
Norway

VET in Europe – Country report

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Author: The Norwegian Directorate for Education and Training with contributions from members of ReferNet Norway.

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1. External factors influencing VET

1.1 Political and socio-economic context

Norway is a parliamentary democracy. Through the EEA Agreement, Norway is a member of the single market and participates in several EU programmes and institutional arrangements. The Norwegian Parliament (*Stortinget*) decides upon major political principles and goals, as well as budgets and legal frameworks for activities under each ministry. Education and training are considered a public responsibility. Equal access to high quality education is a fundamental political principle. There are no school fees at any level, including higher education, in the public education system. Only a small share of pupils and students attend private education.

The Ministry of Education and Research has overall responsibility for national policy development and administration of education and training at all levels, from kindergarten to higher education, including adult education. Operational responsibilities for the development of curricula, examinations and quality control for the primary and secondary levels are mandated to other public bodies at national and county levels.

Norway has three administrative levels: state, county and municipality. There are 19 counties and 430 municipalities. Each of these units 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.

Higher education falls directly under the responsibility of the Ministry of Education and Research. For post-secondary vocational training ("*fagskole*", ISCED 4), the situation is slightly more complicated as the counties are responsible for most of the public funding, most schools are private, and a few schools are funded directly by the Ministry.

Norway has a well-developed and regulated system of cooperation between social partners and government. They negotiate through collective bargaining to control wage levels and influence prices. The main principles for upper secondary VET are also settled through collective bargaining, see more in chapter three. The national administrative structure for upper secondary VET is illustrated below.

1.2 Population and demographics

Norway has a population of 5 million. It covers a wide geographic area (385 186 km²) and is no. 6 in Europe in terms of size (no. 8 excluded the islands of Svalbard and Jan Mayen). The population density is low – the national average is 15.6 persons per sq.km. 36 % of the population are located in the five counties surrounding the Oslofjord. Almost 80 % of the population live in urban settlements where the population density is 1 615 persons per sq.km (Statistics Norway 2012, a).

Demographic projections indicate that the growth in the number of young people will be lower than the average population growth after 2011. In the long run, the age group 65+ will see a slightly stronger increase than other age groups in the years to come (Statistics Norway 2011, a).

In 2012, the immigrants and those born in Norway to immigrant parents comprised over 655 000 persons, 13.1% of the total population. 294 000 of these originate from other European countries. Immigrants reside in all 430 municipalities. 139 000 live in the Oslo area and they constitute some 23 % of the total population in the capital (Statistics Norway 2012, b).

The educational attainment in the immigrant population varies with country background. Among persons born in Norway of two foreign-born parents, enrolment in higher education is higher than the country average for the age group 25–29. At the same time, unemployment is higher than the country average for all immigrant groups (Statistics Norway 2012, b).

1.3 Economy and labour market indicators

Norway has a small, open economy. GDP per capita is the second highest in the OECD area (OECD 2012). 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 industries.

Norway's great access to energy resources has been instrumental in the development of energy-based business sectors, wealth and growth. Unlike many other countries, the main part of Norwegian industry is located outside of the metropolitan areas. Production was often established either close to an energy source or at a location offering good transport links. Despite the dependency on natural resources, Norway is a modern industrial nation.

A high level of investment ensures a continuing modernisation of machinery and production equipment. Small and medium sized enterprises (SMEs) constitute more than 99 per cent of all enterprises. 86 per cent of them have fewer than 5 employees. SMEs employ approximately 56 per cent of the labour force. Only about 1800 enterprises have 100 or more employees (Statistics Norway 2011, a).

<i>Employment by production sector 2010. Real figures and per cent of total employment (1000 persons)</i>		
<i>Sector</i>	<i>Persons</i>	<i>Per cent</i>
<i>Primary sector and utilities</i>	<i>109</i>	<i>4.3</i>
<i>Manufacturing</i>	<i>236</i>	<i>9.4</i>
<i>Construction</i>	<i>209</i>	<i>8.3</i>
<i>Distribution and transport</i>	<i>485</i>	<i>19.4</i>
<i>Business and other services</i>	<i>471</i>	<i>18.8</i>
<i>Non marketed services</i>	<i>996</i>	<i>39.7</i>
<i>Total</i>	<i>2506</i>	<i>100.0</i>

Source: Statistics Norway 2011, **b**

Its open economy makes Norway vulnerable to fluctuations in international markets. After the summer of 2008, the international financial crisis contributed to lower export demand and lower economic growth. The unemployment rate increased from about 2.6 per cent in 2008 to 3.6 per cent in 2010. In July 2012, the unemployment rate decreased to 3 per cent (Statistics Norway 2012, c). The employment rate in Norway remains stable. However, the labour force participation among young people between 15 and 24 increased from 56.6 per cent in the 2nd quarter of 2011 to 59 per cent in the second quarter of 2012 (Statistics Norway 2012, d).

1.4 Educational attainment

In 2011, the educational attainment for persons aged 16 or above in the Norwegian population was as follows: 28.6 per cent have education below the upper secondary level, 42.3 per cent have completed upper secondary education or training, 21.7 per cent have completed a tertiary education of up to four years in duration, and 7.4 per cent have completed a tertiary education of more than 4 years' duration (Statistics Norway 2012, f).

1.5 Historical context

VET, including apprenticeship, is integrated as an equal part of upper secondary education and is regulated by the same acts that apply to general education. Nevertheless,

Skule et al (2002) describe a historic divide between general schooling and VET in Norway, the former growing out of the eighteenth century Latin boys' schools and the latter growing out of the guilds-based apprenticeship system. The history of Norwegian upper secondary education, they claim, has seen many attempts to bridge the general and vocational divide and particularly the gap between the vocational schools and the apprenticeship system. The most important reform in this regard is "Reform 94" in 1994, which encompassed rights, structure and content.

Since 1976, Norway has a unified upper secondary structure for general and vocational studies. VET programmes are available all over the country and since the mid-1990s, most of them have been organised in a "2+2 model" – two years in school followed by two years of apprenticeship training in an enterprise. Norway enjoys a high degree of decentralisation, and in the Knowledge Promotion Reform in 2006, the central government delegated more responsibility to the local level. The 19 counties are responsible for all aspects of public upper secondary general education and VET, including apprenticeship training.

The post-secondary ISCED 4 level has a more recent history. Today's institutions have developed through one of the following four main paths:

- county post-secondary technical colleges building on vocational secondary education, often leading to qualifications as master craftsmen or certificates for seamen;
- state funded private schools originally recognised as "secondary education without parallel to public provision", several of which are in art, culture or Bible studies;
- state and county funded programmes in health and social studies;
- other private provision, generally developed through training needs resulting from new and emerging technologies and demands in the labour market since the 1980s, particularly in media, design, communication, administration, logistics and ICT.

1.6 Legal framework

Act of 17 July 1998 no. 61 relating to Primary and Secondary Education and Training (the Education Act, *Opplæringsloven*, with the latest amendments in force as of 1 August 2010) 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. The act regulates objectives and scope, organisation and division of responsibilities, financing and content of education and training.

The Act states that the Ministry of Education and Research (*Kunnskapsdepartementet*) is responsible for the development of national plans and financing arrangements, whereas counties (*fylkeskommuner*) and municipalities (*kommuner*) are responsible for developing comprehensive plans, organising delivery and financing within their jurisdiction.

Act relating to Post-secondary Vocational Education and Training (*lov om fagskoler* 2003, latest amendment December 2010) regulates public and private post-secondary vocational education and training at ISCED 4 level, with courses and programmes of 6 months' to 2 years' duration. Education and training under this law are not part of higher education. The main purpose of the Act is to ensure and promote quality provision, and to

ensure student rights. The providers under this Act design their own courses and curricula. Each programme must be recognised by the National Agency for Quality Assurance in Education (*Nasjonalt organ for kvalitet i utdanningen*, NOKUT) according to a regulation on quality assurance in higher and vocational post-secondary education as well as rules and procedures laid down by NOKUT.

The Act relating to Universities and University Colleges (*Lov om universiteter og høyskoler* 2005, latest amendment 2009) applies to all higher education, both state and private. The Act regulates organisational and management aspects, provides for the recognition of study programme, examination and certification, for quality assurance as well as for the learning environment for students.

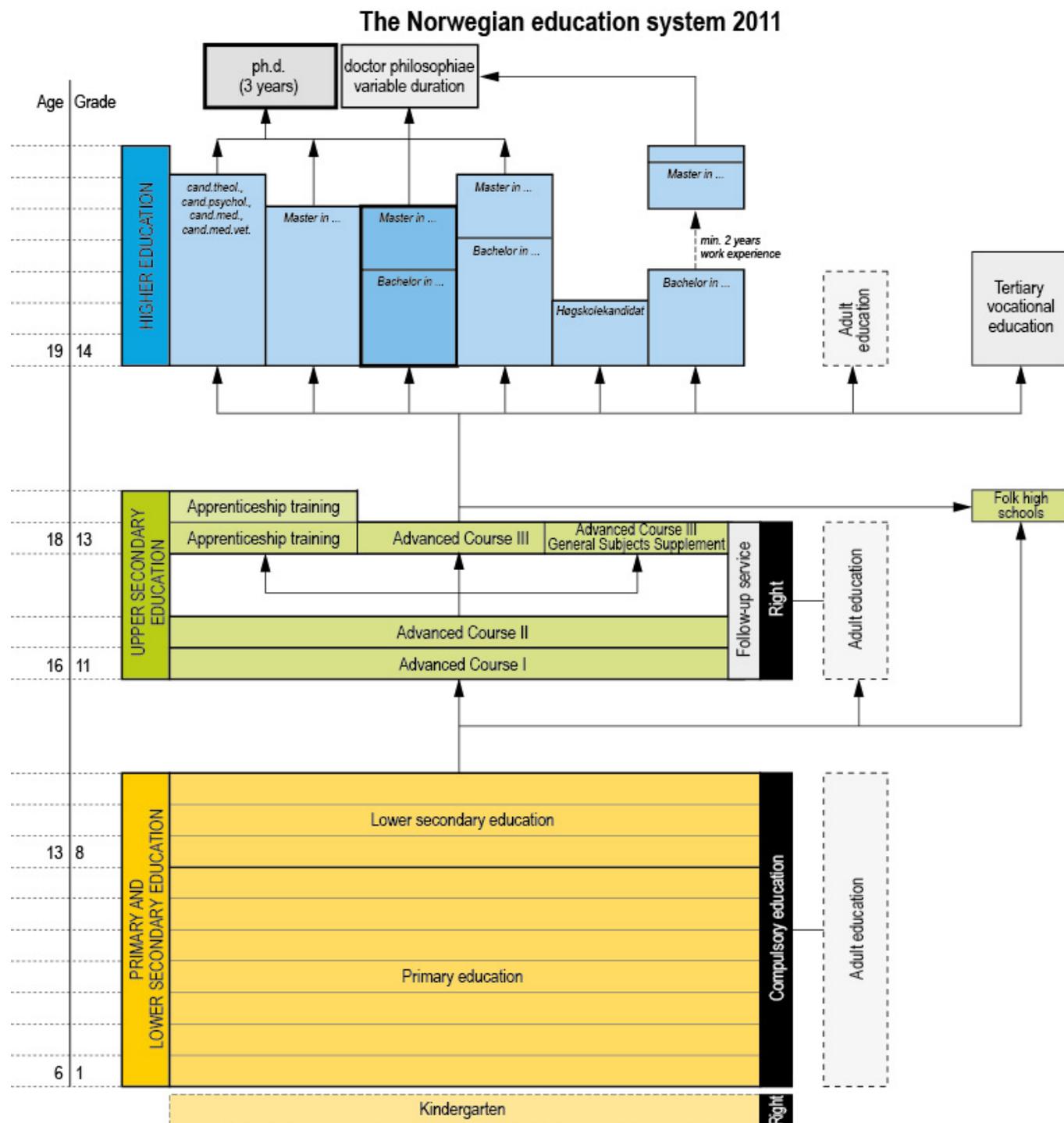
The Adult Education Act (*Lov om voksenopplæring* – 1976, latest amendment 2003) regulates different types of adult training that is not covered by the Education Act. Education and training for adults is provided by a variety of public and private institutions. Among the most important are private adult learning study associations (*studieforbund*), labour market training, work based training and distance training, see more in section 2.3.

The Act relating to Master Craftsman Certificates (*Lov om mesterbrev*, 1986) establishes the framework for the master craftsman certificate (*mesterbrev*). It stipulates that only a person awarded the certificate is entitled to call him or herself a master craftsman (*mester*). Read more about the master craftsman scheme in section 2.2.3.

The Financial Support to Students and Pupils Act (*Lov om utdanningsstøtte til elever og studenter*-1985, latest amendment 2005) states that all registered students on formally recognised study programmes, at both public and private higher education institutions may receive grants and subsidised loans from the State Educational Loan Fund (*Statens lånekasse for utdanning*) for subsistence costs. Support is also provided to Norwegian students abroad, who may receive additional support for travel, entrance and tuition fees. The same rights are given to students in upper secondary education and VET, including apprentices, who can document specific financial needs, as well as to apprentices who spend at least 3 months of their practical training abroad. The main purposes of the act are to: improve equality of access to education and training regardless of geography, gender, age and financial situation; improve working conditions and study efficiency of the students; and to ensure access to qualified labour for society.

2. Providing vocational education and training in a lifelong learning perspective

2.1 Diagram of the national education and training system



Source: Statistics Norway 2012

2.2 Government-regulated VET provision

2.2.1 Upper secondary VET

All young people leaving compulsory school have a statutory right to attend three years of upper secondary education. They may choose from three general studies programmes and nine VET-programmes (see table below). Norway has a well-developed upper secondary VET system linked to apprenticeship training, which enjoys a high degree of confidence among stakeholders. The upper secondary VET leads to the trade- or journeyman's certificate (*fag- og svennebrev*). The majority of upper secondary VET students are in the age group 16-21.

Upper secondary VET normally includes two years at school with practical training in school workshops and short work placements in industry, followed by two years of formalised apprenticeship training and productive work in an enterprise or public institution. During the latter two years, the apprentice shall be engaged in one year of training and one year of productive work. This is known as the 2+2 model. However, not all VET programmes follow the 2+2 model. A few programmes are entirely school-based. Another small group of programmes follow a 1+3-model, with one year in school followed by three years of apprenticeship training.

The majority of the pupils who embark on upper secondary education choose a vocational program. However, because of a higher drop-out rate in VET, and because many VET pupils choose to switch from their vocational programme to a third year which prepares them for entrance in higher education, a minority of the students who enrolled in VET in 2003 had achieved a trade or journeyman's certificate five years later. Read more about participation in upper secondary VET in chapter 4.

VET programmes at upper secondary level, ISCED level 3		
Type of educational programme	Balance between school-based and work-based training	Transfer to other pathways
Technical and Industrial Production	<p>Most of the subjects follow 2 years in school and 2 years of formalised apprenticeship training and productive work in an enterprise.</p> <p>1 subject follows 3 years in school and 1 year apprenticeship, and 8 subjects follow 1 year in school and 3 years apprenticeship training.</p>	All the programmes can transfer to Post-secondary non-tertiary education (<i>fagskoleutdanning</i>) which is placed at ISCED level 4
Electrical Trades	<p>Most of the subjects follow 2 years in school and 2.5 years of formalised apprenticeship training and productive work in an enterprise. Subject in Aviation follow 2 years in school and 3 years apprenticeship training.</p>	<p>All the programmes can transfer to Post-secondary non-tertiary education which is placed at ISCED level 4</p> <p>Holders of trade certificates in electrical trades may choose a specialised three year bachelor engineering degree, known as <i>y-veien</i>.</p>
Building and Construction	<p>Most subjects follow 2 years in school and 2 years of formalised apprenticeship training and productive work in an enterprise. 4 subjects follow 1 year in school and 3 years of formalised apprenticeship</p>	<p>All the programmes can transfer to Post-secondary non-tertiary education which is placed at ISCED level 4</p> <p>Holders of trade certificates in building and construction may choose a specialised three year bachelor engineering degree, known as <i>y-veien</i>.</p>
Restaurant and Food Processing Trades	<p>All subjects follow 2 years in school and 2 years of formalised apprenticeship training and productive work in an enterprise.</p>	All the programmes can transfer to Post-secondary non-tertiary education which is placed at ISCED level 4
Agriculture, Fishing and Forestry	<p>Most subjects follow 2 years in school and 2 years of formalised apprenticeship training and productive work in an enterprise.</p> <p>One of the subjects qualifies the admission criteria to higher education.</p>	<p>All the programmes can transfer to Post-Secondary Non-Tertiary Education which is placed at ISCED level 4</p> <p>Agriculture, fishing and forestry have an option for the third year which prepares pupils for higher education.</p>
Health and Social Care	<p>4 subjects follow 2 years in school and 2 years of formalised apprenticeship training and productive work in an enterprise. 5 subjects follow 3 years in school.</p>	All the programmes can transfer to Post-Secondary Non-Tertiary Education which is placed at ISCED level 4
Design, Arts and Crafts	<p>Most subjects follow 2 years in school and 2 years of formalised 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 formalised apprenticeship</p>	All the programmes can transfer to Post-Secondary Non-Tertiary Education which is placed at ISCED level 4

Media and Communication	2 subjects follow 2 years in school and 2 years of formalised apprenticeship training and productive work in an enterprise. One of the subjects qualifies the admission criteria to higher education.	All the programmes can transfer to Post-Secondary Non-Tertiary Education which is placed at ISCED level 4 Media and communication has an option for the third year which prepares pupils for higher education. A large majority of students in Media and Communication choose this option
Service and Transport	All subjects follow 2 years in school and 2 years of formalized apprenticeship training and productive work in an enterprise.	All the programmes can transfer to Post-Secondary Non-Tertiary Education which is placed at ISCED level 4

Students in private institutions have to pay a tuition fee, but may receive financial support from the State Educational Loan Fund that covers most of these expenses. At the primary and lower secondary levels, slightly more than 2.6 per cent of pupils attended private schools in 2010 (c: SSB 2011). In 2008, private institutions catered for around 7 per cent and 15 per cent of students at upper secondary and tertiary levels, respectively. Regarding VET, the distribution of pupils at public or private schools is as following:

Distribution of pupils in upper secondary VET at public or private schools, 2010	
Public	77 694
Private	4 115

Source: Statistics Norway 2011, a.

The first year in upper secondary VET consists of general education and introductory knowledge of the vocational area. During the second year, VET students choose specialisations and the courses are more trade-specific. While in school, students participate in practical training in workshops and enterprises through the subject In-depth study project (*prosjekt til fordypning*). The two-year apprenticeship takes place with an employer (or employers) and follows the national curriculum. Should the pupil be unable to find an apprenticeship place, the upper secondary school is obliged to provide a year of practical training organised by the school. The subjects within VET are divided into Common Core Subjects (*fellesfag*), Common Programme Subjects (*programfag*) and In-depth Study Project (*prosjekt til fordypning*). The curricula and the number of teaching hours per subject at each level are laid down in regulations, and the schools and training establishments are required to comply with them. See the table below for the distribution of teaching hours per subject in VET.

Distribution of subjects in curricula at the various levels of upper secondary VET, teaching hours per year			
Subject	Upper secondary level 1	Upper secondary level 2	Apprenticeship
Common core subjects	336	252	according to collective agreements on working hours
Programme subjects	477	477	
In-depth study project	168 , 20%	253, 35%	

Source: The Norwegian Directorate for Education and Training 2012

Students' competences are assessed continuously throughout the four (three) years of education and training. In addition, they have to sit for exams in individual subjects developed at local and county level. Students may also be randomly selected to sit for nationally arranged examinations in common core subjects. The majority of the students have exams in vocational subjects after two and four (three) years of training. After two years in school there is an interdisciplinary local practical exam that covers all the vocational subjects. Pupils may be allowed a preparation period of up to two days prior to the examination.

Organising the apprenticeship training

After completing the two years of school based training in the 2+2 model, the training is followed by two years of formalised apprenticeship training and productive work in an enterprise or public institution. The pupil may find an apprenticeship placement individually or, as in most cases, the county authorities' helps with the provision. There is no individual right to an apprenticeship placement. However, if it is impossible to provide enough training places, the county authorities are obliged to offer a third year (*Vg3*) in school leading up to the same final crafts or journeyman's examination. This is a costly alternative for the county authorities, and statistics show that pupils who complete *Vg3 in school* achieve poorer results in their trade or journeyman's examination than apprentices. In 2012, there were about 35000 apprentices in upper secondary VET¹.

By law, apprentices are employees of the enterprise and have the rights and duties as such. They are entitled to a salary agreed upon through a centralised system of collective bargaining. The salary corresponds to the amount of productive work the apprentice conducts. As productive work increases throughout the two-year apprenticeship period, the salary increases accordingly. The salary increases from 30 per cent to 80 per cent of a

¹ See more in table 1 in the annex.

skilled worker's salary during the two years of apprenticeship. The apprentice is offered an apprenticeship contract, which is standardised and signed by the apprentice, the manager of the enterprise, the appointed training manager and a representative of the county authority.

An enterprise or public institution that wants to hire an apprentice must be approved as a training company by the county authorities. In order to obtain the approval, the enterprise or institution must be in a position to meet the training requirements of the curriculum for the relevant trade. The training company enters a contractual agreement with the VET office (*fagopplæringskontor*) at the county authority. Training companies are regular producers of goods and services that accept apprentices and receive public financial support for the required training part of the apprenticeship period. Formal approval is done on the basis of advice from the VET office at the county authority. The county has the right to revoke the approval if training is not provided in accordance with the training agreement and the national curriculum. The apprenticeship training is funded over public budgets and the training enterprises receive a state grant for each apprentice (in 2010: € 12829 over two years).

The training company must appoint a qualified training manager to supervise the instruction given. Several employees may provide the actual training. Along with employees' representatives the training manager makes sure that the training facilities are adequate, that the curriculum requirements are met and, thus, that the apprentice receives the training he or she is entitled to. In order to reduce the administrative burden to the individual enterprise and ensure that apprentices are given the correct training, groups of SMEs often establish umbrella organisations – training offices (*opplæringskontor*) – which assume responsibility for the training of apprentices and formally enter the contractual agreement with the VET office at the county authority. Training offices aim to recruit new training companies and establish more apprenticeship places and coach staff involved in the tutoring of apprentices. However, each individual training enterprise must still be approved by the county authority.

Training companies must be able to document how the training is planned, organised and assessed to ensure that apprentices can develop necessary skills and competences. These skills are not assessed by tests and grades, but through individual dialogues twice a year between the trainer (*instruktør*) and the apprentice.

After two years of apprenticeship training, upper secondary VET is completed by a practical-theoretical trade and journeyman's examination (*Fag- og svenneprøve*). During the exam apprentices demonstrate their vocational skills and explain and justify the methods they have chosen to use 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 and are based on similar sets of theoretical knowledge and practical skills. They are awarded by the county authorities. A county appointed, trade-specific examination board, in which the social partners are represented, prepares and assesses the examination. In 2010, 92 per cent of the candidates passed the exam.

In some subjects, for instance in some electrical trades and in gunsmithing, there is an obligatory centralised written exam (marked locally) that the apprentices must take prior to the trade- and journeyman's examination.

VET teachers and trainers

There are three main groups of VET training staff at the upper secondary level: VET teachers who provide formal school-based education and training, trainers (*instruktører*) and training supervisors (*faglige ledere*) in enterprises, as well as VET training facilitators who are involved in non-formal and informal workplace training.

The formal qualification requirements for VET teachers 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: in the relevant subject and in teaching. 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, one must either complete vocational practical-pedagogical education or vocational teacher education.

Vocational practical-pedagogical education (consecutive model) is a 1-year programme (2-year for part-time study) for students who already possess a vocational/professional degree or other qualification. The main fields of study are pedagogical theory, vocational didactics and supervised teaching and training practice. Admission requirements are:

- qualification as a skilled craftsman/worker, or a bachelor's degree in a specific profession, and
- two years of occupational experience, and
- two years of further studies (technical, vocational, managerial), and
- general matriculation qualifications or recognition of non-formal qualifications.

Vocational teacher education (concurrent model) is a comprehensive 3-year bachelor programme that covers both vocational training and pedagogy and qualifies for the teaching of specific subjects in years 5 – 7 in primary school, and in lower and upper secondary school. It is also available as a part-time study. Admission requirements are:

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

All teacher education programmes for the lower and upper secondary levels (grades 8 – 13), including those for VET teachers, are at present undergoing revision as part of the implementation of the Norwegian National Qualifications Framework of 15 December 2011, following up both the European Qualifications Framework for Higher Education in the Bologna Process and the European Qualifications Framework for Lifelong Learning (EQF). The proposed changes in the relevant framework curricula are out for public consultation in autumn 2012.

Trainers (*instruktører*) in enterprises are vocationally skilled, but not required to have a teaching certificate. Training supervisors (*faglige ledere*) in enterprises or other workplaces with apprentices must ensure that the training meets the requirements set by the Education Act. They must have one of the following qualifications:

- 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
- six years of experience in the trade or craft

There are no formal qualification requirements for training facilitators that deliver training outside formally approved education institutions. Still, VET training personnel involved in non-formal and informal workplace training often have a formal vocational qualification. Some training facilitators have not formalised their vocational skills, but perform solely on the basis of skills developed through work practice.

Enterprises that provide apprenticeship training must be approved by the county authority. Formal regulations simply state that the management of the institution must ensure that training personnel have "the necessary qualifications" (Education Act).

Routes to further education and training

Holders of a trade or journeyman's certificate may pursue further studies at a Vocational College (*fagskole*) at ISCED 4, see also section 2.2.2. 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 and non-vocational higher education. Access to higher education is facilitated through multiple routes:

- a)** upper secondary school leaving certificate based on successful completion of one of the general or academic programmes in upper secondary education;
- b)** VET learners who have completed the second year of education at a VET programme, may transfer to a third year that qualifies for admission to higher education instead of starting the apprenticeship period. The third year is a 'packaged' course in the following six key academic subjects (Norwegian, English, Mathematics, Natural Sciences, Social Sciences, and History). 28.9 % of all VET learners choose this option (The Norwegian Directorate for Education and Training)². These learners will not receive a trade or journeyman's certificate;
- c)** an upper secondary vocational qualification (a crafts' or a journeyman's certificate), plus successful completion of the one-year 'packaged' course in the six key subjects described above;
- d)** the '23/5' route: Applicants aged 23 or above with at least five years of work experience, or a mixture of education and work experience, and who have successfully passed the course in the six key subjects mentioned above, see more in section 2.2.4 below;

² See more in table 3 in the annex.

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

f) VET pathway to higher education (*Y-veien*): For certain especially designed courses, particularly in engineering, specific relevant vocational qualifications from the upper secondary level satisfy the admission criteria.

The latter measure was first introduced in 2001 as a three-year bachelor's programme 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 a white paper in 2009 called Education Strategy (*St.meld. nr. 44 (2008–2009) Utdanningslinja*); it was decided to open up the possibility for VET pathway programmes in other fields, too.

2.2.2 Tertiary vocational education

In Norway, the term "*tertiær*", tertiary, is used for all formal post-secondary education and training, i.e. both higher education and vocational colleges (*fagskoleutdanning*) at ISCED level 4.

Post-secondary vocational colleges

Post-secondary vocational education and training at ISCED level 4 (*fagskoleutdanning*) has a duration from six months to two years. Providers are responsible for their own curricula, which must be approved by the Norwegian Agency for Quality Assurance in Education (*NOKUT — Nasjonalt organ for kvalitet i utdanningen*). Most of the providers are private. The public schools at this level are administered by the county authorities (except 16 administered directly by the Ministry of Education and Research). The county authorities are required by law to offer good quality training in their post-secondary vocational colleges (mainly in technical, maritime, health and social studies), and to distribute public funds to providers at this level. NOKUT has national responsibility for accreditation and quality control.

Access is based on an upper secondary qualification. No work practice is required. However, many programmes, particularly among those aimed at the health and social sector, are designed as part-time studies in which students are required to work part-time and do project assignments at a work place, often their own. There are no age restrictions on participation.

Candidates who complete a two-year technical post-secondary vocational education are eligible for general admission to higher studies provided that they have a sufficient academic level in Norwegian. The framework curricula for the bachelor programmes in engineering allow for the recognition of relevant two-year technical post-secondary vocational education as one year of the engineering programme, and many technical vocational colleges have agreements with higher education institutions so that their

graduates are admitted directly to the second year of engineering in the relevant field of study.

In the Norwegian Qualifications Framework of December 2011, there are two sets of learning outcome level descriptors for post-secondary VET at ISCED level 4, 'fagskole 1' and 'fagskole 2', the latter built on the former.

Higher education

In Norwegian higher education, all vocationally-oriented courses and programmes are part of the ordinary system. There is no formal or other distinction between vocational and non-vocational higher education. All higher education (state and private, vocational and non-vocational) is regulated by Act relating to universities and university colleges of 1 April 2005.

Higher education institutions design their own courses and programmes in accordance with the regulation on quality assurance in higher and vocational post-secondary education. NOKUT, the quality assurance agency, has developed further quality criteria for evaluations and accreditation specified according to level (bachelor's, master's, and ph.d. degrees). The criteria are laid down in regulations. The higher education institutions are required to develop their own quality assurance systems, which need to be reaccredited 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, which comprises all levels, learning outcome descriptors are an integral part of all programme design.

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

In order to ensure relevance in provision, higher education institutions are encouraged to cooperate with business and industry. As a follow-up of the 2009 white paper Education Strategy, all higher education institutions are requested to set up a consultative council for cooperation with working life (*Råd for samarbeid med arbeidslivet, RSA*) and 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 moreover becoming blurred with the increasing flexibility of ordinary on-campus programmes (web-based course provision and information, registration, assignments and feed-back by e-mail, etc.). As a rule, most programmes and institutions in higher education are open to part time studies.

2.2.3 Master craftsman education

Master craftsman education is VET for holders of a trade or journeyman's certificate with several years of relevant work experience who 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 arrangement under the Ministry of Industry and Trade (*Nærings- og handelsdepartementet*). It is administered by the publicly appointed Master Craftsman Certificate Committee (*Mesterbrevnemnda* -MCC). The MCC Committee determines training standards and practice requirements and awards the certificate. Successful candidates obtain the title "Master craftsman". The business and administrative disciplines studied at two-year technical post-secondary vocational colleges satisfy the specialisation requirements in courses leading to master craftsman's certificates.

The master craftsman certificate is awarded in 73 different crafts covering all traditional trades in which journeyman's examinations are held and journeyman's certificates issued, as well as some (newer) trades with craft examinations and certificates.

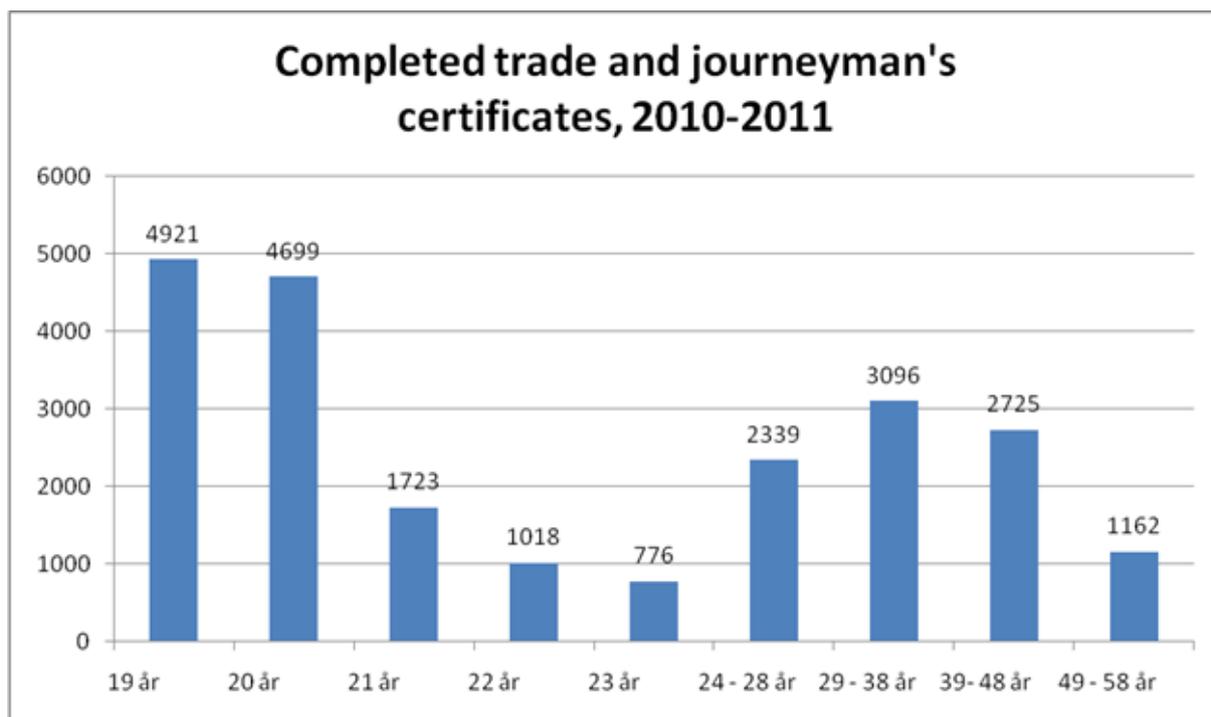
The MCC defines the curricula based on input from professional master craftsmen and relevant social partners. One adult education association, *Folkeuniversitetet* –FU, has the exclusive right to deliver training and arrange examinations. There are 80 FU branches around the country. Training covers common 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 fulltime work either as an employee or owner of an SME). ICT is integrated in the whole course. Both common subjects and craft theory are offered as evening and part-time classes. Distance education courses are also available.

Common subjects are completed with a written examination. In craft theory, a written examination is held for each master craftsman subject. One may also sit for the examination as a private candidate.

2.2.4 VET for adults and re-integration to education and training

Eurostat statistics indicate that the percentage of the population aged 25-64 participating in education and training is above the EU average. In 2010, 17.8 % of the population aged 25-64 participated in education and training, compared to the EU average of 9.1% (Eurostat 2011). Statistics show that the number of completed trade and journeyman's certificates is almost as high for adults over 24 years as for young people under 24, see table below.

Completed trade and journeyman's certificate in 2010/2011 by age



One reason for this could be the existing second-chance arrangements for those who drop out of the education system. Another reason could be that adults without completed primary and/or secondary education have a statutory right to get this from municipal and/or county authorities. Adults may also study at tertiary institutions on the same terms that apply to young people. All education and training provided by public institutions is free of charge for all levels. Dropping out of upper secondary education and training is not necessarily a dead end in Norway considering the well-developed adult education system, as well as opportunities for recognition of prior learning and experience.

Recognition of Prior Learning (RPL, *Realkompetansevurdering*) is used in upper secondary, post-secondary and higher education to increase the participation of adults. The following legal provisions relate to the recognition of prior learning:

- adults have a statutory right to upper secondary education and training provided by the county authorities. The education should be adapted to the individual's needs and life situation. These adults also have a statutory right to have their prior informal and non-formal learning assessed towards the national curricula and documented by the county authorities. The assessment process may result in an exemption from parts of the training schedule and a shorter training period towards a full exam;
- the Education Act (§ 3-5) 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 experience in the field covering the objectives of the curriculum (apprenticeship training). The length of the candidate's work experience in the field must be equivalent to the length of subject's apprenticeship period + 25 per cent. This will normally involve a minimum of five years of practice. Relevant previous education is credited as practical training

according to established rules. Almost half of all new trade and journeyman's certificates are awarded to these candidates;

- adults can be admitted to post-secondary VET and to higher education based on an individual assessment of informal, non-formal and formal qualifications (RPL). For RPL-based admission to higher education, applicants must be aged 25 or above;
- mature students can also get exemption for part of higher education or post-secondary VET based on RPL. For post-secondary VET, this possibility was only introduced through a legal amendment in December 2010, and the system is not yet operational. Regulations on the matter will be sent out for open consultation in late autumn 2012.

The benefits of validation of prior learning have been recognised in a wide range of policy documents. Many adults have worked in a trade for years without much schooling and with no certificate. After they have received recognition of prior learning many adults get access to a shorter period in school and a training schedule. Experience so far shows that validation at the upper secondary level is often geared at obtaining a trade or journeyman's certificate. The table below show the number of adults that have completed the trade and journeyman's certificate within the experience-based scheme describes above.

Completed trade or journeyman's certificates for the experience-based candidate, 1. October 2011	
Building and Construction	1119
Design, Arts and Crafts	47
Electrical Trades	151
Health and Social Care	1696
Media and Communications	18
Agriculture, Fishing and forestry	66
Restaurant and Food Processing Trades	234
Service and Transport	876
Technical and Industrial Production	685
Candidates completing within the old reform (R94)	1713
All VETprogrammes	6605

Source: The Norwegian Directorate for Education and Training, a

2.3 Other forms of training

Working life in Norway has a long-standing tradition and good experiences with compensating skill needs by lowering the formal criteria upon employment giving the employees the future possibility of gaining formal competences connected to the practise. This has made the Norwegian education and training and VET system available to older youth and adults, with formal and non-formal education and training (Høst 2008).

Enterprise based learning

A study from the research institute FAFO (Nyen 2004) indicates that more than 210 000 employees in the private and public sectors annually attend in-service courses organised by the workplace or relevant social partners. The training is organised internally or delivered by higher education institutions, upper secondary schools and various private providers. Large enterprises more often than small companies offer VET to their staff.

Enterprise-based training is organised as in-service courses, external courses or by means of e-learning for individual employees. Enterprises are responsible for financing training except for training delivered by commercial partners in relation to the introduction of new products and tools, and for staff participating in regular study programmes at public training institutions. There are currently no general, public arrangements for direct financial support of VET in enterprises. However, there are various forms of indirect financial support available:

- Enterprises are entitled to tax relief for investments in staff training.
- Adult students/employees are, under certain conditions, entitled to financial support from the Norwegian State Educational Loan Fund (*Statens lånekasse for utdanning*).
- Training delivered by publicly recognised distance education institutions (*studieforbund and fjernundervisningsinstitusjoner*) is subsidised by the Ministry of Education and Research, reducing the participation fee and hence costs for the enterprise.

VET at the initiative of the individual

Adults wanting VET outside the workplace and public education have many opportunities. Publicly recognised adult education 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. 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 all. For courses leading to higher education qualifications, normal admission requirements for that level apply, see description in section 2.2.1. The government subsidises courses offered by recognised institutions. The 19 adult education associations are non-government umbrella organisations for a total of 410 voluntary organisations, including political parties, employers' and sector organisations and trade unions, humanist organisations and other interest groups. In 2010, a total of 504 236 students attended courses delivered by adult education institutions. 56.3 % were women and only 24.2 % under the age of 30.

Twelve (12) publicly recognised distance education institutions provide needs-based training by using specially adapted training material and distance communication with a teacher. Courses cover both training according to public, national curricula on secondary, at tertiary vocational and higher levels, and personally oriented courses. This learning opportunity is of particular interest in Norway and other sparsely populated countries. In

2010, 17 162 participants were registered under these courses: 57.4 % women, and 35.7 % under the age of 30.

VET courses offered by adult education associations (*Studieforbund*) and distance education associations (*fjernundervisningsinstitusjoner*) is most often delivered as part-time work by school teachers from the upper secondary VET level. Hence, there is no distinction between VET teacher at these two training provisions, see more in section 2.2.1 above.

Training for employment and integration

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

Training in sheltered workshops (*Kvalifisering i arbeidsmarkedsbedrift*) aims to supply vocationally challenged people with practical skills in order to obtain ordinary work. Maximum duration is two years, but the period 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 participant receives financial compensation.

Labour market courses (*Arbeidsmarkedsoppl ring – AMO*) aim to equip unemployed persons over 19 years of age with vocational skills resulting in (re)employment. Long-term unemployed (26 weeks or more) with limited formal skills are given priority. Courses last between one week and 10 months, and may combine formal curricula of VET and informal work practise. They may be a part of and lead to a trade- or journeyman's certificate or other formalised qualifications.

In-house training (*Bedriftsintern oppl ring*) aims to prevent exclusion from working life by strengthening the competence of employees who work in businesses that face serious restructuring problems.

To counteract drop-out from working life because of poor basic skills, the Government established the Basic Competence in Working Life Programme (*Basiskompetanse i arbeidslivet*) in 2006. The overall aim is to give adults the opportunity to acquire the basic skills they need to keep up with the demands and changes in modern working life and civil society, and encourage them to achieve further educational goals. The awarded funds are to be spent on courses in reading, writing, math and basic ICT.

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 2-year, full-time introduction course (*introduksjonskurs*) to the Norwegian society. The course covers language training, social studies and training for work. The participants receive a salary from the government.

3. Shaping VET qualifications

3.1 Main mechanisms used for anticipation of skills needs

Labour market representatives from business, industry and public sectors are important to help identify new labour market and skills needs. In the decision-making system for upper secondary VET, therefore, the social partners hold the majority of seats in all advisory bodies and thus shape the provision of VET at this level. For post-secondary VET, the social partners are consulted through the National Council for post-secondary VET and two advisory bodies for technical and maritime education and health and social education, respectively. As part of the recognition process for programmes at this level, there should also always be a needs estimate. In higher education, there is academic freedom, but cooperation with relevant labour market players is encouraged to ensure relevance of provision.

Norway has a long standing tradition of close cooperation, both formal and informal, between education and training authorities and the social partners at the secondary level. Because VET is of major importance to the working community as far as working conditions, productivity and profitability are concerned; employers' and employees' organisations have considerable influence on national vocational training at upper secondary level. The overarching aim of the tripartite cooperation is to train Norwegian VET students that fulfil the needs of the working life. Skills needs in working life are continuously evolving, which must be reflected in the provision of education and training. Through the tripartite cooperation structure, changes in technologies and labour market and their implications for training needs are rapidly communicated from the market actors to the decision-making bodies.

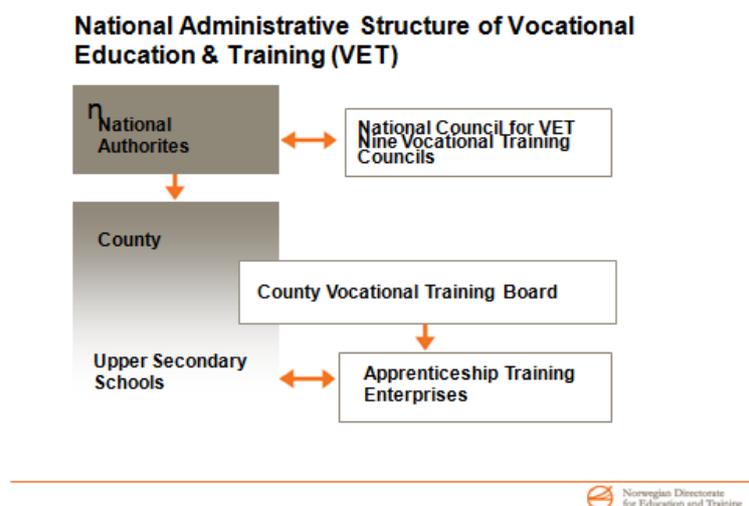
However, a great deal of importance is put on student choice in VET provision and the potential impact of the social partners on VET provision is limited. Students are entitled to embark on one of three preferred programmes in upper secondary education and the country authorities must provide programmes and subject that correspond to the student's preferences. Thus in order to balance the VET provision with labour market needs, the social partners gives advice concerning a wide range of topics for upper secondary VET. This is training programme structure, curriculum development, the regional structure and volume of VET provision, the framework of examinations leading to trade or journeyman's certificate and quality control at national, county and local level. Table no. 2 in the annex provides an overview of employability of upper secondary VET graduated.

The ILO convention 142, which Norway ratified in 1976, establishes that employers' organisations and trade unions shall influence and participate in laying the framework for and development of vocational guidance and training. The institutionalised participation is further legitimised in the Education Act. Procedures for representation in central bodies are formalised. Apart from the legal framework, the active involvement and cooperation on VET is institutionalised through the formal agreements between the social partners that set the "rules of the game" for working life. Both the quadrennial national collective labour agreements (*Hovedavtalene*) and the 2-year wage agreements (*tariffavtalene*) include sections on objectives, rights, obligations and procedures regarding cooperation on training of staff in member enterprises, including apprentices.

According to the legal framework, the social partners have representatives, most often the majority, in all important advisory bodies at national and county level for upper secondary VET:

- the National Council for Vocational Education and Training (*Samarbeidsrådet for yrkesopplæring –SRY*); gives advice on an overarching level;
- nine Vocational Training Councils (*Faglige råd*) give advice on training in specific groups of trades;
- the County Vocational Training Board (*Yrkesopplæringsnemnda*) for each county; give advice on quality, career guidance, regional development and the provision in the county to meet the local labour market needs;
- the trade-specific Examination Boards (*Prøvenemnder*) are situated in each county;
- National Appeals Boards (*Klagenemnder*) cater for candidates who fail the trade and journeyman’s final examination at county level.

The figure below shows the governance structure for upper secondary VET and how the advisory tripartite bodies are organised accordingly:



As for the tertiary level, The Ministry of Education and Research established a national council for vocational post-secondary VET in 2010. The Norwegian Centre for Lifelong learning heads the secretariat. The vocational post-secondary colleges represent a significant alternative to higher education. The colleges are important for developing competence and specialisation in VET. The objective of the council is to improve cooperation between the colleges, the rest of the education structure and the working life. The council is an advisory body for the Ministry of Education and Research and comprises representatives from the sector, employees’ and employers’ organisations and students.

Changing the VET provision

Each of the nine upper secondary VET programmes, see table no. 2.2.1 above, are closely monitored by the nine trade-specific Vocational Training Councils. The national structure of available programmes and subjects in upper secondary VET are continuously adjusted and revised due to new labour market needs and demands for specific qualifications and skills.

Development and need for change of training programmes, content and modes of delivery may be advocated by the Ministry, parents, students, employers, trade unions and others. Based on input from the social partners, changes are made annually. In addition, the nine Vocational Training Councils will every other year supply the national authorities with a statement that sums up the situation and the potential need for changes in their own VET programme. This is a new task and was introduced in 2012 as a fixed part of the council's portfolio.

In post-secondary VET, and in higher education, study programmes are designed by the provider. Each post-secondary VET programme must be recognised by NOKUT. In higher education, all accredited institutions can freely establish programmes at the bachelor's level. Universities are free to establish programmes at all levels, including masters and ph.d. Many higher education institutions have external Board Members, and consultation with relevant labour market players on the design of programmes is quite common. For some areas of training, the industries have national boards which give advice to higher education providers.

3.2 The qualification process

The Knowledge Promotion Reform

The Knowledge Promotion Reform (*Kunnskapsløftet*), a comprehensive curriculum reform, was introduced in 2006. The reform covers primary, lower secondary and upper secondary education, including VET. The reform places increased focus on learning of basic skills and knowledge promotion through outcome-based learning. The (LK 06) National Curriculum for Knowledge Promotion in Primary and Secondary Education and Training clearly states the objectives for the learners' 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 through a broad and open process. Each Subject Curriculum were developed by a curriculum team and been subject to a broad consultation process (electronic questionnaires, seminars, meetings) that has involved schools, school owners and the social partners. The two-year apprenticeship takes place with an employer (or employers) and follows the national curriculum.

Main characteristics and elements of the curricula

The objectives and quality framework for primary and secondary education and training are laid down in the (LK06) National Curriculum for Knowledge Promotion in Primary and Secondary Education and Training (*Læreplanverket for Kunnskapsløftet*). The Key

Competences defined by the Lisbon Strategy were taken into consideration and included where relevant in each part of the new curriculum's three parts: the Core Curriculum, the Quality Framework and the Subject Curricula:

- the Core Curriculum deepens appreciation for basic values such as moral outlook, creative abilities, preparing for life at work and in society, general education, cooperation and ecological understanding. The view of humanity underlying the instruction and constitutes the binding foundation and values for primary and upper secondary education and training. It underlies all education in Norway from primary education to adult education;
- the Quality Framework consists of the principles that clarify the school owners' (municipalities and county authorities') responsibility. Key competences are integrated into the Quality Framework, such as learning strategies, social competences, cultural competences, motivation to learn and pupil participation. These skills are not assessed by tests and grades, but through two individual dialogues each year between the teacher/trainer and the pupil apprentice;
- subject curricula; All subject curricula contain basic skills: being able to express oneself orally and in writing, being able to read, numeracy and being able to use digital tools. These skills are all integrated in the learning process in different ways.

The National Curriculum encompasses the 10-year compulsory school 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 2nd, 4th, 7th and 10th grade, as well as after every stage in upper secondary education and training. Basic skills are decisive for acquiring subject-related knowledge and for the communication and cooperation with others in a wide range of situations. Their aims are integrated and adapted to each subject according to the relevant level. The subject curriculum also describes the principles for assessment. Decisions regarding the organisation, methods and work methods are, on the other hand left to the education and training institutions. Local curriculum work is essential in order to carry into effect the national curriculum; in particular the outcome-based competence aims in the subject curricula. It is the responsibility of the school owners to organise these processes. The Norwegian Directorate for Education and Training develops web-based guidelines to support the local curriculum work.

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

Developing new curricula

The Directorate have responsibility for the continuous curriculum development. For this purpose it makes extensive use of expert groups from both school and companies that provide upper secondary education. When the need for a new qualification is identified through the process described above, a tripartite group is set down to write vocational profiles (*kompetanseplattform*). This will make the basis for developing the subject curricula. The Directorate appoints teams for curricula development consisting of professionals (most often suggested by the employer and employee organisations) and VET teachers.

After a period of three months, the team will send a draft curriculum to the Directorate. The draft is sent out on a broad consultation process to the sector. Relevant feedback is incorporated in the draft curricula. With support from external representatives from the sector, the quality of the curriculum is assured by the Directorate. Depending on the subject, the curriculum is finally set by the Ministry or the Directorate.

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

Also, the Directorate has recently developed a follow-up system for curricula called SOL (*System for oppfølging av læreplan*). The system aims to get a more holistic and systematic knowledge about the state of affairs with regards to the curriculum. SOL entails going through, putting together and analysis of different sources which give knowledge about the state of affairs on the curriculum and how they function. The sources consist among others of research reports, enquiries, evaluation reports and statistics. The intention is that SOL shall contribute to make the administration of the curriculum more systematic, knowledge-based and predictable. The knowledge that is gained through this information system shall give the Directorate a basis for initiating necessary and adequate measures for strengthening the implementation of the curricula. These measures can be support and giving advice to the VET providers or making adjustments in the curricula.

3.3 Quality assurance mechanisms and inspections

In Norwegian VET, the strong tripartite cooperation represents a crucial quality assurance mechanism. The new main task for the County Vocational Training Board (*Yrkesopplæringsnemnda*) is to give advice on quality issues in VET regarding school-based and work-based training. According to the Education Act, the county authority (*fylkeskommunen*) is obliged to consult the County Vocational Training Board on quality issues. Accreditation of training establishments is specially emphasised in this context. The County Vocational Training Board should also present proposals on quality development, including the enhancement of partnerships between schools and companies, and skills and competence development for teachers, trainers and other groups of vital importance for VET performance.

In addition to the institutionalised involvement of social partners in VET, quality assurance is embedded in the legal documents that apply to VET and a formal inspection system exists. The State is responsible for inspections regarding all activities of the Education Act and has the authority to give legally binding order to correct the contrary conditions.

The Ministry of Education and Research (*Kunnskapsdepartementet*) has delegated the responsibility as the inspectorate at national level to the Norwegian Directorate for Education and Training (*Utdanningsdirektoratet*), which is responsible for developing and supporting inspection, to facilitate a unified inspection throughout the country and provide guidance on the legislation. The County Governors are the operational inspection authority for basic training and has responsibility for activities at county level. They are also appeal body for

individual decisions regarding students in the primary and lower secondary school. The Ministry still has the authority to exercise supervision and can instruct the Directorate for Education and Training and the County Governor about how inspections should be exercised.

The Education Act also regulates the County Governors (*fylkesmennene*) responsibility to provide guidance to school owners. This applies not only to guidance on school academic questions but also guidance on other issues related to the Education Act. This includes, inter alia, guidance regarding administrative law and is among other things, intended to provide best possible cooperation between the State and the school owners.

Joint national inspection has come in addition to the more general inspection missions to the County Governors. The inspection activity is event-based and managed from the regional risk assessments that are made with the County Governor. Situations may occur that invoke the authorities' immediate attention, which requires that the County Governor have the ability to perform inspections on its own initiative.

4. Promoting participation in vocational education and training

Statistics show that about 60 per cent of the VET learners complete their upper secondary training successfully within 5 years, see table below. The corresponding figure for all learners at the upper secondary level is about 70 per cent. After completing the lower secondary level, pupils in Norway have a formal right to receive upper secondary education. The youth right (*ungdomsretten*) is valid for five years for pupils and six years for apprentices. Therefore, there has been a tendency in Norway to define drop-out as non-completion of upper secondary level, measured 5 years after the start of upper secondary level 1 (Vg1). This means that pupils and apprentices who after five years still receive education and training will be counted as drop-outs. Eurostat statistics indicate that the percentage of the population aged 18-24 that leave school early is slightly higher than the EU average, 16.5 per cent versus 13.5 in EU 27 (Eurostat 2012). The numbers in the two indicators varies due to differences in measuring drop-outs and defining the population.

VET learners completed upper secondary training successfully measured five years after they started (cohort 2006)

Building and Construction	53
Design, Arts and Crafts	50
Electrical Trades	61
Health and Social Care	57
Media and Communication	80
Agriculture, Fishing and Forestry	54
Restaurant and Food Processing Trades	43
Service and Transport	52
Technical and Industrial Productions	51
All VET programmes	57

Source: The Norwegian Directorate for Education and Training 2012, a

Some studies have identified factors – some of them are interlinked – that influence study progression, success rate and drop-out. Some of these factors are: social background, learning achievement in compulsory education, availability of apprenticeships programmes and enrolment in the education programme which was in top of his/her priority list.

Drop-out is an issue of great concern for the educational authorities on all levels, and an issue that has been widely discussed in recent years. Measures have been and are still being developed and implemented.

Pupils who drop out of school before the normal completion time of four years do not necessarily drop out of the education system altogether. They might have taken a break to do something else (folk high school, gone abroad as exchange students or they might be working). Many of those that are defined as drop-outs are actually on a pathway to competence at upper secondary level or at a lower level. Many re-enter the upper-secondary system as much as ten years later due to these opportunities, see more in section 2.2.4. More than half of those who do not complete upper secondary education within the prescribed number of years complete by the age of 40. Due to the legal youth right

(*ungdomsretten*) for upper secondary education, almost all pupils completing lower secondary school start at the upper secondary level. In addition, it should be mentioned that Norway has a low unemployment rate. Despite the global economic crisis, it is therefore still relatively easy to get a job in Norway.

According to research, there is a significant variation in the drop-out rate between education programmes and it is especially high in some vocational education programmes. For instance, half of all students in Restaurant and Food Processing trades dropped out before they had finished the programme, compared to the programme for Sport and Physical Education, where only 3 per cent dropped out (NIFU STEP, 2008a).

White Paper no. 44 to the Parliament (2008-2009) *Education Strategy* [St.meld.nr. 44 (2008-2009) *Utdanningslinja*] addresses efforts against 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 in upper secondary education, many permanent measures have been implemented to strengthen the focus on basic skills, so that fewer pupils will end up in the group at risk of dropping out.

Several permanent measures have been implemented and are part of the fixed Norwegian system to combat drop-out and promote participation in upper secondary school. This chapter will present these measures.

Career guidance

Making unconsidered choices of education pathways at upper secondary level may increase the risk for drop-out. Therefore, more emphasis has been put on career guidance. White Paper no. 30 to the Storting, *Culture for Learning* [St. meld. 30 (2003 - 2004) *Kultur for læring*] and White Paper no. 16 to the Storting, *Early Intervention for lifelong Learning* [St. meld. nr. 16 (2006 - 2007) *Tidlig innsats for livslang læring*] as well as a national project aiming to test a divided counselling service, all emphasised the importance of students getting career guidance as well as guidance in matters of social or personal character. To ensure this, new regulations under the Education Act (*Opplæringsloven*) were put into effect starting 1st of January 2009 emphasising the individual right of every student to get both sorts 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 located within the school system. The Education Act (*Opplæringsloven*) states that pupils in primary and secondary education have the right to “necessary guidance on education, careers and social matters”. The provision is organised by the individual schools. All pupils/students are entitled to guidance according to their needs. Guidance counsellors in primary and secondary education provide guidance to pupils in school whereas counsellors in the County Follow-up Service (*Oppfølgingstjenesten*) provide guidance to youth from 16 – 24 who are out of school and/or do not have an occupation.

Partnership for career guidance is an important part of the strategy for lifelong learning. In 2005 – 2008 regional partnerships for career guidance were established as a project in order to improve career guidance in lower and upper secondary schools and to facilitate career guidance between levels of education, the labour sector and stakeholders in career guidance. Since 2008, all counties have been given funding through the state budget to establish partnerships for career guidance, and most of the counties have established 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 vital partners in this work. As a result of the cooperation in the partnerships a number of counties have established career centres to provide guidance to all people, both in school and for adults. The career centres also have a role in helping to improve the guidance competency of guidance counsellors in schools. Management and monitoring of partnerships for career guidance is now taken over by VOX (Norwegian Agency for Lifelong Learning)

A national evaluation of the guidance services provided by lower and upper secondary schools, as well as the County Follow-up Services was carried out in 2009 – 2011. The evaluation shows that the guidance field within the educational system is improving in terms of quality, but at a rather slow pace. New working methods and organisational forms are implemented or under development, and this has led to quality improvements in counselling. The opportunities for competence development for counsellors have also improved. In general, however, the counsellors themselves, and partly also the students, experience that resources for counselling are limited.

Universities and some university colleges have established career centres to provide guidance to the students. Adults who need guidance may use the local offices of the Norwegian Labour and Welfare Administration (NAV) or they may visit regional career centres established by partnerships for career guidance. A small number of private agencies also provide career guidance on a commercial basis.

Financial incentives

Ensuring enough apprenticeships for VET learners is a recurring challenge in the Norwegian VET system. The national grant scheme for apprentices is an incentive for companies to secure apprenticeship training. Each training company receive the same amount for every apprentice they providing training for. Exceptions are enterprises either offering apprenticeships in small subjects worthy of preservation – *små og verneverdige fag* – or taking on apprentices with special needs. These receive a higher amount. To face expected challenges in assuring enough apprenticeships, the government proposed to maintain the NOK 200 million (approximately € 25 million) increase in the grant scheme for training enterprises that was introduced in 2009 due to the financial crisis.

The apprentices get a reduced salary for the duration of the apprenticeship period. Students in upper secondary VET are entitled to grants and subsidised loans through the State Education Loan Fund (*Statens lånekasse for utdanning*) if they come from low-income families. Students and apprentices in upper secondary education who have to move away from their home to attend school or enterprise based training are also entitled for support from the State Education Loan Fund. This is available also for adult students. Students that live away from home to attend training obtain an additional subsistence grant. All students

get grants for purchasing compulsory equipment. The size of the grant varies according to study programme. Support to students at upper secondary level is mainly provided as grants. Student loans carry no interest charges during the period of study.

Subjects promoting VET and practical-based learning

There are several subjects both at the lower and upper secondary level that focuses on VET and practical based learning. Some of the subjects are also closely interlinked with the local labour market. These subjects may promote participation by motivating the pupils to choose and continue in VET.

The 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 the pupils insight and experience with the different upper secondary programmes and the relevant vocations, thus providing a better foundation for choice of vocation.

The Optional Subjects was introduced as a fixed part of lower secondary education from the fall of 2012. The Optional Subjects started by comprising eight subjects³ with a focus on practical skills. The pupils shall choose between these subjects. Schools must offer at least two of the eight subjects. The content is set according to national curricula. In 2013, six new subjects will be introduced.

During the two first years of school-based training in all VET programmes (the 2+2 model), the subject In-depth Study Project offers work-based learning elements, read more in section 2.2.1. The objective is that pupils can specialise in a subject area of special interest to them. The subject can be implemented in collaboration with local businesses, so that at an early stage in their education, pupils become familiar with various occupations and the relevant in-service training establishments. The In-depth Study Project offers the pupil the possibility to attempt work-based learning at an earlier stage and before an apprenticeship period.

A second objective is to involve the business community in decisions on the content of the curriculum to ensure and develop future competence by offering the pupils' practical training in the companies. A research based evaluation recently concluded that the In-Depth Study Project motivates the pupils to complete upper secondary education and makes it easier to get an apprenticeship placement. The evaluation also concludes that the subject has the potential to make the future needs of competence in the labour market visible to the pupils and also to give the pupils an opportunity to make professional or educational choices at an early stage.

Special needs

An important ambition of Norwegian education is that: "Teaching shall be adapted to the abilities and aptitudes of individual pupils, apprentices and trainees" (Education Act § 1-2). Accordingly, pupils and students with special needs are integrated in ordinary schools and classes. All public and private training institutions operating with public support are

³ The eight subjects are: International Cooperation, Hall and Stage, Physical Education, Physical Activity and Health, Technology in Practice, Design and Redesign, Production of Goods and Services, Research in Practice, Media and Information.

obliged to mobilise necessary resources and create satisfactory physical and learning conditions for each individual pupil. However, experience shows that the institutions often find it difficult to comply with this requirement.

The training candidate

The training candidature scheme (*lære kandidatordningen*) promotes participation among low-skilled students in upper secondary VET. Since 2000 low-skilled students are given the possibility of obtaining a specially adapted qualification of a lower degree. As opposed to the apprentice (*lærling*) who signs an apprenticeship agreement (*lærekontrakt*), the training candidate (*lære kandidat*) signs a training contract (*opplæringskontrakt*) which will lead to a competence exam (*kompetanseprøve*) as opposed to the trade or journeyman's certificate (*fag- og svenneprøve*). As of the 1th of January 2012, there were 1476 training candidates in Norway (The Norwegian Directorate for Education and Training 2012, a)⁴.

While the apprentice aims to reach all the objectives set in the curriculum, the training candidate will aim towards achieving tasks within a limited number of competence aims and a less comprehensive exam. Upon completion of the education and training, the training candidate will be presented with a vocational training certificate (*kompetansebevis*). During the training period, the training contract may be converted into an ordinary apprenticeship agreement should the candidate aim towards the trade or journeyman's certificate.

The regional follow-up service

The Education Act (§ 3-6) states that the regional authorities shall provide a follow-up service (*oppfølgingstjeneste*), which is responsible for contacting pupils who do not enter, or drop out of, upper secondary education and training, and make an effort to get them back on track, i.e. in education or work. The follow-up services cooperate with employment services. A research based evaluation from 2011 states that the Follow-up services greatest challenge is to promote themselves among pupils. Many pupils are not familiar with the services they provide. The evaluation also concludes that cooperation among the other regional public sectors, such as the employment sector, has been a challenge for the follow-up services.

As of 1th of February 2012, half of the young people registered at the follow-up services had not applied for upper secondary education. One in four had applied for upper secondary education, but not accepted the provision, while 16 % of the youth were registered because they had dropped out of upper secondary education. The situation for one in five of the youths registered at the Follow-up services is unknown. This means that the regional services have not yet got in touch with the youths or that they have no information on their situation (b: The Norwegian Directorate for Education and Training 2012). The follow-up services are currently being strengthened through several ongoing measures.

VET skills competitions

WorldSkills Norway manages the national skills competition (*Yrkes NM*), and organise the participation of Norwegian youths in the two international skills competitions EuroSkills and WorldSkills. WorldSkills Norway is an NGO financed by the social partners (*NHO, LO,*

⁴See more in table 1 in the annex.

KS), the Norwegian Directorate for Education and Training and also 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 at upper secondary schools. Experience indicates that skills competitions at schools can increase pupils' and apprentices' motivation and interest for VET.

The social contract on VET

A new version of the Social Contract on VET (*Samfunnskontrakten*) was signed by the Ministry of Education and Research, the Ministry of Government Affairs, the social partners and the regional authorities in April 2012. A majority of pupils starting upper secondary education starts studying one of the nine vocational programmes. However, only few of them complete with a trade or journeyman's certificate. To meet the future needs for competences in the labour market, the Social Contract for VET is a major initiative aiming to increase the amount of pupils completing a vocational education at upper secondary level. The contract's three main objectives are:

- a 20% increase in the number of apprenticeship contracts by 2015
- increase the number of adults formalising their competence by a craft or journeyman's certificate and
- increase the number of apprentices that completes an apprenticeship and pass the exam.

The partners who have signed the contract are expected to take on some of the following measures:

- increase financial support on different levels, including world skills and similar events
- develop statistics that describe the needs for future competences in the labour market
- develop guidelines for company based training
- motivate employees to formalise their competence and train others
- develop strategies for recruiting youth for vocational education.

Making common core subjects relevant to VET

In order to motivate pupils of their relevance, the teaching of common core subjects (e.g. Norwegian, English, mathematics etc.) will be more related to the vocational programme the pupil is attending. In particular, this should make teaching better adapted to the needs of the less motivated pupils in vocational programmes. To achieve more practically oriented teaching in common core subjects, teachers' competence is going to be strengthened and new examination arrangements are being considered. Making common core subject relevant to VET is stated in a regulation to the Education Act (§ 1-3).

Norway has eight national centres which have a key role in developing the quality of the education and training provision in priority areas. These areas are mostly related to the basic skills, such as reading, maths and writing. From 2012, these centres will contribute in the work of making the common core subjects relevant to VET.

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List of acronyms and abbreviations

EEA: The *European Economic Area*

EQF: The *European Qualifications Framework*

ILO: International Labour Organisation

KD: The Ministry of Education and Research (*Kunnskapsdepartementet*)

KS: Norwegian Association of Local and Regional Authorities (*kommunesektorens interesse- og arbeidsgiverorganisasjon*)

LO: The Norwegian Confederation of Trade Unions (*Landsorganisasjonen*)

MCC: Master Craftsman Certificate Committee (*Mesterbrevnemnda*).

NAV: Norwegian Labour and Welfare Administration (*Arbeids- og velferdsetaten*)

NHO: The Confederation of Norwegian Enterprise (*Næringslivets Hovedorganisasjon*)

NGO: non-governmental organisations

NOKUT: Norwegian Agency for Quality Assurance in Education (*Nasjonalt organ for kvalitet i utdanningen*)

OECD: Organisation for Economic Co-operation and Development

SME: Small and medium sized enterprises

SRY: The National Council for Vocational Education and Training (*Samarbeidsrådet for yrkesopplæring*)

VOX: Norwegian Agency for Lifelong Learning (*Nasjonalt fagorgan for kompetansepolitikk*)

Annexes

Table 1: Number of apprentices and training candidates

	Apprentices			Training candidates		
	M	W	Total	M	W	Total
Building and Construction	7481	210	7691	273	5	278
Design, Arts and Crafts	161	2042	2203	11	45	56
Electrical Trades	6511	327	6838	16	0	16
Health and Social Care	573	4328	4901	59	269	328
Media and Communications	82	123	205	4	1	5
Agriculture, Fishing and Forestry	492	284	776	70	21	91
Restaurant and Food Processing						
Trades	1051	1006	2057	107	85	192
Service and Transport	2082	1140	3222	190	41	231
Technical and Industrial Production	6543	689	7232	291	7	298
Total	25096	10262	35358	1026	479	1505

Source: The Norwegian Directorate for Education and Training 2012, a

	In work	In education	Outside work and education	No information
Service and transport	64.3	22.5	13.2	0
Technical and industrial production	65.4	21.5	13.1	0
Agriculture, Fishing and Forestry	66.7	0.0	0.0	33.3
Media and Communication	67.2	28.1	4.7	0
Electrical Trades	70.2	0	0	29.8
Restaurant and Food Processing	74.3	14.2	11.5	0
Trades				
Building and Construction	77.5	13.9	8.7	0
Health and Social Care	79.0	12.9	8.1	0
Design, Arts and Crafts	80.7	0.0	0	19.3

Source: The Norwegian Directorate for Education and Training 2012, a

Table 3: Transition for VET pupils who have completed the second year and choose a third year that qualifies for admission to higher education, instead of starting an apprenticeship period, in per cent 2011-2012

Building and Construction	12,1
Design, Arts and Crafts	28,6
Electrical Trades	17,0
Health and Social Care	34,1
Media and Communication	89,0
Agriculture, Fishing and Forestry	38,1
Restaurant and Food Processing Trades	14,1
Service and Transport	32,1
Technical and Industrial Production	8,0
All programmes	28,9

Source: The Norwegian Directorate for Education and Training 2012, a