

# Denmark

## Overview of the Vocational Education and Training System

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**Abstract:**

This is an overview of the VET system in Denmark. Information is presented according to the following themes:

1. General policy context - framework for the knowledge society
2. Policy development - objectives, frameworks, mechanisms, priorities
3. Institutional framework - provision of learning opportunities
4. Initial vocational education and training
5. Continuing vocational education and training for adults
6. Training VET teachers and trainers
7. Skills and competence development and innovative pedagogy
8. Accumulating, transferring and validating learning
9. Guidance and counselling for learning, career and employment
10. Financing - investment in human resources
11. European and international dimensions, towards an open area of lifelong learning

This overview is part of a series produced for each EU Member State (plus Norway and Iceland). Each report is prepared by Cedefop's national network member (ReferNet) and is updated on an annual basis: the reference year of this report is, 2006. Later editions can be viewed from December 2008 onwards at: [http://www.trainingvillage.gr/etv/Information\\_resources/NationalVet/](http://www.trainingvillage.gr/etv/Information_resources/NationalVet/) where more detailed thematic information on the VET systems of the EU can be found.

**Keywords:**

training system; training policy, initial training, continuing vocational training, training of trainers, skill development, vocational guidance, recognition of competences, validation of non formal learning; financing of training

**Geographic term:**

Denmark

## THEMATIC OVERVIEWS



Denmark

### 01 - GENERAL POLICY CONTEXT - FRAMEWORK FOR THE KNOWLEDGE SOCIETY

#### 0101 - POLITICAL AND SOCIO-CULTURAL/ECONOMIC CONTEXT

The kingdom of Denmark constitutes Denmark, the Faeroe Islands and Greenland. Denmark is a constitutional monarchy with a single chamber parliamentary system. Denmark has been a single kingdom since the end of the 10<sup>th</sup> Century.

The *Folketing* (Parliament) has 179 members, including two representatives from the Faeroe Islands and two from Greenland. Both Greenland and the Faeroe Islands have home rule and are responsible for local matters such as the education and social systems, welfare, taxes, environmental policy and a number of commercial matters.

A major reform of the administrative structure was implemented in 2007 whereby 5 regions replaced 14 counties and the number of municipalities was reduced from 275 to 98. The aim of the reform is to increase the quality of public services and make them more cost effective. There is no change to the election structure, i.e. universal adult suffrage by voluntary and secret ballot, with a voting age of 28 for both national and local elections. All voters are eligible to run for office.

The state and municipalities are responsible for levying taxes and providing social services and health care, and in terms of education, the regions will elaborate visions for their own geographical area, whereas the state is overall responsible for the framework and provision of education. Besides the public authorities, the social partners have major influence on VET in Denmark and pay their share of the costs of both initial and continuous VET.

On average, there are 10-12 political parties in the *Folketing* and the government sits for up to 4 years (there are usually elections every 3 years). All political parties support free access to education and training, including continuing training.

#### 0102 - POPULATION AND DEMOGRAPHICS

There are 5.4 million inhabitants in Denmark, of which 4 million live in urban areas. The overall population density is 126 people per square kilometre (2007). It has a total area of 43 000 square kilometres.

Denmark consists of the peninsula of Jutland and 407 islands, of which circa 78 are inhabited (2006). Of these, the largest and most densely populated are Zealand on which the capital of Copenhagen is situated, the island of Funen and the peninsula of Jutland. The North Sea defines Denmark to the west, while the islands divide the Baltic Sea from the Kattegat.

Both men and women are active on the labour market or participate in training activities, and most children are therefore in day care centres during the day. The average age for women to have the first child is 28.9 years (2004), for men it is 32.7 (2000). Denmark has one of the highest fertility rates in the EU with 1.85 children per woman (1.49 EU average in 2004). One explanation for the higher fertility rate is the extensive system of public day-care centres.

Nonetheless, like the rest of Europe, the Danish population is getting older. According to Statistics Denmark, a fertility rate of 2.06 is needed for the population to reproduce itself. The average age in Denmark was 39.9 years as of January 2007 (38.8 years for men and 40.9 years for women). The increase in the average age is due to an increase of nearly 60 % in the number of people over the age of 80. The average life expectancy is 75.9 years for men and 80.4 for women (2006).

Immigration is higher than emigration. In particular, immigration from Turkey, former Yugoslavian countries and Asia, especially from Pakistan, has increased during the last decade. In 2006, foreign citizens represented 8.7% of the population compared to 2% in 1984. More than half of the foreign nationals live in the metropolitan area, and more than half of them come from other European countries.

Source: <http://www.dst.dk/HomeUK/Statistics/ofs/Publications/Yearbook.aspx>

**0103 - ECONOMY AND LABOUR MARKET INDICATORS**

The Danish economy is small and open, dependent on trade with other countries and without any possibility of influencing international trading conditions or central economic factors, e.g. interest rates. The value of both exports and imports constitutes circa 1/3 of GNP. About 2/3 of foreign trade is within the EU. Germany is the most important bilateral trading partner, but Sweden, Great Britain, and Norway are also of significance. Outside Europe, the US and Japan are the most important trade partners.

The Danish labour market is characterised by a high participation rate partly due to the high participation rate of women (71% and 75.9% for men). Of the total population of 5.4 million, the labour force constituted in 2005 approximately 2.8 million. Almost 25% of those at working age (16 - 66 years) are outside the labour force: many are in early retirement or represent young people enrolled in education. The unemployment rate is 3.1% (2006).

**STATISTICAL FACTS:**

Table 1: Economic composition by sector (% employment) in 2002

SECTOR	%
AGRICULTURE	4.27
MANUFACTURING/INDUSTRY	31.57
SERVICE	64.16
TOTAL	100

Source: Danmarks Statistik: Statistisk Årbog 2004

Table 2: Employment in % in 2005

	MEN	WOMEN
EMPLOYMENT RATE	75.9	71
UNEMPLOYMENT RATE	3.8	5.3
UNEMPLOYMENT RATE, UNDER 25	3.1	4.2

Source: Danmarks Statistik 2006

Table 3: Expenditure on education & training in 2003

<b>As A % of GDP</b>	8.2
<b>PUBLIC SPENDING AS % OF PUBLIC EXPENDITURE</b>	15.4

Source: Ministry of Education: Facts and Figures 2005

#### 0104 - EDUCATIONAL ATTAINMENT OF POPULATION

Approximately 80% of a year group complete a recognised vocational qualification (compared to approximately 60% in the early 1980s). Approximately 13% leave the education system without any qualifications at all and will have acquired neither a competency for further studies nor a vocational qualification, and 7.5% leave only with a leaving examination at general upper secondary level.

More girls than boys complete a higher education programme. 83% of the girls complete a vocationally qualifying course of education against only 74% of the boys. Girls are overrepresented in higher education and significantly represented in medium-cycle higher education.

Table 1: Expected overall educational profile of a year group, by level of education and competency, and gender - 2003

	MEN	WOMEN	TOTAL
<b>UPPER SECONDARY EDUCATION LEVEL:</b>	<b>%</b>		
With upper secondary education, of which	77.2	83.4	80.3
General upper secondary education	36.8	50.0	43.3
Vocational education and training	31.2	20.2	25.8
Both competencies	9.2	13.2	11.2
Without upper secondary education, of which	22.8	16.7	19.8
Basic school	5.5	4.8	5.2

Partial general upper sec. education	2.4	2.4	2.4
Partial vocational education and training	14.9	9.5	12.2
Upper secondary education level, total	100.0	100.0	100.0
<b>END LEVEL:</b>			
With vocational competency	70.8	79.4	75.0
Vocational education and training, of which	33.6	27.4	30.6
Commercial qualification	5.3	9.8	7.5
Technical qualification	27.7	8.2	18.2
Social & health qualification etc.	0.6	9.4	4.9
Higher education, of which	37.2	52.0	44.5
Short-cycle higher education	6.5	5.9	6.2
Medium-cycle higher education *	16.3	30.7	23.4
Long-cycle higher education	14.4	15.4	14.9
Without vocational qualifications, of which	29.2	20.6	25.0
With further study qualifications	9.7	8.9	9.3
No qualifications	19.5	11.7	15.7
End level, total	100.0	100.0	100.0

\*Medium-cycle higher education includes: professional bachelors, university bachelors and other medium-cycle higher education programmes (such as building technicians, etc.)  
 Note: The sum of students entering and leaving the individual groups may deviate due to rounding up/down. In addition to the ordinary education programmes, there are higher preparation single subject programmes (hf), BCom, and BA programmes. The following programmes are not included: open youth education programmes, production schools, *egu* and adult and continuing education. The figures are corrected for incomplete reports.  
 Source: Facts and Figures 2005, the Danish Ministry of Education, 2005.

Table 2: 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%
DENMARK	20%	53%	27%

ISCED 0-2: Pre-primary, primary and lower secondary education  
 ISCED 3-4: Upper secondary and post-secondary non-tertiary education  
 ISCED 5-6: Tertiary education  
 Source: Eurostat, Newcronos, Labour Force Survey

Table 3: Percentage of the population, aged 18 to 24 years having left education and training with a low level of education (latest year available 2002)

DENMARK		
2000	2002	2003
11.6%	19.6%	NA

NA: Not Available  
 Low level of education: pre-primary, primary and lower secondary education - levels 0-2 (ISCED 1997)  
 Source: Eurostat, Newcronos, Labour Force Survey

## 02 - POLICY DEVELOPMENT - OBJECTIVES, FRAMEWORKS, MECHANISMS, PRIORITIES

### 0201 - OBJECTIVES AND PRIORITIES

The Danish Government published its strategy for Lifelong Learning in August 2007 as a contribution to the realisation of the common EU objectives of Lisbon. The Danish

strategy for Lifelong Learning is framed within the liberal-conservative Government's globalisation strategy, *Fremskridt, fornyelse og udvikling* (Progress, renewal and development - Strategy for Denmark in the global economy). In the strategy, the Government describes how to realise a Lifelong Learning system with the aim of ensuring both competitiveness and social cohesion. DKK 15 billion (EUR 2 billion) have been allocated to the realisation of the strategy.

The objectives for lifelong learning are described for the different parts of the education system and to learning outside of the formal system:

#### UPPER SECONDARY EDUCATION

The overall aim for the upper secondary education system is for 95 % of all school leavers to complete an academic or vocational programme at this level (currently 80%).

For VET, the ambitious aim is to make it an inclusive system. It should challenge the most talented pupils and provide them with increased opportunities for further education. And at the same time, programmes should provide realistic training opportunities for weaker learners. One way of achieving this goal is by an introduction of partial qualifications corresponding to the needs of the labour market so that all young people can obtain an education which is suited to their abilities, and at the same time providing improved opportunities for access to higher education.

DKK 750 million (approximately EUR 100 million) will be allocated for the development of quality in VET for 2007-2009.

#### HIGHER EDUCATION

The aim for higher education is to increase completion rates from 45 to 50% by 2015. There is a strong focus on providing pathways from VET to higher education. Furthermore, the Government aims to establish new and more vocationally oriented higher education programmes which will match the needs of the labour market. In general, higher education should comprise course content relevant to the needs of society and the economy.

#### ADULT EDUCATION

Denmark is ahead in terms of participation of adults in education and training. In 2004, 60% of the labour force participated in a learning activity either public, private or within the company - 600,000 persons participated in public general or vocational adult education and training (over 20% of the labour force).

In the strategy for Lifelong Learning, there is a strong focus to increase participation in adult education and training among unskilled, low-skilled, older workers, people with literacy problems and bilingual groups as they participate in less training than others in the labour market. In its strategy paper, the Government stresses that adult education and training is a shared responsibility: individuals are responsible for continuously developing their competences; the social partners are to contribute to the development of labour force competence and of enterprises as places of learning at work; and the authorities are to provide a good framework, relevant programmes of high quality and an incentive structure for individual learners.

#### TRANSVERSAL AREAS

- In its strategy, the Government prioritises transversal support areas:
- guidance and counselling;
- further development of systems for recognition of prior learning;
- greater transparency and cohesion both within the Danish system and across EU countries;
- the global dimension of education;
- partnerships in education and training, and lifelong skills upgrading.

For further information see: <http://pub.uvm.dk/2007/lifelonglearning/>

## THE VET SYSTEM

The VET system in Denmark has undergone several reforms since the end of the 1980s. The aim has been to make the system more transparent and attractive to students, and to make it more adaptable to the continuous labour market and social changes. Reforms include:

- 1991 reform introduced principles of decentralisation, management-by-objectives, semi-privatisation of colleges and free choice of colleges for students;
- reform of commercial training programmes in 1996 introduced competence-based curricula and a higher degree of individualisation;
- 2000 reform changed technical training programmes by reducing the number of entry programmes, introducing a modularised structure in the basic programme, by making provision more individualised and flexible and by introducing new pedagogical principles, new teacher roles and new pedagogical tools (e.g. the education plan and logbook).
- 2003 amendments strengthened the individualisation of programmes, and focused on making general subjects more related to practice. It also introduced the principle of assessment of prior learning (*Realkompetencevurdering*) and the creation of a number of short VET programmes;
- 2007 reform gathers all VET programmes, i.e., commercial, technical, agricultural and social and health care education and training, under the same law. The reform introduces more structured basic programmes aimed at weaker students who have problems handling the highly individualised system; new basic programmes (the number has not yet been laid down); increased possibilities for partial qualifications (called: *trin* (steps)); and the electronic education plan system, *Elevplan*, is made compulsory. The law comes into force from August 2007; however many of the changes will not be implemented before July 2008.

To conclude, the reforms have attempted to simplify the VET system to make it more coherent and transparent. Furthermore, the aim has been to make it a more individually-focused system tailored to both strong and weak learners.

## THE CVET SYSTEM

The CVET system has also undergone several reforms to make it more demand-led and oriented toward enterprise needs. Furthermore, it has been an objective of the present government to streamline the overall VET system (IVET and CVET) to ensure coherence and transferability between the two systems. One of the measures has been to merge labour market training centres and vocational colleges so that single institutions are responsible for the provision of both kinds of VET.

The latest reform was introduced by Parliament in 2003 to create more cohesion in job-oriented adult and continued training activities. More specifically, the Act merges and reduces the number of competence descriptions (with a reduction in the required subjects) for basic labour market programmes. These joint competence descriptions create uniform conditions for achieving individual subjects of training programmes. They can be used by enterprises and employees as a way to connect the planning of training with competence development activities – for instance, in co-operation with the institutions which deliver such education/training programmes.

Social partners are active contributors to legislative reforms for both initial and continuing vocational training and contribute to implementing the amendments in this legislation.

## 03 - INSTITUTIONAL FRAMEWORK - PROVISION OF LEARNING OPPORTUNITIES

### 0301 - LEGISLATIVE FRAMEWORK FOR VOCATIONAL EDUCATION AND TRAINING

The Danish VET system is regulated by a number of acts, regulations and guidelines. The main ones are:

- The Act on Vocational Education and Training (LBK no 561 of 06/06/2007);

- The Act on Labour Market Training Programmes (LBK no 446 of 10/06/2003);
- The Regulation on Vocational Education and Training (Main regulation no 184 of 22/03/2004);
- The Regulation on the Basic Course in Vocational Education and Training (Regulation no 689 of 28/06/2004);
- The Act on Institutions Providing Vocational Education and Training (Act no 954 of 28/11/2003);
- The Act on Transparency and Openness (Act no 414 of 06/06/2002).

In addition to these, all VET programmes are regulated by specific programme regulation stipulating duration, contents, subject, competence levels, etc. From 2008, focus is to be on the competences to be acquired during training instead of focusing on subjects and time. The intention is that the focus on competences will make it possible for the vocational colleges to plan teaching to match the needs and abilities of the individual student. This change has to be seen within the overall objective of the Government to set up a Lifelong Learning system where both formal and non-formal competences can be assessed and recognised in the formal education system.

#### [VET system overview](#)

### **0302 - INSTITUTIONAL FRAMEWORK: IVET**

The government sets out the overall framework for general education and IVET which is administered by the Ministry of Education. Since the beginning of the 1990s, the Ministry has regulated IVET provision through a system of targeted framework governance based on providing taximeter grants per student. The Ministry lays down the overall objectives for IVET programmes and provides the framework within which the stakeholders i.e. the social partners, the colleges, and the enterprises are able to adapt curricula and methodologies to labour market needs and students. The Ministry is responsible for ensuring that the IVET programmes have the breadth required for a youth education programme, and for the allocation of resources (Source: The Danish Vocational Education and Training System, the Danish Ministry of Education, 2005).

The IVET system is centralised in terms of providing nationally recognised qualifications, and to some extent (pedagogically) decentralised as VET providers are autonomous in terms of adapting VET to local needs and demands. They are in charge of providing training and receive financial support from the government to do so. Vocational colleges are each governed by a board consisting of teacher, student and administrative staff representatives, and social partner representatives.

The social partners play an institutionalised role at all levels of VET, from the national Advisory Council on Initial Vocational Education and Training advising the Minister of Education on principal matters concerning VET to the local training committees advising the colleges on local adaptation of VET. The influence of social partners has gained since recent reforms which has led to fewer advisory bodies.

The trade committees (*De faglige udvalg*) consisting of representatives from both sides of industry constitute the backbone of the VET system. They perform a central role in relation to the creation and renewal of VET courses and have a dominant position in the formulation of curricula. The committees normally have 10-14 members and are formed by the labour market organisations (with parity of membership). They are responsible for the following matters relating to the individual VET course:

- objectives;
- duration;
- contents;
- final examination standards;

- issued final certification.

There are 59 trade committees who are responsible for approximately 96 courses.

Trade committees decide the regulatory framework for individual courses - they decide which trade is to provide the core of the training and the ratio between classroom teaching (approximately 1/3) and practical work in an enterprise (approximately 2/3). The committees also approve enterprises as qualified training establishments and rule on conflicts which may develop between apprentices and the enterprise providing practical training. The trade committees and their secretariats are financed by the participating organisations.

### **0303 - INSTITUTIONAL FRAMEWORK: CVET**

Since the establishment of powerful organisations in the late 19th century, the social partners have helped build a welfare society with one of the world's most peaceful labour markets. Co-operation with the social partners is an integral part of national labour market policy, also in areas which are primarily regulated by statute for example health and safety at work, job placement services, labour market training, vocational education, measures to combat unemployment, and unemployment insurance. In CVET, the same institutional structure exists as in IVET:

- a national Advisory Council for Vocational Adult Education and Training responsible for advising the Minister of Education on all matters concerning adult vocational education and training;
- national trade committees for CVET responsible for drawing up the joint competence descriptions;
- local training committees advising the colleges and the labour market training centres on local adaptation of CVET.

In adult vocational training, an extra administrative layer exists in form of the Regional Labour Market Councils responsible for identifying skills needs, structural problems and bottleneck problems.

## **04 - INITIAL VOCATIONAL EDUCATION AND TRAINING**

### **0401 - BACKGROUND TO THE IVET SYSTEM AND DIAGRAM**

In Denmark, basic schooling is compulsory from the age of 7 to 16, i.e. from 1<sup>st</sup> to 9<sup>th</sup> grade, but most children start in the optional pre-school class at the age of 6. After the 9<sup>th</sup> grade, 60% of a youth cohort continues to the 10<sup>th</sup> grade which is optional. Students may follow 9<sup>th</sup> and 10<sup>th</sup> grades at *folkeskole* or an *efterskole* (continuation school for 14 to 18 years old) which 11% do.

After having completed 9<sup>th</sup> or 10<sup>th</sup> grade, 95% of a cohort continue in either general or vocational upper secondary education (approximately 55% of an age cohort), or in VET (approximately 30% of an age cohort).

The attached file contains a figure of flows from basic schooling to youth education in the Danish education system: [Flows in the Danish Education System from Basic Schooling to Youth Education](#).

General and vocational upper secondary education lasts three years and gives access to studies at tertiary level. VET lasts between 2 and 4 years and qualifies students for either entering the labour market as skilled workers or for specific short cycle higher education programmes at vocational colleges.

All educational pathways are school-based except for VET which is based on the dual training principle, i.e. school-based education and training alternating with training in a company.

The attached file contains a diagram on the educational system: [Danish Mainstream Education System 2000](#)

### **0402 - IVET AT LOWER SECONDARY LEVEL**

There is no separate level for lower secondary education in Denmark.

#### **0403 - IVET AT UPPER SECONDARY EDUCATION (SCHOOL-BASED AND ALTERNANCE)**

Upper secondary education begins at the age of 16 after the students have completed compulsory education. In Denmark, students can choose between two tracks:

- an academic track for young people who want to continue in further or higher education;
- a vocational education and training track targeted at young people who want to learn a trade or profession and enter the labour market. This track also qualifies for certain programmes at tertiary level, the so-called short-cycle higher education programmes.

There are relatively few limitations to entering programmes at upper secondary level so it is up to the individual student to decide which track to enter.

##### **THE ACADEMIC TRACK**

This track consists of two pathways: the general upper secondary education pathway (provided at *gymnasiums*) and the vocational upper secondary education pathway (provided at vocational colleges). The general track can be further sub-divided into:

- 1) studies at general upper secondary education level (*gymnasium*), concluding with the school-leaving certificate qualifying for university entrance (*studentereksamen*);
- 2) higher preparatory examination programme (*Højere Forberedelseseksamen - HF*), which is a two-year alternative to gymnasium.

The vocational upper secondary programmes comprise the higher commercial examination programme (*Højere Handelseksamen - HHX*) and the higher technical examination programme (*Højere Teknisk Eksamen - HTX*) offered by commercial and technical colleges, respectively. The duration of both programmes is three years.

To be enrolled in higher education, the students have to pass a final examination in a number of subjects in their upper secondary education programme.

##### **VOCATIONAL EDUCATION AND TRAINING**

VET programmes give direct access to nation-wide recognised occupations within the labour market and are organised as dual training. VET only exists as apprenticeship training in Denmark. As VET only exists in a dual apprenticeship system, please refer to heading 0404 for a more thorough description.

The programmes provide young people with professional, personal and general qualifications in demand on the labour market. Graduates are able to fulfil specific jobs in different trades but have only limited access to education programmes at higher level. There are four areas of vocational education and training:

- vocational education and training programmes comprising commercial and technical training programmes (*Erhvervsuddannelser – EUD*);
- social welfare and health training programmes (*Social-og sundhedsuddannelser – SOSU*);
- agricultural training programmes (*Landbrugsuddannelser*);
- maritime training programmes (*Søfartsuddannelser*).

From August 2007, the social welfare and health training programmes, the agricultural programmes and the vocational education and training programmes will be gathered under the same law in order to make the system more homogenous and transparent.

Besides the above-mentioned programmes, a number of schemes exist for young people who are not clear in their educational/occupational choice, have learning disabilities, or social and personal problems. They can enrol in a course at a production school or in a basic vocational training programme (*Erhvervsgrunduddannelse - EGU*). The latter is an individualised course aiming at enabling the young person to enter either the ordinary VET system or the labour market. See also section 0405.

#### **0404 - APPRENTICESHIP TRAINING**

## CHARACTERISTIC FEATURES OF VET

VET programmes teach the necessary skills for a trade or profession, and are all alternance-based, i.e. instruction is given at college and in companies. The apprenticeships are based on a contract between the apprentice and the company and, in general, 2/3 of training takes place in the company. All training companies are approved by the relevant trade committee, i.e. the social partners, and thereby have to live up to certain requirements, e.g. a certain level of available technology, ability to offer a variety of tasks within the occupation. In 2002, about 1/3 of all companies had apprentices. Colleges and companies work closely together to make sure that training takes place according to the law.

An educational plan is made for every student to ensure coherence between the student's wishes and the actual training programme. The students also have a personal educational portfolio that is intended to increase their awareness of the learning process. While the educational plan indicates learning pathways, the portfolio documents actual learning and skills acquired by the student.

## THE BASIC AND THE MAIN PROGRAMMES IN VET

There are seven basic programmes, which serve as entry into the VET programmes:

- Technology and communication (*Teknologi og kommunikation*);
- Building and construction (*Bygge og anlæg*);
- Crafts and engineering trades (*Håndværk og teknik*);
- Food production and catering (*Fra jord til bord*);
- Mechanical engineering, transports and logistics (*Mekanik, transport og logistik*);
- Service industries (*Service*);
- Commerce and clerical trades (*Handel og kontor*).

From 2008, the number of basic programmes will be increased due to the change in the law. However, the name of the programmes and the exact number has not yet been laid down.

Each basic programme is college-based and completed with the issue of a certificate documenting the subjects and levels which the student has achieved; this certificate forms the basis for entering the main programme. In technical training, the basic programme may last from 10 to 60 weeks depending on the needs of the individual trainee whereas in commercial training, the basic programme last either 38 or 76 consecutive weeks (with the possibility of prolonging the programme up to 116 weeks). The aim is to make the commercial basic programme more flexible so that it matches the needs and qualifications of the individual student.

Commercial training programmes are offered by commercial colleges and are more theoretical and general in scope. Technical training tends to be more practical in scope and includes workshop training at the college. The technical colleges design the training at an early stage to connect college teaching with company training.

The main programme for vocational specialisations (96 programmes) starts with an on-the-job training placement. Before being admitted to the main programme, the student must have an apprenticeship contract with a training company (or with the college, if no training company is available).

As well as entering a VET programme through the basic programme, trainees may also start directly in a company with which they have an apprenticeship contract. In this case, they will start the practical training in the company and then alternate between school and in-company training for the remaining training period.

Trainees, who start directly in a company, receive a salary for the entire training period, including when at college, whereas trainees who start at school receive a state grant

until they have concluded an apprenticeship contract and begin their in-company training after having completed the basic programme at school.

Most students choose to start their education in college before concluding an apprenticeship contract.

#### FACTS AND FIGURES ON VET

The number of trainees in VET fell steadily from 1985 to 1995 and rose again up to 2002. This is a result of bigger youth cohorts.

Table 1: Number of trainees in VET by sector in 1990, 1995, 2000 and 2004

	1990	1995	2000	2004
<b>TOTAL</b>	125 959	115 255	126 634	129 511
<b>COMMERCIAL VET PROGRAMMES</b>	42 519	38 556	37 978	33 156
<b>TECHNICAL VET PROGRAMMES</b>	78 881	64 514	73 794	75 845
<b>OTHER</b>	1 093	1 603	812	2 664

\* Source: Danish Ministry of Education, statistical dept.

Table 2: Gender distribution in per cent, of the total number of trainees in VET

	1993	1994	1995	1996	1997	1998	1999	2000	2002	2004
<b>MEN</b>	56.7	57.1	57.1	56.6	55.4	53.5	54.2	54.4	55.1	56
<b>WOMEN</b>	43.3	42.9	42.9	43.4	44.6	46.5	45.8	45.6	44.9	44

Source: Danmarks Statistik, statistisk årbog 2004

There are slightly more male than female apprentices, but the distribution is uneven. In commercial training and in social and health care training, there is a predominance of female apprentices (90% in the latter) whereas the opposite applies to technical programmes and in building and construction (93% in the latter).

The average age of students on the basic programme was 20 in 2002. For the main courses, the average age was 25. In 2002, approximately 92% of the students were of Danish origin, and 8% were immigrants or from ethnic minorities.

The dropout rate has increased from 16% in 1989 to nearly 30% in 2005 (source: Koudahl, Peter: *Frafald i erhvervsuddannelserne: årsager og forklaringer*, the Danish Ministry of Education, 2005). Among male students with an ethnic background the drop-out rate is 60% (ibid.). So a high drop-out rate has been a continuous problem in the system.

#### **CERTIFICATION AND QUALIFICATION**

VET programmes conclude with a journeyman's test (*Svendeprøve*). The relevant trade committee issues a certificate on successful completion of the programme. For the college-based part of the training, the college issues a certificate.

After having passed the journeyman's certificate, the graduate has acquired a qualification at skilled worker's level and is able to enter the labour market and the wage system. In general, 80% of a VET youth cohort is employed one year after finalising VET.

#### **0405 - OTHER YOUTH PROGRAMMES AND ALTERNATIVE PATHWAYS**

There are two types of youth programmes and alternative pathways for young people who do not enrol in IVET or upper secondary education: 1) basic vocational training; and 2) training at a school of production.

1) Basic vocational training (*erhvervsgrunduddannelse*, EGU) is aimed at unemployed young people aged 17-21. The purpose is to improve their vocational and personal qualifications and inspire them to enter the labour market or pursue further training possibilities.

Training is full-time and lasts for 2 years on average. It combines theoretical (1/3) and practical training (2/3) in turns. The training programme is set on an individual basis and may contain elements from IVET programmes, i.e. training may take place at vocational colleges, agricultural colleges, social and health care colleges, etc., although not identical with a given programme. Each training period should be concluded as an individual training element which may be accredited for other training programmes. Statements are issued on details of training content, job function, marks, etc. Upon completion of the entire training programme, a certificate is issued by the college.

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

2) Schools of production are aimed at young people aged under 25 who have not completed youth education or find it difficult to see a way forward in further education or in the labour market. The purpose is to help clarify the individual's future career path, and individual guidance is provided on a day-to-day basis.

Schools base activities on workshops and give priority to learning through experience and practical work cooperation. Workshop subjects range from carpentry or metalwork to media or theatre, and the teachers are skilled craftsmen with a pedagogical background.

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

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

#### **0406 - VOCATIONAL EDUCATION AND TRAINING AT POST-SECONDARY (NON TERTIARY) LEVEL**

There is no IVET at this level in Denmark.

#### **0407 - VOCATIONAL EDUCATION AND TRAINING AT TERTIARY LEVEL**

Vocational colleges offer a number of short-cycle higher education programmes (*kort videregående uddannelse* - KVVU) lasting 2 to 2 1/2 years. Admission requirements are

either relevant VET or general upper secondary education. Most programmes give access to further studies within the same field e.g. bachelor programmes.

*KVU* programmes qualify students for performing practical tasks on an analytical basis. Apart from theoretical subjects, programmes are usually completed with a project examination. Fields of study include: agriculture, textile and design, food industry, construction, hotel and tourism, computer science, industrial production, laboratory technician, IT and communication and international marketing.

Programmes are school-based, however there are often work placements included and/or project work for a company. Student numbers have been increasing: from 12 292 in 1990 to 17 515 in 2003.

Programmes are state-financed and part of the higher education system which means they are under the jurisdiction of the Ministry of Education. The social partners are represented in a national council which ensures coherence between the programmes and labour market skills demands.

## **05 - CONTINUING VOCATIONAL EDUCATION AND TRAINING FOR ADULTS**

### **0501 - BACKGROUND INFORMATION ON CONTINUING VOCATIONAL EDUCATION AND TRAINING**

In Denmark, the public sector plays a major role in the provision of continuing vocational education and training as well as general adult education. However, in the last 10-20 years, private provision of continuing and adult education and training has grown. This includes courses provided by consultancy firms, private course providers, and internal HRM departments.

The main type of CVET in Denmark is, however, the adult vocational training (CVT) programmes offered by labour market training centres and vocational colleges. These programmes are important provisions in the policy objective of furthering lifelong learning and contributing to the creation a flexible labour market. Employees are given the opportunity to increase their skills and competencies regularly by following a CVT programme.

The programmes were first introduced in the late 1950s to ease the transition from an agricultural to an industrial society. Blue-collar workers and women, in particular, could improve their employment prospects in the new manufacturing business. In the 1970s and 1980s, the employment rate was high and CVT programmes helped solve structural problems. In the 1990s, the knowledge, service and information society made the business sector demand new skills for their employees.

Providers of the programmes, labour market training centres (*Arbejdsmarkedetsuddannelsescentre - AMU*) and vocational colleges, are locally based. Programme success depends on close cooperation between local enterprises and training institutions, and programmes are adapted to local conditions.

In 2000, a reform was adopted which created stronger coherence within adult education and continuing training by providing a new framework of lifelong learning opportunities for adults, and giving the social partners greater responsibility in terms of prioritising and organising the CVT programmes. The reform was followed by a focus on closer dialogue between management, staff, and training institutions, and on the concept that training should be integrated with learning at the workplace. It also focused on individuals with a low level of educational attainment and the provision of training to provide these people with competencies similar to skilled workers.

CVT programmes have three aims:

1. to provide, maintain and improve the vocational skills and competences of the participants in accordance with the needs and background of enterprises, the labour market, and to further competence development of the participants in line with technological and societal developments;
2. to solve labour market restructuring and adaptation problems in a short term perspective;
3. to contribute to a general upgrading of skills and qualifications of the labour force in a long term perspective.

Source: Adult vocational training in Denmark, the Danish Ministry of Education, 2007.  
Online: <http://eng.uvm.dk/publications/factsheets/adultv.htm?menuid=2525>

At the core of CVT programmes lie several factors:

- good financial framework and conditions;
- nationally recognised competencies;
- flexible structure;
- developing competencies to higher levels;
- continuous development of new training programmes;
- adult educational techniques which cater for acquiring practical skills;
- close interplay with the enterprises;
- quality assurance at all levels of the CVT system.

The programmes primarily provide skills and competences directed towards specific sectors and job functions.

#### **0502 - PUBLICLY PROMOTED CVET FOR ALL**

The Ministry of Education is in overall charge of CVT programmes although there is a long tradition of involving the social partners. Subject to Ministerial recognition, the social partners decide on the aims, content, duration and final status of the various CVT programmes.

There are more than 2 500 CVT programmes which meet the continuing training needs for adult unskilled and skilled workers and technicians within a wide range of sectors and trades. The programmes mainly target employees in work, but the unemployed also have access. The programmes are mainly of a relatively short duration ranging from half a day to 6 weeks, on average one week. The programmes can be combined both within and across qualification areas.

The Council on Labour Market Training (*Uddannelsesrådet for Arbejdsmarkedetsuddannelser*) is the central training council responsible for CVT programmes. For each programme, a CVT committee (*Efteruddannelsesudvalg*) is set up consisting of social partner representatives. The social partners play an important role in the management, priority setting, development, organisation and quality assurance of the programmes.

At local and provider levels, CVT committees and local school boards and education committees cooperate to provide the programmes best suited to fulfil needs of the labour market, business sector and individuals.

CVT programmes provide participants with qualifications and competencies that are applicable in the labour market. The programmes may either deepen the participant's existing knowledge within a particular field, or broaden it to related fields. Each participant has a personal training plan which outlines the goals to be achieved by the end. The participants may start from scratch and end up by completing a VET programme over a period of time.

The individual competence assessment procedure ensures that the needs for further education are determined on an individual basis. The skills of the participants are checked prior to the CVT programme and receive guidance from qualified staff. The training plans also serve as a tool for evaluation, assessment and the training to be provided. The plans have to take the following core elements into consideration:

- labour market policy needs as the basis for the CVT programme;
- programme aims and objectives;

- purpose of the individual educational plan (initial or specialised training, etc.);
- skills of the participant and required entrance qualifications;
- certification;
- quality assurance.

The CVT centres are responsible for providing adequate training according to individual training plans and ensuring that the aims and objectives are met. The teacher is the main person in charge of this.

In 2002, there were approximately 94 800 student full-time equivalents receiving an offer of adult education in the public sector. From 1994 to 2002, activity increased by 3 400 student full-time equivalents, or 3.7% (Source: Facts and Figures, the Danish Ministry of Education, 2005). The participants in the programmes are mostly skilled workers (51%) and low skilled (34%), and the main programmes are the technical, commercial, social health and service programmes in which 68 per cent participated.

The CVT programmes are financed wholly or partly by the State, with a modest user payment as supplement.

#### **0503 - TRAINING FOR UNEMPLOYED PEOPLE AND OTHERS VULNERABLE TO EXCLUSION IN THE LABOUR MARKET**

There are a number of training provisions targeting unemployed people and people at risk of exclusion. Two actors are central: the public employment service (*Arbejdsformidling - AF*) and local municipalities. The latter is responsible for persons who have not contributed to unemployment insurance. The employment service and municipalities co-operate their efforts to activate unemployed people and to reduce social exclusion. They use the following labour market instruments:

- Activation offers for young unemployed persons comprising education and training opportunities in the mainstream IVET system, special courses at labour market training centres, production school courses and folk high school courses;
- Specialised CVT courses requested by the employment services or municipalities;
- Municipal activation schemes, which may include production school courses, courses at non-residential folk high schools or other activities initiated by the municipality;
- Adult vocational training programme targeted at adults (above 25) which makes it possible for them to acquire a VET qualification on special conditions (including higher wages). This offer is not only for unemployed people;
- Job training in a private or a public organisation. During the job training, private employers receive a wage subsidy of DKK 55 (EUR 7) per hour, and public employers DKK 97 (EUR 13) per hour (2003 figures). Studies have shown that job training is one of the best means to ensure re-access to the labour market.

#### **0504 - CVET AT THE INITIATIVE OF ENTERPRISES OR SOCIAL PARTNERS**

Private companies have increased their expenditure on education and training for their employees. Between 2001 and 2003, expenditure is estimated to have risen by EUR 0.7 billion (Source: IKA April 2003).

Enterprises focus on the development of human resources in terms of improving their generic competences such as the ability to cooperate, flexibility, adaptability to change, etc. Furthermore, publicly provided CVT has been re-organised so as to provide more tailor-made in-company training courses in co-operation with companies. Companies describe their training needs and the vocational colleges/labour market training centres draw up training courses to match.

Social partners also offer training courses for their members, e.g., the VET teachers' professional associations offer sector specific courses for teachers to keep their vocational qualifications up-to-date.

#### **0505 - CVET AT THE INITIATIVE OF THE INDIVIDUAL**

In Denmark, the individual has a broad range of opportunities to enter continuing adult education and training from basic schooling level to university level. Individuals may enter:

- adult education (*voksenundervisning - VU*) at a adult education centre (*voksenundervisningscenter - VUC*). VU comprises subjects from basic level to upper secondary level (not VET);
- a basic adult education programme (*Grundlæggende voksenuddannelse - GVU*) at a vocational college. The aim of the GVU is to give adults the possibility of having their non-formal vocational qualifications assessed and recognised in order to achieve a full vocational qualification;
- open education at tertiary level, which gives all adults with a qualification at upper secondary level the opportunity to study single subjects or achieve a bachelor degree at tertiary level.

These courses are subsidied by the State, however a fee is charged for participation. Furthermore, there exists a vast market of courses ranging from liberal education courses subsidied by the State to private courses in all kinds of subjects or (alternative) professions which have to be fully paid by the individual.

#### **06 - TRAINING VET TEACHERS AND TRAINERS**

In Denmark, the training of teachers in vocational colleges and at labour market training centres is based on the principle of "training-while-practising". I.e. when the teachers are employed by a college or a centre, they are required to attend a compulsory post-secondary in-service pedagogical training course. The course is based on alternance between theory and practice to integrate the teaching experiences into the course. To be employed by a college/training centre, the teacher has to have a background as either a skilled worker with 5 years of working experience or be a graduate from a higher education institution with - preferably - 2 years of working experience.

As to training of in-company trainers in Denmark, there are no legal requirements.

#### **0601 - TYPES OF TEACHERS AND TRAINERS IN VET**

Two distinct teacher profiles can be identified within VET:

- general subject teacher: usually university graduates or graduates from general teacher college;
- vocational subject teacher: usually have a VET background and substantial experience in the field.

There are no requirements for teachers to have a pedagogical qualification prior to their employment. Pedagogical training is provided as in-service training and is based on interaction between theory and practice. It is provided by the Danish Institute for Educational Training of Vocational Teachers (*Danmarks Erhvervspædagogiske Læreruddannelse - DEL*). The training course is developed by colleges and teacher organisations in co-operation with the Ministry of Education.

Colleges and the training centres have autonomy in staff recruitment, i.e., the Ministry of Education is not involved in teacher recruitment procedures and the teachers are not civil servants entering the system through tests. There are many part-time teachers who have no formal pedagogical competences but who are well respected within their field of work and are able to ensure that VET students acquire knowledge which are up-to-date with developments in the trades.

As to roles and functions, teachers are involved in the development of local educational plans, in research and development projects, in quality development, and in the daily management of lessons - often through teacher teams. The role of teachers has changed into one of facilitator of learning, coach, and guidance counsellor. These changes have happened due to the introduction of new pedagogical and didactical principles, and changing qualification and curricula structures and increased modularisation.

#### **IN-COMPANY TRAINERS**

In-company trainers play an important role in VET given the dual training principle. There are different types of trainers with different responsibilities: planners, training managers, and daily trainers. However, there are very few legal requirements to become a trainer. Within some trades, they must have at least 5 years of work experience, however the social partners and the individual enterprise are responsible for their training and for their appointment.

### **0602 - TYPES OF TEACHERS AND TRAINERS IN IVET**

#### **IVET TEACHERS**

Individual colleges and educational establishments are in charge of recruiting qualified staff. However, there are some formal qualification requirements for VET teachers at vocational colleges:

- they must have a bachelor degree or equivalent, but practical work experience is highly valued;
- they must be skilled workers with at least 5 years of working experience;
- teachers in vocationally oriented upper secondary education must have a master degree from a university or higher education institution.

Teachers in vocational colleges therefore have one of the following profiles depending on the education in question:

- completed a VET programme and have at least five years' of work experience in the trade; or
- completed a VET programme supplemented with further studies; or
- a theoretical background, e.g. graduates from teacher training colleges or universities.

Teachers must be specialists in the subjects they teach. Furthermore, teachers with no pedagogical training must complete a *pædagogikum*, a post-graduate pedagogical in-service teacher training course during the first two years of employment. The course lasts for approximately 500 hours and ends with an examination.

The course is a mixture of practical training and theoretical instruction. It contains teaching and observation techniques, guidance, didactics and methodology. The teachers work as teachers during the course.

#### **TRAINERS**

Trainers in enterprises who are responsible for apprentices must be master craftsmen, i.e. they must have completed the journeyman's certificate and have work experience.

The trade committees for each VET programme (consisting of social partner representatives) are in charge of approving enterprises as training enterprises. The committees consider technical equipment, variety of products and task performed by the enterprise and in some instances the number of qualified staff to perform the training. In that way, they assess whether the training provided is at an acceptable level. In terms of quality assurance, the enterprises are approved for a number of years, and only enterprises where there are no or few complaints on the part of the apprentice, are approved for yet another period of time.

### **0603 - TYPES OF TEACHERS AND TRAINERS IN CVET**

#### **CVET TEACHERS**

Teachers in CVET have the same profiles as in IVET i.e. they are either general subject teachers with a university degree or a degree from a general teacher college or they are skilled workers with substantial working experience. For both profiles, they must acquire a pedagogical qualification within their first years of employment. This qualification can be acquired either at the Danish Institute for Educational Training of Vocational Teachers (*Danmarks Erhvervspædagogiske Læreruddannelse - DEL*) or at one of the many Centres for Further Education (*Center for Videregående Uddannelse - CVU*) offering a diploma in teaching of adults.

#### **CVET TRAINERS**

In general, there is little knowledge of trainers in CVET. Some large companies have education and training departments that offer in-company training courses to their employees. In these departments, a number of teachers and trainers are found, however the requirements to their skills and their profiles depend on the company and its specific training needs.

### **07 - SKILLS AND COMPETENCE DEVELOPMENT AND INNOVATIVE PEDAGOGY**

#### **0701 - MECHANISMS FOR THE ANTICIPATION OF SKILL NEEDS**

In Denmark, occupational qualifications are based on defined national and international standards geared to medium- and long-term employment requirements. Certified occupational qualifications provide access to further training and a number of higher education programmes below university level.

Skills anticipation is always a compromise between society's requirements and the learner's individual drive to personal development. Early adaptation to changes of qualification requirements therefore takes place through specific mechanisms in the VET structure, including CVT. Needs for new or modified training programmes are systematically identified and fed into the VET system by the function of the trade committees in VET and local training committees in CVT. They have the task to take the initiative for renewal and to scan the respective sectors of the labour market.

#### **0702 - BRIDGING PATHWAYS AND NEW EDUCATIONAL PARTNERSHIPS**

The traditional training pathways offered to students are usually fixed with some optional variations. Students often want to change programmes and/or to mix and combine them with supplementary subjects not usually available. As a result, students switch pathways which cost in terms of motivation, time and resources (for both the students and the system). A number of initiatives have therefore been taken to bridge pathways between the different types and levels of education to increase the opportunities available and to increase the students completing a full pathway.

The aim is that 95 per cent of a youth cohort complete general upper secondary education, a VET programme or gain similar qualifications through the CVT system. Today, approximately 95 per cent of school leavers from the *folkeskole* continue in upper secondary education, but only 80 per cent complete. It is also a political aim that 50 per cent of an age cohort continues into higher education (whether short cycle, medium cycle or long cycle).

Other mechanisms have also been introduced to support the inclusion of disabled people and others at a disadvantage on the labour market to assist them in completing a qualification in a way which is more suitable to their needs.

Initiatives include:

- modular curriculum offering well-defined units;
- substitution of a limited number of fixed standard programmes with personal training plans;
- change from classroom teaching to tutoring for the purpose of developing personal competencies of students. Teacher resources are thus allocated to handle the design, evaluation, maintenance and recording of the personal training plan.

The modular curriculum makes it easier for the individual to build on existing qualifications if an educational change of pathway is wished for. The system is more

transparent and flexible, and it is thus easier for educational institutions to give credit for prior learning.

#### **0703 - RENEWAL OF CURRICULA**

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

To provide students with the relevant personal competencies, vocational colleges focus on learning instead of teaching. Students therefore work on a project-oriented basis and in groups, learning how to collaborate to achieve a goal. The students play an active role and are not passively taught by the teacher. This is a fundamental change in the learning environment. Focus is on developing competencies that are often difficult to grade at the same time as awarding professional qualifications.

Personal educational plans (*Elevplaner*) are formulated by a teacher/guidance counsellor and students. The student must take responsibility for own learning and education, and the achievements are assessed regularly.

In its latest report on modernising VET, the Ministry of Education has forwarded the idea of centralising VET analysis and forecasting to ensure that new skills demands, changing labour market conditions and new occupational profiles are detected earlier than is the case today. As a consequence, the Ministry launched a survey of the trade committees' analysis and prognosis practices in order to clarify the need for supplementing analyses and prognosis. The result of the survey will be available by the end of 2007.

#### **08 - ACCUMULATING, TRANSFERRING AND VALIDATING LEARNING**

The issue of validating formal, non-formal and informal learning receives high political attention in Denmark given the wish to live up to the Lisbon Communication on "Making a European Area of Lifelong Learning a Reality". It is also due to an interest in upgrading the skills of adults with a low level of educational attainment and to make the adult education system more cost effective. According to the OECD report on "Literacy in the Information Age", approximately one million adult Danes active in the work force have reading skills at a level which is considered insufficient compared with the literary skills required in a knowledge society (*Source: OECD, 2000*). As a consequence, the Danish Government launched an initiative on the recognition of prior learning (*Realkompetencevurdering*) with the aim of facilitating the recognition, validation and development of skills and competences acquired outside of the formal education. The initiative was primarily aimed at unskilled and low-skilled workers and providing them access to a skilled qualification based on an assessment of their actual skills/competences. See also 1101.

#### **0801 - ACCUMULATING, ACCREDITING AND VALIDATING FORMAL LEARNING**

In Denmark, CIRIUS is the central body for validating formal learning through assessing foreign qualifications. The assessment is only targeted at foreigners entering the Danish system and is only a guideline; the educational institution may decide to overrule it. So there are no national accreditation institutions as found in many other European countries. Assessment and validation of formal learning are left to vocational colleges and social partners.

Social partners are responsible for the journeyman's test (*Svendeprøve*) and issuing the certificate. In most trade committees, training examiners and planning the journeyman's test take up much of their time. In commercial training, however, the commercial colleges are responsible for the final test which takes the form of a project exam based on a practical case from the work placement.

Vocational colleges are responsible for the continuous formative assessment of the student. This takes place through the educational plan and through interviews between students and their teacher. In the interview, focus is on what the student has achieved through participation in specific learning activities and on which competences the student needs to acquire to achieve the final goal, which is either completion of a basic course or the school-based part of a main course. As to summative evaluation, the students have to pass a number of tests during the training, e.g., at the end of a module or a school-based period. The college issues a certificate for the school-based part of VET. To prevent bias an external examiner takes part in the final examinations.

#### **0802 - ACCUMULATING, ACCREDITING AND VALIDATING NON-FORMAL/INFORMAL LEARNING**

In Denmark, there are no national accreditation bodies or centres, it is a decentralised system and the assessment, recognition and validation of prior learning take place at vocational colleges or labour market training centres. The methods are therefore also decentralised, and the role of the Ministry is one of advising and inspiring the educational institutions in their work by developing tools, frameworks and guidelines.

In recent years, a number of initiatives have been introduced aimed at making it easier for students in the VET system to have their prior learning assessed and recognised. In the dual VET system, all students are assessed when entering the system to identify their proficiency levels and to recognise prior learning in e.g. a company. On the basis of the assessment, an individual educational plan is drawn up. The student is advised on their possibilities in the VET system, e.g., a strong student may be advised to fast-track the basic programme and to add subject from the vocationally-oriented upper secondary education programmes in his plan, thereby ensuring access to higher education at a later time in his career. A weak student may be advised to prolong the basic programme and to take subjects at a lower level to acquire the final competences which are necessary for entering the main programme.

For adults, a number of schemes exist to ease their entrance to e.g. a VET programme. In 2001, a new system for accreditation of prior learning was introduced, GUV (*Grundlæggende VoksenUddannelse*). The GUV targets unskilled workers with at least two years of work experience who want to acquire a formal VET qualification. An adult who wants to enter a GUV-programme has to go through competence assessment in co-operation with a guidance counsellor at either a vocational college or a labour market training centre, which are accredited by the Ministry of Education. On the basis of the assessment, a personal education plan is drawn up describing the competences already acquired and the competences needed to acquire a formal qualification and how to acquire these.

Another scheme targeted adults is the individual identification of competence (*Individuel KompetenceAfklaring* - IKA). This was introduced in 1995 and targeted unemployed people. The aim was to promote and strengthen the individual assessment process to ensure their participation in further education and training. A problem in many schemes for unemployed people was that it was viewed as being irrelevant from an individual perspective. In recent years, as many colleges and centres have merged and as part of making the system of assessment of prior learning more transparent, the GUV and the IKA have been aligned.

#### **0803 - IMPACT OF EU POLICY COOPERATION**

In July 2007, the Danish Government published its strategy for lifelong learning and the initiatives and actions prioritised for the future. In this strategy, the creation of a lifelong learning system where learning both inside and outside the formal education and training system is recognised and valorised is described. This strategy is in line with the Lisbon objectives as education and training play vital roles in ensuring economic growth and social cohesion.

In the latest reform of the vocational education and training system, two EU tools have found their way into the reform: the European Qualifications Framework and the European Credit System for VET. Both tools are mentioned as reference for establishing a Danish qualifications framework and as inspiration for making the VET system more transparent, both at a national and a European level. The Common

Quality Assurance Framework has also served as a reference for the description of the Danish quality assurance system in VET (see <http://pub.uvm.dk/2005/vetquality/>).

In general, the EU initiatives seem to have a greater impact on national education and training policy after the adoption of the Lisbon Agenda in 2000, and the initiation of the Copenhagen process in 2002. Before 2000, there were practically no references to EU documents and policies in national education and training policy papers, this is no longer the case. However, there is a need for a more thorough analysis to establish the impact and interaction between EU and national policies.

#### **0804 - FACILITATING EU MOBILITY**

The Danish Agency for Internationalisation (CIRIUS) is responsible for assessing all persons with foreign qualifications who want to enter the Danish labour market. CIRIUS assess qualifications at all levels. Cirius' assessments may be used as advisory information in connection with job hunting in Denmark. But they are also binding in certain labour market contexts as they form the basis for:

- membership of unemployment funds;
- public authorities' decisions on employment.

Within the regulated professions, authorisation or other formal approval is required for a person to be able to practice the profession in question based on foreign professional qualifications. The competent public authorities decide whether the terms and conditions for practising have been met. For citizens from the EU and EEA Member States, the right to practice is covered by the EU directives, and the co-ordinating function for the implementation of these directives are also handled by CIRIUS. EU and EEA citizens are therefore to send their application for recognition of foreign qualifications directly to CIRIUS, which will pass it on to the correct public authority. As the co-ordinating authority, Cirius is responsible for co-ordinating the competent public authorities' activities and for ensuring that the directives are implemented in a uniform manner in the vocational areas and professions in question.

As for recognition of foreign qualifications for education and training purposes, the authority lies with the individual educational institution. However, an assessment from Cirius may function as a guide for the institution and this implies that the application for admission must be treated on an equal footing with applications from applicants with Danish qualifications at the same level of education as that stated by Cirius in its assessment.

As for credit transfer for education and training purposes, the same is valid. The educational institution makes the decision on credit transfer of foreign qualifications to replace part of a Danish qualification, and may in the process base its decisions on an assessment issued by Cirius.

For further information please see "Recognition of professional qualifications - a guide to the regulated professions in Denmark": [http://www.ciriusonline.dk/Admin/Public/Download.aspx?file=Files/Filer/Publikationer/Cirius2004/LEguide\\_en.pdf](http://www.ciriusonline.dk/Admin/Public/Download.aspx?file=Files/Filer/Publikationer/Cirius2004/LEguide_en.pdf).

### **09 - GUIDANCE AND COUNSELLING FOR LEARNING, CAREER AND EMPLOYMENT**

#### **0901 - STRATEGY AND PROVISION**

The 2004 Act on Educational and Vocational Guidance (*Lov om Uddannelses- og Erhvervsvejledning*) provides the regulatory framework. The overall structure for the provision of guidance is determined at national level by the government. The responsibility for providing guidance is given to two tiers: the municipal and national levels, depending on the level of education.

The responsibility for providing guidance on upper secondary education lies with approximately 50 municipal offices (called Educational Guidance for Youth (*Ungdommens Uddannelsesvejledning*)). The responsibility for guidance in higher education and vocational guidance lies with a national council for education and vocational guidance (*Landscenter for Uddannelses- og Erhvervsvejledning – LUE*). Regional centres provide guidance services.

In addition, a virtual guidance portal exists on the Internet for young people, and a national forum for dialogue for guidance is available for relevant authorities, institutions and organisations. Furthermore, a national guidance counsellor programme (*Vejlederuddannelse*) exists as a means to ensure that uniform guidance is provided throughout the country. A reform is expected for guidance for adults in employment.

Depending on the educational level which a given student is aiming at, guidance will be provided at local or national level according to national rules. The individual is thus assured better opportunities of employment. The reform also targets young people with special needs and aims to reduce the number of dropouts at all educational levels.

The educational establishments in the surrounding area and the social partners are important partners for cooperation for guidance providers.

#### **0902 - TARGET GROUPS AND MODES OF DELIVERY**

In 2004, a new Act on Educational and Vocational Guidance was implemented. The Act is primarily targeted to young people up to the age of 25, however it also includes adults who want to enter a higher education programme. With the reform, two new types of guidance centres were introduced:

- 46 Youth Guidance Centres (*Ungdommens Uddannelsesvejledning - UU*) which provide guidance for the transition from compulsory to youth education;
- 7 Regional Guidance Centres (*Studievalg*) which are responsible for guidance for the transition from youth education to higher education.

The aim of the youth guidance centres is to help young people become more aware of their abilities, interests and possibilities, thereby enabling them to make informed decisions regarding education and employment. A problem in the youth education system has been the number of drop-outs from one programme to shift to another. Better guidance services should help limit the number of drop-outs by making young people more clear about their educational or occupational choices. Guidance centres co-operate closely with schools and organise activities at schools so that guidance takes place close to pupils.

Regional guidance centres are for young people and adults who want to enter a higher education programme. The centres are responsible for providing information on all higher education programmes in Denmark and about possible career paths after completion of a higher level programme. The centres are open for calls from young people and adults, and provide guidance counselling in the local area, e.g., at public libraries.

Both kind of guidance centre are obliged to cooperate with relevant partners in the local area/region to ensure a coherent guidance system and a regular exchange of experiences, knowledge and best practice. Relevant partners include youth education and higher education institutions, the social partners and industry and commerce (Source: Guidance in Education - a new guidance system in Denmark, the Danish Ministry of Education, 2004).

#### **0903 - GUIDANCE AND COUNSELLING PERSONNEL**

Guidance counsellors at schools are often teachers who have completed a supplementary course. In employment agencies, social workers or employees with a university background provide guidance and have often completed a supplementary course.

The 2004 reform of guidance counselling introduced a new training scheme to improve the qualifications and competencies of counsellors. There was a general political demand for an increased professionalisation of guidance services in Denmark.

The training scheme is provided on a part-time basis and is equivalent to 6 months full-time studies. It consists of three modules:

- careers guidance and the guidance practitioner (guidance theory and methodologies, ethics, ICT in guidance, etc.);

- careers guidance and society (labour market conditions and policies, the education system and educational policies, development of society and business, etc.);
- careers guidance and the individual (different target groups, human development, learning theories, etc.).

The training programme is offered by six Centres for Higher Education and is an adult learning programme. It corresponds to half a diploma degree. Entry requirements are a completed short-cycle higher education programme and 2 years of relevant working experience (Source: Guidance in Education - a new guidance system in Denmark, the Danish Ministry of Education, 2004).

## 10 - FINANCING - INVESTMENT IN HUMAN RESOURCES

### 1001 - BACKGROUND INFORMATION CONCERNING FINANCING ARRANGEMENTS FOR TRAINING

In Denmark, education is considered a state matter, and VET is, to a high degree, financed by public sector sources. Public funding is acquired through taxes and through the specific labour market tax (*arbejdsmarkedetsbidrag*). Each employed person is charged eight per cent of his/her gross earnings per year. In 2006, the total state income from this tax was DKK 671 million (EUR 89 million) according to national statistics.

IVET is financed partly by the State and partly by companies. All apprentices receive a salary during their practical training, and all companies pay a monthly sum (based on the number of employees in the company) to the Employers' Reimbursement Scheme (*Arbejdsgivernes ElevRefusion - AER*) in order to share the cost of training. The companies that take in apprentices are then compensated for wages when the apprentice is taking part in school-based training. The AER scheme is meant as an incentive for companies to take in apprentices (see 1002).

As for CVET, training is financed by the State and to a certain degree by the companies who may pay fees and wages during absence.

The general trend is that funding remains a state matter but that companies investments in training is increasing. This is due to a growing demand by enterprises for more tailor-made courses.

### 1002 - FUNDING FOR INITIAL VOCATIONAL EDUCATION AND TRAINING

In general, education is financed by the state, counties or municipalities. Vocational colleges are independent institutions that enjoy financial support from the state.

IVET is based on alternance models where training takes place at college and in a company in turns. The state finances training at colleges, and companies finance on-the-job training, i.e. the trainees receive an apprentice salary while in the company. All employers pay an amount into a fund called the Employers' Reimbursement Scheme (*Arbejdsgivernes Elevrefusion - AER*) which is based on the number of employees in the individual company. The money is then allocated to the companies taking in trainees so that they do not bear the cost of training alone. The companies are reimbursed for costs during school-based training. In 2006, the companies paid DKK 3 208 million (EUR 427 million) to AER and received DKK 3 554 million (EUR 474 million) in reimbursement. The payments to AER remained quite stable from 2001 to 2005 (however with a slight increase from 2005 to 2006 by DKK 300 million (EUR 40 million)), whereas the reimbursements have risen 40% from DKK 2 496 million (EUR 335 million) in 2001 to 3 554 million (EUR 474 million) in 2006. This is due to the fact that the number of adult trainees have risen in the same period. The additional rise from 2005 to 2006, is due to the fact that more apprenticeship contracts were entered in this period (Source: AER General Key Figures 2006).

In 2003, total public expenditure on education amounted to DKK 114.8 billion (EUR 15 billion) this represented an increase of 20.5% since 1994. The rate of increase is not the same, however, for all areas of education. Expenditure on primary and lower secondary education increased by 22.9% to DKK 49.8 billion (EUR 6.7 billion) between 1994 and 2003. Expenditure on upper secondary education increased by 4% between 1994 and 2003. Behind this moderate increase lies a considerable movement in expenditure on upper secondary education, which peaked in 1997 with expenditure of

DKK 22.2 billion (EUR 3 billion) (Source: Facts and Figures 2005, the Danish Ministry of Education, 2005).

Teaching costs for IVET amount to DKK 2.6 billion (EUR 346 million). The average annual costs per student were around DKK 41 300 (EUR 5 506) for the commercial programmes, whereas students at technical programmes cost DKK 63 100 (EUR 8 413) (Source: Tal der taler 2003, the Danish Ministry of Education, 2003).

Students in other types of youth education may receive a State Educational Grant (*Statens Uddannelsesstøtte – SU*), but the exact amount depends on the income of the parents, student age and whether they live at home or by themselves. For more information, see: [www.su.dk](http://www.su.dk)

### **1003 - FUNDING FOR CONTINUING VOCATIONAL EDUCATION AND TRAINING, AND ADULT LEARNING**

The State, the counties and the municipalities spent approximately DKK 5 billion (EUR 670 million) in 2004 on running adult and continuing education courses (approximately 10% of total public expenditure on education, not including various support schemes such as the state education grant and loan scheme, sabbatical leave for educational purposes, etc.). CVT activities, including the operating expenses for CVT centres, are financed through the labour market contribution (*arbejdsmarkedsbidrag*) whereby a special tax of 8% is levied on all employed people. In 2006, the total state income from this tax was DKK 671 million (EUR 89 million) according to national statistics.

The expenditure on CVT courses constituted the biggest single item in expenditure on adult and continuing education in 2004 (approx. 20% of the total expenditure). CVT courses have also been the most expensive, partly due to the expensive machines, materials, etc., used in the teaching (Source: Adult vocational training in Denmark, fact sheet, the Danish Ministry of Education, 2007).

Participants in CVT programmes normally pay a user fee, but the courses are free of charge for participants who are entitled to a financial compensation corresponding to the unemployment benefit (*voksen- og efteruddannelsesgodtgørelse – VEU*). The compensation is paid to employed people in CVET and to unemployed people. Companies often supplement it. Participants may also receive a transportation allowance and financial support for board and lodging if the programmes are offered away from home.

The government sets out the overall framework for VET, but the social partners have a considerable influence on the content of the VET courses. VET belongs to the Ministry of Education. The colleges are financed by the state according to a taximeter system where every passed student generates financial support.

CVT is at the overall responsibility of the Ministry of Education and includes in particular labour market training, called AMU (*Arbejdsmarkedsuddannelserne*). The trade committees, the Vocational Education and Training Council, and the Training Council for Adult Vocational Training are responsible for the administration of VET in conjunction with the training providers.

#### **PUBLICLY-PROVIDED CVET**

The main providers of CVET are AMU centres, i.e. labour market training centres, and vocational colleges. Courses cover general needs among companies for upgrading the skills of labour, but individual companies may also ask for a specific course, tailor-made to their needs. The social partners are highly involved in CVET as they are on the forefront in the forecasting of skills needs, and cooperate closely with the AMU centres in the formulation of the content of the courses provided.

During the 1990s, expenditure on public sector adult education increased steadily, but in 1999, expenditure dropped by 11.5% due to a significant reduction in activities at CVET providers (at day folk high schools, labour market training centres, and in open education).

Table 1: Public expenditure on adult education and training

<b>PUBLIC EXPENDITURE ON ADULT EDUCATION AND TRAINING</b>	<b>1995</b>	<b>2000</b>	<b>2004</b>
<b>TOTAL</b>	7 193 million DKK (EUR 0.9 million)	6 402 million DKK (EUR 0.860 million)	5 000 million DKK (EUR 0.670 million)
<b>CVET PROVIDED BY LABOUR MARKET TRAINING CENTRES AND VOCATIONAL COLLEGES</b>	1 989 million DKK (EUR 0.270 million)	1 329 million DKK (EUR 0.178 million)	964 million DKK (EUR 0.128 million)

Table 2: Expenses for continued education and training

<b>EXPENSES FOR CONTINUED EDUCATION AND TRAINING IN DKK (EUR)</b>			
	<b>2001</b>	<b>2002</b>	<b>2003*</b>
<b>PRIVATE SECTOR</b>	DKK 3.7 billion EUR 493 m	DKK 4.9 billion EUR 653m	DKK 5.9 billion EUR 786 m
<b>PUBLIC SECTOR</b>	DKK 2.8 billion EUR 373 m	DKK 3.3 billion EUR 44 m	DKK 3.3 billion EUR 44 m

\* Expenses estimated.  
Source: IKA April 2003

#### **PRIVATE CVET COURSES**

The increase in private companies' expenditure for CVET is mainly due to the following: increased course fees and the introduction of tuition fees. Yet another factor is that more courses are offered to top and middle managers, and more courses are tailor-made to the needs of a particular enterprise. This implies that in terms of the amount of people employed in the private sector (1.7 million), the average cost for CVET amounts to DKK 2 900 (EUR 387) per employee. In the public sector (1 million employees), the amount is DKK 3 400 (EUR 453) per employee. Approximately 50% of the total labour force participates in some form of continuing education and training each year.

Table 3: Cost of CVT courses as % of total labour cost (all

enterprises), by type of cost (1999)

	<b>TOTAL COSTS</b>	<b>DIRECT COSTS</b>	<b>LABOUR COSTS OF PARTICIPANTS</b>
EU-15	2.3	1.4	0.8
DENMARK	3	1.7	1.4

Total costs: sum of direct costs, hourly staff costs and balance of contributions to national or regional training funds and receipts from national or other funding arrangements

Direct costs: costs of CVET courses

Source: Eurostat, Newcronos, 2nd continuing vocational training survey in enterprises (CVTS).

#### **1004 - FUNDING FOR TRAINING FOR UNEMPLOYED PEOPLE AND OTHER GROUPS EXCLUDED FROM THE LABOUR MARKET**

The Ministry of Employment is responsible for laying down overall employment policy and for allocating resources to employment initiatives. The public employment service is responsible for offering guidance to unemployed people and for approving their participation in specific training courses. During training, participants continue to receive unemployment benefits.

Municipalities are responsible for activating unemployed people not covered by unemployment insurance. Social services are responsible for guiding and approving their participation in a course. If they refuse to participate their benefits may be substantially reduced. Otherwise, during participation in a training scheme, they continue to receive social benefits. In 2002, municipalities spent DKK 7 212 million (EUR 953 million) on activation programmes for unemployed people who were not insured. The State reimbursed 50% of the costs.

#### **1005 - PERSPECTIVES AND ISSUES: FROM FUNDING TO INVESTING IN HUMAN RESOURCES**

In Denmark, the public financing of VET is a central trait of the system and there is no sign that this is going to change. The Government attaches great importance to improving the quality and efficiency of education and training systems in order to equip all individuals with the skills required for a modern workforce in a knowledge-based society and which, at the same time permits career development and reduce skills mismatch and bottlenecks in the labour market.

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

While the Government is committed to a publicly financed system, in recent years there has been a focus on increasing cost-efficiency and effectiveness. Various measures have been introduced including the development of the taximeter funding principle whereby colleges only receive a grant for the students who complete basic and main programmes. Amongst other things, such a system provides an incentive to colleges to increase retention in the system. Critics point out that such a measure endangers quality as it encourages colleges to be more lax in assessing student performance). With the introduction of quality indicators and increased focus on outcome, there is no doubt that the Government wants "value for the money".

## **11 - EUROPEAN AND INTERNATIONAL DIMENSIONS, TOWARDS AN OPEN AREA OF LIFELONG LEARNING**

## **1101 - NATIONAL STRATEGIES RELATED TO POLICY PRIORITIES, PROGRAMMES AND INITIATIVES AT EU LEVEL**

Danish VET policy objectives are in line with those of the Lisbon Declaration and the Copenhagen process. The government wants to use VET as a way to meet the challenges of globalisation and to create a knowledge society. It wants to do this by increasing the quality of VET provision, making the VET pathway more attractive to students, improving the transparency of qualifications, creating more flexible pathways through the education system and by recognising formal, non-formal and informal learning. The overall objective is to create a lifelong learning system which offers opportunities for people to continuously update and develop their competences in accordance with labour market needs and overall societal development.

The recognition of learning taking place outside the formal education system has formed a key part of this strategy through the implementation of an initiative on the recognition of prior learning (*Realkompetencevurdering*) based on a policy paper presented in November 2004 concerning the EU objective of "Making a European Area of Lifelong Learning a Reality". It described how the recognition, validation and development of skills and competences acquired outside the formal educational system should be strengthened. The *realkompetence* (actual competence) initiative assesses individual abilities and know-how. It aims to include all competences at any given time and in any training or job situation, for instance in the overall assessment for admission to education and training programmes.

The objective is that all citizens could have their skills and competencies assessed and validated, if they so wish. This form of individual assessment of competencies already takes place in labour market training (AMU courses), but the government's aim is that the offer should be given to anybody on a more general basis. Recognition standards remain those currently established in the educational system, such as the journeyman's certificate, the upper secondary school leaving certificate, the bachelor's degree or other diplomas from higher education institutions. Maintaining the same standards ensures that assessment processes are not devalued.

The results of the assessment are documented in a certificate and the methods used ensure a reliable measurement of individual skills and competence. It is undertaken by staff at educational institutions, and is undertaken within the context of the objectives, level, and admission requirements to the education programme which the individual wishes to enrol for. This is also important to ensure that the assessment and recognition process is respected by the educational system and in the labour market, and for the maintenance of a high educational quality and professional level that objective and qualitative criteria form the basis for the assessment.

Given the complexity, a number of actors are involved in the implementation, development and realisation of real competence assessment: representatives from schools and educational institutions, local authorities, the social partners, and companies.

## **1102 - IMPACT OF EUROPEANISATION/INTERNATIONALISATION ON EDUCATION AND TRAINING**

The aim of the Danish lifelong learning strategy is to meet globalisation and its challenges to society (see 0201). The lifelong learning strategy is based on the recommendations from the Globalisation Council which was set up in 2005 to advise the government on how to modernise Danish society in order to meet the challenges. In the council work, education and training played a central role as it was perceived as the means by which society could be able to cope with global competition.

Increased internationalisation of education and training ensures that:

- Education and training programmes can measure up to the best in the world;
- Education and training programmes are up-to-date and attractive enough to avoid brain-drain;
- Europe by 2010 will be the most competitive knowledge-based economy in the world, with Danish enterprises in the vanguard of this development (*Source: Enhanced*

Internationalisation of Danish Education and Training - Policy Paper to Parliament, the Danish Ministry of Education, 2004).

In regard to VET, this means that the mobility of VET students should be enhanced. In comparison to other European countries, the Danish VET system offers a unique opportunity for a work placement abroad through the Work Placements Abroad scheme (*Praktik i Udlandet* - PIU). The PIU scheme applies to VET students and guarantees that the work placement is recognised as part of the overall VET programme. The student receives financial support and can choose a work placement in any EU and associated countries. However, only 1 000 students go abroad each year under the scheme, and the government would like to increase this figure.

Internationalisation also entails an increased focus on internationalisation of teaching at colleges. In all VET programmes, students are to achieve an increased understanding of international matters. In commercial training programmes objectives for the achievement of intercultural competences have been formulated in national regulations.

Furthermore, the government focuses on how to increase international co-operation among vocational colleges and creates further incentives for the colleges to engage in EU Leonardo da Vinci projects and exchanges. Studies show that some vocational colleges are very international in their scope and not only engage in Leonardo projects, but have established a thriving business exporting VET services to 3<sup>rd</sup> world countries. However, at other colleges internationalisation is only at an infant stage.

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