

Denmark

VET in Europe - Country Report

2010

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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 context - framework for the knowledge society
2. Policy development - objectives, frameworks, mechanisms, priorities
3. VET in times of crisis
4. Historical background, Legislative and Institutional framework
5. Initial vocational education and training
6. Continuing vocational education and training for adults
7. Training VET teachers and trainers
8. Matching VET provision (skills) with labour market needs (jobs)
9. Guidance and counselling for learning, career and employment
10. Financing - investment in human resources
11. National VET statistics - allocation of programmes

This overview has been prepared in 2010 and its reference year is 2009. Similar overviews of previous years can be viewed at:

<http://www.cedefop.europa.eu/EN/Information-services/browse-national-vet-systems.aspx>

More detailed thematic information on the VET systems of the EU can also be found at:
<http://www.cedefop.europa.eu/EN/Information-services/detailed-thematic-analyses.aspx>

Keywords:

vocational education and training (VET) systems; initial vocational training; continuing vocational training; lifelong learning; VET policy development; financial crisis and VET policies; VET legislative and institutional frameworks; validation of non-formal and informal education; teachers and trainers; anticipation of skill needs; vocational guidance and counselling; VET financing mechanisms; allocation of national VET programmes; national and international qualification systems.

Geographic term:

Denmark

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1. GENERAL CONTEXT - FRAMEWORK FOR THE KNOWLEDGE SOCIETY

1.1 POLITICAL AND SOCIO- ECONOMIC CONTEXT

The Kingdom of Denmark constitutes Denmark, the Faroe 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 10th century.

The Parliament (*Folketinget*) has 179 members, including two representatives from the Faroe Islands and two from Greenland. Both Greenland and the Faroe 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 was to increase the quality of public services and make them more cost effective. There has been no change to the electoral structure, i.e. universal adult suffrage by voluntary and secret ballot. National elections are open to all Danish citizens of 18 years or over, while all adult residents are eligible to vote in local and regional elections. All voters are eligible to run for office.

The state and municipalities are responsible for levying taxes and providing social services. The main responsibility of the regions is health care provision, and in terms of education, the regions compile detailed plans for their own geographical area, whereas the state has overall responsibility for the framework and provision of education. Besides the public authorities, the social partners have major influence on VET in Denmark and pay a share of the costs of both initial and continuing VET.

On average, there are 8-10 political parties in the Parliament and the government coalition sits for up to 4 years. The current right of centre coalition was first elected in November 2001 and most recently re-elected in November 2007. Lars Løkke Rasmussen of the Liberal Party of Denmark (Venstre) replaced Anders Fogh Rasmussen as Prime Minister in 2009. All political parties support free access to education and training, including continuing training.

Denmark, like most other countries, is, following a longer period of growth, now experiencing an economic slowdown and recession. Whilst unemployment remains at a relatively low level historically speaking and in comparison with the European average, the figures have risen sharply doubling between August 2008 and August 2010 to 6.7% (Source: Eurostat). Young people have been particularly vulnerable with approximately one in ten under the age of 30 now unemployed. One explanation is that one in five has yet to embark on a course of education or training providing genuine job qualifications at a time when the demand for unskilled labour continues to fall with more and more jobs requiring qualifications and participation in courses of further education and training (Source: Politiken 04.12.2009).

1.2 POPULATION AND DEMOGRAPHICS

There are approximately 5.5 million inhabitants in Denmark, of which 4.8 million live in urban areas¹. Denmark has a total area of 43 000 square kilometres and a coastline of 7 300 kilometres. The overall population density is 128.4 people per square kilometre (Statistics Denmark 2010).

Denmark consists of the peninsula of Jutland and 407 islands, of which approx. 78 are inhabited. 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. The average age for women to have their first child is 29.0 years (2008 figures) - in 2005 it was 28.9. Denmark has one of the highest fertility rates in the EU with 1.84 children per woman (1.55 EU-27 average in 2007) (Eurostat yearbook 2010). One explanation for the high fertility rate is the extensive system of reasonably affordable public day care centres and Danish laws regarding maternity and paternity leave.

Nonetheless, like the rest of Europe, the Danish population is getting older. According to Statistics Denmark, a fertility rate of 2.08 is needed for the population to reproduce itself. The average age of the population in Denmark is 40.2 years in 2010 (39.2 years for men and 41.2 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 since 1980. The average life expectancy for 2008-2009 is 76.5 years for men and 80.8 for women. While life expectancy has increased, Denmark continues to lag behind most other countries in Western Europe, not least its Scandinavian neighbours (Statistics Denmark 2010). The reasons for this are the subject of much debate.

TABLE 1: POPULATION PROJECTIONS (2009)			
	0-24	25-64	65+
2008	1,647,977	2,974,773	853,041
2020	1,637,464	2,860,093	1,157,931
2030	1,630,863	2,792,770	1,365,841

Source: Statistics Denmark: Statistical Yearbook 2009.

The aging population means that the next two decades are expected to see a considerable increase in the number of citizens receiving public benefits and a decrease in the active workforce. The Government is therefore encouraging Danes to remain within the labour market beyond the minimum pensionable age and offering retraining initiatives to increase the attractiveness of older generations to employers.

The projected old age dependency ratio for Denmark in 2010 is 24.98%, close to the EU average of 25.9%. This figure is expected to rise sharply by 2015 to 29.09% as the large post-war cohorts reach pensionable age. The predictions for Denmark are expected to closely follow the EU average until 2035 after which the EU average is predicted to

¹ 'Urban areas' refers here to an area of unbroken buildings with at least 200 inhabitants.

continue rising while the Danish ratio is expected to plateau at around 42% (Eurostat). A possible explanation for this levelling out is the relative success of governmental policy seeking to improve fertility rates through improved structures for financial support, childcare and labour market protection.

Immigration is higher than emigration (in 2009 immigration: 67,161 and emigration: 44,874), but considerably lower than neighbouring countries such as Germany and Sweden. It is, however, worth noting that almost one in three immigrants is a Danish citizen returning home after a period abroad. Similarly, Danes comprise nearly half the total annual emigration figures. Nevertheless an increasing proportion of the population is made up of foreign immigrants and their descendants. In January 2010, this group comprised 9.8% of the Danish population. Of these, 54% originate from a European country. Turkey, Germany and Iraq are the three most common countries of origin (Statistics Denmark 2010).

1.3 ECONOMY AND LABOUR MARKET INDICATORS

The Danish economy is small and open, dependent on trade with other countries and without any possibility of significantly influencing international trading conditions or central economic factors, e.g. interest rates. GDP for 2009 fell to DKK 1 660 billion (approx. EUR 225 billion). In real terms, this represented a negative growth of -4.9%. This was the second year with negative growth and reflects acceleration in the economic downturn which began to make its mark in 2007 following a period of high growth. Other key economic indicators such as imports, exports, and private expenditure likewise showed a sharp fall in 2009. Since 1987, there has, however, been a surplus on the annual balance of trade. About 3/4 of foreign trade is with other EU countries and Norway. Germany is the most important bilateral trading partner, but Sweden, Great Britain, Netherlands and Norway are also of significance. Outside Europe, the US and China 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 (73.4% and 77.8% for men)². Of the total population of 5.5 million, the labour force population constituted in 2008 approximately 2.9 million. The unemployment rate reached its lowest for 34 years during summer 2008 but has since risen sharply as a result of the global economic downturn with gloomy forecasts, particularly for youth unemployment levels.

Source for all figures: Statistics Denmark: Statistical Yearbook 2010 and Statbank Denmark.

² From 2009, a new data source has been used leading to a break in the statistics and lower employment levels than previously.

STATISTICAL FACTS:

TABLE 1: ECONOMIC COMPOSITION BY SECTOR (% EMPLOYMENT) IN 2009		
SECTOR	EU-27	DK
PRIMARY SECTOR AND UTILITIES	7.0	3.8
MANUFACTURING	16.1	12.7
CONSTRUCTION	7.9	6.4
DISTRIBUTION AND TRANSPORT	26.4	26.9
BUSINESS AND OTHER SERVICES	17.7	17.5
NON-MARKETED SERVICES	24.4	32.7

Source: Eurostat

These figures are largely in line with the European averages with the most significant differences being a small primary sector and a very large sector consisting of non-marketed services. This can be ascribed, respectively, to the highly industrialised nature of agriculture in Denmark and an extensive public sector.

TABLE 2: EMPLOYMENT RATES BY AGE GROUPS AND EDUCATIONAL ATTAINMENT LEVELS IN 2009 (%)				
	AGE	15-24	25-49	50-64
EU-27	ISCED 0-2	22.8	64.1	43.3
	ISCED 3-4	46.3	80.5	59.5
	ISCED 5-6	58.4	88.2	74.5
	TOTAL	35.2	78.8	56.5
DK	ISCED 0-2	58.5	72	57.3
	ISCED 3-4	72.5	86.6	67.3
	ISCED 5-6	77.9	91.5	77.3
	TOTAL	63.6	85.3	66.6

Source: Eurostat

These figures generally indicate a slight drop in employment rates compared to figures for 2006. There are two notable exceptions to this trend: the elderly with low educational attainment levels and the young with high educational attainment levels. It is difficult to ascertain precisely what reasons might explain the considerable growth in employment rates within these two groups, although it should be noted that the latter group of under 24-year-olds who have completed ISCED 5-6 level education is quite small.

Despite the slight fall, employment rates in Denmark remain across the board higher than the EU average levels, particularly among the youngest group, where the Danish level of 63.6% compares with an EU average of 35.2%. However, it is again important to remember

that these figures represent a relatively small number as the majority of individuals between 15 and 24 will be in full-time education.

	AGE	15-24	25-49	50-64
EU-27	ISCED 0-2	25.9	14.8	9.1
	ISCED 3-4	16.9	7.5	6.2
	ISCED 5-6	15.4	4.8	3.4
	TOTAL	19.7	8.2	6.3
DK	ISCED 0-2	12.9	8.6	5.7
	ISCED 3-4	10.3	5.0	5.0
	ISCED 5-6	-	4.1	3.4
	TOTAL	11.2	5.3	4.7

Source: Eurostat

These figures represent a quite significant rise in unemployment rates since 2006 within all groups and are in fact now at higher levels than in 2003. While unemployment levels are still below EU averages, the differences are no longer as striking as previously, except among the youngest and those with the lowest levels of educational attainment.

The figures for public expenditure at secondary and post-secondary non-tertiary levels of education reveal that Denmark spends a proportion of GDP (2.8%) well above the EU average (2.2%). This represents 5.4% of total public expenditure. Of this, 1.1% of GDP is spent on general education programmes equalling 2.1% of public expenditure. Figures for vocational programmes are not available. Source: Eurostat 2007.

1.4 EDUCATIONAL ATTAINMENT OF POPULATION

The following figures should be viewed in the context of the Danish government's stated goal that, in 2015, 95% of a youth cohort should complete a youth education and 50% a higher education. It is therefore to be noted that, following a long period with a steadily increasing level of education, the most recent figures exhibit a downward trend. Figures from the EU Labour Force Survey as well as the most recent extrapolations conducted by the Danish Centre of Statistical Analysis clearly display this tendency, with long-cycle higher education the only area bucking the trend with significant increases.

EU-27						
2002	2003	2004	2005	2006	2007	2008
17.0	16.6 (b)	16.1	15.8	15.5	15.1	14.9
DENMARK						
9.0	10.4 (b)	8.8	8.7	9.1	12.5 (b)	11.5

(b) = Break in series; Source: Eurostat

The percentage of the population aged 18 to 24 years with at most lower secondary education and not in further education or training fell slightly in 2008 after rising in preceding years. This could well be a result of the economic crisis with the scarcity of jobs leading to more young people seeking education and training so as to avoid unemployment. By comparison, the extremely low unemployment rates during the preceding period, and the resulting demand for manpower within all areas, meant it was easier for young people to find work without skills or qualifications. This may have led some to delay education and training, attracted by the opportunity to earn some money. Despite the latest fall and a figure remaining below the European average, it can be seen as a failure in light of the 95% policy objective.

Figures for the percentage of the population 20-24 to have completed at least upper-secondary education provide a little more detail on the problems. The 2008 figure of 71.0% is well below the European average of 78.5% which may reflect the tendency for young Danes to hold breaks during their journey through the educational system and to frequently switch between different upper-secondary programmes. However, this does not explain the sudden drop since 2005 - in 2002, the Danish figure was 78.6% and above the EU-27 average, and remained relatively steady at 77.1% in 2005. The figures also show significant differences between males and females: while 78.6% of females aged 20-24 have completed an upper-secondary programme, the corresponding figure for their male contemporaries is just 63.6%. While females generally outperform males according to this measure of educational attainment levels, the gulf is considerably smaller elsewhere. It is also among these young males that the most significant drop-off has occurred since 2005 (73.8%)(Eurostat). The problems with drop-out within many of the male-dominated areas of upper-secondary VET can be part of the explanation for the discrepancy: a problem often exacerbated by difficulties in finding a training placement within an enterprise which is required to complete the vast majority of VET programmes within the Danish dual system.

TABLE 2: GRADUATES IN ISCED 3-6 BY LEVEL OF EDUCATION AND SEX IN 2007

SEX	ISCED 3-4 VOC	ISCED 3-4 GEN	ISCED 5-6
MALE	14,286	14,607	21,675
FEMALE	19,954	16,031	29,174
TOTAL	34,561	30,317	50,849

Source: Eurostat

These figures are very similar to the numbers from 2005. The two most striking characteristics are the extent to which females dominate all levels of education from upper secondary onwards, and the extremely small number of graduates within post-secondary non-tertiary education. Females considerably outnumber males at the tertiary level throughout Europe; however this is not generally true at the upper-secondary level. These figures should be considered alongside the low figures above for the percentage of young males who have completed an upper-secondary programme. With regard to the small number of graduates within the post-secondary non-tertiary sector, this sector was first introduced in Denmark with a major reform in 2000 and remains small - as recently as 2002, there were no graduates at this level.

TABLE 3: EXTRAPOLATED OVERALL EDUCATIONAL PROFILE OF A YEAR GROUP, BY LEVEL OF EDUCATION AND COMPETENCY - 1995, 2000 AND 2005			
COMPLETING BASIC SCHOOLING IN	1995	2000	2005
PROPORTION OF YOUTH COHORT WITH A YOUTH EDUCATION (%)			
YOUTH EDUCATION	82.1	83.6	81.2
UPPER SECONDARY EDUCATION	51.9	52.2	53.3
VOCATIONALLY ORIENTED EDUCATION AND TRAINING	43.3	43.6	37.6
- OF THIS BOTH VOCATIONAL AND GENERAL QUALIFICATIONS	13.1	12.2	9.7
PROPORTION WITH HIGHER EDUCATION WITHOUT YOUTH EDUCATION	3.0	3.9	4.0
AT LEAST A YOUTH EDUCATION	85.1	87.5	85.3
FINAL EDUCATIONAL QUALIFICATIONS (%)			
WITH VOCATIONAL QUALIFICATIONS	74.2	80.0	76.1
VOCATIONALLY ORIENTED EDUCATION AND TRAINING	36.8	35.2	32.6
COMMERCIAL EDUCATION	12.3	10.3	8.2
TECHNICAL EDUCATION	17.1	18.8	16.8
SOCIAL & HEALTH EDUCATION ETC.	7.4	6.1	7.6
HIGHER EDUCATION	37.4	44.8	43.5
SHORT-CYCLE HIGHER EDUCATION	5.9	8.8	5.6
MEDIUM-CYCLE HIGHER EDUCATION*	23.0	23.4	22.9
LONG-CYCLE HIGHER EDUCATION	8.5	12.6	15.0
WITHOUT VOCATIONAL QUALIFICATIONS	25.8	20.1	23.9
ONLY STUDY QUALIFICATIONS (UPPER SECONDARY EDUCATION)	10.9	7.6	9.2
DIRECTLY FROM BASIC SCHOOL	6.2	2.8	4.6
AFTER DISCONTINUED EDUCATION	8.7	9.7	10.1

*Medium-cycle higher education includes: professional bachelors, university bachelors and other medium-cycle higher education programmes (such as building technicians, etc.)
Source: Facts and Figures 2007, Danish Ministry of Education, 2008.

TABLE 4: LIFE-LONG LEARNING (ADULT PARTICIPATION IN EDUCATION AND TRAINING). POPULATION AGED 25-64 PARTICIPATING IN EDUCATION AND TRAINING OVER THE FOUR WEEKS PRIOR TO THE SURVEY (%)

	SEX	2002	2005	2008
EU-27	MALE	6.6	9.0	8.7
	FEMALE	7.8	10.5	10.4
	TOTAL	7.2	9.8	9.5
DK	MALE	15.6	23.6	25.0
	FEMALE	20.5	31.2	35.5
	TOTAL	18.0	27.4	30.2

Source: Eurostat

These figures place Denmark well above the European averages (9.5% in total for 2008) - only the other Nordic countries come even close to matching Danish participation levels. Of those countries with higher figures in 2005, the UK has witnessed a considerable drop off in participation rates, while there are no figures available for neighbouring Sweden. This reflects a number of conditions such as the national strategy to focus on knowledge intensive specialist sectors and lifelong learning, a large public sector and a tradition for strong ties between enterprises, educational institutions and the social partners. After a dramatic expansion in adult training between 2002 and 2005, the latest figures continue to show a steady growth. EU averages have otherwise stagnated slightly, presumably as a result of a tightening of purse strings caused by the economic crisis, however this is not the case in Denmark.

1.5 DEFINITIONS

- General education: *Almen Uddannelse*

Education which is mainly designed to lead participants to a deeper understanding of a subject or group of subjects, especially, but not necessarily, with a view to preparing participants for further (additional) education at the same or a higher level. Successful completion of these programmes may or may not provide the participants with a labour-market relevant qualification at this level. These programmes are typically school-based. Programmes with a general orientation and not focusing on a particular specialization should be classified in this category.

Source: United Nations Educational, Scientific and Cultural Organization (UNESCO), "International Standard Classification of Education - ISCED 1997", Paris, November 1997

Applies in Denmark to education not directed towards a specific job at either primary/lower-secondary or upper-secondary levels, also within adult education.

- Pre-vocational education

Education which is mainly designed to introduce participants to the world of work and to prepare them for entry into vocational or technical education programmes. Successful completion of such programmes does not yet lead to a labour-market relevant vocational or technical qualification. For a programme to be considered as

pre-vocational or pre-technical education, at least 25 per cent of its content has to be vocational or technical.

Source: ISCED 1997

There is no direct equivalent in Denmark. There is however Basic Vocational Education and Training (*Erhvervsgrunduddannelse: EGU*) which shares certain features with the above definition:

“The objective of EGU is for the pupils to achieve personal, social and professional qualifications that both admit them to one of the other education and training programmes leading to a professional qualification, and provide a basis for employment.”

Source: Danish Ministry of Education

<http://www.eng.uvm.dk/Uddannelse/Upper%20Secondary%20Education/Basic%20Vocational%20Education.aspx>

- Vocational education: *Erhvervsuddannelse (EUD)*

Education which is mainly designed to lead participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation or trade or class of occupations or trades. Successful completion of such programmes leads to a labour-market relevant vocational qualification recognized by the competent authorities in the country in which it is obtained (e.g. Ministry of Education, employers' associations, etc.).

Source: United Nations Educational, Scientific and Cultural Organization (UNESCO), "International Standard Classification of Education - ISCED 1997", Paris, November 1997

The above definition applies in Denmark. EUD is organised as sandwich programmes alternating between practical training in a company and teaching at a vocational college (this does not apply to all forms of CVET, however the adult labour market training programmes (Danish: *Arbejdsmarkedsuddannelser*) are generally considered separate from EUD. In other words, EUD is largely synonymous with IVET).

- Technical education: *Teknisk uddannelse*

There is no official definition and the term can be applied to a number of different areas of the educational system from technical programmes within vocational education and training, to the upper-secondary *Higher Technical Examination Programme HTX*) which gives access to higher education, and even degree programmes within areas such as engineering.

- Tertiary education/Higher Education: *Videregående uddannelse*

“This level typically begins at the end of upper secondary education and comprises the short-cycle higher non-university programmes, the medium-cycle university and non-university programmes as well as the long-cycle university programmes.

Source: Danish Ministry of Education

<http://www.eng.uvm.dk/Uddannelse/Higher%20Education.aspx>

- Further education: *Efter- og videreuddannelse*

A general umbrella term used to describe education and training following a labour-market relevant qualification with the aim of updating or expanding the individual's competences, skills and/or knowledge. Generally consists of courses of shorter duration perhaps offering a certificate or diploma, but no formal qualification.

- Post-secondary non-tertiary education

Programmes that lie between the upper-secondary and tertiary levels of education from an international point of view, even though they might clearly be considered as upper-secondary or tertiary programmes in a national context. They are often not significantly more advanced than programmes at ISCED 3 (upper secondary) but they serve to broaden the knowledge of participants who have already completed a programme at level 3. The students are usually older than those at level 3. ISCED 4 programmes typically last between six months and two years.

Source: ISCED 1997

ISCED 4 in Denmark consists of only a very small number of foundation courses preparing students for higher education. As such, this area is not generally considered as a separate entity within the Danish educational and training system.

- Training

In this context, training is considered synonymous with education (Danish: *uddannelse*).

- Initial vocational education and training: *Erhvervsuddannelse (EUD)*

Initial vocational education and training (IVET) is defined as training undertaken typically after full-time compulsory education (although it may start before) to promote the acquisition of the necessary knowledge, skills and competences for entry to an occupation or group of occupations. It can be undertaken purely within a school-based and/or work-based environment. It includes apprenticeship training.

Source: Glossary of the EknowVET database, Cedefop

The above definition largely applies in Denmark, except that EUD will always consist of alternation between practical training in a company and teaching at a vocational college.

- Continuing vocational education and training: *Arbejdsmarkedsuddannelse (AMU)*

Education or training after initial education and training - or after entry into working life aimed at helping individuals to:

- improve or update their knowledge and/or skills;
- acquire new skills for a career move or retraining;
- continue their personal or professional development

Source: Terminology of vocational training policy, Cedefop

This definition applies in Denmark where AMU largely consists of short vocational training programmes for low skilled and skilled workers on the labour market. The objective is described as follows:

“Participants may acquire new and updated skills and competences to better their opportunities to managing new and wider job functions and to becoming more flexible on the labour market”.

Source: Danish Ministry of Education

<http://eng.uvm.dk/Uddannelse/Adult%20Education%20and%20Continuing%20Training/Adult%20vocational%20training.aspx>

- School-based programmes: *Skolebaserede uddannelser*

In school-based programmes instruction takes place (either partly or exclusively) in educational institutions. These include special training centres for vocational education run by public or private authorities or enterprise-based special training centres if these qualify as educational institutions. These programmes can have an on-the-job training component, i.e. a component of some practical experience at the workplace.

Source: UOE data collection on education systems, Volume 1, Manual, Concepts, definitions and classifications

The above definition applies, although it should again be noted that IVET in Denmark is organised as alternance training.

- Alternance training: *Vekseluddannelse*

Education and training combining periods in an educational institution or training centre and in the workplace. The alternance scheme can take place on weekly, monthly or yearly basis. Depending on the country and applicable status, participants may be contractually linked to the employer and/or receive the remuneration.

Source: Terminology of European education and training policy, Cedefop, 2008.

This applies to all IVET in Denmark. The exception is when a lack of available work placements within companies means that students must undertake practical training at the college (Danish: *Skolepraktik*). However, there is still talk of alternating periods of practical training and classroom-based teaching.

- Apprenticeship: *Lærlingeforløb or Mesterlære*

Systematic, long-term training alternating periods in a school or training centre and at the workplace; the apprentice is contractually linked to the employer and receives remuneration (wage or allowance). The employer assumes responsibility for providing the trainee with training leading to a specific occupation.

Source: Terminology of vocational training policy, Cedefop.

This definition applies in Denmark where all students within IVET must enter a training agreement with an enterprise in order to complete their education. (For exception, see definition of alternance training.

- Curriculum: *Læseplan*

The term is used in Denmark to describe objectives and content of a course. The overall framework and objectives are determined by the social partners in collaboration with the Ministry of Education, while it is determined at a local level

how these objectives are to be fulfilled. This is the result of co-operation between the vocational college and a local committee of employers and employees.

Source: Danish Ministry of Education

<http://www.uvm.dk/Uddannelse/Erhvervsuddannelser/Styring%20og%20ansvar/Parter%20paa%20arbejdsmarkedet.aspx>

- Qualification: *Kvalifikation*

A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

Source: EQF, 2006

This definition applies in Denmark.

- Skills: *Færdigheder*

The ability to apply knowledge and use know-how to complete tasks and solve problems. In the European Qualifications Framework, skills are described as cognitive (use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).

Source: EQF, 2006

This definition applies in Denmark.

- Competences: *Kompetencer*

The proven ability to use knowledge, skills and personal, social and/ or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.

Source: EQF, 2006

This definition applies in Denmark.

2. POLICY DEVELOPMENT - OBJECTIVES, FRAMEWORKS, MECHANISMS, PRIORITIES

2.1 OBJECTIVES AND PRIORITIES OF THE NATIONAL POLICY DEVELOPMENT AREAS OF VET

2.1.1 NATIONAL LLL STRATEGY

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 "Progress, Innovation and Cohesion - Strategy for Denmark in the Global Economy" (2006). 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. This strategy encompasses the entire education system and is to be gradually implemented between 2007 and 2012.

The goal is to enable Denmark to meet the challenges of globalisation and technological development and, by strengthening participation in continuing VET, to improve the ability of enterprises and individuals to adapt to changes in the labour market, and to ensure that the individual possesses relevant skills and knowledge throughout his or her working life. To this end, the strategy places particular emphasis on the need for lifelong skills upgrading among those with the lowest levels of education, including a strengthening of basic skills courses (numeracy and literacy). There is agreement between the Government and the social partners that lifelong learning is the shared responsibility of employers, employees and public authorities.

The strategy pays considerable attention to the areas of transfer between pathways, guidance and counselling, and validation of prior learning. The Danish strategy for lifelong learning also stresses the importance of ensuring a high quality in the provision of education and training, and of improving labour market efficiency and inclusion. Increasing the interaction between educational institutions and other stakeholders is likewise seen as key to securing a VET system which reflects the needs of the labour market and the Danish society.

In the following, the specific objectives for lifelong learning are described for the different parts of the education system and for 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 (the most recent figures from 2008 are a 71.0% attainment rate among 20-24 year olds; source: Eurostat. See 1.4).

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. Likewise, 'new apprenticeship' has been introduced as an alternative pathway, especially suited to pupils with a predominantly practical orientation.

DKK 750 million (approximately EUR 100 million) was 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.

The proportion of a youth cohort completing a long-cycle higher education programme continues to grow while institutions providing medium-cycle education have been collected under the umbrella of a number of multi-disciplinary university colleges, considerably reducing the number of institutions with the aim of creating academically strong and modern study environments. Access to short-cycle higher education programmes from VET is also to be improved, and the programmes are to be made more flexible and targeted towards labour market needs. Preliminary courses are to be offered to students entering vocational academy education programmes with the aim of improving completion rates. 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 has one of the highest levels of participation in adult education and continuing training with high levels of both public and private investment in competence development and qualifications. Indeed, CVET forms an integral part of many individuals' working lives. In 2008, 30.2 percent of the Danish workforce between the ages of 25-64 had participated in some form of adult continuing training activity during the previous four weeks, the highest participation rate in Europe (see 1.4).

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 the following 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 (e.g. by establishing and implementing a National Qualifications Framework);
- the global dimension of education;

- improving responsiveness to labour market requirements, for example through partnerships in education and training, and lifelong skills upgrading; and
- establishing quality assurance frameworks.

For further information see: Denmark's Strategy for Lifelong Learning - Education and lifelong skills upgrading for all, Danish Ministry of Education, 2007.

2.1.2 POLICY DEVELOPMENT IN THE MAIN VET POLICY AREAS

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 (i.e. primarily concerning governance and funding);
- reform of commercial training programmes in 1996 introduced competence-based curricula and a higher degree of individualisation (i.e. primarily concerning curriculum reform and innovative approaches to teaching);
- 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 such as the education plan and logbook (i.e. primarily concerning curriculum reform and innovative approaches to teaching);
- 2003 amendments strengthened the individualisation of programmes, and focused on making general subjects more relevant to practice. It also introduced the principle of assessment of prior learning (*Realkompetencevurdering*) and the creation of a number of short VET programmes (as such, this reform involved curriculum reform, validation of non-formal and informal learning, and skills needs); and
- 2007 reform gathered all IVET programmes, i.e. commercial, technical, agricultural and social and health care education and training, under the same legislation. The reform introduced more structured basic programmes aimed at weaker students who have problems handling the highly individualised system; new basic programmes constituting 12 so-called access routes; increased possibilities for partial qualifications (called *trin* or steps); and the electronic education plan system, *Elevplan*, was made compulsory. The law came into force from August 2007; however many of the changes were not implemented before July 2008 (this most recent substantial set of reforms therefore primarily concerned curriculum reform with particular attention to weaker students).

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 Act on Adult Vocational Training Programmes 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 offer 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.

2.1.3 CURRENT DEBATES

As outlined elsewhere in this report, current debates concerning IVET focus greatly on the issue of completion rates. Despite, as outlined, a considerable number of policy initiatives aimed at tackling precisely this issue, completion rates at upper-secondary level, and within vocational education and training in particular, continue to be relatively low. This issue therefore continues to dominate. It does, however, also frame a number of debates concerning sub-issues. For example, young males with a non-Danish ethnic background are especially highly represented in attrition statistics and, in line with an overall political and media focus on integration issues, the question of how to ensure this group completes an educational and/or training programme providing access to the labour market is a hot topic. The success of a number of local mentoring schemes targeting precisely this group has, for example, received considerable attention.

Again related to the issue of dropout within IVET, the lack of a sufficient number of workplaces offering apprenticeship contracts remains an evergreen subject. Without a training agreement with an enterprise, IVET students are often unable to complete their course.

Increasing the prestige of IVET in order to attract stronger students has received some attention and small steps have been taken, e.g. by increasing the opportunities for IVET graduates to enter higher education. Many, however, feel that much more must be done to even begin to approach parity of esteem with upper secondary general education. Indeed, it has recently been in the news that more academically gifted students are frequently explicitly advised against IVET by teachers and guidance services who believe such a path to be a dead-end and a waste of the young person's abilities. Negative social heritage likewise remains a topic receiving periodic attention - generally in conjunction with the publishing of the results of a new study confirming a relative social inertia.

CVET is generally less widely debated. Much of the focus regarding adult education is non-vocational, dealing with issues such as literacy levels. The area of training schemes for the unemployed has recently been the subject of negative attention. These debates have

primarily concerned quality issues, but again primarily concern general skills as opposed to more specialised vocational training.

2.2 THE LATEST DEVELOPMENTS IN THE FIELD OF EUROPEAN TOOLS

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 the ongoing efforts to establish a Danish National 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 Cort: The Danish Approach to Quality in Vocational Education and Training, 2008).

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.

Policy initiatives within three main areas help facilitate transfer between VET pathways in Denmark: initiatives designed to allow greater flexibility and more individualised educational and training programmes; the development of a national qualifications framework; and a restructuring of the tertiary education sector involving the establishment of university colleges.

The first of these policy areas is linked to initiatives involving the validation of prior learning. Personal educational plans are compiled on the basis of assessments of student prior learning, including experience within the labour market. Reforms have introduced a modular curriculum offering well-defined units. This has led to greater flexibility, where students have better opportunities for combining elements from several VET programmes, as long as the overall programme is deemed relevant in relation to labour market needs. In 2007, a legal framework was implemented for the recognition of prior learning within CVET. This bestows all adults with the right to an assessment of prior learning, which can act as the basis for designing a personal educational plan or be detailed on a certificate officially recognising competences gained through informal or non-formal learning.

The second policy area concerns the development of a coherent national qualifications framework (NQF) with clear pathways from VET to higher education. An inter-departmental working group was set up by the Government to draw up an outline for a Danish NQF. The goal is to increase transparency and mobility within the educational sector. Implementation must be completed in 2010, but as yet only exists within higher education.

The final policy area concerns the development of new profession-oriented and practice-oriented education programmes within higher education, hereby increasing VET opportunities at this level and mobility within the educational sector. At the same time, institutions providing medium-cycle education have been collected under the umbrella of a number of multi-disciplinary university colleges, considerably reducing the number of institutions with the aim of creating academically strong and modern study environments. Access to short-cycle higher education programmes from VET is also to be improved, and the programmes are to be made more flexible and targeted towards labour market needs.

Preliminary courses are to be offered to students entering vocational academy education programmes with the aim of improving completion rates.

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 terms of geographical mobility, the Danish Agency for International Education is responsible for assessing all persons with foreign qualifications who want to enter the Danish labour market. This agency assesses qualifications at all levels. These 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; and
- public authorities' decisions on employment.

Within the regulated professions, authorisation or other formal approval is required for a person to be able to practise 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 practise is covered by the EU directives, and the co-ordinating function for the implementation of these directives is also handled by the Danish Agency for International Education. EU and EEA citizens are therefore to send their application for recognition of foreign qualifications directly to the agency, which will pass it on to the correct public authority. As the co-ordinating authority, the Danish Agency for International Education 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 the Danish Agency for International Education may function as a guideline for the institution and this implies that the application for admission should be treated on an equal footing with applications from applicants with Danish qualifications at the same level of education as that stated by the Danish Agency for International Education in its assessment.

The same applies to credit transfer for education and training purposes. 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 the Danish Agency for International Education.

Europass is introduced and promoted in Denmark via the Danish Agency for International Education. The Europass documents are available through the Agency's website (<http://www.iu.dk>) and it has since 2002 been promoted at seminars and meetings carried out by the agency. In 2007, the Agency drew up a report which evaluated the activities related to the introduction and promotion of Europass, and it showed that the main interest was oriented towards the Certificate Supplements whereas the interest in the other documents was modest (Rolls & Cort 2010).

In 2009, the Danish Agency for International Education set up a working group to analyse how the international dimension of the VET programmes could be strengthened

(Erhvervsuddannelser med internationalt perspektiv 2009). The background for setting up the working group was the new Law on VET in which it is stated that the programmes should provide students with “knowledge about international issues and knowledge as a basis for working and learning abroad”. The programmes are thus to “further the students’ international competencies in regard to employment and further education”. Internationalisation has thus become part of the legal framework for VET and the trade committees and the vocational colleges are required to set up targets for the students’ international competences. Despite the fact that internationalisation has been integrated within the Law on VET, the degree of internationalisation varies from vocational college to vocational college. At some colleges, the level of international activity is high, whereas at other colleges, it is virtually non-existent. It is thus a political priority to increase not only mobility among students and teachers in VET, but also to strengthen language teaching, the colleges’ international strategies and participation in international partnerships and networks, and not least include international perspectives in teaching (Erhvervsuddannelser med internationalt perspektiv 2009, p. 11).

3. VET IN TIMES OF CRISIS

3.1 OVERVIEW

An analysis of the Danish labour market published in August 2010 (Bjørsted 2010) looked at the effects of the economic crisis since its outbreak autumn 2010 in terms of jobs. All in all, there are now 175,000 less jobs. However, this figure includes an increase in public-sector jobs meaning that the figure for the private sector alone is even higher at 199,000 (approximately 10% of the total labour force). The effects of the economic crisis in terms of job loss have been particularly hard within the industrial and construction sectors. These two sectors account for half the total number of jobs lost (66,000 and 34,000 respectively) representing falls of more than 16.6% for industry and 17.7% for construction in employment rates. The retail, hotel and restaurant sector has experienced a 5.7% fall (33,000 jobs), while the transport, post and telecommunications sector has shrunk by 10.2% (19,000 jobs).

While a decrease in public consumption and in export of services has resulted in a tough period for the service sector in general, there are a few areas which have not suffered to the same degree - if at all. Financial and insurance services have not been hit hard in terms of job losses, while public and personal services have actually expanded.

That industry and construction have been the primary casualties of the economic crisis comes as little surprise. Production levels within industry have fallen considerably in line with the decrease in consumption levels and many companies have taken the opportunity to rationalise their workforce, in some cases switching production to lower cost countries abroad. For construction, the results of a housing market crash on the back of a number of years with a building boom have been especially drastic. While the government has introduced measures such as subsidising private building and renovation work through a pool in 2009, the effects have been difficult to gauge and there is little sign of an impending end to the stagnation within construction.

Overall, government policy has so far been strongly expansionist with very low interest rates, cuts in income tax levels, and relatively high levels of public spending (Danmarks Nationalbank 2010, p. 32). However this is to change in coming years as the government looks to reduce the budget deficit in line with EU-regulations.

As well as workers within the industrial and construction industries, young people in particular have been affected by the crisis. While unemployment rates among young people in Denmark remain below European averages (see 1.3), the figures have risen sharply as far less new jobs are available. Compared to the peak before the crisis, less than half as many jobs are advertised each month (Danmarks Nationalbank 2010, p. 29).

3.2 EFFECTS OF THE CRISIS ON VET AND CORRESPONDING MEASURES

3.2.1 TRENDS IN LEARNERS' BEHAVIOUR

It is still too early to fully gauge the effects of the economic crisis in terms of effects on learners' behaviour, bearing in mind that the crisis only really took hold in Denmark towards the end of 2008.

Nevertheless, it is possible to note certain emerging patterns. Primarily, there have been across the board increases in participation in education and training among young people. These increases can be ascribed to the poor immediate employment prospects resulting from the crisis as well as a number of government policies specifically aimed at encouraging young people to enter post-compulsory education at an earlier age.

Despite these overall increases, the proportion of those completing lower secondary education applying to enter IVET as opposed to general upper-secondary education continues to fall. This may reflect a tendency for those entering IVET to frequently have spent a number of years away from the educational system or to have begun (and in a growing number of cases, completed) a general upper-secondary programme before choosing this path. Nevertheless, the figures for 2010 show that 10.6% of pupils completing compulsory schooling apply to enter IVET, a considerable drop compared with 12.2% in 2009 and a peak of 13.1% in 2007. In fact, they are approaching the trough of 10.0% in 2000. Throughout this period, the number applying to general upper-secondary education has steadily increased from 25.7% in 2000 to 38.4% in 2010. The proportion choosing a voluntary tenth year of lower-secondary education has fallen, although this number has steadied around 48% since the onset of the crisis.

Among those selecting this tenth year of lower-secondary education, the pattern is the same, although here there has been a steady decrease in applications to IVET throughout the whole decade from 35.5% in 2000 to 27.1% in 2010 and a corresponding increase in terms of general upper-secondary education from 53.6% to 63.7%. Here, the trends would seem to have continued with no obvious effects of the crisis.

Due to the restructuring of the IVET sector in 2008, it is difficult to compare figures for the specific programmes before and after the onset of the crisis. The most obviously striking trends between 2008 and 2010 are a drop from 21.4% of all IVET applications to 15.8% for the construction and installation access route and an increase from 9.7% to 14.7% within health, care and pedagogics. This would seem to reflect rational choices by the students as the construction sector, as outlined above, has experienced a dramatic slowdown, while the health and care sectors continue to grow due to an aging population. The commercial access route (including retail and clerical sectors) remains the most popular among young people accounting for 21.6% of total applicants to IVET.

Source: Nielsen 2010

In terms of CVET, AMU or labour market training continues to increase unabated. The crisis would in fact seem to have increased investment in further education and training. The annual number of participants increased steadily but slowly between 2004 (593,000) and 2007 (632,000) before increasing to 755,000 in 2008 and again to 1,049,000 in 2009. The figures for the first half of 2010 suggest participation levels will again reach approximately one million this year. The increases are within all sectors. (Data Bank: Danish Ministry of Education, statistical dept.)

3.2.2 TRENDS IN ENTERPRISES' BEHAVIOUR

As seen above, the crisis does not appear to have had any significant negative impacts in terms of continuing training - if anything the opposite is true. One possible explanation is that enterprises can receive partial compensation for employees' salary when they participate in AMU. As such, enterprises may choose to send employees to a CVET course during a period of low production in order to reduce costs while avoiding redundancies.

The economic crisis would seem to have had a negative impact in terms of enterprises' willingness to offer apprenticeship contracts. An apprenticeship contract is necessary for

the student to move from the basic course to the more specialised main course within IVET, so a lack of suitable placements represents a considerable problem which can result in dropout. Between 2003 and 2007, the number of new apprenticeship contracts rose from 26,800 to 36,900. However this figure dropped by 3,000 in 2008 and even more dramatically as the crisis fully took hold in 2009 - with just 26,900 new contracts, i.e. more or less a return to 2003 levels. However, figures for the first half of 2010 show considerable improvements on the 2009 figures (an increase of 18% during the year's first eight months). It is possible that government initiatives aimed at increasing the number of available training placements have begun to have a positive impact. However, it must be noted that, in terms of the total number of ongoing apprenticeship contracts, there was actually a fall of 9% during the same period.

Parallel to the pattern of new apprenticeship contracts one finds the number of students still searching for a placement more than two months after completing the basic course. Here, the figure fell from 9,200 in 2003 to 3,200 in 2007, increasing slightly in 2008 and more substantially in 2009. As of August 2010, this figure has risen to 8,000, an increase of 51% in relation to the same point last year. As such, a lack of apprenticeship places remains a significant factor preventing the government's goal that 95% of a youth cohort completes upper-secondary education.

Sources: Data Bank: Danish Ministry of Education, statistical dept. and Quaade 2010.

3.2.3 MEASURES TAKEN AT GOVERNANCE LEVELS (NATIONAL, REGIONAL, LOCAL)

A combination of the government's existing policy priority that 95 % of a youth cohort complete some form of post-compulsory education and the sharp rise in youth unemployment levels brought about by the economic crisis is the primary driving force behind the launch of the so-called Youth Package and Youth Package 2 in autumn 2009 (*Ungepakke & Ungepakke 2*). These policy packages, which are part of the implementation of the globalisation funds released as part of the national globalisation strategy (see 2.1.1), collect a series of policy initiatives with the aim of ensuring young people either participate in some form of education or training, or gain employment. As such, the initiatives are divided between the Ministry of Education and the Ministry of Employment. The concrete initiatives are wide-ranging, for example including DKK 2 million (EUR 270,000) to help newly-qualified academics and DKK 20 million (EUR 2.7 million) to help young people into work after release from prison³. Among the initiatives directly involving the IVET sector is a strengthening of existing mentor schemes, increasing the flexibility of IVET, and an evaluation of IVET curricula to assess whether unnecessarily stringent demands are made on students in terms of theoretical knowledge, as well as investment in guidance services⁴.

A direct consequence of the current economic crisis is that a greater number of apprentices lose their training placement through no fault of their own, for example if the enterprise goes bankrupt. The agreement therefore introduces initiatives aimed at helping students affected in this way to continue their training with as little disruption as possible (Danish Ministry of Finance 2009, p. 131ff).

³http://www.bm.dk/Beskaeftigelsesomraadet/Flere%20i%20arbejde/Ungeindsats/Ungepakke%201.a.spx?sc_lang=da-DK

⁴<http://www.uvm.dk/Uddannelse/Vejledning/Om%20vejledning/Nyheder/Vejledning/Udd/Vejl/2009/Okt/091007%20Unge%20skal%20vaere%20i%20job%20-%20uddannelse%20eller%20anden%20udviklende%20aktivitet.aspx>

The Youth Packages also include a series of initiatives and substantial investment in tackling the problems with insufficient availability of apprenticeship placements. As mentioned (see 3.2.1 and 3.2.2), the economic crisis has resulted in a decrease in the number of training placements within enterprises at the same time as an increasing number of young people choose a VET pathway. The creation of more training placements has therefore been a focus area in responding to the effects of the economic crisis.

In May 2009, an agreement was reached regarding a Training Placement Package (*Praktikpladspakke 1*) and the award of funds from the Employers' Reimbursement System (AER) to enterprises establishing new apprenticeship contracts with VET students. In November 2009 a further agreement was reached resulting in a package of measures aimed at alleviating the shortage of training placements and responding to the adverse effects of the economic crisis on the training placement situation. In all, this agreement allocates a pool of DKK 1.35 billion (EUR 180 million) especially to create 5,000 new training placements in 2010. This is to be achieved via the introduction of several measures.

One of these measures focuses on the creation of additional workplace training placements within enterprises. The restructuring in May had not shown any signs of resulting in an increase in the number of apprenticeship agreements entered into by students and enterprises, whilst AER's accounts showed an accumulated surplus of funds. The decision was therefore made to triple the amount awarded to enterprises for entering an apprenticeship contract with a VET student to DKK 50,000 per student (EUR 6,700). This higher amount is to apply for all apprenticeship contracts begun during 2010 and it is estimated it can result in an additional 1,650 training placements being created within enterprises than otherwise expected.

In addition, the number of training placements within VET colleges was increased in 2009 by up to 1,500 within subjects where there is a particular shortage of placements available within enterprises. This number of additional places has been maintained for 2010, although the distribution is different, with the places spread across a wider range of VET subjects. In addition, the agreement gives municipalities and regions an obligation to create at least 1,650 new public-sector training placements in 2010 and urges central government to create 200 new placements.

Midway through 2010, 3,400 of the goal of 5,000 new training placements had been created. However, as seen above (3.2.2), there continues to be a growing number of young people who are unable to find a training placement. The government has therefore recently announced its intention to provide a further investment of DKK 2.4 billion (EUR 329 million) with the aim of creating an additional 8,900 placements in 2011. This includes further increasing the amount awarded to enterprises per new apprenticeship contract to DKK 70,000 (EUR 9,400) and continuing and expanding the scheme offering training placements within VET colleges. The investment is for the period until 2013 and is to be largely financed by AER⁵.

While these initiatives focus on young people and the IVET sector, there is also considerable focus on CVET and its role in recovering from the current economic crisis. CVET is seen as playing a vital role in ensuring that both enterprises and individuals are well-equipped to adjust to changes in labour market conditions, thereby in line with the renowned Danish flexicurity model.

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<http://www.uvm.dk/Uddannelse/Erhvervsuddannelser/Om%20erhvervsuddannelserne/Nyheder/Erhvervsuddannelser/Udd/Erhvervs/2010/Okt/101008%20Regeringen%20vil%20skaffe%20knap%209000%20ekstra%20praktikpladser.aspx>

With rising unemployment throughout the labour force and not only among young people, there is some concern that certain vulnerable groups risk long-term estrangement from the labour market. Offering targeted adult education and training programmes focusing on fields expected to offer good employment opportunities in coming years and the most vulnerable groups within the labour market is seen as a key part of the national strategy for economic recovery and simultaneously harmonious with the government's longer term globalisation strategy with its focus on lifelong learning and a knowledge-based economy.

All in all, the most recent agreement on adult and further education and training from November 2009 allocates DKK 46 million (EUR 6.2 million) per year for the period 2010-2012 to be used on special measures to strengthen this area. Initiatives include substantial improvements to adult guidance and counselling and the establishment of a diploma programme for CVET teachers (Danish Ministry of Finance 2009, p. 172ff).

3.3 LONGER TERM CONSEQUENCES AND FUTURE RESPONSES

It is difficult to predict with any degree of accuracy the future or long-term effects of the crisis. For example, unemployment seems to have stabilised during the last six months. This stabilisation has come earlier than widely predicted, however how this should be interpreted remains a matter of debate - it is pointed out, for example, that the Danish labour force shrank by 100,000 during this period, meaning that the stabilisation of unemployment figures may be somewhat of a false dawn. At the same time, the number of people ineligible for benefits, and therefore not included in the statistics, has increased (according to one survey, the group of self-supporting unemployed has increased by 30,000 since 2008); foreign workers who have since left the country and a considerable number of frontier workers resident in the neighbouring countries of Germany and Sweden who were previously employed in Denmark are likewise not visible in the unemployment statistics, although indicators suggest that both groups have gotten smaller since the crisis began; the influx of individuals who, upon becoming unemployed, have entered education or training programmes entitling them to student grants (SU) or state adult education grants (SVU) is also not visible from the statistics. (Danmarkas nationalbank 2010, p. 29)

All in all, it can be difficult to interpret even something as seemingly straightforward as unemployment statistics. As such, and despite some signs of a nascent recovery, it would be premature to speak even of the expected short-term developments: Especially when considering the fragility of any national recovery within the context of a complex global situation, where the Danish economy is extremely reliant upon the situation in leading trading partners.

When considering the sectors which have hit particularly hard by the crisis, construction can be expected to recover with economic growth, although there may be a degree of lag with both the public and private sectors likely to postpone commencing any large-scale construction projects until they are reasonably certain of a sustained period of growth. There are, however, indications that some of the jobs lost within the industrial sector may never return, as enterprises use the crisis as an opportunity to restructure and move production abroad. In these cases, there will be an increased need for reskilling, particularly of non- and low-skilled workers, if long-term structural employment is to be avoided. However, there is sooner talk of the crisis resulting in an acceleration of the erosion of non- and low-skilled jobs in Denmark than any sea change.

4. HISTORICAL BACKGROUND, LEGISLATIVE AND INSTITUTIONAL FRAMEWORK

4.1 HISTORICAL BACKGROUND

IVET

The earliest forms of organised apprenticeship training can be traced to the guilds of the Middle Ages. There were guilds for each of the various trades in every town which decided the form and content of apprentices' training and conducted journeyman's tests.

The first attempt to introduce more formalised and school-based teaching on a larger scale was in 1622, when King Christian IV founded a school for training in cloth production with German and Dutch master craftsmen as instructors. This was followed in 1690 by the apprenticeship school of the naval dockyard which trained carpenters. In 1800, Sunday schools were established for apprentices, the purpose of which was to improve their literacy and numeracy skills. Participation was however entirely voluntary.

It was not until the Freedom of Trade Act in 1857 that there were significant changes to the guild-based system of apprenticeship. This Act considerably weakened the power of the guilds, including their monopoly on apprenticeship training and the bestowal of the title of Master Craftsman. Indeed, this title no longer required that the individual was actually trained within his specific trade. Naturally, existing craftsmen felt threatened by these changes and formed local trade associations to protect their interests. These associations established and ran technical colleges in order to ensure a certain standard among those entering their trades. By 1870, approximately 50 of such colleges existed.

Soon after, national and local government decided to support this development by providing grants to technical and business colleges and in 1889 a national Apprenticeship Act was introduced re-establishing the contractual relationship between master and apprentice. Around the same time, the Association of Technical Schools was founded providing a common framework for curriculum development and production of common textbooks for apprentices.

Parallel with these developments, the comprehensive social change brought about the nascent industrialisation process in Denmark was resulting in radical changes within the labour market. Local trade associations developed into national federations and in 1898, the umbrella body, the Danish Federation of Trade Unions, was established. In the same year, a national employer association was founded: the Danish Employers' and Masters' Confederation. Both these bodies still exist today, forming key social partners, albeit under slightly different names: i.e. the Danish Confederation of Trade Unions (LO) and the Confederation of Danish Employers (DA).

In the 1920s, the first trade committees were established with the aim of ensuring the quality and working conditions of the college-based elements of training programmes. The Apprenticeship Act of 1937 provided these trade committees with legal jurisdiction and a number of key functions, as well as introducing compulsory instruction for all apprentices. The role of the trade committees was further strengthened by a new Act in 1956 - they were now to be consulted regarding the content of curricula.

In the 1960s and early 1970s, as an increasing number of young people chose an academic education instead of vocational training, demand for skilled labour began to outstrip supply. It was felt that the IVET sector was in need of a comprehensive reform, and in

1977, the Act on Basic Vocational Education (*Lov om Erhvervsfaglige Grunduddannelser*) was introduced. For the first time, VET students could begin their training with a whole year of teaching based at a vocational college where they were introduced not to one specific trade, but a group of related vocational programmes. It was the intention that this new system be gradually phased in over the following five years, so that by 1982, basic vocational education (EFG) would entirely replace the existing apprenticeship training programmes. However, problems arose brought about by the economic downturn brought about by the oil crisis. As is still the case, particularly in periods of recession or low growth, it is difficult to ensure work placements for all students so that they can complete their training.

As a direct consequence, the older system continued to exist parallel with EFG. The two systems differed in terms of access routes and in the roles of the trade committees. While this caused a number of problems, not until 1991 was a wide-reaching reform introduced. This reform unified the two systems, integrating IVET within the overall national education system as youth education programmes which confer vocational qualifications and can form the basis of further studies.

At the beginning of 2001, the so-called Reform 2000 was introduced. This reform introduced increased individualisation, flexibility, and modularisation of the basic courses within the programmes. One of the objectives was to make it possible for strong students to fast-track the basic course and improve access from VET to higher education. For weaker students, the idea was that they could spend more time within the basic course to acquire the necessary competences to continue within the main course.

Subsequent analyses have shown that the reform did not achieve its objectives, especially in regard to the weaker students within the system. The reform took individualisation and modularisation too far, dissolving the highly important student communities and the sense of belonging to a community

In part to combat these issues, and thereby reduce spiralling drop-out rates, a number of adjustments have since been made. Among the most significant is the introduction of New Apprenticeship (*Ny Mesterlære*) in 2006. This formed a new pathway to vocational training specifically targeting practically-oriented young people who struggle with the more 'academic' aspects of the school-based training programmes. The most recent notable reform in 2008 divided the study programmes into 12 main areas (also known as access routes) and created new plans of action and learning objectives.

Source: Eurybase 2010

CVET

Danish adult education has its roots in the concept of general liberal adult education (*Folkeoplysning*, literally enlightenment of the people). While the tradition for general adult education at evening classes covering a huge variety of subjects continues to exist, high unemployment levels during the inter-war period created a growing need for improving the qualifications of unskilled and low-skilled workers.

As seen within IVET, the social partners once again played a key part, establishing courses for this group. In 1950, the Ministry of Labour established five schools offering short-duration vocational training courses for the unemployed. A further ten years would pass before these activities were gathered under a common legislation with the introduction of the first Act on Adult Vocational Training (AMU), comprising vocational courses for both low-skilled workers and skilled workers.

As a result, the social partners received wide-reaching freedom as well as an economic fundament for providing specifically vocationally oriented training and education to both non-skilled and skilled workers. In the early years, AMU's major challenges were the continuing transformation of Denmark from an agricultural to an industrial society, and the widespread entry of women to the labour market. In both cases, there was a huge need for reskilling, ensuring that workers gained the skills and competences required.

The economic crisis beginning in the mid-1970s resulted in increasing unemployment, especially among unskilled workers, as many of the jobs previously available for this group dried up, never to return. Again, AMU had a vital role to play in providing new qualifications which could give access to the changing job market.

The massive technological development within workplaces over the last few decades has resulted in a continuous need for further training of employees, as workers need to adjust to and learn how to fully exploit the possibilities of new technologies in their everyday working lives. In more and more areas, education and training went from being the acquisition of basic knowledge, skills and competences providing access to the labour market to an ongoing process of personal and professional development.

As Denmark has entered what has been variously termed an information society, knowledge economy or even a learning economy, adult and continuing education and training have increasingly become seen as vital in ensuring Denmark's future economic welfare, resulting in the paradigm shift to a lifelong learning approach.

In 2001, a set of 10 acts concerning a reform of the adult education and continuing training area (the further education reform) was introduced. This reform package comprises a new system of adult education and continuing training, a new form of educational support for adults as well as new grant allocation schemes for institutions offering adult education and continuing training.

In the adult education and continuing training system, the programme courses are now structured in such a way that the level of qualification can be compared to levels in the mainstream education system. At the same time, new concepts and courses have been developed. The credit transfer system has been extended and the courses at all education and training levels must take their point of departure in the work experience of the adult participants.

Sources: Eurybase 2010 and Danish Ministry of Education

4.2 LEGISLATIVE FRAMEWORK FOR IVET

The most important law is the Vocational Education and Training Act (*Erhvervsuddannelsesloven*). The current Act, LOV no. 510 of 19/05/2010, revises the previous Act from 2007. This Act covers the entire IVET system, providing overall objectives as well as more specific frameworks concerning access, the form and content of programmes, the appointment of advisory committees, the role of enterprises offering apprenticeship placements, students' legal rights etc.

Another important law governs vocational colleges: the Act for Institutions for Vocational Education and Training, LBK no. 951 of 02/10/2009. This Act concerns frameworks for the authorisation of vocational colleges, their governing boards, state subsidies, budgetary and accounting practices, monitoring and notification duties, intra-institutional co-operation and consultancy etc.

The Statutory Order regarding Vocational Education and Training, BEK no. 901 of 09/07/2010, implements the two above Acts and translates the legislative frameworks into a more concrete set of rules.

Statutory orders also for each of the twelve access routes to IVET and for a number of more specific areas.

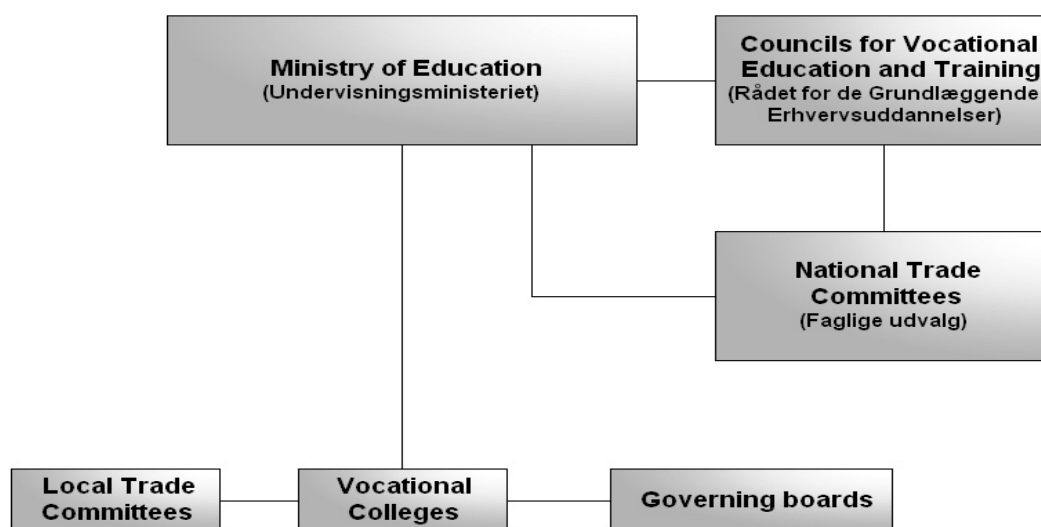
National guidelines apply to the 23 basic subjects, which can form part of an IVET programme, as well as concerning apprenticeship contracts.

In addition to these laws, statutory orders and guidelines, there are several more specific laws, e.g. concerning the awarding of a bonus to students upon completion of an IVET programme. There are also a number of general laws which apply to the educational system as a whole and which thereby also apply to IVET, such as those concerning guidance or occupational health.

Each of the 110 specialisations (following the basic courses/access routes) is governed by an agreement compiled and issued by the national trade committees, comprised of representatives of the social partners.

Source: <http://www.uvm.dk/Uddannelse/Erhvervsuddannelser/Love%20og%20regler.aspx>

4.3 INSTITUTIONAL FRAMEWORK FOR IVET AND ORGANIGRAM



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 legislative 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: Cort: The Danish Vocational Education and Training System, 2005).

The IVET system is centralised in terms of providing nationally recognised qualifications (decision-making level), and to some extent (pedagogically) decentralised as VET providers are autonomous in terms of adapting VET to local needs and demands (implementation level). 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 teachers, students and administrative staff representatives, and social partner representatives.

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

The national trade committees (*De faglige udvalg*) consisting of representatives from both sides of industry constitute the backbone of the IVET system. They perform a central role in relation to the creation and renewal of IVET courses and have a dominant position in the formulation of the curricula, based around the key competencies deemed as required within the labour market. 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 IVET course:

- objectives;
- duration;
- contents;
- final examination standards; and
- issuing final certification.

There are 50 trade committees who are responsible for the 110 main 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.

4.4 LEGISLATIVE FRAMEWORK FOR CVET

The primary law governing CVET is Labour Market Training Act, LBK no. 381 of 26/03/2010. This Act revises and replaces the earlier Act of 2008. It covers vocational adult and continuing training and education providing legislative frameworks concerning overall objectives, common competency descriptions, advisory committees, the adult and continuing education and training centres, labour market training programmes, authorisation as training providers, registration and notification of withdrawal, subsidies, quality assurance, complaint procedures etc.

As was the case with IVET, there also apply a number of both very issue-specific laws and broader educational laws which apply to CVET.

11 Further Education and Training Committees (*Efteruddannelsesudvalg*) consisting of representatives of the social partners are responsible for developing the form and content of programmes and courses within the frameworks set out by this legislation.

Source:

<http://www.uvm.dk/Uddannelse/Uddannelse%20og%20undervisning%20for%20voksne/Love%20og%20regler.aspx>

4.5 INSTITUTIONAL FRAMEWORK FOR CVET AND ORGANIGRAM

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 Adult and Further Education and Training responsible for advising the Minister of Education on all matters concerning adult education and training;
- 11 national trade-specific further education and training committees for CVET responsible for drawing up the joint competence descriptions; and
- local further education and training committees advising the colleges and the labour market training centres on local adaptation of CVET.

Until 2009, there were two advisory councils, one for general and one for vocational adult and continuing education and training. Their amalgamation is part of efforts to increase links between the two areas, thereby better enabling a holistic view of the individual's competence requirements (VEU-rådet 2010).

The colleges' and training centres' governing boards are responsible for appointing local further education and training committees. These must consist of an equal number of representatives from employee and employer organisations. The college or training centre determines whether to appoint one or several committees (e.g. separate committees for different fields). They can also decide to cooperate with local vocational colleges (IVET) and appoint local committees covering both IVET and CVET. This is part of a government strategy to encourage collaboration and synergy between IVET and CVET providers.

For an organigram, see 4.3 (the structures for IVET and CVET are the same).

5. INITIAL VOCATIONAL EDUCATION AND TRAINING

5.1 BACKGROUND TO THE IVET SYSTEM AND DIAGRAM OF THE EDUCATION AND TRAINING SYSTEM

In Denmark, basic schooling has for a number of years been compulsory from the age of 7 to 16, i.e. from 1st to 9th grade. However, from 2009 the hitherto optional (but attended by the vast majority) pre-school class became compulsory, meaning all children now enter schooling at the age of 6. After the 9th grade, 60% of a youth cohort continues to the 10th grade which is optional. Students may follow 9th and 10th grades at *folkeskole* (municipal primary and lower secondary school) or an *efterskole* (continuation school) which 11% do.

Within three months of completing 9th or 10th grade, 79% of all students in 2007-08 had commenced further education: either general upper secondary education (53%), or IVET (25%).

General upper secondary education usually lasts three years and gives access to studies at tertiary level. There are four different qualifications resulting from four corresponding courses⁶: upper secondary leaving qualification (stx); higher preparatory examination (hf)⁷; higher commercial examination (hcx); and higher technical examination (htx). The latter two are sometimes referred to as vocationally oriented upper secondary education and specifically target higher education at business schools and technical and engineering courses of higher education respectively. Despite this, all four programmes potentially (i.e. dependent on the student's choices of subjects and the grades achieved) provide access to all areas of higher education.

IVET 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 and academies.

All educational pathways are school-based except for IVET which is based on the dual training principle, i.e. school-based education and training alternating with training within an enterprise.

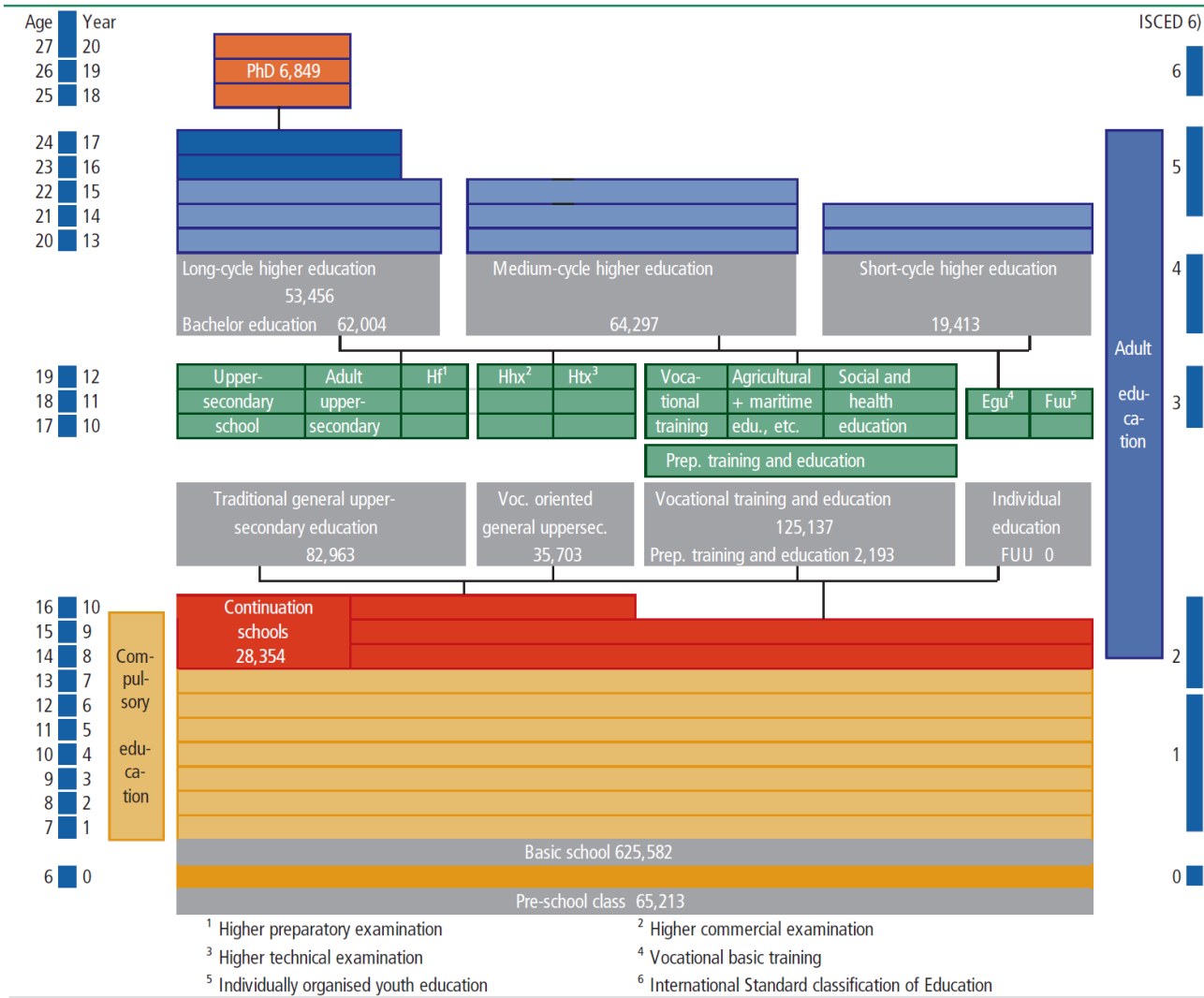
Higher education can be divided into short cycle programmes resulting in a diploma and offered at business and technical academies (*erhvervsakademi*); medium cycle programmes offering a professional bachelor's degree primarily offered by University Colleges; and long cycle, university-based programmes where the vast majority of students continue after completing a bachelor's degree to a master's degree programme. The latter can then provide access to doctoral programmes.

The following diagram illustrates the structure of the Danish educational system, as well as the number of students enrolled at the various levels:

⁶ Within these four courses, there are a number of opportunities to specialise to some extent within e.g. modern languages or natural sciences, but the final qualification remains the same.

⁷ The higher preparatory examination requires completion of the tenth grade of lower secondary education (or equivalent experiences e.g. within the labour market or IVET) and generally only lasts two years.

Figure 1 Number of students in the educational system. 1 October 2008



Source: Statistics Denmark: Statistical Yearbook 2010.

As outlined previously, IVET institutions are public, but have a considerable amount of autonomy within the overall legislative framework set out by the government. For further information and a description of the process of curriculum development see 4.2 and 4.3.

In terms of quality assurance, a variety of approaches are employed. Self-assessment remains the primary mechanism, but external monitoring is increasing. Output monitoring is a widely used tool. Monitoring is conducted at two levels:

- The system level. This looks at the effectiveness of the 110 different specialisation programmes in terms of employment frequency among graduates. The Ministry of Education then enters into a dialogue with the national trade committees regarding any programmes which fail to reach the targets in order to assess the relevance in terms of labour market needs and possible steps for improvement.
- The institutional level. At this level, monitoring can be divided into content monitoring and financial monitoring. The first concerns the degree to which the vocational college provides the programmes in accordance with the legislative framework. The second monitors the college's compliance with budgetary constraints.

Completion/drop-out rates and examination performance likewise enter into the quality appraisal of the vocational college. The social partners supplement the ministerial monitoring, appraising the quality of graduates, curricula, apprenticeships within enterprises etc.

Sources: Cort 2005 and

<http://www.uvm.dk/Uddannelse/Erhvervsuddannelser/Styring%20og%20ansvar/Tilsyn.aspx>

5.2 IVET AT LOWER SECONDARY LEVEL

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

5.3 IVET AT UPPER SECONDARY LEVEL (SCHOOL-BASED AND ALTERNANCE)

There are four areas of vocational education and training:

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

Since 2007, the social welfare and health training programmes, the agricultural programmes and the commercial and technical training programmes have been gathered under the same law in order to make the system more homogenous and transparent. The small field of maritime training programmes remains under the jurisdiction of the Danish Maritime Authority (*Søfartsstyrelsen*).

IVET consists of twelve basic courses which can provide access to 110 more specialised main courses. Admission to one of the twelve basic courses of IVET is offered to anyone who has completed compulsory schooling within the Folkeskole (or an equivalent) under the age of 25. Adults over 25 enrol in the parallel Basic Further Education and Training for Adults (GVU). There are no specific requirements in terms of grades etc. Entrance to the specialised main courses however requires that the student has not only completed the basic course, but also entered an apprenticeship contract. Alternative pathways which begin with a period of training within an enterprise require an apprenticeship contract prior to admission. There are also a small number (in 2010 and 2011, a total of 12) of the more popular specialisations where admission is limited. Limitations are determined according to the number of apprenticeship contracts entered into by students at the particular college the previous year and are the responsibility of the college.⁸

IVET is free of charge and also entitles the student to an apprentice salary and/or student grant (the latter only for students aged 18 or over).

⁸ Source: <http://www.uvm.dk/Uddannelse/Erhvervsuddannelser/Adgang%20og%20eksamen/Adgang.aspx>

IVET programmes give direct access to a huge variety of nationally recognised occupations within the labour market, from bakers to electricians to hairdressers to event coordinators, and are organised as dual training, alternating between school-based and work-based training. As IVET only exists in a dual apprenticeship system, please refer to section 5.4 for a more thorough description.

There are currently approximately 110 different programmes, offered by around 110 colleges, providing young people with professional, personal and general qualifications in demand on the labour market. All programmes include an area of specialisation (there are currently 308 'specialties') qualifying for entry to a specific area of the labour market. In addition to these specialised subjects, students are taught area subjects, i.e. broad professionally-oriented subjects, and basic subjects, i.e. more general subjects such as Mathematics or Danish. These basic subjects are also vocationally oriented, with content varying between the different programmes.

Students are assessed within all of these areas along the way through a variety of oral and written examinations, and both theoretical and practical project work. There are both subject-specific examinations (e.g. within English or Mathematics) and broader assessments considering the student's abilities to combine skills, competences and knowledge acquired from the programme as a whole. The basic course is completed through project work and an assessment with an external examiner. The final examination varies from programme to programme. In some cases it will comprise a combination of a college-based examination and a journeyman's test (*svendeprøve*), in others only the journeyman's test conducted by the trade committees. The first of these is, however, most common. In almost all cases, external examiners from the specific trade are involved in the assessment.⁹

Graduates are able to fulfil specific jobs in different trades but have only limited access to education programmes at higher level, although efforts have recently been made to improve the opportunities to enter diploma programmes within short cycle higher education (see 5.7).

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 (*produktionsskole*) or in a basic vocational training programme (*Erhvervsgrunduddannelse - EGU*). The latter is an individualised course aimed at enabling the young person to enter either the ordinary VET system or the labour market. See also section 5.5.

Overall, in 2007 there were 264,139 students enrolled in upper secondary education. Of these, 52.3% were enrolled in general education and 47.7% in vocationally oriented programmes (pre-vocational training does not exist as a category in Denmark)¹⁰. These figures do not differ substantially from EU averages, although the proportion within general upper secondary education is a little higher. The national trend is undoubtedly towards an increasing proportion of young people choosing general education. Most notable is a comparison to national figures for students leaving the Folkeskole in 2008. Three months after leaving school, 53% had entered general education while just 25% had entered IVET (Statistics Denmark 2010, p. 66). One reason is that IVET students are more likely to spend a period outside the educational system before continuing their education.

⁹ Source: <http://www.uvm.dk/Uddannelse/Erhvervsuddannelser/Adgang%20og%20eksamen/Eksamen.aspx>

¹⁰ Source: Eurostat

The transition from lower secondary to general upper secondary education is often seen as a more natural transition than that to IVET, as this involves a move away from the classroom and into the workplace. There are also a significant number of young people who enrol in general upper secondary education, but who later transfer to a vocational pathway. A typical duration of 3-4 years for an IVET programme compared with generally three years for general upper secondary education provides another natural explanation between the differences between these two sets of figures. However there is also a final and more worrying explanation: there are at any time likely to be a considerable number of students enrolled in IVET who are inactive, although they have not (as yet) officially dropped out. These students also exist within general education, but drop-out rates are considerably higher within IVET. For IVET, the figures will also include students unable to complete their training due to a lack of available apprenticeship placements. Statistics show that after three months, the chances of entering an apprenticeship contract after completing the basic course decrease massively. For those completing the basic course in 2007, 24% had a contract before completing the basic course, three months later 54% had a contract. However, after six months this figure had only increased to 56% and 58% after nine months. After a year, the figure remained at just 58% (Quaade 2009, p. 16).

5.4 APPRENTICESHIP TRAINING

CHARACTERISTIC FEATURES OF VET

VET programmes teach the necessary skills for a trade or profession, and are all organised as alternating courses, i.e. instruction and training are provided both at vocational colleges and in companies. The apprenticeships are based on a contract, or training agreement, 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. There are currently over 60,000 companies approved to offer apprenticeship training within at least one training field. Many of these can offer apprenticeships within several fields, meaning there are a total of over 140,000 approvals (Source: praktikpladsen.dk). Colleges and companies work closely together to make sure that training takes place according to the law.

An individual educational plan is compiled 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 indicate actual learning and skills acquired by the student.

There is free access to IVET for all students upon completing compulsory schooling. However, the number of students directly entering an IVET programme at 16 is falling, with a growing proportion either being admitted following a period in the labour market, or, as is becoming increasingly common, after completing a general upper secondary education.

THE BASIC AND THE MAIN PROGRAMMES IN VET

IVET consists of a broad introductory basic programme which gives access to one of the more specialised main programmes. Since 2008, the basic programmes have been gathered in twelve vocational clusters:

1. Motor vehicle, aircraft and other means of transportation	6 programmes
2. Building and construction	15 programmes
3. Construction and user service	3 programmes
4. Animals, plants and nature	9 programmes
5. Body and style	3 programmes
6. Human food	11 programmes
7. Media production	7 programmes
8. Business	8 programmes
9. Production and development	30 programmes
10. Electricity, management and IT	7 programmes
11. Health, care and pedagogy	4 programmes
12. Transport and logistics	7 programmes

Source: Vocational Education and Training (VET), Danish Ministry of Education, 2008.

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 lasts 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 (110 programmes) starts with an on-the-job training placement. Alternating between school-based and work-based training, the programmes typically take 3 - 3.5 years. Before being admitted to the main programme, the student must have an apprenticeship contract with an approved training company (or with the college, if no training company is available).

NEW APPRENTICESHIP

As well as entering a VET programme through the basic programme, since 2006 it has been possible for trainees to start directly in a company with which they have an apprenticeship contract. This pathway is known as New Apprenticeship (*Ny Mesterlære*). New apprenticeship was introduced as an alternative pathway into IVET and is part of the Government's strategy for reducing dropout within IVET. Pupils undertaking an IVET programme via the new apprenticeship pathway will typically spend the first year of their education receiving practical training within an enterprise. The initiative is aimed in particular at pupils who may struggle or lack the motivation to complete the more theoretical school-based education without first gaining a practical insight into the field.

However, pupils will still have to follow some school-based teaching as agreed in their personal education plans.

New apprenticeship has been introduced within all areas of IVET, although a few trade committees have chosen to opt out (e.g. electricians and plumbers). The school and the enterprise, along with the pupil, are responsible for planning and organising the form and content of the practical training and developing the pupil's personal education plan based on a description of the competences to be gained from the VET programme in question and an assessment of the pupil's actual competence. As such, the flexibility of the various pathways within IVET can be regarded as reflective of an overall policy trend throughout the educational sector toward more differentiated and individualised teaching methods and of the greater attention paid to actual competence and non-formal and informal learning.

The majority of students still choose to start their education with a basic course at a vocational college. In 2008, the number of new 'regular' apprenticeship contracts was 26,228 while the number of new 'new apprenticeship' contracts was 2,122. Those entering new apprenticeship contracts were generally younger. There were also considerable differences between programmes. New apprenticeship was most popular in the areas motor vehicle, aircraft and other means of transportation; body and style (training as a hairdresser accounted for the single largest number of new apprenticeship contracts within any field); and human food. It was far less popular within building and construction; business; and, in particular, electricity, management and IT where new apprenticeship contracts were more or less non-existent.

FACTS AND FIGURES ON VET

TABLE 1: STUDENT POPULATION WITHIN IVET BY PROGRAMME:			
	2002	2005	2008
TOTAL	115 786	121 806	124 069
BASIC PROGRAMMES	40 535	45 964	44 060
<i>COMMERCIAL</i>	14 152	16 248	16 390
<i>TECHNICAL, TRADE AND TRANSPORT</i>	16 825	18 484	18 280
<i>HEALTH AND PEDAGOGY</i>	1 235	1 550	2 344
<i>BODY, NATURE AND SERVICE</i>	8 323	9 682	7 046
MAIN PROGRAMMES	75 251	75 842	80 009
<i>COMMERCIAL</i>	17 661	16 394	18 328
<i>TECHNICAL, TRADE AND TRANSPORT</i>	33 017	32 241	36 472
<i>HEALTH AND PEDAGOGY</i>	13 370	15 953	13 136
<i>BODY, NATURE AND SERVICE</i>	9 733	9 806	10 551
<i>OTHER</i>	1 470	1 448	1 522

Source: Data Bank: Danish Ministry of Education, statistical dept.

TABLE 2: STUDENT POPULATION IN IVET BY GENDER, AGE AND ETHNICITY			
	2002	2005	2008
MEN (%)	54.7	54.8	56.6
WOMEN (%)	45.3	45.2	43.4
AVERAGE AGE (YEARS)	23.4	23.4	23.3
OTHER ETHNICITY THAN DANISH (%)	8.4	9.8	10.3

Source: Data Bank: Danish Ministry of Education, statistical dept.

Overall, there are slightly more male than female apprentices; however the distribution is very uneven among the various strands of IVET. In commercial training and in social and health care training, there is a predominance of female apprentices (2008: 90% in the latter) whereas the opposite applies to technical programmes and in building and construction (2008: 91% in the latter).

The average age of students on the basic programme was 20.3 in 2008. For the main programmes, the average age was 24.9.

Completion rates have fallen from 59% in 2000 to 48% in 2008. Drop-out would seem to be highest from the basic programmes. Figures for students with another ethnic background than Danish are even lower at just 38% (2008). However, these figures have remained relatively stable during the period while completion rates among Danish students continue to fall steadily.

Source: Data Bank: Danish Ministry of Education, statistical dept.

CERTIFICATION AND QUALIFICATION

VET programmes conclude with a practical and theoretical examination, the 'journeyman's test' (*Svendeprøve*). The relevant trade committee acts alongside representatives from companies as external examiners, is involved in developing the tests, and issues a certificate on successful completion of the programme.

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.

5.5 OTHER YOUTH PROGRAMMES AND ALTERNATIVE PATHWAYS

There are two youth programmes providing access to specific trades with legislation separate from the overall IVET legislation and where access is not via the common IVET access route of the 12 basic courses. These are training as a train driver (10 months) and training as a chiropodist (18 months). Both are organised according to the principles of alternance training.

There are also three separate broader vocationally-oriented youth programmes: 1) basic vocational training; 2) training at a school of production; and 3) youth education for young people with special needs.

1) Basic vocational training (*erhvervsgrunduddannelse*, EGU) is aimed at unemployed young people aged under 30 unable to complete another form of education or training which might equip them to enter the labour market. 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 is primarily practical with little theoretical content and combines school-based (1/3) and workplace-based 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 these elements cannot constitute a given IVET programme in its entirety. 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 periods of workplace 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.

In 2008, there were 952 new enrolments within EGU, a substantial increase on the figure for 2007 (789). This increase is the result of an ongoing campaign to raise public awareness of EGU. The projected completion rate is 41%. Of the new students in 2008, 64% were men. The proportion of male EGU students is rising rapidly - as recently as 2006 only 49% of new enrolments were men. (Pedersen 2009a)

2) Schools of production (*produktionsskoler*) 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 majority come either from compulsory schooling or have completed a basic course within IVET without completing a main course. 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.

In 2008, 9,520 students completed a course of training at a production school - an increase from 2007, but less than in 2006. Of these, 42% participated in courses of less than three months in duration. In terms of gender, the split has been relatively stable for a number of years with approximately 60% male, 40% female. Students are getting younger with 90% under 21 years of age. Upon completing a course within a production school, almost one third continues within the educational and training system (generally IVET), while 20% gain employment (Pedersen 2009b).

3) Youth education for young people with special needs is intended for young people with mental handicaps or other special needs 16-25 years of age who are unable to complete another upper secondary programme, even with the provision of special needs assistance. The Act on Young People with Special Needs (2007) stipulates that young people with special needs have a legal right to a three-year youth education programme upon completion of compulsory schooling.

The objective is that the students acquire personal, social and academic competences enabling them to have as independent and active an adult life as is possible, and perhaps access to further education and training and/or employment. In preparing the student for adult life, the programme seeks not only to continue the academic development begun within compulsory schooling, but to ensure the student encounters everyday practical situations and develops socially.

As a new programme, youth education for young people with special needs is in a phase of rapid growth with 530 students in 2007 and 1,965 in 2009. This is, of course, because the programme started in 2007 and lasts three years. As such, the number is likely to stabilise next year as the first uptake completes the programme. A total of 2,216 students have begun the programme since its inception with 5% dropping out, 5% having so far completed the programme and the remainder still underway (Pedersen & Andersen 2009) .

5.6 VOCATIONAL EDUCATION AND TRAINING AT POST-SECONDARY (NON TERTIARY) LEVEL

There is no VET at this level in Denmark.

5.7 VOCATIONAL EDUCATION AND TRAINING AT TERTIARY LEVEL

A number of short-cycle higher education programmes (*kort videregående uddannelse* - KVVU) lasting 2 to 2½ years are offered by the new business and technical academies (*erhvervsakademi*) resulting in the award of an academy profession diploma. Medium-cycle professional bachelor programmes lasting 3-4 years are generally offered by University Colleges and award professional bachelor's degrees. Admission requirements in both cases are either relevant VET or general upper secondary education. There can be more specific requirements regarding certain attainment levels within particular general subjects for some programmes (i.e. applicants with an IVET background may have to supplement with additional general educational qualifications). KVVU can provide access to a shorter (approx. 1½ years) professional bachelor programme within the same field, while a professional bachelor degree can provide access to certain university-based master's programmes.

KVVU and professional bachelor programmes qualify students for performing practical tasks on an analytical basis. Apart from theoretical subjects, programmes are usually completed with a project examination and always contain some degree of workplace training. Examples of KVVU programmes (24 in total) include: dental hygienist, installation electrician, multimedia designer, laboratory technician, and e-designer. The 45 professional bachelor programmes include schoolteacher, social educator, midwife, radiographer, nurse, leisure management, engineer, software development, journalism, social worker.

In 2008, there were 18,950 students enrolled in KVVU and 62,460 students within the professional bachelor programmes (Source: Statistics Denmark, Databank). Eurostat figures show that the great majority of students enrolled in higher education at ISCED level 5 in Denmark are classified within the more general ISCED level 5A (87.1%) as the professional bachelor degrees, despite their orientation towards a particular vocation, are classified within this group. The figures are, however, consistent with EU averages.

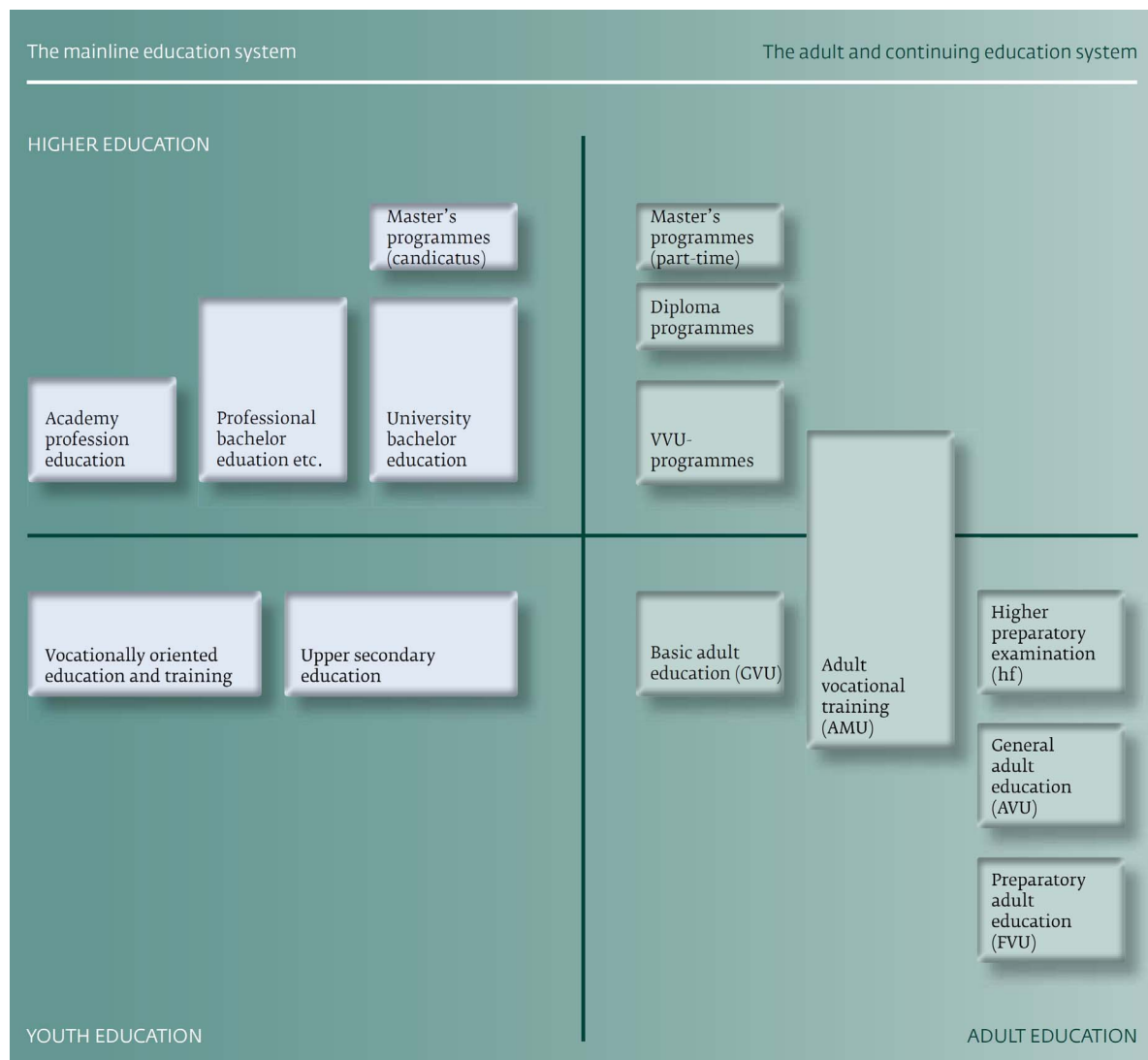
Programmes are state-financed and part of the higher education system which means they are under the jurisdiction of the Ministry of Education. In both cases, programmes are organised in accordance with the standards for ECTS. The social partners are represented in a national council which ensures coherence between the programmes and labour market skills demands.

6. CONTINUING VOCATIONAL EDUCATION AND TRAINING FOR ADULTS

6.1 FORMAL EDUCATION AND

6.2 NON-FORMAL EDUCATION

In Denmark, the public sector plays a major role in the provision of continuing vocational education and training as well as general adult education. The following figure provides an overview of the two parallel public education systems in Denmark:



Source: *Facts and Figures 2009, the Danish Ministry of Education 2010, p. 9*

In addition, in the last 10-20 years, private provision of continuing and adult education and training has grown. This includes courses provided by consultancy firms, the social partners, private course providers, and internal HRM departments.

The main type of CVET in Denmark is, however, the adult vocational training (AMU) 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 of a flexible labour market. Employees are given the opportunity to increase their skills and competencies regularly by following an AMU 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 growing manufacturing sector. In the 1970s and 1980s, the unemployment rate was high and AMU 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 (*Arbejdsmarkedsuddannelsescentre - 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.

AMU 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, Danish Ministry of Education, 2008.

At the core of AMU programmes lay 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; and
- quality assurance at all levels of the AMU system.

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

Participation levels rise slightly in correspondence with educational attainment and are highest among those with a higher education (ISCED 5-6) who are designated inactive within the labour market. This may well be in the form of labour market retraining or updating of practical skills. The Danish figures generally correspond with EU averages except in terms of those with an educational background at levels ISCED 0-2 where Danish participation rates are considerably higher.

Lifelong learning is a policy area given high priority in Denmark. The objective is to transform the entire formal education system to include non-formal learning at the workplaces, and informal learning in other settings to create a more flexible and individualised system in which the individual can have his/her “actual” competences recognised regardless of where they have been acquired. Within the framework of the Danish lifelong learning strategy, CVET plays a central role in contributing to a flexible labour market. The CVET sector has recently undergone reform as a consequence of a new framework for lifelong learning opportunities set up in 2006. This reform placed greater responsibility in the hands of the social partners for organising and prioritising CVET and created stronger coherence within adult education and continuing training.

The reform is part of the overall strategy for lifelong learning in Denmark established in 2006 (Denmark’s strategy for lifelong learning - Education and lifelong skills upgrading for all, 2007). This strategy encompasses the entire education system and is to be gradually implemented between 2007 and 2012. The Government has allocated a DKK 15 billion globalisation pool for this purpose. The goal is to enable Denmark to meet the challenges of globalisation and technological development and, by strengthening participation in continuing VET, to improve the ability of enterprises and individuals to adapt to changes in the labour market, and to ensure that the individual possesses relevant skills and knowledge throughout his or her working life. To this end, the strategy places particular emphasis on the need for lifelong skills upgrading among those with the lowest levels of education, including a strengthening of basic skills courses (numeracy and literacy). There is agreement between the Government and the social partners that lifelong learning is the shared responsibility of employers, employees and public authorities.

The strategy pays considerable attention to the areas of transfer between pathways, guidance and counselling, and validation of prior learning. The Danish strategy for lifelong learning also stresses the importance of ensuring a high quality in the provision of education and training, and of improving labour market efficiency and inclusion. Increasing the interaction between educational institutions and other stakeholders is likewise seen as key to securing a CVET system which reflects the needs of the labour market and the Danish society.

It should be noted that Denmark has one of the highest levels of participation in adult education and continuing training regardless of educational attainment levels. In 2005, at ISCED 0-2, Danish participation is 30.9% compared with a 6.5% EU average; at ISCED 3-4, the respective figures are 43.9% and 16.4%; and for ISCED 5-6, 61.4% and 30.9% respectively (Eurostat). Levels of both public and private investment in competence development and qualifications are high.

PUBLICLY PROMOTED CVET FOR ALL

The Ministry of Education is in overall charge of AMU 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 AMU programmes. The AMU programmes are financed wholly or partly by the State, with a modest user payment as supplement.

There are more than 2 500 AMU 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.

For details of the institutional and legislative framework for CVET, see 4.4 and 4.5.

AMU 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.

In 2007, a legal framework was implemented for the recognition of prior learning within CVET. This bestows all adults with the right to an assessment of non-formal and informal learning, which can act as the basis for designing a personal educational plan or be detailed on a certificate officially recognising competences gained through informal or non-formal learning. The individual competence assessment procedure ensures that the needs for further education are determined on an individual basis. The plans have to take the following core elements into consideration:

- labour market policy needs as the basis for the AMU 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; and
- quality assurance.

The AMU 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 2009, there were a total of more than 1 million participants in AMU courses, an increase of more than 250,000 compared with 2008. In terms of student full-time equivalents, the figure for 2009 grew to 15,418. The majority of participants in the programmes either have VET as their highest level of education (49%) or compulsory schooling (27%)

Source: Data Bank: Danish Ministry of Education, statistical dept.

CVET AT THE INITIATIVE OF ENTERPRISES OR SOCIAL PARTNERS

Private companies have increased their expenditure on education and training for their employees. For 2007 expenditure is estimated to have risen by DKK 0.5 billion (EUR 67 million) to DKK 6.8 billion (EUR 913 million). Expenditure by public sector employers on education and training in 2007 was DKK 2.6 billion (EUR 350 million) representing a slight fall in relation to 2006. E-learning is an area of expansion and a form of education and

training employed by a rapidly growing proportion of enterprises, especially larger ones. The vast majority of employers have offered employees some form of training or further education, although the figures are somewhat lower for smaller enterprises. (Source: Institute for Business Cycle Analysis (IFKA): Det danske kursusmarked 2008 (*The Danish Course Market 2008*) 2008).

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 CVET 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.

The overall figures for participation in courses provided by private organisers show a fall of over 40,000 in 2008 to 238,232. By far the largest group is accounted for by private course organisers (104,000). However the social partners are also strongly represented with courses held by employee organisations having 56,300 participants and by employer organisations having 34,000. 20,100 participated in courses held by non-profit organisations, associations and societies, 20,000 in those held by associations of graduates, and a small group of 3,900 participated in courses from adult education associations. It is worth noting that the significant drops in participation were in courses held by private organisers and those by non-profit organisations, associations and societies. Participation rates for the other providers were more or less stable compared with 2007.

In terms of content, the most popular areas were politics, cooperation etc.; other courses including special training; law, economics, insurance and financing; computers; and management and human resource development.

Source: Statistical yearbook 2010

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 an 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. While previous training (for example within AMU) and work experience is accredited in accordance with an assessment of prior learning, this programme does not require any previous experience;
- 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 subsidised by the State, however a fee is charged for participation. Furthermore, there exists a vast market of courses ranging from liberal education courses subsidised by the State to private courses in all kinds of subjects or (alternative) professions which have to be fully paid by the individual.

6.3 MEASURES TO HELP JOB-SEEKERS AND PEOPLE VULNERABLE TO EXCLUSION FROM THE LABOUR MARKET

There are a number of training provisions targeting unemployed people and people at risk of exclusion, such as those with a criminal background or with a history of substance abuse, refugees and the disabled. Previously, two actors were central: the public employment service (*Arbejdsformidling - AF*) and local municipalities where the latter were responsible for persons who had not contributed to unemployment insurance. However, since 2007, these efforts have been collected in 91 job centres under municipal jurisdiction. 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. The objective is to improve the skills and competences, improving individuals' opportunities within the mainstream educational and training system and on the job market. Duration and certification differ greatly dependent upon the individualised educational plan;
- specialised AMU courses requested by the municipalities. These help ensure that training offers correspond with local skills needs and are organised according to the same principles as the remaining AMU system;
- 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 programmes (GVU, see 6.2) 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; and
- wage subsidies - individuals who have been unemployed for more than 12 months (6 months for individuals under 30) can be employed with a public wage subsidy. Those employed within the public sector receive DKK 122/hour (EUR 16), while private enterprises can receive a subsidy of DKK 63/hour (EUR 8.5) for up to a year when employing individuals meeting the criteria (2008 figures). Employment with wage subsidy can be combined with participation in training programmes. The objective is firstly that the workplace may decide to retain the employee on normal conditions after the completion of the subsidised period, and secondly that the individual gains work experience and relevant labour market competences. It is generally the task of the individual to find such a position, although caseworkers will sometimes be able to provide assistance.

The precise requirements for entering the various activation schemes, as well as their form and content, vary considerably, as they fall under municipal jurisdiction and are thereby subject to local conditions and priorities. They are also greatly dependent on the economic situation with the demands made on the unemployed are generally greater during periods of economic growth.

7. TRAINING VET TEACHERS AND TRAINERS

7.1 TYPES OF TEACHER AND TRAINER OCCUPATIONS IN VET

7.1.1 TEACHING AND TRAINING OCCUPATIONS IN VET

TEACHERS

Two distinct teacher profiles can be identified within VET:

- general subject teacher: usually university graduates or graduates from general teacher college; and
- vocational subject teacher: usually have a VET background and substantial experience in the field (normally at least five years of professional experience is required).

IN-COMPANY TRAINERS

In-company trainers play an important role in VET given the dual training principle characteristic of all Danish VET. 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.

7.1.2 RESPONSIBLE BODIES

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 National Centre for Vocational Pedagogy (*Nationalt Center for Erhvervspædagogik* - NCE) in the form of a two year diploma programme in vocational pedagogy (*Diplomuddannelsen i Erhvervspædagogik*). This programme was launched in 2010 and replaces the previous teacher training course (*Pædagogikum*). See 7.1.3

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 is 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.

7.1.3 RECENT REFORMS TO VET TEACHER/TRAINER TRAINING

The Diploma programme in vocational pedagogy (*Diplomuddannelsen i Erhvervspædagogik*) was introduced for all teachers employed within IVET and AMU after 15th January 2010. The objective is to improve teaching skills to a level equivalent to teachers within compulsory education. The broader objective is related to the government's goal of a 95% completion rate resulting in a number of new challenges facing VET teachers due to an increasingly heterogeneous student body. The new programme is the equivalent of one year of full-time study (60 ECTS). It is, however, generally conducted as a part-time study in order to root training in practical teaching experience.

New teachers must enrol in the programme within one year of gaining employment at a VET college or AMU centre. The programme must be completed within a period of six years.

The programme was developed by the National Centre for Vocational Pedagogy with the cooperation of an advisory group comprised of representatives of teacher associations and college management organisations as well as the Ministry of Education. There are three compulsory modules and two optional modules as well as a final exam project.

Source: http://www.uvm.dk/-/media/Files/Udd/Erhvervs/PDF10/100421_brev_om_pd.ashx

7.2 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. 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 diploma programme in vocational pedagogy (see 7.1.3).

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.

In terms of in-service training, there exists no general legislation. The individual teacher is obliged to keep his/her academic and pedagogical knowledge up to date. The college is required to draw up a plan for the competence development of the teachers' group at the college. On this basis, and in cooperation with the teacher, the college determines the individual's professional in-service training plan. Courses are offered locally by a large

number of providers according to market conditions. A certificate is normally awarded to participants, but no recognised qualification is generally awarded (Eurydice 2010).

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.

Just as there are no requirements made of in-company trainers in terms of teaching qualifications, there are also no requirements or control mechanisms in terms of in-service training. Quality assurance, beyond that undertaken voluntarily by the enterprise, is restricted to informal contact between the VET College and enterprise, and official complaints from students.

7.3 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 practical experience. For both profiles, they must acquire the diploma qualification within their first years of employment (see 7.1.3).

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.

8. MATCHING VET PROVISION WITH LABOUR MARKET NEEDS

8.1 SYSTEMS AND MECHANISMS FOR THE ANTICIPATION OF SKILL NEEDS (IN SECTORS, OCCUPATIONS, EDUCATION LEVEL)

The Danish VET system has a longstanding tradition for strong links to and cooperation with the social partners and the labour market. In IVET, the dual training principle means that strong links are established between enterprises and VET providers, encouraging the integration of learning with working. A dynamic and close cooperation between the various stakeholders is considered a vital prerequisite if the dual system of training is to function effectively and to continue to develop in accordance with changes in labour market needs. Similarly, cooperation is necessary to ensure the availability of the required number of enterprise-based apprenticeship contracts, an area which continues to be problematic. Within CVET, the flexible provision of short competence-based courses adaptable to the specific needs of the enterprises indicates a demand-led system. The social partners have a considerable influence in the running of VET institutions, both through locally anchored training committees involved in developing local education plans, through trade committees which set the objectives and framework for VET within their particular sector, and through national councils which act in an advisory role to the Danish Ministry of Education in matters pertaining to VET. As such, there is a continuous ongoing dialogue between the various stakeholders with regard to ensuring VET responsiveness to labour market needs and attempting to anticipate skill needs and integrate them within VET provision. The decentralised nature of the Danish VET system allows providers a relatively high degree of autonomy enabling a rapid response to labour market changes and changes in skill needs.

Trade committees and the national Councils for Initial Vocational Education and Training (*Rådet for Erhvervsfaglige Uddannelser* - REU) and for Adult Vocational Education and Training (*Rådet for Erhvervsfaglige Voksen og Efteruddannelse* - REVE) are responsible for updating VET programmes and ensuring that they integrate the skill and competence needs of the labour market at the national level. At the regional/local level, vocational colleges, social partners and local business and industry are able to influence VET programmes so that they are adapted to the specific skills needs of local business, industry and regional development plans through the local training committees. Their main function is to provide assistance to the colleges regarding the planning of VET programme content, as well as strengthening contacts between colleges and the local labour market. Each college is attached to at least one local training committee to assist with its VET provision.

The Danish system is geared to continuously updating VET programmes so that they are in line with the needs of the labour market. However, it should be emphasised that the actual functioning of the system varies from trade committee to trade committee and from one region to another. A number of analyses have indicated that some committees only legitimise VET programmes rather than contributing to skills innovation and renewal.

Returning to the national level, a new VET programme is set up after a need has been identified by one of the trade committees. They draw up a proposal containing a number of recommendations and information regarding projected job and apprenticeship opportunities, estimated intake, and analyses and forecasts regarding the skill and competence needs within the field. This proposal is sent to the Ministry of Education which, based on the advice of REU, has the final decision as to whether or not to establish the suggested VET programme. Should the Ministry of Education decide to approve the proposal, the trade committee is responsible for outlining the objectives and scope of the

programme after which the Ministry determines the financial aspects and other details before issuing a regulation describing the aim of the programme, its content, assessment, examinations, etc.

The Ministry of Education annually compiles reports on developments within all vocational fields and the need for changes in the supply of VET programmes on the basis of responses submitted by the national trade committees. These reports are produced for each of the twelve basic access routes to IVET. Reports from the last three years (in Danish) can be found on:

http://www.fagligeudvalg.dk/index.php?option=com_content&view=category&layout=blog&id=70&Itemid=91

8.2 PRACTICES TO MATCH VET PROVISION (SKILLS) WITH SKILL NEEDS (JOBS)

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 curricula so that VET programmes and qualifications 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 his/her own learning and education, and achievements are assessed regularly.

In its latest report on modernising VET, the Ministry of Education put forward 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 supplementary analyses and prognoses. Since 2008, the Ministry has gathered these activities within the 'central analysis and prognosis unit' (*central analyse- og prognosevirksomhed*) with the specific goal of matching VET provision with labour market needs. Reports are published (in Danish) on

<http://www.uvm.dk/Uddannelse/Erhvervsuddannelser/Om%20erhvervsuddannelserne/Fokusomraader/Rapporter%20fra%20Analyse-%20og%20prognosevirksomheden.aspx>

Within CVET, the 13 newly established Adult and Continuing Education and Training Centres [*Voksen- og Efteruddannelses Centre* or 'VEU centres'] have the identification and integration of skill needs as one of their five primary functions.

9. GUIDANCE AND COUNSELLING FOR LEARNING, CAREER AND EMPLOYMENT

9.1 STRATEGY AND PROVISION

The Danish educational and vocational guidance system was the subject of a major reform in 2004, including the establishment of new guidance centres. The Government has described the goals with this reform as follows: “It is the government’s objective that guidance at all levels of the education system should provide the young person with a qualified basis for choosing an education that is in agreement with his/her own wishes and abilities and with society’s need for a qualified workforce. The guidance is to contribute to strengthening bridge-building between the educational levels” (“Denmark’s Contribution to the 2008 Joint Council/Commission Report on the Implementation of the Work Programme “Education and Training 2010””, 2007).

In addition, a new guidance framework for adults and enterprises was implemented in 2007-2008 with the stated objective of helping to strengthen and qualify demand for further education and training amongst both employees and enterprises. In order to achieve these goals, the reforms have been developed and implemented whilst maintaining a close dialogue with the various stakeholders.

The guidance system in Denmark, following these reforms, consists of 45 municipal youth guidance centres focused on the transition from compulsory schooling to youth education or the labour market; seven regional guidance centres responsible for the provision of guidance concerning the transition from youth education programmes to higher education; and the concentration of adult vocational/career guidance services within 91 job centres. In addition, 22 local adult guidance networks have been established as part of the Government’s strategy for creating a coherent crosscutting guidance system able to respond to the needs of society and the labour market.

Additionally, the Ministry of Education has established a virtual online guidance portal for young people¹¹, and a national forum for dialogue for guidance is available for relevant authorities, institutions and organisations.

9.2 TARGET GROUPS AND MODES OF DELIVERY

In 2004, a new Act on Educational and Vocational Guidance was implemented. The Act is primarily targeted at 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:

- 45 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

¹¹ <http://www.ug.dk/>

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 drop-out 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 kinds 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: Kjær & Thorsen, 2004).

In a 2007 amendment to the Act, concentration of guidance efforts on those deemed unlikely to commence or complete a youth education programme has been pinpointed as a focus area for the Danish guidance strategy in order to prevent dropout and ensure as many as possible complete some form of higher secondary education. Among the new initiatives, guidance is now provided at an earlier stage of compulsory schooling than previously so as to be able to offer counselling and advice to young people struggling with school.

Similarly, DKK40 million per year (EUR 5.4 million) has been allocated to establish a permanent corps of Preparatory Adult Education (*Forberedende VoksenUddannelse* - FVU) outreach consultants, and to improving guidance and counselling for those groups with the greatest obstacles to participation in adult and in service training. These consultants are to actively approach enterprises and inform about the opportunities for literacy and numeracy training for employees making it possible to reach a greater proportion of small and medium-sized enterprises. The consultants are to work in cooperation with the outreach efforts of institutions offering VET.

9.3 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. This was a response to a general political demand for an increased professionalisation of guidance services in Denmark.

The training scheme was provided on a part-time basis and was equivalent to 6 months full-time studies. It consisted 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.).

Further improvements were made in conjunction with the 2007 amendment to the Act on Guidance regarding the qualifications of practitioners and the methods implemented for evaluation and quality assurance of practice with the objective of improving the professionalism of guidance services. Guidance practitioners are now required to complete a diploma programme in educational and vocational guidance or document equivalent competences through prior learning. A professional bachelor degree in education and vocational guidance has also been established.

A system for quality assessment within the guidance system is being developed and, in May 2008, a national centre for competence development was established whose role, among other things, is to collect knowledge and produce new knowledge regarding adult guidance, including an evaluation of the adult guidance networks.

10. FINANCING: INVESTMENT IN HUMAN RESOURCES

10.1 FUNDING FOR INITIAL VOCATIONAL EDUCATION AND TRAINING

IVET is based on alternance models where training takes place at college and within an enterprise 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, both public and private, 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 2009, the companies paid DKK 4 153 million (EUR 557 million) to AER and received DKK 2 311 million (EUR 310 million) in reimbursement. This amount was distributed between 25,411 employers covering 90,227 students. The remainder was paid out in the form of employer award schemes (EUR 78 million) and a contribution to the government's reimbursement for employee participation in CVET (EUR 140 million), as well as administration costs (EUR 9 million) (Source: AER Annual Report 2009).

10.2 FUNDING FOR CONTINUING VOCATIONAL EDUCATION AND TRAINING, AND ADULT LEARNING

CVET is 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. The colleges are financed by the state according to a taximeter system where every passed student generates financial support.

For 2008, the Ministry of Education's public operating grant for adult education and continuing training for employees was approximately DKK 3 billion (EUR 415 million). Of this, DKK 1.35 billion (EUR 180 million) was for CVET. In addition, DKK 1.7 billion (EUR 230 million) was paid out as compensation for loss of salary in connection with adult education and continuing training activities (Source: Statistics Denmark: Facts and Figures 2009)

CVET activities, including the operating expenses for AMU centres, are financed through the labour market contribution (*arbejdsmarkedsbidrag*) whereby a special tax of 8% is levied on all employed people. In 2009, the total state income from this tax was DKK 80 billion (EUR 10.7 billion) according to national statistics. (Source: National Accounts of Total Taxes and Duties, Danish Ministry of Taxation, 2009)

In addition, participants in CVET 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.

10.2.1 FUNDING FOR 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 the labour force, 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 between 2000 and 2004, public operating subsidies decreased by 11 percent. This decrease is ascribed, among other things, to rationalisation following institution mergers, and a change in the composition of educational activity.

Source: Facts and Figures 2007, Danish Ministry of Education 2008

10.2.2 FUNDING FOR CVET IN ENTERPRISES

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 according 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.

In the table below, one can see that the total cost of CVET courses as a percentage of total labour costs has fallen in Denmark as in the EU as a whole. However this fall has been less dramatic in Denmark and the Danish spending levels remain high.

	1999	2005
EU-25	2.2	1.6
DENMARK	3	2.7

Source: Eurostat

10.3 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. 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 2008, the municipalities budgeted DKK 5.4 billion (EUR 725 million) on activation programmes for unemployed people. The State at present reimburses 65 percent of benefits paid to uninsured people participating in some form of activation scheme and 35 percent for 'passive' unemployed individuals. In 2009, a series of reforms was introduced transferring full responsibility for the employment sector to the municipalities, including for activating individuals covered by unemployment insurance. The aim has been a simplification of the current system.

Source: *Kommunernes Landsforening (Local Government Denmark)*: <http://www.kl.dk/>

10.4 GENERAL FUNDING ARRANGEMENTS AND MECHANISMS

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, permit 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 for competence development which also recognises relevant non-formal and informal competences and - in particular - practical work experience.

While the Government remains 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 for colleges to increase retention within 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".

The present funding system for VET was introduced following a major reform in 1991. The 1991 reform introduced the taximeter principle whereby VET providers are funded in accordance with their overall activity level (number of students entering and completing a VET programme). Besides the taximeter rate, the VET providers also receive an annual block grant for the maintenance of buildings, salaries, etc. The 1991 reform, which was primarily organisational, introduced management-by-objectives as a means to improve the overall provision of VET. The funding system was introduced as part of a New Public Management (NPM) strategy to decentralise and make institutions compete on "quasi markets".

Over the years, however, the budgetary room to manoeuvre of the vocational colleges has been restrained, and in fact, the trend seems to be towards greater centralisation as the Ministry of Education sets up more specific objectives, quality indicators and targets for the colleges. From 2003, the concept of "value for money" was introduced. In order to obtain earmarked funding, the institutions were to show their "will to change within specific prioritised policy areas" ("*Bedre institutioner til bedre uddannelser*", 2003, p. 9). An example of this change in the allocation of funds can be found within the experiment and development funds (*Forsøgs og Udviklingsprojekter: FoU*), which in the 1990s provided a valuable means for the colleges to try out new, local approaches and methods in VET. By 2003, the funds became more targeted and more regulated through narrow objectives, and

today, the funding of locally initiated projects has been more or less discontinued as a source of local development initiatives.

To sum up, since the 1980s, a shift has taken place from detailed regulation on input to framework regulation on output. The aim of output regulation is to increase focus on:

- results and quality so that the practices of the institutions meet the political objectives; and
- adaptation to the needs of the regional and local business sectors for education and competence development.

It should be noted that the basic principle of VET funding is that the state funds the vocational college budgets, while enterprises fund apprenticeships and continuous VET.

11. NATIONAL VET STATISTICS - ALLOCATION OF PROGRAMMES

11.1 CLASSIFICATION OF NATIONAL VET PROGRAMMES

11.1.1 MAIN CRITERIA USED TO ALLOCATE VET PROGRAMMES

In Denmark, there are three standard classification systems:

ISCED: The International Standard Classification of Education - defined by UNESCO and the standard for international comparisons of educational systems;

DUN: Danish Educational Nomenclature (*Dansk Uddannelses-Nomenklatur*) - primarily used by enterprises to group employees according to educational competences; and

Pre-column 1 (*Forspalte 1*) - used within national statistics to place individual education programmes and qualifications within the education system.

It is this last system which is used to allocate VET programmes in Danish national statistics. Pre-column 1 is an eight digit code with the first two digits describing the educational level, the next two the broad subject area, the next two a more specific subject area and the final digits the concrete programme or qualification. There are twelve different educational levels within this classification system:

10 Basic school (*Grundskole*)

15 Preparatory (*Forberedende uddannelser*)

20 General upper-secondary education (*Alm. gymnasiale uddannelser*)

25 Technical and commercial upper-secondary education (*Erh. gymnasiale uddannelser*)

30 Vocational basic education (*Erhvervsfaglige grundforløb*)

35 Vocational apprenticeship and main course (*Erhvervsfaglige praktik og hovedforløb*)

39 Further training of semi-skilled and skilled workers (*Efteruddannelse af specialarb/faglærte*)

40 Short-cycle higher education (*Korte videregående uddannelser*)

50 Medium-cycle higher education (*Mellemlange videregående uddannelser*)

60 Bachelor (*Bachelor*)

65 Long-cycle higher education (*Lange videregående uddannelser*)

70 PhD degree (*Forskeruddannelser*)

Certain sectors are split into further levels within this Danish classification system than within the international ISCED classification, such as the differentiation between the basic and main courses within VET; others cover more than one ISCED grouping such as basic school which includes both primary and lower-secondary education.

Source: Statistics Denmark

TABLE 1: VET LEVELS IN DENMARK					
LEVEL	EQUIVALENT IN ISCED	MINIMUM DURATION	MAXIMUM DURATION	AVERAGE DURATION	TYPICAL STARTING AGE OF PUPILS
25 TECHNICAL AND COMMERCIAL UPPER SECONDARY EDUCATION	3A	3	3	3	16
30 VOCATIONAL BASIC EDUCATION	3C	0.5	2	1	16
35 VOCATIONAL APPRENTICESHIP AND MAIN COURSE	3C	1	3	2.5	17
39¹² FURTHER TRAINING OF SEMI-SKILLED AND SKILLED WORKERS	4B	N/A	N/A	N/A	N/A
40 SHORT CYCLE HIGHER EDUCATION	5B	1.5	4	2.5	20

¹² This field includes CVET and is too broad to ascertain average durations, age etc.

11.2 FIELDS OF EDUCATION AND TRAINING

TABLE 1: FIELDS OF EDUCATION AND TRAINING WITHIN VET IN DENMARK	
LEVEL	FIELDS OF EDUCATION/STUDY
Upper secondary (ISCED 3A)	Technical Commercial
Upper secondary (ISCED 3C)	<ol style="list-style-type: none"> 1. Motor vehicle, aircraft and other means of transportation 2. Building and construction 3. Construction and user service 4. Animals, plants and nature 5. Body and style 6. Human food 7. Media production 8. Business 9. Production and development 10. Electricity, management and IT 11. Health, care and pedagogy 12. Transport and logistics (The access routes to IVET in Denmark)
Higher (ISCED 5B)	Education Health Commercial technical IT Biotechnology and Lab technique Media and communication society design (Ministry of Education designations)

11.3 LINKS BETWEEN NATIONAL QUALIFICATIONS AND INTERNATIONAL QUALIFICATIONS OR CLASSIFICATIONS

Denmark is currently in the process of developing a National Qualifications Framework (NQF). The goal is to increase transparency, lifelong learning and mobility within the educational sector. The Danish NQF, referred to by the Ministry of Education as the Danish Qualification Framework for Lifelong Learning (DKLL: *Dansk Kvalifikationsramme for Livslang Læring*) will reference the European Qualifications Network (EQF). An inter-departmental working group was set up by the Government in 2007 to draw up an outline for a Danish NQF with their work resulting in a draft model. This model has been the subject of an ongoing consultation procedure and the results are expected to be made public before the end of 2010.

12.1 AUTHORS

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12.2 SOURCES, REFERENCES AND WEBSITES

“Adult Vocational Training in Denmark”, Danish Ministry of Education, 2008. Online: http://www.eng.uvm.dk/-/media/Files/English/Fact%20sheets/080101_fact_sheet_adult_education.ashx

“Bedre Institutioner til Bedre Uddannelser - Baggrund og Analyse” (*Better Institutions for Better Education - Background and Analysis*), Danish Ministry of Education, 2003. Online: <http://pub.uvm.dk/2003/bedreinstitutioner/>

Carøe, Søren, & Bottrup, Pernille (Eds.): “IKA i AMU: Individuel Kompetenceafklaring - Hvad er Gældende Praksis?” (*IKA within Labour Market Training: Clarification of Individual Competences - What is Current Practice?*), Danish Ministry of Education, 2007. Online: <http://www.uvm.dk/-/media/Files/Udd/Voksne/PDF08/IKV%20Endeligrapport.ashx>
(Danish only)

Cort, Pia: “The Danish Vocational Education and Training System”, Danish Ministry of Education, 2005. Online: <http://pub.uvm.dk/2005/VET/>

Cort, Pia: “The Danish Approach to Quality in Vocational Education and Training” Danish Ministry of Education, 2nd edition, 2008. Online: <http://pub.uvm.dk/2008/vetquality2/>

Danish Government: “Progress, Innovation and Cohesion: Strategy for Denmark in the Global Economy - Summary”, Schultz Information, Albertslund 2006. Online: <http://www.globalisation.dk>

Data Bank: Danish Ministry of Education, statistical dept. Online: <http://statweb.uni-c.dk/uvmDataWeb/MainCategories.aspx>

“Denmark’s Contribution to the 2008 Joint Council/Commission Report on the Implementation of the Work Programme ‘Education and Training 2010’”, Danish Ministry of Education, 2007. Online: http://ec.europa.eu/education/policies/2010/natreport07/dk_en.pdf

“Denmark’s Strategy for Lifelong Learning - Education and lifelong skills upgrading for all”, Danish Ministry of Education, 2007. Online: <http://pub.uvm.dk/2007/lifelonglearning/>

“Enhanced Internationalisation of Danish Education and Training - Policy Paper to Parliament, April 2004”, Danish Ministry of Education, 2004. Online: <http://pub.uvm.dk/2004/internationalisation/>

“Facts and Figures 2007 - Key Figures in Education 2007”, Danish Ministry of Education, 2008. Online: <http://pub.uvm.dk/2008/facts/>

"Factsheet on Denmark: Education and Training", 2006. Online: <http://www.globalisation.dk>

"Fremtidssikring af Erhvervsuddannelser", (*Future-proofing Vocational Education and Training*), Danish Ministry of Education, 2006. Online: <http://pub.uvm.dk/2006/fremtidssikring/> (Danish only)

Institute for Business Cycle Analysis (IFKA): "Det Danske Kursusmarked 2008" (*The Danish Course Market 2008*), 2008. Online: <http://www.ifka.dk/> (Danish only)

Jobnet: <http://www.jobnet.dk/>

Kjær, Inge L. & Thorsen Merete M. (Eds.): "Guidance in Education - a New Guidance System in Denmark", Danish Ministry of Education, 2004. Online: <http://pub.uvm.dk/2004/guidance/hel.pdf>

CIRIUS/Euroguidance Denmark: "Guidance in Education - the educational guidance system in Denmark", 2008. Online: <http://www.iu.dk/publikationer/2008/guidance-in-education>

Kommunernes Landsforening (*Local Government Denmark*): <http://www.kl.dk/>

"National Accounts of Total Taxes and Duties 2008", Danish Ministry of Taxation, 2008. Online: <http://www.skm.dk/foreign/>

OECD: "Literacy in the Information Age - Final Report of the International Adult Literacy Survey", OECD, 2000. Online: <http://www.oecd.org/dataoecd/24/21/39437980.pdf>

Politiken [Danish daily newspaper]: 04.12.2009

"Recognition of Professional Qualifications - a Guide to the Regulated Professions in Denmark", Danish Ministry of Education, 2004. Online: http://www.ciriusonline.dk/Admin/Public/Download.aspx?file=Files/Filer/Publikationer/Cirius2004/LEguide_en.pdf

Statistics Denmark: "Statistical Yearbook 2009", Statistics Denmark, 113th edition, Copenhagen 2009. Online: <http://www.dst.dk/yearbook>

"Vocational Education and Training (VET)", Danish Ministry of Education, 2008. Online: <http://www.eng.uvm.dk/Uddannelse/Upper%20Secondary%20Education/Vocational%20Education%20and%20Training.aspx>

Further English language publications can be accessed online at the website of the Danish Ministry of Education: <http://www.eng.uvm.dk/service/Publications.aspx>