learners who have completed one year at upper secondary general education. These learners have far more hours in Norwegian, maths, science, English and social study than first year learners in vocational education. In one year, general education learners, learn the same as vocational learners learn in two years in these subjects. Consequently, these hours can now be used the second year of upper secondary school to catch up with trade specific programme subjects the vocational learners have learned the first year.

4.12 Incentives for VET learners
The salary for apprentices constitutes a given percentage of the initial salary of a worker with a craft certificate in the relevant vocation. The salary is increasing throughout the apprenticeship.
For apprentices following the main model (2+2) the salary will be calculated as follows:
1st half of the years in an approved training company: 30 percent of the initial salary;
2nd half: 40 percent of the initial salary;
3rd half: 50 percent of the initial salary;
4th half: 80 percent of the initial salary.
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<td>VET learners, completed upper secondary training, after five years</td>
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List of acronyms and abbreviations

<p>| ATA | Apprenticeship Training Agency |
| EEA | European Economic Area |
| EQF | European Qualifications Framework |
| FYR | Fellesfag, yrkesfag, relevans |
| GDP | Gross domestic product |
| KBU | Official Norwegian Committee on Skills Needs (Kompetansebehovsutvalget) |
| MCC | Master Craftsman Certificate Committee (Mesterbrevnemnda) |
| NAV | Norwegian Labour and Welfare Administration (Arbeids- og velferdsetaten) |
| NGO | Non-governmental organisation |
| NHO | Norwegian confederation of Norwegian Enterprises (Næringslivets Hovedorganisasjon) |
| NOKUT | Norwegian Agency for Quality Assurance in Education (Nasjonalt organ for kvalitet i utdanningen) |
| NEET | Not in job, education or training |
| OECD | Organisation for Economic Co-operation and Development |
| SME | Small and medium-sized enterprise |</p>
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<th>RPL</th>
<th>Recognition of prior learning (Realkompetansevurdering)</th>
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<td>SRY</td>
<td>National Council for Vocational Education and Training (Samarbeidsrådet for yrkesopplæring)</td>
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<td>VET</td>
<td>Vocational education and training</td>
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<td>Vg3</td>
<td>Upper secondary level, third year</td>
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<td>VPL</td>
<td>Validated Prior Learning</td>
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<tr>
<td>YSK</td>
<td>Vocational- and general education qualification /Yrkes- og studiekompetanse)</td>
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Annex

### VET programmes at upper secondary level, EQF level 4A

<table>
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<tr>
<th>Type of educational programme</th>
<th>Balance between school-based and work-based training</th>
<th>Transfer to other pathways</th>
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| Technical and Industrial Production | Most of the subjects follow 2 years in school and 2 years of formal apprenticeship training and productive work in an enterprise.  
1 subject follows 3 years in school and 1.5 years apprenticeship training, and 6 subjects follow 1 year in school and 3 years apprenticeship training. | All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5. |
| Electrical Trades            | 8 subjects follow 2 years in school and 2 years of formal apprenticeship training and productive work in an enterprise, 7 subjects follow 2 years in school and 2.5 years of formal apprenticeship training, 7 subjects follow 3 years in school + 1.5 years of apprenticeship training, 1 subject follow 3 years in school. | All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5.  
Holders of trade certificates in electrical trades may choose a specialised three year bachelor engineering degree, known as Y-veien. |
<p>| Building and Construction    | Most subjects follow 2 years in school and 2 years of formal apprenticeship | All the programmes can transfer to tertiary vocational education |</p>
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<th>Field</th>
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<tr>
<td>Training and productive work in an enterprise. 5 subjects follow 1 year in school and 3 years of formal apprenticeship training. 1 subject follows 2 years in school and 2.5 years of apprenticeships training.</td>
<td>(fagskoleutdanning) at EQF level 5. Holders of trade certificates in building and construction may choose a specialised three-year bachelor's degree programme in engineering known as Y-veien.</td>
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<tr>
<td>Restaurant and Food Processing Trades</td>
<td>All 12 subjects follow 2 years in school and 2 years of formal apprenticeship training and productive work in an enterprise. 2 subjects follow 3 years in school.</td>
<td>All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5.</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>8 subjects follow 2 years in school and 2 years of formal apprenticeship training and productive work in an enterprise.</td>
<td>All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agriculture, fishing and forestry have an option for the third year which prepares learners for higher education.</td>
</tr>
<tr>
<td>Health Care, Childhood and early youth Development</td>
<td>8 subjects follow 2 years in school and 2 years of formal apprenticeship training and productive work in an enterprise. 5 subjects follow 3 years in school.</td>
<td>All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5.</td>
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<tr>
<td>Design, Arts and Crafts</td>
<td>Most subjects follow 2 years in school and 2 years of formal apprenticeship training and productive work in an enterprise. 4 subjects follow 3 years in school. 13 subjects follow 1 year in school and 3 years formal apprenticeship training.</td>
<td>All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5.</td>
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<tr>
<td>Service and Transport</td>
<td>All 8 subjects follow 2 years in school and 2 years of formal apprenticeship training and productive work in an enterprise.</td>
<td>All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5.</td>
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Source: Udir, 2018