Table of contents

CHAPTER 1. External factors influencing VET ................................................................. 5
  1.1 Economy and labour market indicators ................................................................. 5
  1.2 Population and demographics ............................................................................. 6
  1.3 Political and socio-economic context ................................................................. 7
  1.4 Labour market and VET qualifications ............................................................... 7
  1.5 Educational attainment ..................................................................................... 9
  1.6 Historical context ............................................................................................. 9

CHAPTER 2. Providing vocational education and training in a lifelong learning perspective .... 10
  2.1 Diagramme of the Norwegian education and training system ....................... 10
  2.2 Government-regulated VET provision ............................................................. 10
    2.2.1 Upper secondary VET structure ................................................................. 11
    2.2.2 Higher education ..................................................................................... 20
    2.2.3 Master craftsman education ..................................................................... 23
    2.2.4 VET for adults and reintegration into education and training .................. 24
  2.3 Other forms of training ..................................................................................... 26
    2.3.1 Private VET at the initiative of the individual ........................................... 26
    2.3.2 Training for employment and integration ............................................... 27
    2.3.3 Enterprise-based learning ..................................................................... 29

CHAPTER 3. Shaping VET qualifications ................................................................... 31
  3.1 Main mechanisms for anticipating skills needs .............................................. 31
    3.1.1 Upper secondary VET ........................................................................... 31
    3.1.2 Tertiary VET ......................................................................................... 33
    3.1.3 Anticipating skills needs and changing VET provision ......................... 33
  3.2 The qualification process ............................................................................... 34
    3.2.1 Main characteristics and elements of the national curriculum ............... 35
    3.2.2 Developing new curricula ..................................................................... 36
  3.3 Quality assurance mechanisms and inspections ............................................ 37

CHAPTER 4. Promoting participation in vocational education and training ............... 39
  4.1 Early intervention and focus on basic skills .................................................... 40
  4.2 Career guidance .............................................................................................. 41
  4.3 Financial incentives ........................................................................................ 42
  4.4 Subjects promoting VET and practice-based learning .................................... 43
  4.5 Making common core subjects relevant to VET ........................................... 44
List of figures and tables

Figures

Figure 1. VET in Norwegian education and training system. ................................................................. 10
Figure 2. The 2+2 model with structure of subjects............................................................................ 13
Figure 3. Completed trade or journeyman’s certificate in 2014/15, by age group ......................... 32
Figure 4. National administrative structure of Vocational Education & Training (VET). .............. 32

Tables

Table 1. Employment by production sector 2015 ................................................................................ 5
Table 2. Employment status at September 2015 for apprentices and pupils who earned a trade or
journeyman’s certificate during the school year 2014/2015 ............................................................... 8
Table 3. Population aged 16 and above by education level in 2015, by percentage ......................... 9
Table 4. VET programmes at upper secondary level, EQF level 4 ................................................... 11
Table 5. Number of apprentices and pupils by VET programme in school year 2015/2016 ........ 14
Table 6. Completed trade or journeyman’s certificate for experience-based candidates ............ 25
Table 7. Enterprise training by sector 2012, by percentage .............................................................. 29
Table 8. VET learners who successfully completed upper secondary training, measured five years
after they started, by percentage ........................................................................................................ 39
CHAPTER 1.

External factors influencing VET

1.1. Economy and labour market indicators

Norway is a small, open economy with the second-highest GDP (approximately EUR 64 500) in the OECD area (Statistics Norway 2015, a). 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.

Norway’s access to abundant 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. SMEs employ approximately 61 per cent of the total labour force. 16.3 per cent of SMEs have fewer than five employees, mainly because 65.5 per cent of enterprises have no registered employees. Only about 3 500 enterprises have 100 or more employees (Statistics Norway, b). These numbers indicate that apprenticeship training in Norwegian upper secondary VET often takes place in SMEs.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary and utilities sector</td>
<td>5.1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8.7</td>
</tr>
<tr>
<td>Construction</td>
<td>7.5</td>
</tr>
<tr>
<td>Transport and domestic trade</td>
<td>19.5</td>
</tr>
<tr>
<td>Business and other services</td>
<td>24.0</td>
</tr>
<tr>
<td>Non-marketed services</td>
<td>34.9</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; by the second quarter of 2016 the rate had increased to 4.8 per cent (Statistics Norway, d). The youth unemployment rate, defined for the age group of 15 to 24 years, is relatively stable and was estimated at 11.4 per cent in the first quarter of 2016 (Statistics Norway 2016, e).

Demographic changes and structural and technological developments pose challenges to the education system because they affect skills demands in different ways. A report by OECD (2014) shows that Norway has a small surplus demand for workers with upper secondary vocational education in manufacturing, construction, mechanical engineering and electronics, teaching, nursing and health services, and engineering. There is a tendency towards a surplus supply of workers with tertiary education in economics, administration, social sciences, law, humanities and the arts (OECD 2014).

1.2. Population and demographics

Norway has a population of 5.2 million. It covers 385 252 km² and ranks sixth in Europe in terms of size (eighth excluding the islands of Svalbard and Jan Mayen). The average population density is 16 persons per km² 36 per cent of the population are located in the five counties surrounding the Oslo fjord. Almost 81 per cent of the population lives in urban settlements, with a population density of 1 634 persons per km² (Statistics Norway 2015, 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 per cent of the population 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 2016, g).

In 2016, immigrants and those born in Norway to immigrant parents comprised close to 848 207 persons, representing about 16.3 per cent of the total population (Statistics Norway 2016, b). Approximately 43 per cent (370 000) of this segment of the population originates in other European countries (Statistics Norway 2016, h). The immigrant population is spread all over the country: 25 per cent (214 200 people) live around Oslo, constituting 33 per cent of capital’s population (Statistics Norway 2016, 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 pupils and students receive private education.

Norway has three administrative levels: state, county (fylkeskommuner) and municipality (kommuner). There are 19 counties and 392 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 19 June 2015. 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 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, more than 80 per cent are employed (www.skoleporten.no, a). This would indicate that they have the competence and skills demanded by the labour market. The
The average employment rate for the general population aged below 25 years is 15 per cent lower (Statistics Norway 2016, j).

However, there are differences between the qualifications in the eight VET programmes (1) 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.

Table 2. Employment status in September 2015 for apprentices and pupils who earned a trade or journeyman's certificate during the school year 2014/15

<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>77.1</td>
<td>11.5</td>
<td>11.3</td>
</tr>
<tr>
<td>Restaurant and Food Processing</td>
<td>75.5</td>
<td>13.1</td>
<td>11.4</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>68.9</td>
<td>17.5</td>
<td>13.6</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>79.1</td>
<td>13.0</td>
<td>7.9</td>
</tr>
<tr>
<td>Design, Arts and Crafts</td>
<td>77.5</td>
<td>11.2</td>
<td>11.3</td>
</tr>
<tr>
<td>Health and Social Care</td>
<td>85.0</td>
<td>10.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Building and Construction</td>
<td>84.0</td>
<td>6.2</td>
<td>9.8</td>
</tr>
<tr>
<td>Electrical Trades</td>
<td>80.4</td>
<td>13.0</td>
<td>6.6</td>
</tr>
<tr>
<td>Media and Communication</td>
<td>59.0</td>
<td>24.4</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>82.5</td>
<td>10.2</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Source: Norwegian Directorate for Education and Training 2015, a

(1) Up until the school year 2015—2016 there were nine VET programmes. The media and communication programme was transferred from a VET- to a general programme, starting the school year 2015-2016.
1.5. Educational attainment

Table 3. Population aged 16 and above by education level in 2015

<table>
<thead>
<tr>
<th>Education level</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below upper secondary level</td>
<td>26.9</td>
</tr>
<tr>
<td>Completed upper secondary level</td>
<td>40.9</td>
</tr>
<tr>
<td>Tertiary education up to four years</td>
<td>23</td>
</tr>
<tr>
<td>Tertiary education more than four years</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: data were extracted on 1 October 2015

Source: (Statistics Norway 2016, k)

There are significant regional differences in educational attainment. In Oslo for instance, 19.3 per cent of the population has tertiary education of more than four years. In the counties of Nordland and Nord-Trøndelag the corresponding figures are 5 and 4.8 per cent respectively (Statistics Norway 2016, l).

Educational attainment in Norway’s immigrant population varies according to 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 2016, m). In November 2015 the unemployment rate for all immigrant groups was 7 per cent, which is higher than the national average (Statistics Norway 2015, 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.

Tertiary vocational education at EQF level 5 has developed through one of the following four paths:
• County tertiary vocational education colleges building on vocational secondary education, often leading to qualifications as master craftspersons.

• 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.

• Other private provisions generally developed through training needs resulting from new and emerging technologies and labour market demands since the 1980s, particularly in media, design, communication, administration, logistics and ICT.
CHAPTER 2.

Providing vocational education and training in a lifelong learning perspective

Figure 1. VET in the Norwegian education and training system

NB: ISCED-P 2011.

Source: Cedefop and ReferNet Norway.
2.2. Government-regulated VET provision

2.2.1. Upper secondary VET structure

People who complete compulsory lower secondary education in Norway have a statutory right to three years of upper secondary education. They may choose from five general education 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 enjoys a high degree of confidence among stakeholders. Half of pupils (50.5%) who entered upper secondary education in 2015 chose a vocational programme. Most pupils in upper secondary education are in the age group 16 to 21.

Table 4. VET programmes at upper secondary level, NQF level 4A

<table>
<thead>
<tr>
<th>VET programme</th>
<th>Available trade and journeyman's certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction</td>
<td>23</td>
</tr>
<tr>
<td>Design, Arts and Crafts</td>
<td>49</td>
</tr>
<tr>
<td>Electrical Trades</td>
<td>21</td>
</tr>
<tr>
<td>Health and Social Care</td>
<td>8</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>8</td>
</tr>
<tr>
<td>Restaurant and Food Processing Trades</td>
<td>12</td>
</tr>
<tr>
<td>Service and Transport</td>
<td>8</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>65</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
</tr>
</tbody>
</table>

Source: Norwegian Directorate for Education and Training 2016, b

Most upper secondary VET programmes follow a 2+2 model. The model entails two years of education in school followed by two years of formal apprenticeship training. The apprenticeship entails training and productive work in an enterprise or public institution, known as a training enterprise.

The schools are responsible for the first two years of education and training, while the training enterprises are responsible for the final two years. However, the county authorities have an overarching responsibility for all aspects of public upper secondary education and training, including apprenticeship training.
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 2, 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 pupils decide which trade they want to pursue.

The vocational in-depth study subjects allow pupils 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 pupils the option to try out one or more recognised trades (*yrkesfag*).

Pupils' 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. Pupils may also be randomly selected to take nationally organised examinations in common core subjects. Most pupils have passed exams in vocational subjects after two and four years of training. After two years in school, pupils take an interdisciplinary local practical exam which covers all the vocational subjects.
2.2.1.1. Organising apprenticeship training

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. 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 normally starts at 30 per cent and increases to 80 per cent of a skilled worker’s salary. In 2015/16, 72 026 pupils and apprentices were registered in upper secondary education in Norway (Table 5).

Table 5. Number of apprentices and pupils by VET programme in school year 2015/16

<table>
<thead>
<tr>
<th>VET Programme</th>
<th>Total</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction</td>
<td>7 720</td>
<td>10.72</td>
</tr>
<tr>
<td>Design, Arts and Crafts</td>
<td>3 879</td>
<td>5.39</td>
</tr>
<tr>
<td>Electrical Trades</td>
<td>10 511</td>
<td>14.59</td>
</tr>
<tr>
<td>Health and Social Care</td>
<td>16 851</td>
<td>23.40</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>3 692</td>
<td>5.13</td>
</tr>
<tr>
<td>Media and Communication</td>
<td>6 027</td>
<td>8.37</td>
</tr>
<tr>
<td>Restaurant and Food Processing Trades</td>
<td>3771</td>
<td>5.24</td>
</tr>
<tr>
<td>Service and Transport</td>
<td>7 374</td>
<td>10.24</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>12201</td>
<td>16.94</td>
</tr>
<tr>
<td>Total</td>
<td>72 026</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Norwegian Directorate for Education and Training.

There is no statutory right to an apprenticeship placement in a training enterprise. However, pupils have a right to upper secondary education. On 1 January 2016, there were 28 000 applicants for 19 000 approved apprenticeship contracts in training enterprises. Because pupils 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. Of the 9 080 pupils without apprenticeships, 1 151 pupils nationwide
attended such practical training the school year 2015/16 (Norwegian Directorate for Education and Training 2016, d). 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 2015, all training enterprises received a state grant of approximately € 13 000 per apprentice for a 24-month training period (two years in an enterprise). 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 education 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. About 70 to 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. A recent research report (Høst et al. 2014) found that the ATAs often carried out the county authorities' tasks and worked actively on assuring the quality of apprenticeship training. Although ATAs have formal status as training enterprises, they operate somewhere between the county authorities and the individual training enterprises, making their legal status unclear. Nonetheless, research shows that the institutional support given by the ATAs is important for the apprenticeship scheme to work (Høst, Skålholt and Nyen 2012).

After two years of apprenticeship training, pupils in upper secondary VET take a practical-theoretical trade- or journeyman’s examination (Fag- og svenneprøve). In the exam, 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 2015, 80 per cent of candidates who entered a VET programme in 2011 passed the exam, 6.7 per cent completed their apprenticeship but failed the exam, 12 per cent failed to complete their apprenticeship (skoleporten.udir.no), and 1.3 per cent are still undertaking their apprenticeship (www.skoleporten.udir.no).

2.2.1.2. Supplementary studies qualifying VET pupils for higher education

After two years in a VET programme, pupils may transfer to a third year of a bridging course 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 pupils will thus not receive a trade or journeyman's certificate. In 2015, 8 688 pupils (26.6 per cent) selected this option after their second year in a VET programme (Norwegian Directorate for Education and Training, c). 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 certificate (a fifth year of training).

2.2.1.3. The Training Candidate Scheme

The Training Candidature Scheme (lærekandidatordningen) targets pupils who for various reasons struggle to achieve the requirements for the trade or journeyman’s certificate. The scheme started in 2000, and gives pupils 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 (kompetanseprøve). While pupils 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 33% from 2011 to 2015.
2.2.1.4. VET teachers and trainers

There are three main groups of VET training staff at upper secondary level (2):

- VET teachers who provide formal school-based education and training
- Training supervisors (*faglige leder*) and
- Trainers (*instruktorer*) 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 teachers in VET 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 students 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 plus a minimum of two years of professional experience,

or:

- qualification as a skilled craftsperson/worker and,
- two years of occupational experience;
- two years of further studies (technical, professional, managerial), and
- general matriculation qualifications or recognition of informal and non-formal qualifications.

(2) Thematic perspectives on teachers and trainers in VET:
Vocational teacher education (concurrent model) 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:

- an upper secondary vocational qualification and
- two years of relevant work experience, and
- general matriculation qualifications or relevant informal and non-formal qualifications.

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). New regulations on the relevant framework curricula came into force in March 2013.

"Competence for Quality'is a scheme offering teachers continued training with ECTS credits. It is a cooperative initiative involving the Norwegian Association of Local and Regional Authorities, higher education institutions, and national education authorities. Teachers are temporarily released from their duties in order to pursue further studies. The partners have agreed on subjects and areas where specific teacher programmes are established. Although some of these training programmes target VET teachers, few VET teachers apply for the training.

Norway will need more vocational education teachers in the years to come to help provide skilled tradespeople for the national workforce.

The Government gives priority to increased recruitment and qualification of VET teachers in the national vocational teacher promotion initiative launched on 29 October 2015.

A training enterprise with an apprentice must appoint a qualified training supervisor (faglig leder) and one or more trainers (instrukter). 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 (instrukter) 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).

### 2.2.1.5. Routes to further education and training

Holders of a trade or journeyman’s certificate may pursue further studies at vocational education college (*fagskole*) at EQF 5 (see also section 2.2.2) that is considered a tertiary level in the national context. They can also qualify for higher education as outlined below.

In Norwegian higher 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 a bridging course qualifying for admission to higher education for VET pupils (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 bridging course qualifying them 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.

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.

Pathway (f) was introduced in 2001, and the first programme was a three-year bachelor’s programme designed for certified electricians. Since then, there has been an increase in the number of institutions wishing to offer a VET pathway to such adapted or tailor-made engineering programmes. Following two white papers (White paper No. 31 (2007-08) ‘Quality in School’ and White paper no. 20 (2012–13) ‘On the Right Path’, both of which address measures to improve quality in VET, it was decided to allow for VET pathway programmes to be introduced in more fields.

Tertiary vocational education and training

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.

Tertiary vocational education

The Act relating to Tertiary Vocational Education (Lov om fagskoler) of 2003, most recently amended in December 2010, regulates public and private tertiary vocational education colleges 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. 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 were few students at this level in 2015: 15 146 compared to 283 115 in higher education (Statistics Norway, k). Almost half of these students (48 per cent) attended private
colleges in 2015 (Statistics Norway, o). The public colleges at this level are administered by the county authorities (except for 16 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 qualification 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 students 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 tertiary 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 tertiary vocational education as one year of the engineering programme. Some tertiary 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 students. 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 and ‘fagskole 2’ for full-level completion.

New changes are underway in tertiary vocational education. A white paper is expected in autumn 2016 where funding and management of the schools will be considered. The definition of education level will also be evaluated and clarified.

2.2.2. Higher education

The Act relating to Universities and University Colleges (Lov om universiteter og høyskoler), most recently amended in 2016, applies to all 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 students. 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. Students 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. Pursuant to the 2009 white paper entitled Education Strategy, 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.

Norway Opening Universities (Norgesuniversitetet) is an agency under the Ministry of Education and Research mandated to stimulate Norwegian higher education institutions to develop and offer flexible programmes and courses based on ICT, and to coordinate 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.). As a rule, most programmes and institutions of higher education 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, credits.

2.2.3. 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 purview 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. The current curricula are being revised due to increased knowledge and competence requirements for leaders of small and medium-sized enterprises. The new curricula will be available from autumn 2016, with some areas strengthened and new areas added. Different institutions, such as Folkeuniversitetet (FU), www.mester.com and 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 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. Pupils may also take the examination as private candidates. In recent years, MCC has further extended the education system for master craftsperson. 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.
2.2.4. 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. The number of adults attending upper secondary VET education is increasing: from 2013/14 to 2014/15 it increased by 4.8 per cent (Directorate for Education and Training, e).

2.2.4.1. Reintegration into upper secondary VET

An analysis of statistics for VET qualifications reveals a high level of participation by adult learners. Of all trade or journeyman's certificates completed in 2015 (see Figure 3), 47 per cent of graduates were aged above 24 years.

Figure 3. Completed trade or journeyman's certificate in 2014/15, by age group.

A reason for the high participation rate of adults may also be that adults without upper secondary education and training have a statutory right to receive it. Furthermore, adults may sign apprenticeship contracts with training enterprises. However, the grant given to training enterprises accepting adult apprentices (basistilskudd II) is about EUR 5 000 per year per apprentice, compared to approximately EUR 13 900 per apprentice for pupils in upper secondary VET. 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 (3), 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 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 to 5) gives candidates for experience-based trade certification (praksiskandidat) the right to take the trade or journeyman's examination 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 6 shows the total number of completed trade and journeyman’s certificates and the number of certificates awarded under the experience-based scheme in 2013-15.

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

<table>
<thead>
<tr>
<th>Certificates</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of trade or journeyman’s certificates</td>
<td>21,168</td>
<td>23,677</td>
<td>24,148</td>
</tr>
<tr>
<td>Total number of experience-based candidate trade or journeyman’s certificates</td>
<td>6,715</td>
<td>8,099</td>
<td>8,166</td>
</tr>
<tr>
<td>Total per cent of experience-based candidate trade or journeyman’s certificates</td>
<td>32.00%</td>
<td>34.00%</td>
<td>34.00%</td>
</tr>
</tbody>
</table>

Source: Norwegian Directorate for Education and Training 2015, g.

(3) 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.
2.2.4.2. Reintegration into tertiary education

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 Tertiary Vocational Education (Lov om fagskoler) 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 Vox, 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 tertiary vocational education as equivalent in level and scope to Norwegian tertiary vocational education.

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. Because it is less frequently used to recognise parts of study programmes, the Ministry of Education and Research asked Vox to promote the use of VPL for recognising parts of study programmes. Vox has published a guide to this effect, developed in cooperation with the Norwegian Association of Higher Education Institutions (UHR).

2.3. 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.

2.3.1. 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 2016 there are 16 recognised adult learning associations and 30 approved distance education and e-learning institutions. 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 2015, a total of 507 909 students attended courses delivered by adult education institutions: 56.8 per cent were women and only 27.3 per cent were aged below 30 (www.ssb.no – Voksenopplæring, studieforbundenes opplæringsvirksomhet, p). Adult students are, subject to certain conditions, entitled to financial support from the Norwegian State Educational Loan Fund (Statens lånekasse for utdanning).

Twenty-two 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, tertiary vocational and higher levels, and personally oriented courses. These learning opportunities are of particular interest in Norway and other sparsely populated countries. In 2015 there were 10 753 people undertaking a distance education course; 62.5 per cent were women and 47.7 per cent were aged below 30 (Statistics Norway, q).

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.

2.3.2. 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.
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 (Arbeidsmarkedssopplæring (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. From 2015 the programme was extended to include funding for Norwegian language courses.

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.

### 2.3.3. 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.

A study conducted by Damvad (2013) with a large dataset of private sector enterprises revealed that large enterprises in general offer more training to their employees than do small ones. The study shows that 74 per cent of enterprises belonging to large corporations
offer some sort of in-house training to its employees. In comparison, half of enterprises not belonging to large corporations did the same.

However, as Table 7 reveals, there are considerable nuances between sectors. In the building and construction sector, 68 per cent of the enterprises not belonging to large corporations offer training to their employees, compared to about half of enterprises belonging to large corporations. The trend is reversed in the hotel and restaurant sector, with 25 per cent of enterprises not belonging to large corporations offering training, and 70 per cent of enterprises belonging to large corporations offering training. In the transport and storage sector, practically all enterprises belonging to large corporations offer enterprise-based learning to its employees.

Table 7. Enterprise training by sector 2012, by percentage

<table>
<thead>
<tr>
<th>Sector</th>
<th>Enterprise not belonging to a corporation</th>
<th>Enterprise belonging to a corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Offers training</td>
<td>Does not offer training</td>
</tr>
<tr>
<td>Building and construction</td>
<td>68</td>
<td>32</td>
</tr>
<tr>
<td>Retail</td>
<td>54</td>
<td>46</td>
</tr>
<tr>
<td>Service industry</td>
<td>51</td>
<td>49</td>
</tr>
<tr>
<td>Industry</td>
<td>46</td>
<td>54</td>
</tr>
<tr>
<td>Primary industry</td>
<td>36</td>
<td>64</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>34</td>
<td>66</td>
</tr>
<tr>
<td>Hotel and restaurant</td>
<td>25</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Damvad, 2013.

When it comes to participation of employees in the training offered by the enterprises, 85 per cent of enterprises in the study reported that 26 per cent of their employees participate. About 30 per cent of the enterprises reported that all their employees participate in training.

The in-house training covers many different areas such as professional development, safety, ICT, motivation, organisation development, economy and administration, communication and
language training. However, professional development of employees is reported by 75 per cent of the enterprises to be the main purpose of the training.

The Damvad report shows that Norwegian enterprises are actively involved in the training of their staff. However, most of this training is non-formal, and is not conducted through the formal education and training system. A relatively large proportion of employers expressed a need to formalise their non-formal training. However, the study also shows that employers have limited insight into what such processes entail. Because only formally recognised qualifications are included in the Norwegian National Qualifications Framework, non-formal qualifications like those discussed here must first be formally recognised before they can become part of the qualifications framework.
3.1. Main mechanisms for anticipating skills needs

Norway has a longstanding tradition of close cooperation on upper secondary and tertiary 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 pupils’ 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, 1975 (No. 142), 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 (Hovedavtalen) 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. 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.
• Nine Vocational Training Councils\(^{(4)}\) (\textit{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 (\textit{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 (\textit{Prøvenemnder}) are situated in each county.
• National Appeals Boards (\textit{Klagenemnder}) cater for candidates who fail the trade or journeyman's final examination at county level.

Figure 4 shows how tripartite cooperation and the governance structure for upper secondary VET are organised:

Figure 4. National administrative structure of Vocational Education & Training (VET)

One element that may limit the social partners’ impact on upper secondary VET provision is the emphasis placed on the individual choices of pupils. According to section 3-1 of the Education Act, pupils are entitled to admission to one out of three preferred upper secondary programmes. In 2015/16, 81 per cent of first-year pupils were admitted to their first choice of upper secondary education (Source: Norwegian Directorate for Education and Training, h). 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

\(^{(4)}\) There are nine Vocational Training Councils, the council for Media and Communication exist as long as there are pupils attending media and communication as a VET programme.
provision, examinations framework for trade or journeyman’s certificates, and quality control at national, county and local level.

### 3.1.2. Tertiary VET

For tertiary 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. Vox 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 students.

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 concerning tertiary VET institutions will be published in autumn 2016, in which these institutions will be highlighted as independent and important education institutions.

### 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, pupils, students, employers, trade unions and others may initiate a need for adjustments or changes.

Each of the eight upper secondary VET programmes (see table 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 to the national authorities every two years on the situation and on 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.

In tertiary vocational education, and in higher education, study programmes are designed by the provider. Each tertiary 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. As mentioned earlier (section 2.2.2), all higher education institutions are required to have a strategy and a consultative council for cooperation with working life (Råd for samarbeid med arbeidslivet).

3.2. The qualification process

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) of 2006. A changing society depends on schools that can adapt accordingly. The Norwegian Government suggests a renewal of the school subjects in order to give learners more in-depth training and a better subject understanding. The curricular reform of 2006 covers primary, lower secondary and upper secondary education, including VET. The reform has a stronger focus on the learning of basic skills and knowledge promotion through outcome-based learning. The National Curriculum for Knowledge Promotion in Primary and Secondary Education and Training clearly states the objectives of the learner, the learning outcomes. New national curricula were developed for each subject in both school-based and apprenticeship-based education and training. The Norwegian Directorate for Education and Training (Utdanningsdirektoratet) managed this process. Each subject curriculum was developed by a curriculum team and
was subjected to a broad consultation process (electronic questionnaires, seminars, meetings) involving schools, school owners and social partners.

### 3.2.1. Main characteristics and elements of the national curriculum

The National Curriculum in Primary and Secondary Education and Training consists of five elements: the subject curricula, distribution of teaching hours per subject, the distribution of education programmes, the core curriculum, and the quality framework:

- Each subject curriculum consists of objectives, the main subject areas and basic skills. The main subject areas describe what the pupil and apprentice should be able to do. This means that the curricula are expressed through learning outcomes. 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.

- 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. See chapter 2 for more details.

- Distribution of education programmes for both primary and secondary education is set at national level. At the upper secondary level, this includes the provision of programmes, subjects and crafts and teaching hours at each level (see section 2.2.1).

- '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 pupil participation. These skills are not assessed by testing or grading, but rather through two individual interviews each year between the teacher/trainer and the learner.

Key competences model developed as a result of the Lisbon Strategy were taken into consideration and included where relevant in the Subject Curricula, Core Curriculum and the Quality Framework.
The National Curriculum encompasses 10-year compulsory education and upper secondary education and training as a whole. The competence objectives state what the pupil/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. Local curricular activities 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 through the process described above, a tripartite group is set up to design vocational profiles (kompetanseplattform). 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 pupils/students and apprentices will be dependent on the subject curricula.

In addition, the Directorate has recently developed 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 is intended to give 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.

3.3. Quality assurance mechanisms and inspections

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 (Yrkesopplæringsnemnda) 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 pupils 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 pertinent 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.

As already mentioned, the Norwegian Agency for Quality Assurance in Education (Nasjonalt organ for kvalitet i utdanningen (NOKUT)) is responsible for recognition, accreditation and quality assurance in tertiary vocational education and higher education. The frameworks for these activities are laid down in the respective laws and regulations on quality assurance in higher and tertiary vocational education, as well as in supplementary regulations, rules and procedures laid down by NOKUT.
CHAPTER 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 (see table below). The corresponding figure for learners in the five\textsuperscript{5} general study programmes is 86 per cent. Norwegian youth have a statutory right to upper secondary education (\textit{ungdomsretten}), which is valid for five years for pupils in three-year, school-based upper secondary education, and six years for pupils in VET programmes with apprenticeships. Due to this right, 98 per cent of 16-year-olds who completed the lower secondary level in spring 2014 were registered in upper secondary education during autumn 2014. 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 pupils and apprentices who after five years still receive education and training will be counted as drop-outs. According to Eurostat statistics, about 15 per cent of youth aged 18–24 leave school early in Norway, compared to 11 per cent in EU 28 (Eurostat 2015). The variations in drop-out figures between the Norwegian and the Eurostat statistics show differences in measurement methods and definitions of population groups.

Table 8. VET learners who successfully completed upper secondary training, measured five years after they started, by percentage

<table>
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<tr>
<th>Programme</th>
<th>2009–14</th>
<th>2010–15</th>
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<tr>
<td>Building and Construction</td>
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<td>53</td>
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<tr>
<td>Design, Arts and Craft</td>
<td>51</td>
<td>52</td>
</tr>
<tr>
<td>Electrical Trades</td>
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<td>62</td>
</tr>
<tr>
<td>Health and Social Care</td>
<td>59</td>
<td>63</td>
</tr>
<tr>
<td>Media and Communication</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>Agriculture, Fishing and Forestry</td>
<td>56</td>
<td>57</td>
</tr>
<tr>
<td>Restaurant and Food Processing Trades</td>
<td>46</td>
<td>43</td>
</tr>
<tr>
<td>Service and Transport</td>
<td>52</td>
<td>51</td>
</tr>
<tr>
<td>Technical and Industrial Production</td>
<td>55</td>
<td>54</td>
</tr>
<tr>
<td>All VET programmes</td>
<td>58</td>
<td>59</td>
</tr>
</tbody>
</table>

Source: Statistics Norway 2016, q
Furthermore, pupils 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 within the statutory five years of the statutory right as a young person complete 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 pupils in the transition from school-based training to apprenticeship training. In 2015, 28 000 pupils applied for an apprenticeship contract, and about 19 000 (68 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 2014/15 (Education Mirror 2016).

Research points to significant variations in drop-out rates between education programmes. For instance, half of all pupils in the restaurant and food processing trades dropped out before completing the programme, compared to only 3 per cent in sport and physical education programmes (one of the general study programmes) (NIFU STEP, 2008). The differences in pupils' grades at lower secondary level are seen as a key factor; pupils admitted to general study programmes generally have higher marks than pupils 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 and focus on basic skills

White paper no. 44 (2008–09) Education Strategy (St.meld.nr. 44 (2008-09) Utdanningslinja) addresses efforts to counter drop-out and social disparities. The white paper emphasises early intervention as a main strategy to ensure a good education for everyone and to prevent drop-outs. This entails both intervening and taking action at an early stage when problems arise during the course of the education. As there is a clear correlation between poor results in lower secondary education and drop-out rates in upper secondary education, many
permanent measures have been implemented to strengthen the focus on basic skills, so that fewer pupils end up in the group at risk of dropping out. Since 2012, basic skills are defined in the curricula through a framework. The framework gives examples of basic skills at five levels. So far, five subjects have been revised to include level descriptions of these basic skills (mathematics, social studies, English, Norwegian, natural sciences). The framework will be used as a tool in developing new or revising existing curricula.

4.2. Career guidance

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. Report no. 30 to the Storting (2003–04) Culture for Learning (St.meld. nr. 30 (2003-04) Kultur for læring) and Report no. 16 (2006-07) to the Storting Early Intervention for Lifelong Learning (St.meld. nr. 16 (2006-07) Tidlig innsats for livslang læring) as well as a national project aiming to test a twofold counselling service, all emphasised the importance of students receiving guidance on educational and vocational matters as well as on matters of a social or personal character. To ensure this, new regulations under the Education Act (Opplæringsloven) were put into effect on 1 January 2009 emphasising the right of every student to receive both types of guidance.

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 pupils 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 pupils/students 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 pupils. Moreover, one subject in the curriculum for lower secondary schools, Study Elective Programme Subject (Utdanningsvalg), is specifically aimed at providing pupils with the competencies they need to make informed educational and vocational choices. A similar subject is offered in VET 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 pupils 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.
Partnerships for career guidance constitute an important part of the strategy for lifelong learning. In 2005–08 regional partnerships for career guidance were established as a project to improve career guidance in lower and upper secondary schools and to facilitate career guidance between different levels of education, the labour sector and stakeholders in career guidance. Since 2008, all counties have been 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. As a result, 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 Vox is in charge of managing and monitoring partnerships in career guidance.

In 2014 a master’s degree in career guidance was established in Norway, and in 2016 the first two students were awarded their degrees. Career guidance strengthens the individual’s ability and competence to make informed education and vocational choices. In Norway, all pupils 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 that the right to guidance established by the Education Act should also apply to apprentices. The NOU also 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 students. 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 pupils. The regulated salary during the apprenticeship training period is also a financial incentive to promote pupil participation in VET.

The main purposes of the Act relating to Student 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 students to study more effectively;
- ensure a qualified workforce for society at large.

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

The Act states that all registered students 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 students abroad, who may receive additional support for travel, admission and tuition fees. Student loans carry no interest charges during the period of study.

Learners in upper secondary school-based VET (pupils 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:

- 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:
- an additional subsistence grant to cover expenses if they live away from home;
- grants for purchasing compulsory equipment, according to study programme.

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

4.4. 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.

Elective subjects were introduced as a fixed component in lower secondary education in autumn 2012. The Optional Subjects comprise 14 subjects (6) that focus on practical skills. The pupils must choose from the subjects offered by their school. The schools must offer at least two of the 14 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 in-depth study 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.

4.5. Making common core subjects relevant to VET

To increase motivation, the teaching of common core subjects (e.g. Norwegian, English, mathematics, etc.) will be more closely related to the upper secondary vocational programme the pupil is attending. In particular, this should make teaching better adapted to the needs of less motivated pupils in vocational programmes. To achieve more practically oriented teaching in common core subjects, teacher competence will be strengthened and new examination arrangements considered. Making common core subjects relevant to VET is provided for in section 1-3 of the Education Act.

Common core subjects, VET, Relevance (FYR – Fellesfag, Yrkesfag, Relevans) started as a subproject in 2011, but from 2014-16 FYR became an independent project and was transferred from the Norwegian Ministry of Education and Research to the Norwegian Directorate of Education and Training. It is an objective in FYR to make the common core subject more VET-relevant. This will improve the connection between school-based and work-based learning, increase motivation and reduced drop out. FYR shall ensure VET pupils 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

For teachers in VET and common core subjects training will be carried out until autumn 2016.

4.6. Provision for learners with special needs

An important goal for Norwegian education is: “Teaching shall be adapted to the abilities and aptitudes of individual pupils, apprentices and trainees” (Education Act, section 1-2). Accordingly, pupils and students with special needs must be 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.

4.7. Regional Follow-up Service

The Education Act (section 3-6) requires the regional authorities to provide a follow-up service (oppfølgingsstjeneste) responsible for contacting pupils (aged 16 to 21) who either does 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 15 June 2015, 42 per cent of the young people registered with the Follow-up Service had not applied for upper secondary education. Almost a quarter (22 per cent) had applied for upper secondary education but had not accepted the provision, while 19 per cent were registered because they had dropped out of upper secondary education. The situation for 16 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 (Norwegian Directorate for Education and Training 2015, i).

4.8. 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 pupils and apprentices.

4.9. Social Contract for VET

A new version of the Social Contract for VET (Samfunnskontrakten) 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 pupils 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.

Various pilots in a selected number of counties are currently underway involving school-based practical training programmes equivalent to apprenticeships (Vg3 opplæring i skole), a review of available VET programmes (closer cooperation between schools and the labour market), and a dual vocational training system.
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<td>Statistics Norway</td>
<td>p</td>
<td><a href="http://www.ssb.no/statistikkbanken">www.ssb.no/statistikkbanken</a></td>
<td>Distance education - Table 09698 and 09699</td>
</tr>
<tr>
<td>Statistics Norway</td>
<td>q</td>
<td><a href="http://www.ssb.no">www.ssb.no</a></td>
<td>Completed upper secondary training - Table 09253</td>
</tr>
</tbody>
</table>
## List of acronyms and abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATA</td>
<td>Apprenticeship Training Agency</td>
</tr>
<tr>
<td>EEA</td>
<td>European Economic Area</td>
</tr>
<tr>
<td>EQF</td>
<td>European Qualifications Framework</td>
</tr>
<tr>
<td>FYR</td>
<td>Fellesfag, yrkesfag, relevans</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
</tr>
<tr>
<td>KS</td>
<td>Norwegian Association of Local and Regional Authorities (kommunesektorens interesse- og arbeidsgiverorganisasjon)</td>
</tr>
<tr>
<td>MCC</td>
<td>Master Craftsman Certificate Committee (Mesterbrevnemnda).</td>
</tr>
<tr>
<td>NAV</td>
<td>Norwegian Labour and Welfare Administration (Arbeids- og velferdsetaten)</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organisation</td>
</tr>
<tr>
<td>NOKUT</td>
<td>Norwegian Agency for Quality Assurance in Education (Nasjonalt organ for kvalitet i utdanningen)</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>SME</td>
<td>Small and medium-sized enterprise</td>
</tr>
<tr>
<td>RPL</td>
<td>Recognition of prior learning (Realkompetansevurdering)</td>
</tr>
<tr>
<td>SRY</td>
<td>National Council for Vocational Education and Training (Samarbeidsrådet for yrkesopplæring)</td>
</tr>
<tr>
<td>Vox</td>
<td>Norwegian Agency for Lifelong Learning (Nasjonalt fagorgan for kompetansepolitikk)</td>
</tr>
</tbody>
</table>
## VET programmes at upper secondary level, EQF level 4

<table>
<thead>
<tr>
<th>Type of educational programme</th>
<th>Balance between school-based and work-based training</th>
<th>Transfer to other pathways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical and Industrial Production</td>
<td>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 year apprenticeship training, and 8 subjects follow 1 year in school and 3 years apprenticeship training.</td>
<td>All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5.</td>
</tr>
<tr>
<td>Electrical Trades</td>
<td>Most of the subjects follow 2 years in school and 2.5 years of formal apprenticeship training and productive work in an enterprise. Subject in Aviation follows 2 years in school and 3 years apprenticeship training.</td>
<td>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.</td>
</tr>
<tr>
<td>Building and Construction</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 1 year in school and 3 years of formal apprenticeship training.</td>
<td>All the programmes can transfer to tertiary vocational education (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>
</tr>
<tr>
<td>Restaurant and Food Processing Trades</td>
<td>All 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>Agriculture, Fishing and Forestry</td>
<td>Most subjects follow 2 years in school and 2 years of formal apprenticeship training and productive work in an enterprise.  One of the subjects meets the admission criteria for higher education.</td>
<td>All the programmes can transfer to tertiary vocational education (fagskoleutdanning) at EQF level 5.  Agriculture, fishing and forestry have an option for the third year which prepares pupils for higher education.</td>
</tr>
<tr>
<td>Health and Social Care</td>
<td>4 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>
</tr>
<tr>
<td>Subject</td>
<td>Curriculum Details</td>
<td>Vocational Education Details</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
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</tr>
<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. 3 subjects follow 3 years in school. 11 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>
</tr>
<tr>
<td>Service and Transport</td>
<td>All 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>
</tbody>
</table>

*Source: Norwegian Directorate for Education and Training, 2015.*