

Achieving the Lisbon Goal:
The Contribution of Vocational Education and Training Systems

Country Report: Norway

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This report is one of a series of European country reports. It has been written to support a larger report: **Achieving the Lisbon Goal: the contribution of VET**, prepared by the Lisbon-to-Copenhagen-to-Maastricht Consortium for the European Commission. This report is not intended as an official view. But rather independent insight into specific aspects of National VET systems in Europe.

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Theme 1 - Progress of national VET systems towards meeting the challenges of Lisbon

1. Strategies and barriers for improving the status, flexibility and attractiveness of Initial VET (IVET)

Introduction

This report draws substantially on a report, which has recently been prepared by the Norwegian ReferNet Member.

Furthermore the report draws on OECD sources, particularly the Thematic Review of Adult Learning and various sources downloaded from Ministerial web's and Norwegian research institutions- available in Norwegian/ and or English.

A. Raise the status of VET

The concept "Vocational Education and Training" covers all types of education and training leading to formally acknowledged vocational qualifications as defined in national standards set by the Ministry of Education and Training. The standards are expressed through goals and achievements in national curricula for the individual trades.

The path to a specific vocational qualification can contain several levels, each of them being a complete, terminated, qualifying unit with a formal certificate. "Initial Vocational Education and Training" (IVET) covers the first/lowest level of a specialising education and training path.

IVET has two main access points in the Norwegian education and training structure:

- First year of upper-secondary school, i.e. after the finalisation of 10 years of primary and lower-secondary education; and
- First year of post-secondary education including tertiary education, i.e. following the finalisation of 13 years of general education.

The majority of those participating in upper-secondary IVET are in the age group 16 – 21. Most post-secondary IVET students are in the age group 20 - 27.

B+C: Improve the attractiveness of I-VET

Though it is not a new feature, a main element concerning the attractiveness of upper-secondary level IVET is that it offers a fully integrated path within upper-secondary education.

Both general and vocational training are delivered by the same upper-secondary schools, which are equipped with the relevant workshops and tools. Both groups of students spend two years under the same roof, but in the third year they are split up. General education students spend the third year at the school, while vocational training students normally substitute two years of apprenticeship in an

enterprise or public institution (depending upon the chosen trade) for the third year at school. During these two years the apprentices receive general training equivalent to one year at school, and the rest of the period is devoted to more job-specific training.

A deviation from the main model arises when there are too few apprenticeship places available to meet the demand in specific trades. In these cases, vocational training students have a statutory right to a third year at school. All candidates within IVET, whether they receive the third year training as an apprentice or as a student at school, have to take the same theoretical and practical exams.

Reform 94, covering general and vocational education and training at upper-secondary level, was a comprehensive reform of structure and content. Reform 94 introduced a statutory right of all young people between the age of 16 and 19 to three years of upper-secondary education, as well as a public follow-up service for pupils who do not accept this offer. The number of study programmes were coordinated and organised within a total of 13 study areas ("*studieretninger*"), each covering a general range of subjects and trades.

With few exceptions, the vocational paths followed the "2+2 model", with two years at school and two years as an apprentice. The capacity within each recognised trade was increased to ensure the right to a completed vocational qualification. More theory was included in vocational training in order to strengthen the basis for future continuing training, possibly at institutions of higher education.

The influence of the social partners in the preparation and implementation of Reform 94 was significant, first of all through their formal positions as representatives in the national advisory bodies, but also through their continuous informal cooperation with the administrative and political structures at national and regional levels.

As of the 2000/2001 academic year, the number of study areas in upper-secondary school was increased from 13 to 15.

A new Education Act was implemented in August 1999, covering compulsory and upper-secondary education and training as well as parts of adult education. Since then these areas of education have all been part of the concept of "Basic education" ("*Grunnopl ering*").

Almost 90% of all students leaving compulsory education choose to enter upper-secondary school. The goal of the government and the *Storting* (Parliament) is for at least 50% of the entrants to choose a vocational path.

Most of the IVET students leave school for apprenticeship after two years and thus do not show in the statistics.¹ When included, the estimated participation rate for IVET is some 49% for the year 2002. The general trend is that fewer students choose general education (from 57% in 2001 and 53% in 2002) and more students choose IVET (from 43% to 47%).

Today, all training standards and curricula used in upper-secondary education are developed and formally approved by the National Board of Education, which is an agency under the Ministry of Education and Research. Objectives, standards, and

¹ According to information from ReferNet Norway

curricula in general upper-secondary training are developed by academics, teachers, and other specialists hired by the National Board of Education. The IVET curricula are developed by the relevant social partners through the Vocational Training Councils and the National Council for Vocational Training, but are formally approved by the National Board of Education.

Curricula vary according to the nature of the different training paths, and examinations in general upper-secondary education are developed partly at national level and partly at regional / local level. After successful completion of three years of studies the students obtain a General Certificate of Education, Advanced Level. This certificate meets the general requirements for higher education studies.

In general, examinations in theoretical subjects within upper-secondary IVET are developed at local and county level. The Vocational Training Committee at county level develops the practical parts of the trade and journeyman's examination, whereas the relevant County Examination Boards handle implementation and correction. Graduates are awarded a Trade or Journeyman's Certificate. This is the lowest formal documentation of recognised skills. This certificate does not meet the entry requirements of higher education institutions, but the graduates can obtain right of admission by taking a 6 month bridging course.

The county authorities carry full political, financial and administrative responsibility for all aspects of both types of training provisions. However, the organisation of the daily administration of the two training strands differs.

The county education department is the responsible operational body for all general education provided in the schools, even if the latter have great autonomy in budgetary and professional issues. This means that the education department is the top administrative body at county level responsible for the full general education path.

In vocational training, on the other hand, all major decisions regarding the apprenticeship part, comprising both delivery and assessment, are *de facto* the responsibility of the Vocational Training Committee. The county authorities appoint the Vocational Training Committee as the major counselling body in vocational training for periods of four years. The committee's main tasks are to give advice on the overall provision in the county so as to meet local needs, to arrange apprenticeship places, to supervise the training of apprentices in the enterprises, to ensure that the trade and journeyman's examinations are held in accordance with requirements, to appoint the examination boards, and to issue trade and journeyman's certificates. The social partners make up a majority of the representatives in the committee. However, the secretariat that handles the daily administrative tasks on behalf of the committee is often co-located with the county education department.

The two main pathways to obtain an upper-secondary IVET qualification are:

1. Apprenticeship pathway to a trade or journeyman's certificate. Upper-secondary school normally covers the age group 16-19, i.e. the period from the 11th to the 13th grades. This level in the education system includes both general academic studies and vocational training and apprenticeship. Hence, vocational

education and training including apprenticeship is a fully integrated part of upper-secondary education. The large majority of upper-secondary schools and all public schools established since 1974 are combined schools, offering both academic and vocational education. There are few schools offering only vocational training.

Upper-secondary level IVET includes a one-year foundation course and two years of advanced courses. In general, the two first years – “Foundation course” and “Advanced course I” – are school-based with practical training in school workshops and short work placements in industry. “Advanced course II” as a main rule consists of two years of formalised apprenticeship and productive work in an enterprise or public institution. The training part of the apprenticeship is equivalent to one year of training at school. The curriculum covers the whole period at school as well as the apprenticeship period. This main path – two years at school and two years as an apprentice – is known as the “2 + 2 model”.

2. School apprenticeship pathway to a trade or journeyman's certificate. If there are not enough apprenticeship places available, pupils are entitled to one year of “Advanced course II” training at school as a substitute to the two years of apprenticeship.

2. Reducing the number of early school leavers

Employment rates in % (2001)

Men	77.2
Women	69.3
Total employment rate	73.3

Unemployment rates in % (2001)

Men	3.2
Women	3.5
Young persons (under 25)	9,8

Unemployment rate among school leavers

The unemployment rate is generally low in Norway, but higher among those with a weak educational background. In November 2002, the unemployment rate varied between 2,6% and 5,3% for those in the age group 20 – 24 years with a completed general upper-secondary education. For the IVET candidates in the same age group, the unemployment rate varied between 2,6% and 4,7% for the different trades. General education graduates in the 25 – 29 year age bracket have a slightly higher unemployment rate than those in the 20-24 year bracket, whereas similar figures are lower for those with an IVET background.

From its introduction, Reform 94 was the subject of an extensive programme of research on and evaluation. Findings over the first years showed that the new training schemes introduced with the reform in general improved the quality of training. However, findings also showed a high dropout rate from school among students with weak theoretical orientation. As a consequence, the Ministry decided to improve the possibilities to opt for alternative training paths based on shorter school attendance and longer apprenticeship.

Students with specific needs and particularly low motivation for school may enter apprenticeship directly from lower-secondary school. Theory instruction is provided periodically at school throughout the program, and the students take the same trade / journeyman's exam as do students following "the 2 + 2 model".

3. Increasing VET at tertiary level

For those entering a tertiary IVET, the general entry requirement is successful completion of three years of general upper-secondary education. For some training paths, e.g. Engineering, Medical studies and Architecture, there are additional specific access requirements.

Following a Parliamentary approval of a comprehensive reform of higher education in 2001, "The Quality Reform", most study programmes were adapted to an international degree structure, with the three levels of Bachelor, Master, and Ph.D. Hence, for students that started their tertiary IVET in 2002 or later, the following regulations apply:

– Most vocationally-oriented university programmes, e.g. medicine, odontology, psychology, pharmacy, theology, and law, have a duration of 5-6 years. Successful candidates obtain a Master degree.

– The colleges offer shorter IVET programmes that run for 2 – 4 years. Teacher education, health and social work, engineering, and business administration, are the major disciplines. Teacher training lasts 4 years. Successful completion of programmes of 3 years duration or more is awarded with a Bachelor degree.

In June 2003, the *Storting* approved a new Act regulating various provisions of technical and vocational education and training at the level between upper-secondary and higher education. This is an organisational reform rather than a reform of content, aiming at creating a common framework for formal acknowledgement, quality control, and financing of a wide range of courses that last between 6 months and two years. Some of them, such as the technical schools ("*Teknisk fagskole*") and schools for specialised training for selected civil services such as customs, prisons etc., have been operating for many years. Whereas the technical schools offer further training for those who have completed a vocational training programme, several of the civil servant training programmes must be considered IVET programmes.

3. Incentives for updating knowledge and skills

The increased focus on Lifelong learning from the mid-1990s initiated a broad process involving the major social partners and the government to find ways of improving and ensuring access for adults to basic and continuous education and training. The "Competence Reform" was implemented after preparatory work of a public committee with representatives of the relevant social partners and a decision by the Parliament in January 1999.

Right from the start, the idea was that planning, financing, and management of the Competence Reform would be a joint venture between trade unions, employers' organisations, and the government. All parties agree on the most important principles, but there are still some disagreements regarding the distribution of costs and practical arrangements. As of 2003, these are the most important achievements within the framework of the Competence Reform:

- 400 million NOK were allocated for the years 2000 – 2003 to support joint development projects between training providers and working life, with the aim of developing the market for continuing education and training.
- As of August 2000 and 2002, adults were given a statutory right to upper-secondary education and primary and lower-secondary education, respectively.
- Adults above the age of 25 may be allowed to enter higher education on the basis of non-formal competencies.
- As of 2001, adult employees on certain conditions have a legal right to study leave.
- Study financing arrangements have been strengthened to better meet adults' needs during periods of further training.

The government in relation to the Competence reform initiated a three-year project with the aim of establishing a system for recognition and documentation of non-formal competence. In 2001, VOX – Norwegian Institute for Adult Education - was established with the mission to initiate and implement research and development in the field of adult education. VOX also administers the allocated funds under the Competence Reform.

In January 2001, in accordance with the government strategy on adult learning, employees were given the right to leave of absence to attend adult training courses (*Arbeidsmiljøloven* - Work Environment Act).. During this kind of absence the employer does not pay salary, and there is no right to receive public funding. Employees have the right to take this leave of absence for a period of up to three years, and the right is not restricted to full-time employees.. The leave may be full-time or part-time.

There are certain conditions for obtaining a leave of absence. The employee must have been working for at least three years, and working with the present employer for the last two years. The employee must participate in organised courses during the leave of absence at upper-secondary level or higher, and these courses must be job-relevant. The employee may not demand leave of absence if it implies major difficulties for the employer in organising work during the period of absence. This last condition may lead to the fact that the employee may have to wait until the employer has been able to organise a proper arrangement with a substitute. If the employee and the employer disagree on the issue of leave of absence, the case can be brought to a complaint council whose decision is binding.

Passing an examination such as the journeyman's certificate will change the status of the worker to skilled worker, and the salary level will increase. Salaries are negotiated between the social partners, and skilled workers' salaries are usually higher than unskilled workers'..

D. Successful measures of Social Inclusion

The recognition of prior learning and the access to competence-based learning are important elements. *Kompetansereformen*, (Competence Reform), introduced the system of offering competence-based training for adults. An individual may receive credit for non-formal and informal learning and be offered training for what is lacking to reach the level of upper-secondary examination or the journeyman's certificate. The Competence reform comprises several projects focusing on developing new models for adult learning and new initiatives in developing adapted and flexible learning environments.

5. Meeting the challenges of an Ageing Population

6. Effectiveness and efficiency in the system

Several institutional changes have been implemented at national and regional levels in order to support the many reforms in the education system:

- Establishment of SOFF – the Norwegian Agency for Flexible Learning in Higher Education, as a permanent Board and Secretariat from 1994, with national responsibilities related to information, counselling, evaluation, and coordinating of distance education within higher education.
- Internal reorganisation of the Ministry of Education and Research in 1999, including a merger between the two departments of Basic Education and Upper-secondary Training, resulting in a new Training Department (“*Oppplæringsavdelingen*”).
- Establishment of the Norwegian Board of Education (“*Læringsssenteret*”) in 2000, with operational responsibilities in relation to the development of training standards and curricula, national examinations, evaluation and quality control, and information.
- Establishment of VOX – Norwegian Institute for Adult Education in 2001 (see above).
- Establishment of NOKUT, the Norwegian Agency for Quality Assurance in Education, in operation since January 2003, with responsibilities for evaluation and accreditation of higher education institutions, study programmes, and quality assurance systems.

In the budget proposal for 2004 the government proposed changes in the national administrative structure within upper-secondary IVET. Planned changes in public financing arrangements and formal roles of RFA and the National Training Councils would imply reduced direct influence of the social partners on national VET policies. However, negotiations between the government and the opposition parties in the *Storting* resulted in a one-year postponement of the changes.

The period around the turn of the century was characterised by coherent, major reforms in all parts of the education system. The aim was to strengthen the general access, quality, and relevance of the system and to increase the effectivity and cost-efficiency of education and training, but at the same time to establish a framework that would allow for flexibility and rapid responses to new challenges and demands arising from future developments in technology, markets, and society as a whole. As of the end of 2003 the system was still in a state of continuous change, but the outline is clear:

- The various parts of the education system have been mutually adapted to create a more streamlined structure;
- It has become easier for the students to move horizontally between academic and vocational training paths;
- A legal framework has been established to ensure national control of all parts of the education system while at the same time allowing flexible delivery according to needs;
- The administrative system and the financial arrangements for students and public and private providers of education and training have been adjusted to fit the strategic intentions of control and flexibility;
- The international orientation of the provision has been strengthened.

The basis for the comprehensive education reforms of the 1990s, preparing for Lifelong as well as Life-wide learning, was established in the late 1980s. Extensive research resulted in green papers on adult education (NOU 1985:26), lifelong learning (NOU 1986:23) and higher education and research (NOU 1988:28). A white paper of 1989 (St.meld. nr. 43, 1988-89) discussed structure, contents, and recognition of qualifications relating to the whole education system. Primary school, lower and upper-secondary school, initial vocational training based on apprenticeship, higher education, and continuing training, were discussed separately and as a whole. Based on a broad discussion of general and vocational education and training in the upper-secondary school (NOU 1991:4), the *Storting* and the Government were able to introduce the necessary measures and start the practical implementation of the reforms.

The changes were organised around a common overall plan, and targeted both structure and content. The main objective was to meet the challenges of the 1990s; rapid obsolescence of knowledge combined with rapid development of technology, and how to cope with this in dynamic environments. The existing education and training system was viewed as being out of pace with society. The country was not getting "... satisfactory qualifications considering the talents of the population." (NOU 1988:28)

As of autumn 1997, reforms in structure and content were introduced in the compulsory school. School starting age was lowered to six years of age (from seven) and the compulsory primary and lower-secondary school was extended from nine to ten years. The core curriculum and foreign language training were strengthened.

Educational attainment of the population aged 25-64 by ISCED level, % (2002)

	Level of education		
	ISCED 0-2	ISCED 3-4	ISCED 5-6
EU-15	35%	43%	22%
NORWAY	14%	51%	34%

Theme 2 - Innovation in Teaching and Learning Processes

7. Improvements in learning processes and contents

In vocational education and training there is a close cooperation between school authorities and social partners. The social partners have an important position in the national *Rådet for fagopplæring* (National Council for Vocational Training), and they advise the Ministry of Education and Research on matters concerning vocational skills. Their role is also to advise the authorities on emerging skills needs. They are also present in committees developing new curricula, ensuring development that is closely balanced to the needs of business life, and they participate in reforms in vocational education and training.

A number of research and development projects and activities are currently being carried out in the Norwegian educational system. Some of them are directly related to curriculum development, while some are indirectly connected. Some examples of research and development projects are peer mediation, cross-sector environmental education network, alternative assessment and examination form in vocational training, and the development of strategies for the implementation of entrepreneurship such as gender-conscious educational choices, YOU (vocational and educational web site for young people), and PILOT (Project Innovation in Learning Organisations and Technology exploiting pedagogical and organisational opportunities of ICT).

Evaluation of the reforms involves all stakeholders and is carried out by research institutes specialising in research on education and training.

The Ministry of Education and Research has the overall responsibility for the development of new curricula, for informing the public, and for providing guidelines for the interpretation of the new curriculum. The information is mediated through the Regional authorities responsible for the schools in the region.

The Ministry of Education and Research normally initiates the reforms and also implements the decisions made by the Parliament related to education development processes. In the implementation process the social partners have an important say especially concerning the curricula for upper-secondary education and training. The National Council for Vocational Education and Training with its tripartite representation gives advice to the Ministry in the process. The Vocational Training Councils also play an important part in this process. Other groups which participate in the development of new curricula are teachers', pupils' and students'

organisation, textbook authors, local communities, and other bodies and organisations involved in the field of education and training.

The Ministry of Education and Research has developed a strategy for making education and training systems and modes more flexible. The most important measure taken to provide a flexible educational and training is the modularised curriculum. The curriculum is divided into modules to facilitate the adapted and flexible learning. The mode of teaching must not only be adapted to subject and content, but also to student age and maturity, the individual learner, and the overall ability of the class. The individual student may spend extra time on one particular module or may build on it later in life. The individual student has the right to receive documentation of acquired knowledge and skills.

Competence-based learning for adults ensures the individual the right to build on already acquired skills in an effective way. The system is designed to help adults avoid having to retake courses that cover skills and knowledge already acquired in school or by experience.

It is possible to study part-time by taking one module at a time. With this system the general subjects need not be repeated even if the student is changing study direction.

Distance Education

Distance Education is widespread in Norway. Traditionally this has consisted of correspondence courses, but a number of multimedia programmes are now offered. Each year over 40,000 students complete courses held by 14 authorised distance education institutions. In coming years distance education will play an important part in providing alternative and more flexible responses to the needs for continuing education and training.

Placement in Enterprises

Most vocational school programs include a two-week enterprise placement during the second year of. The objective is to introduce the student to the work environment and to provide them with work experience from possible future profession.

Changing and adapting educational content:

The participatory principle is vital in Norwegian education. Development and change may be advocated by the Ministry, parents, employers, or others, and will involve democratic processes where stakeholders in education take part. The stakeholders involved in curricula development are the teachers and the students, the school and management, the Ministry, social partners, education authorities.

Curricula are made flexible by modularisation. The curricula are described as a frame within which one may choose to focus more on some aspects than on others. This creates the possibility of adapting curriculum to the ability and need of the student, but also to exploit specific events or local requirements. Basic skills are integrated in the learning process in different ways. A basic principle in vocational training is to integrate subjects and disciplines in cross-curricular work and projects.

New methods and technologies

Digital skills are integrated in the curricula of almost all subjects. Curricula indicate work method, and the use of ICT as a work method is obligatory. Language skills

may be integrated in the learning of vocational subjects by focusing not only on the general language skills, but also on vocational jargon. In a project, a presentation of the work may comprise a short presentation in English or a letter in English. The presentation may be evaluated by the vocational teacher and the language teacher or the mother-tongue teacher together. This implies of course that the project is integrated in several subjects.

New methods are tried out by the introduction of projects launched by the ministry.

New curricula are distributed by *Læringscenteret* (the National Board of Education) uniquely in electronic format through its website. In addition to subject curricula, *Læringscenteret* distributes relevant rules and regulations, changes and news, and guidelines for teachers, school management, and for students and their parents. A new database is being created containing all curricula and relevant information.

During the planning and implementation of the Competence Reform, a series of interested parties have been involved in addition to the main social partners on the part of the employers and the employees. There are a number of organisations represented as stakeholders such as academic staff, the leadership of researchers, universities and colleges.

8. Improving the integration of different learning sites: Integration of Formal and Informal Learning

Under the initiative *Kompetansereformen*, a central focus area has been the development of effective models for cooperation between the business world and a learning environment especially adapted to the need of enhancing the competence of the adult population. This also includes an initiative on learning environments for adults with special learning needs.

VOX (*Voksenopplæringsinstituttet* - www.vox.no), a national development centre for adult learning, is responsible for the development of the activities of the Competence reform. VOX's main task is to contribute to developing the workplace as a learning arena in cooperation with the social partners and the training institutions. VOX focuses especially on adults who lack primary and lower-secondary education and adults with special educational needs.

Different forms of distance education are developed in all different types of training institutions. The aim is to offer flexible courses with the possibility of providing access for all levels of the population (see above, point 7).

9. Evaluation and quality assurance of VET provision

Individual level

Assessment of students is carried out on a continuous basis by the involved teachers and instructors, both informally and formally. The intention is to inform, motivate and supervise the students and teachers in their joint efforts to achieve the required training results as described in the curricula. Informal oral and written assessment of education and training is provided by the teachers. Students maintain a logbook that documents their work in the practical subjects, and this

forms an important part of the assessment basis. Interim tests and grades constitute formal assessment and feedback to both students and teachers.

The upper-secondary IVET leads to a formal qualification as a skilled worker. The four-year program- two years at school and two years in apprenticeship training - is concluded by a final practical examination. Graduates receive either a journeyman's certificate or a trade certificate. The two types of certificates have equal status. The different names simply refer to different groups of trades or occupations: a journeyman's certificate is issued in one of the traditional crafts such as carpentry and tailoring, whereas a trade certificate is obtained in more recent specialised trades such as motor-mechanics and welding.

The trade or journeyman's certificate is the lowest level professional skills degree. However, students who for some reason choose to abort their training before completion will receive proof of completed subjects or training modules issued by the training institution. This document does not give the right of admission to other parts of the education system, but might be combined with other types of training to meet the competence needs for specific jobs. Furthermore, the holders of this document will have the opportunity to complete the training at a later point of time.

Institutional level

The National Board of Education is responsible for the issuing of national instructions regarding procedures of the continuous assessment and the development and assessment of exams in both general and vocational subjects. In general education subjects, the National Board of Education may issue national written tests and initiate national exams as part of the quality development and control work.

The normal procedure, however, is that written exams in both general and vocational subjects are developed at local level in accordance with national instructions. Final examinations, oral and written, always involve external evaluators. Formal, written, and practical tests are conducted after each training module.

The final trade or journeyman's examination is a practical test where students have to demonstrate their skills and give an account for their approach at the test site. The county Vocational Training Committee decides the content of the tests - for instance to build a wall, make an evening dress, or refurbish a bathroom. Testing and assessment are organised by an Examination Board of experts in the relevant trade, appointed by the Vocational Training Committee. Candidates failing to pass the trade examination may appeal to a national Appeals Board for the trade, which is appointed by the National Board of Education. Representatives from industry and the social partners make up the majority of the members of the implementing bodies and the Appeal Boards.

System level

The Ministry of Education and Research has the overall political and administrative responsibility for quality assurance in all areas of education and training. But the Ministry has outsourced the operational responsibilities to other public levels and bodies. Guidelines for the various actors involved in training and examinations are provided by the Ministry or by its operational public agencies. There is no public inspectorate established with the sole role of inspecting and supervising the training institutions.

In upper-secondary IVET, the responsibility for curricula revisions, delivery, and examination instructions as well as the implementation of nationwide examinations lies with the National Board of Education. Active involvement of industry and the social partners at all levels, from decision-making on curricula to delivery of apprenticeship training and examination, should be considered a major element in the national quality assurance system. Irregularities and weaknesses in curriculum design, delivery, and student achievement are communicated to the responsible national authorities. In addition, the counties report regularly to the National Board of Education on activities, achievements, and assessments. Reports and statistics are continuously analysed by the National Board of Education as part of the quality development and quality assurance work.

The counties are the major actors in upper-secondary IVET, since they own the public schools, decide on the structure of training provision, and organise training delivery and examination cooperation with industry and the social partners. Private training institutions that have been approved by the Ministry and receive public financial support are inspected and supervised by the county authorities.

The responsibility for designing and implementing local theoretical examinations lies with the individual training institutions, but external experts are involved in corrections and grading. For the practical trade tests, there are trade-specific Examination Boards appointed by the county Vocational Training Committee. The county education authorities may, as the regional responsible body, conduct random spot checks.

In each county, the Education Office has established a Secretariat for the Vocational Training Committee. Its tasks include the recruitment and approval of enterprises for the apprenticeship training, as well as inspections of conditions and activities. The right of inspections is part of a formal enterprise-Secretariat agreement which contains details regarding mutual rights and duties, training content, and public, financial support to the enterprise. In most sectors, there are regional Training Offices for the various trades, established and owned by the industry, that coordinate apprenticeship training in the respective fields. The Training Offices cooperate closely with the Secretariat in quality control and supervision of the training enterprises.

10. Teachers' qualifications and status

Teacher education programmes take place at university colleges. Teacher education programmes comprise training of pre-school teachers, general teachers in compulsory education, and teachers in vocational training. The teacher vocational training programmes have a normal duration of 3 years and lead to a Bachelor degree in education. A large part of the training under these programmes is supervised, compulsory internship in relevant institutions. The amount of practice varies between programmes and training institutions.

There is growing concern related to the recruitment of teachers because of the increased numbers of pupils at all levels of education and training in the years to come and the aging of the present teacher population. The authorities are following the situation carefully and are discussing specific recruitment measures for teacher training education institutions. The situation is not satisfactory, especially

when it comes to the recruitment of teachers in science, technology, and foreign languages. Special measures have therefore been taken and a recruitment campaign has been launched in order to try to reverse this somewhat negative trend. The Ministry has issued a document on teacher recruitment strategy, and initiatives have been taken to update teachers in new skills, especially in the pedagogical use of computers.

Training of teachers/trainers in VET

Vocational education and training is fully integrated in the educational system in Norway. In-service courses are the same for general as well as for vocational teachers. Examples of core themes are tolerance, ethics, methodology, learning environment, and the pedagogical use of ICT.

There are also specific courses for updating teachers in vocational subjects. These courses are offered mainly through a Vocational Higher Training, and may be taken as part-time or full-time courses.

Vocational teachers normally attend a university college. The pedagogical education for vocational teachers as well as for teachers of general subjects is offered as a pre-service course of one year duration, but it may also be taken as a bachelor or a master degree.

In-service courses are provided by different types of training institutions or may be organised collaboratively between schools and companies. When reforms or changes in curricula are introduced, the regional authorities are responsible for upskilling the teachers in vocational training. There is no fixed model for this type of in-service courses; the social partners have an important role in deciding on content, duration, and organisation.

Praktisk-pedagogisk utdanning, PPU (Practical pedagogical education), may be offered as a two-year part-time study program. This facilitates the transition from a professional career to a teacher's career for vocational teachers. The program is designed for teachers and trainers in upper-secondary education and training and for persons who wish to teach in upper-secondary school. It also targets people with apprentice training responsibilities in private and public enterprises. Prerequisites for entering the program are a trade- or journeyman's certificate and some work experience, or an equivalent degree qualifying for teaching in upper-secondary schools.

Training of trainers/teachers at the workplace (apprenticeship training and CVET in enterprises)

There are no specific IVET arrangements that target enterprise-employed instructors and tutors with a responsibility for training of apprentices within upper-secondary education. However, in the process of recruitment and approval of enterprises for the training of apprentices, the county education administration conducts an evaluation of the individual enterprise. The level of professional competence of the enterprise in general and the professional and personal qualifications of the responsible persons in particular are emphasised. There are no formal requirements regarding pedagogical training.

As a result of the reform of 1994, the Ministry of Education presented an action plan for the upskilling and further training of teachers to ensure high quality in vocational training at the upper-secondary level. This CVT measure targets teachers

and instructors as well as business leaders and members of the examination boards. The aim is to equip teachers and instructors to meet the challenges and the objectives of the curriculum. By mid-1997 over 60,000 teachers and instructors had participated in this training. The vocational training offered to personnel is based on four modules, comprising one foundation module and three specialised modules. These can be taken independently of each other. The modules include relevant rules and regulations, planning and organisation of training in the enterprise, basic pedagogical and separately adapted training, and evaluation and quality improvement in training. The implementation costs of the action plan are divided between the State, the counties, and the employers.

A Training Office, owned and run by the companies, coordinates the activities between members who have agreed to take on a joint responsibility for training apprentices. The Training Offices are established to coordinate the training and to enhance the competence of the company trainers and employees by providing in-service courses for teachers and trainers in the companies.

Practical pedagogical training, PPU, is a one-year course offered to teachers in the University Colleges and to trainers in a workplace.

Training of teachers and trainers in continuing education and training (outside enterprises)

The minimum prerequisite to enter vocational teacher studies is qualification as Master craftsmen with two years of relevant work experience. The study duration is 3 years and includes 4-8 weeks of company training and 12 – 14 weeks of teaching training in school.

Theme 3 - Building European Competences for a European Labour Market

11. Challenges & policies in relation to the Lisbon employment strategy

12. Involving Stakeholders

Norway has long a tradition of close cooperation, both formal and informal, between the education and training authorities and the social partners. Today, the social partners and the enterprises are major actors and actively participate in most aspects of the implementation of upper-secondary IVET. The social partners also have a considerable influence on the daily implementation of non-academic CVET, but are to a lesser degree active in relation to higher education IVET and CVET, which is provided by institutions with a greater degree of autonomy.

Concerning the national policy development and the planning and structuring of all major changes in education and training, the social partners are always heavily represented:

- Green papers are always prepared by public committees with broad representation, and the major employers' and employees' organisations are always invited to participate.
- White papers and government Propositions to the *Storting*, are always sent to the all affected parties and the major social partners for comments ("*Høring*") prior to the Parliament discussions and decision.

The participation of pupils, apprentices, and students, in these processes as well as in the preparation of education and training at other levels is, moreover, stated in all the acts concerning education and training.

Through these institutionalised practices, the social partners conduct important influence.

Upper-secondary IVET

Today, the formal basis for the role of the social partners in upper-secondary IVET is found in the ILO convention 142 of 1975, which Norway ratified in 1976. The convention establishes that the employers' organisations and trade unions shall influence on and participate in the framing and development of vocational guidance and training. This is formalised in the Education Act (§12) and reflected in major institutions' active participation in development, implementation and assessment tasks.

At national level, the social partners make up *the majority of representatives* in the following influential bodies:

- The **National Council for Vocational Training** (*Rådet for fagopplæring i arbeidslivet – RFA*), which gives the ministry advice on all important questions concerning vocational education and training. A major Council task is to create a framework for recognised trades/occupations and to approve new recognised trades. RFA has a particular responsibility for creating the structure and developing guidelines for the training council system.
- The 20 national **Vocational Training Councils** (*Opplæringsråd*), which represent expertise in different sectors and recognised occupations. The councils provide the ministry and RFA with advice on vocational training in the trades for which they are responsible. Their tasks comprise preparing final qualification standards, development of curricula for existing and new trades, proposals of new trades, submission of expert opinions on the recognition of previous educational qualifications and compulsory internship, advice on the recognition of "foreign" qualifications, preparing papers for the theoretical part of examinations for apprentices, and the development of guidelines for the practical part of the examinations. The training councils also participate in regional appeals boards (see below) in cooperation with the vocational training committees.
- **National Appeals Boards** for the various trades, which make the final decision when candidates who fail the trade and journeyman's examination appeal the decision of the county-based examination board. The number of National Appeals Boards varies since there in some trades is such a range of different examinations that several appeals boards are needed. The appeals boards have three members; one from the employers' side, one from the employees' side, and one who is most often a specialist teacher from the relevant field.

At regional level, the social partners make up the majority of the representatives in these central bodies:

- The **Vocational Training Committee** (*Yrkesopplæringsnemnd*), which is appointed by the regional parliament (*Fylkestinget*) for a period of four years. The committee is an advisory body to the county and bears a major responsibility for implementing vocational training on behalf of the county authorities.

Some of its most important tasks are to give advice on the overall provision in the county to meet the local needs, to arrange apprenticeship places, and to place students in training establishments. The vocational training committee approves training enterprises and supervises the training that takes place in these enterprises. It has the authority to withdraw the right to have apprentices. Furthermore, it is responsible for approving the apprenticeship contracts, for ensuring that the trade and journeyman's examinations are held in accordance with the requirements, for appointing the examination boards, and for issuing trade and journeyman's certificates. The vocational training committee also assesses the theoretical and practical foundation of the apprentices.

The vocational training committee has a secretariat that carries out the day-to-day work. It has regular contact with the training enterprises and provides expert advice and assistance in practical matters. Normally, the administration of the committee is integrated with the county education and training department.

- The **Examination boards** (*Prøvenemnder*), which are appointed by the county for four years periods. In principle, each county has (at least) one examination board for each trade, but in professions with few candidates counties in some cases establish joint boards. Each board has two members, both with formal competence and ideally also work experience in the relevant trade. The main tasks of the boards are to organise and implement the practical part of the trade and journeyman's examinations and evaluate the results. Often, the vocational training committees use them as advisors on questions related to the approval of training enterprises, to supervise enterprises, to appraise work experience, etc.

Counties have full responsibility for all implementation aspects of IVET education and training, in the schools as well as in the enterprises. The training enterprises are important learning arenas. Administrative tasks that are actually the responsibilities of the county authorities, such as recruitment of training enterprises, organisation of joint apprenticeship contracts between small enterprises not able or willing to take sole responsibility, supervision and problem-solving, are often handled by the Training Offices (described in points 9 and 10 above). These are established, owned and operated by the sector organisation or a local group of enterprises within a production sector. In most counties there are several Training Offices. They cooperate closely with the county authorities and the vocational training committee and receive financial support for their efforts.

Enterprises may set special requirements for apprentices if these are directly relevant to enterprise activities and are not discriminatory. The enterprise decides whether to accept the apprentice whose name has been submitted by the vocational training committee. When the enterprise has accepted an apprentice, an apprenticeship contract has to be drawn up and sent to the vocational training committee for approval and registration.

Cooperation between education and training institutions and enterprises is increasing and many schools engage in a partnership agreement with local or regional companies.

A partnership agreement may include educational lectures by enterprise experts, enterprise, a study visit to the enterprise, student projects related to themes relevant to the enterprise, placements, and in-service courses for teachers and trainers.

Forecasting Skills

The education authorities acknowledge that private sector actors most effectively identify new labour market needs and demands for specific qualifications and skills. This is reflected in the formalised system for decision-making and implementation of training

In upper-secondary vocational and post-secondary, non-tertiary technical education the social partners participate actively in decisions concerning training programme structure, curriculum development, and updating and quality control. At national level, employers' organisations, sector organisations, and trade unions collaborate in operating the trade-specific Vocational Training Councils, and the social partners make up the majority of the National Council for Vocational Training.

13. Transparency, recognition, & mobility

In Norway, English is a mandatory subject in vocational training as well as in general studies. Language education is built on prior knowledge since English is taught all through primary school. All students in vocational training (upper-secondary education) have two English classes per week for two years. The jargon of the trade is taught, but the curriculum also provides a general knowledge of English language and culture. In addition to this, French or German is taught in the hotel and catering sector as second or third language. In accordance with the core curriculum the methodology is flexible, and the learning environment is adapted to the individual student's needs and ability. This offers a possibility to integrate different kinds of projects, such as international mobility, in the curriculum.

Students have access to education and training pathways in other countries. One year of secondary education is equivalent to one year taken in Norway according to the Ministry regulations. Foreign qualifications certificates are accepted as demonstrating knowledge and skills levels.

The newly established *Nasjonalt Organ for Kvalitet i Utdanninga (NOKUT)*, the national institution for quality in education and training, is to evaluate the equivalence of education and training taken abroad. An information database has been set up.

Stortinget (the Norwegian Parliament) decided in 2001 to ask the Government to establish a system giving adults the right to have their *realkompetanse* (competences) evaluated without having to take traditional exams. The ministry has transferred the professional and operative responsibility for the project to *Vokse- og opplærings-senteret, VOX*, (Institute for Adult Education). The project started in

1999 and finished in 2002 and has resulted in a new system for accreditation of non-formal knowledge and skills for adults.

Since 2001 it has thus been possible to enter universities and university colleges on the background of non-formal competences. The educational institutions are obliged to consider other factors than certificates and credits when selecting applicants.

The concept of realkompetanse is defined as knowledge acquired by work practice, voluntary work, activity in organisations such as NGOs or trade unions, or in-service training. The applicant must be more than 25 years old and not have a certificate from upper-secondary school allowing for entrance to higher education institutions. The application should be presented by 1 March. If there are specific requirements to enter the study, the candidate must also meet these requirements.