

Sweden

Overview of the Vocational Education and Training System

2007

eKnowVet – Thematic Overviews

Title: Sweden. Overview of the Vocational Education and Training System in 2007

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Abstract:

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

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

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

Keywords:

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

Geographic term:

Sweden

THEMATIC OVERVIEWS



Sweden

01 - GENERAL POLICY CONTEXT - FRAMEWORK FOR THE KNOWLEDGE SOCIETY

0101 - POLITICAL AND SOCIO-CULTURAL/ECONOMIC CONTEXT

Sweden is a constitutional monarchy with a parliamentary democracy. Since the constitutional reform of 1974, the monarchy has had purely ceremonial functions as Head of State while the formal power of decision rests with the Government.

Parliament (*Riksdagen*) is the country's highest decision-making body. Since 1971 it has had a single chamber with 349 members chosen by direct election every four years. Seats are distributed proportionally between those parties that poll at least four per cent of the national vote or at least 12 per cent in any (multiple member) constituency. The Social Democratic Party has been in power in Sweden for much of the post-war period except for 1976-82 and 1991-94 when the country was ruled by a 'non-socialist' (centre-right) government. After the September 2006 election, four non-Socialist parties (The Moderate Party, The Christian Democrats, The Liberal Party and the Centre Party) formed an "Alliance" government with an ambitious agenda for change.

Following a national referendum, Sweden joined the European Union (EU) in January 1995. A referendum on entering the European Monetary Union (EMU) was held in 2003 and a majority of Swedes rejected the proposal. Sweden remains outside the monetary union and has retained the Swedish Crown as the official currency, but continues to cooperate closely with the EU on a range of economic issues.

Sweden is divided into 290 municipalities (*kommuner*), and 21 county councils (*landsting*), including the municipality of Gotland, which does not have its own county council. A distinctive feature of Swedish governance is the high level of devolution of certain areas to municipalities (e.g., the administration of pre-, compulsory- and upper secondary school as well as adult education). Municipalities also receive the majority of income tax revenue in Sweden.

Although unemployment is relatively low at approximately four per cent, this was a major election issue in 2006 with the new government promising to introduce a range of measures to create more jobs and move more people from various forms of social insurance (e.g. unemployment- and sickness insurance, early retirement, etc.) and into the labour market. Moreover, in recent years it has become increasingly clear that high unemployment rates among certain groups (e.g. youth and recent immigrants) presents new challenges for the education and training system.

There is broad agreement in the country that there is a need for a better match between education and training outputs and labour market needs. It has also become increasingly clear that there has been too little emphasis VET. To this end, the new government has stated its intention to reform the current integrated upper secondary schooling into three distinct programmes: academic; vocational; and apprenticeship training.

0102 - POPULATION AND DEMOGRAPHICS

Sweden is the fourth largest country in Western Europe with an area of 450 000 square kilometres (km²) which stretches over 1500 kilometres from north to south. In 2006 the population was just over nine million (9 113 257 as of December 31, 2006) but population density varies greatly from region to region with the most densely populated areas in and around the major urban areas in the southern third of the country. The country is sparsely populated in the North with, for example, only three inhabitants per km² in northern counties such as of *Jämtland* and *Norrbottnen*. Over 90 per cent of the population lives in the southern half of the country, many of whom live in or near the three major urban centres: Stockholm (population of 1.8 million including suburbs), *Gothenburg* on the west coast (800,000) and *Malmö* in the south (500,000).

Table 1: Population: 1990, 2000, 2006

1990	2000	2006
8 590 630	8 882 792	9 113 257

Table 2: Age specific demographic for 2006 and scenario for 2020

2006		2020	
0-24	2 711 000	0-24	2 621 636
25-44	2 437 000	25-59	4 287 106
45-65	2 383 000		
65+	1 581 000	60+	2 596 638

Swedish birth rates fell after the economic crisis in the early 1990s and were 1.5 children per woman at the end of the 1990s: the lowest birth rate ever. In recent years the birthrate has increased sharply and reached 1.85 children per woman in 2006, well above the EU average. Life expectancy has risen to 78.7 years for men and 82.9 for women and, as in most other comparable industrialised countries, the growing proportion of pensioners in the population is creating economic challenges. It is estimated that the number of persons aged 65 or over will have risen from 1.5 million in 2005 to 2.2 million in 2025.

Table 3: Migration rates

IMMIGRATION		
(1991) 49 731	(1996) 39 895	(2006) 95 750
NET IMMIGRATION		

(1991) 24 986	(1996) 6 011	(2006) 50 842
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Sweden has traditionally been quite ethnically homogenous. Before the outbreak of the Second World War, the Sami (Lapps) were the only distinct minority of any size in the country. Today, 16.7% of Sweden's inhabitants are of foreign extraction in the sense that they were either born outside the country or both parents were born abroad. The largest groups of foreign citizens, as of December 31 2004, were from Finland (90 000), followed by Iraq (40 000), Norway (36000), Denmark (31 000), Yugoslavia (22 000), Germany (20 000), Bosnia (15 000) and Poland (15 000).

0103 - ECONOMY AND LABOUR MARKET INDICATORS

Sweden is highly dependent on international trade and in 2005 exports, more than half of which go to other members of the EU, accounted for over 45 per cent of Gross Domestic Product (GDP). Since the economic crisis in the early 1990s Sweden has experienced strong, steady economic growth exceeding the EU and OECD averages, fuelled largely by growth in the value of exports.

Due to the control of State finances and a low inflation policy (two per cent target), investments in education and entrepreneurship as well as the emergence of globally leading ICT and engineering industries are among the reasons the economy has performed so well since the mid-1990s. Conditions appear favourable for continued strong growth and the country has generated fiscal surpluses over most of the past decade, which both helps prepare for the expenses of an ageing population and puts the country in a position to use fiscal measures if there is a serious economic downturn in the coming years.

Table 1: Economic composition by sector, 2005

	PER CENT OF GDP
AGRICULTURE	1.5
MANUFACTURING/INDUSTRY	29.5
SERVICES	69

Table 2: Employment composition by sector, 2005

	EMPLOYMENT BY SECTOR IN 2005 (PER CENT)
AGRICULTURE	2

MANUFACTURING/INDUSTRY	24
SERVICES	74

Table 3: Employment rates

	1990	1995	1999	2000	2005
POPULATION 16-64 (THOUSANDS)	5 397	5 523	5 581	5 602	5 770
LABOUR FORCE, 16-64 (THOUSANDS)	4 560	4 319	4 309	4 362	4 622
EMPLOYED, % OF POPULATION	83.1	72.2	72.9	74.2	73.9
- MEN	85.2	73.5	74.8	76.1	75.9
- WOMEN	81.0	70.8	70.9	72.2	71.8
UNEMPLOYED, % OF LABOUR FORCE	1.6	7.7	5.6	4.7	7.8
- MEN	1.7	8.5	5.9	5.0	7.9
- WOMEN	1.6	6.9	5.2	4.3	7.6

Source: www.scb.se

The data represent annual averages. The labour force is defined as the total number employed and the number unemployed. Those who are able to work but who are not actively looking for work on the labour market are thus not included (e.g. students).

Table 4: Unemployment rates (young people aged 20-24)

1991	1996	2005

45 000	73 000	64 900
13.8%	30.4%	17.6%

Table 5: Public spending on education and training as a percentage of GDP

1991	8.00%
1995	7.46%
2005	7.67%

The total cost of the education system in 2005 was SEK 210 billion (EUR 22 billion) (<http://www.scb.se>). Public expenditure as a percentage of total public expenditure was 12.9 per cent in 2004 (OECD, 2007).

TRENDS FOR THE FUTURE

Employment in manufacturing industries will continue to decline, following its long-term downward trend, from 800 000 in 2005 to 650 000 in 2020. Sweden can, however, expect large variations among different sectors. Employment in the construction industry increased with the start of a home construction boom in 2003 but the number employed in agriculture and forestry is expected to fall by 50 per cent by 2020. The number employed in the private service sector is projected to increase from 1.5 million in 2000 to 1.7 million in 2020. The increase will mainly occur in consultancy services focused on the business sector. In contrast, employment in retail trade, banking and financial operations is expected to decrease.

In public education, health and social services sectors (e.g. childcare, schools, health and medical care, care of the elderly etc.) it is expected that employment growth will generally follow changes in the number of persons in the age groups that use the different services in these sub-sectors. Elderly care will require a large increase in personnel over current levels. Overall, employment in the public sector is projected to increase by 270 000 between 2000 and 2020, at which point 1.54 million individuals should be employed in this sector.

0104 - EDUCATIONAL ATTAINMENT OF POPULATION

In the early 1970s the highest level of completed education among 60 per cent of Sweden's working age adults was compulsory school (ISCED levels 1-2) compared with 17 per cent of adults who have compulsory school as their highest level of education today. In the early 1970s only 40 per cent of adults had completed upper secondary education compared with 80 per cent today. Over the same period the share of the population with post secondary education (ISCED levels 5-6) has increased from less than 10 per cent to almost 30 per cent. We have witnessed a significant increase in education levels over the past 30 years but developments over the next 20 years will not be equally dramatic. The share with post secondary education should, however, increase to 40 per cent and the share with only compulsory education should decrease to 10 per cent.

The table above indicates that relative to other EU member states Sweden has amongst the lowest proportion of population with only compulsory education (15% versus EU25 figure of 30%) and one of the higher proportions of population with higher education (30% versus EU25 figure of 23%).

The share of the adult population with upper secondary education or post secondary non-tertiary education as their highest level of education is expected to remain the same: about 50 per cent. Forecasts are, of course, based on a number of assumptions including a generally unchanged education system. In practise this implies, among other things, that virtually all youth are assumed to begin upper secondary school. It is also assumed that the number of new students in higher education will remain at its current level. Other forms of education are also assumed to continue at their current size, with the exception of adult education (i.e. education upgrading for adults), which is assumed to be smaller in the future. In terms of the labour market, it is expected that demand for those with only compulsory school education will fall by half by 2020 (*Trender och prognoser 2005*, SCB).

Table 1: Educational attainment of the population aged 25-64 by ISCED level, % (2005)

LEVEL OF EDUCATION			
	ISCED 0-2	ISCED 3-4	ISCED 5-6
EU-25	30%	46%	23%
SWEDEN	16%	53%	30%

ISCED 0-2: Pre-primary, primary and lower secondary education

ISCED 3-4: Upper secondary and post-secondary non-tertiary education

ISCED 5-6: Tertiary education

Source: Eurostat, EU Labour Force Survey; on-line database, download date 22/11/2006

As seen in the tables above, Sweden has a higher proportion of its population that has completed at least upper secondary school (84%) and tertiary education (30%) than the EU 25 average. However, Sweden lags behind several European countries as well as other countries such as Canada, Japan and the United States in terms of both upper secondary and tertiary completion rates.

Table 2: Percentage of the population, aged 18 to 24 years having left education and training with a low level of education (2000, 2002 and 2005)

2000	2002	2006
7.7	10.4	11.7

Low level of education: pre-primary, primary and lower secondary education - levels 0-2

(ISCED 1997)

Source: Eurostat, EU Labour Force Survey; on-line database, download date 23/11/2006

Table 2 shows a gradual increase in the proportion of youth aged 18 to 24 who have only completed compulsory school but are not in further education and training. Over this same period the proportion of youth with a low education in EU25 countries has dropped from 17.3% in 2000 to 16.6% in 2002 and 15.2% in 2005. There is no explanation for the increase, as shown in the Eurostat data above, in the proportion of youth with low levels of education. This could be due to a data collection problem or due to other factors such as lower upper secondary completion rates, increase labour force entry among youth, etc.

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

0201 - OBJECTIVES AND PRIORITIES

As part of a general trend in Swedish society towards decentralisation of responsibility and decision-making powers, the education system (including VET) has undergone fundamental changes in recent years. In accordance with decisions in Parliament (*Riksdag*), in 1991 responsibility for teaching staff was transferred from central authorities to municipalities and local school authorities, which were also given responsibility for organising and implementing school activities. Parliament also laid down the principles of school management by objectives and results with fewer regulations and clearer goals. Another guiding principle of education policy has been to create scope for diversity within the education system, and freedom for individual students to choose between different types of schools as well as between study routes.

The main principle of the division of responsibilities and functions within the Swedish education system today is that the Government should control educational activities by defining national goals and guidelines. The central and local education authorities together with other education providers are responsible for ensuring that the system is organised in accordance with national goals. Within the framework and guidelines established by the Government and administered by the Swedish National Agency of education (*Skolverket*), education providers enjoy considerable freedom to determine how activities are to be implemented and resources utilised.

The change to goal- and result-oriented steering of the education system requires the central and local authorities, as well as individual schools, to systematically follow up and evaluate educational activities in relation to goals and conditions applying to them (www.sweden.se).

General policy decisions on objectives, activities and financing of the education system are a responsibility shared between Parliament and the Government. Legislation is passed by Parliament, which also decides on the funding of appropriations to the educational system. The Government issues ordinances as well as general guidelines on the distributions of appropriations. The Government also approves the curricula for the entire school system, after development by the National Agency for Education (www.sweden.se).

The vast majority of VET has traditionally been IVET at upper secondary level. Currently, IVET is part of integrated upper secondary education (i.e. there is no clear distinction between IVET and academic programmes at upper secondary school and, often, no separate schools for vocational training within the school system). A basic objective of the education system has been to narrow the gap between vocational and general education as much as possible. However, the new non-socialist government elected in the autumn of 2006 has stated its intention to "de-integrate" the upper secondary system into: 1) academic programmes; 2) vocational programmes; and 3) IVET programmes featuring apprenticeship training. In future, it will be possible to study in IVET programmes with a reduced common core of academic courses. Among other rationale, it is hoped this will reduce the drop-out rate in upper secondary vocationally-oriented programmes. This reform may be introduced autumn 2010.

ADMINISTRATIVE TRENDS

The administrative trend has been the introduction of:

- framework legislation;

- decentralisation;
- market mechanisms and increased competition between training providers;
- delegation of authority to individual training providers; and
- free choice of education in a coherent and open educational system.

The overall administrative trend is characterised by a shift towards increased delegation and decentralisation, primarily to regional and local bodies, especially municipalities. The objective is to arrive at a situation where resources are allocated efficiently and with a view to local demands and needs. The actual delegation of power in the economic realm has been significant and municipalities and other regional/local bodies may now - within certain limits and in accordance with overall objectives - independently allocate their tax revenue (i.e. state grants and taxes).

There is also a trend towards letting the market regulate training supply via purchasing training from different training providers, especially with advanced VET (*Kvalificerad yrkesutbildning* - www.ky.se). The intention is to produce a more demand-oriented VET system, which ensures a more or less direct relation between allocated resources and the number of users. This trend has been accompanied by an increased focus on quality development and assurance. The new government has also stated its desire to gather all forms of post-secondary VET under one administrative roof. In practice, this likely means that advanced vocational education, supplementary education (*Kompletterande utbildning*) and post secondary training (*Påbyggnadsutbildning*) will be administered by a central government agency under consistent guidelines.

More recently, decentralisation has been accompanied by a demand for more central government control in the education sector. There is concern about quality, equal opportunities and conditions in schools. To support this, the Government has stated its intention to double resources available to the National Agency for Education to conduct school inspections with a higher frequency (i.e. every third year instead of every sixth year, as is currently the case).

03 - INSTITUTIONAL FRAMEWORK - PROVISION OF LEARNING OPPORTUNITIES

0301 - LEGISLATIVE FRAMEWORK FOR VOCATIONAL EDUCATION AND TRAINING

CENTRAL LEVEL

Overall responsibility for education (including VET) in Sweden rests with Parliament and the Government. With the exception of the University of Agricultural Sciences, under the Ministry of Agriculture, and employment training, which is the responsibility of the Ministry of Employment, all public education, including childcare/pre-school, comes under the jurisdiction of the Ministry of Education and Research.

The Ministry of Education and Research (*Utbildningsdepartementet*) is responsible for matters regarding pre-school education and child care for school children, pre-school classes, compulsory school and equivalent schools, upper secondary school, independent schools, adult education, popular adult education, post-secondary education, universities and university colleges, research, study support and student social issues (<http://www.utbildning.se/>). Those responsible for the provision of education under the Ministry of Education and Science are:

- National Agency for Education (*Skolverket*);
- National Agency for School Improvement (*Myndigheten för skolutveckling*);
- Institute for Special Needs Education (*Specialpedagogiska institutet*);
- National Agency for Special Schools for the Deaf and Hard of Hearing (*Specialskolemyndigheten*);
- International Programme Office for Education and Training (*Internationella Programkontoret för utbildningsområdet*);

- National Board of Student Aid (*Centrala studiestödsnämnden*);
- National Council of Adult Education (*Folkbildningsrådet*);
- Agency for Flexible Learning (*Nationellt Centrum för flexibelt lärande*);
- National Agency of Advanced Vocational Education (*Myndigheten för kvalificerad yrkesutbildning*);
- Municipalities (*Kommunerna*);
- County councils (*Landstingen*);
- Private schools (*Fristående skolor*);
- National Agency for Higher Education (*Högskoleverket*);
- National Agency for Services to Universities and University Colleges (*Verket för Högskoleservice*);
- Agency for Sweden's Internet University (*Myndigheten för Sveriges Nätuniversitet*);

The central administrative agencies work independently from the Ministry and decide on their own priorities in accordance with guidelines drawn up by the Government, not only in general instructions, but also in the annual government budget appropriation document, and by giving the authority special tasks. The following agencies and organisations, amongst others, come under the auspices of the Ministry of Education, Research and Culture.

[National Agency for Education](#) is responsible for following up and examining whether the national goals of pre-, compulsory- and upper secondary schools as well as adult education are achieved. This covers IVET (vocationally-oriented programmes at upper secondary school) as well as two smaller VET forms that can be IVET or CVET: supplementary education (*Kompletterande utbildning*); and post secondary training (*Påbyggnadsutbildning*). One of the Agency's main tasks is to examine the quality and outcome of education in municipalities and independent schools, as well as supervise their activities. The Agency also develops steering documents (e. g. syllabuses and grading criteria) as well as the responsibility for examining issues concerning independent schools. The Agency also determines priorities for issues concerning quality, national equivalence and the right of the individual to legal security. School inspectors examine the quality of schools. The Agency allocates funds to universities and university colleges for research into the school system, for the training programme for school heads, competence development of teachers and personnel within the school concerning reforms decided at central level, as well as awarding teaching scholarships for competence development of individual teachers.

The [Agency for School Improvement](#) provides support for the development of local activities in pre-school, school and adult education. Its main task is to support and stimulate municipalities and schools in achieving national goals and developing quality. The focus is currently on measures to achieve better results in basic skills, and to improve conditions for education in disadvantaged areas. The agency is also responsible for the national programme of training for school heads, as well as promoting the competence development of staff in the school and child care system. It also stimulates the continuing use of information technology in schools, is responsible for development-oriented information campaigns, as well as disseminating research findings.

The [Institute for Special Needs Education](#) allocates public funds for special pedagogical issues. Its main task is to provide support to municipalities, other school organisers and independent schools on pedagogical issues concerning disabilities.

LOCAL LEVEL

The school system is one of the largest, most important responsibilities of municipal governments. During the 2004/2005 school year, municipal school systems

encompassed over 1.7 million students. Almost all education below university level is provided by municipalities. Privately operated "independent schools" (*friskolor*) approved by the State may also provide education. Municipalities are responsible for:

- preschool classes for six-year-olds (88 407);
- nine-year compulsory comprehensive school for all children aged 7-16 (995 457);
- upper secondary school, attended by 90 percent of older teenagers, including IVET (359 415);
- adult schools as well as Swedish language instruction programmes for immigrants, both IVET and CVET (232 160);
- special education programmes for children and youth, as well as adult programmes for people with intellectual disabilities, including IVET(27 736) (www.skolverket.se/sb/d/1231).

Childcare (or as it is called in Swedish legislation, preschool activities - *förskola*) is a municipal task that has grown significantly over the past 40 years. Today municipalities are required to offer preschool activities to all children from the age of one year if their parents are gainfully employed or studying, or if the children themselves have a special need for support.

Since the 1990s, municipalities have assumed a growing share of responsibility for counter-cyclical labour market policy programmes (training and temporary employment openings). They take care of nearly 60 per cent of all participants in these programmes, which are partly State-financed. Almost 100,000 people are enrolled.

County councils (*Landstingen*) operate a number of folk high schools (small, often residential adult schools - *Folkhögskolor*) and are in charge of certain upper secondary school-level training programmes in health care professions as well as in agriculture and forestry. County councils can also cooperate with two or more municipalities to form a joint board to handle a given operation, such as upper secondary schools.

Local authorities (*Kommuner*) have overall responsibility for the implementation and development of educational activities within the school system. The 1991 Local Government Act gives the municipalities and county councils (*Landsting*) the option of designing their own organisational structures with different committees having different areas of responsibility. Upper secondary school and adult education (including VET) usually come under an education and culture committee which are obliged to ensure, among other things, that:

- schools and pre-schools are built and sufficient facilities are provided;
- the activities of schools, pre-schools and childcare services in the municipality are coordinated;
- qualified teachers and other school staff are recruited and receive in-service training;
- municipal funds are allocated to school and pre-school activities;
- good conditions exist for achieving the goals laid down in the curricula;
- general guidelines are complied with.

In practice, it is the responsibility of local municipalities to ensure that schools maintain equivalent standards all over the country. Each municipality is required to establish objectives for its schools in a school plan, adopted by the municipal council. It is obliged to follow-up and evaluate the school plan and to provide the central authorities with reports on facts and circumstances of relevance for assessment of educational activities. In addition, every school has to devise a work plan, based on the curriculum and local priorities which must also be followed-up and evaluated. Finally, each

municipality as well as each school must submit a quality account each year, assessing their results in relation to national goals, and measures to improve results.

OTHER ACTORS

Teachers' and other employees' organisations are entitled, under the Co-determination Act, to information about, participation in and influence over impending decisions. Student determination rights are enshrined in the Schools Act (*Skollag*), but their practical implementation is determined locally. Parental and student influence in the management of schools is enhanced by participation on local school boards (www.sweden.se).

Collective agreements play an important role in both IVET and CVET. In fact, most occupations are regulated not by Government but by joint (i.e. business and labour) training boards. These boards control the few apprenticeable occupations in the country as well as certification of the few regulated occupations (i.e. electricians).

0302 - INSTITUTIONAL FRAMEWORK: IVET

There is currently no natural distinction between vocational training and general education at upper secondary level in Sweden, and VET is often integrated with theoretical education programmes. A basic objective in the education system is to narrow the gap between vocational and general education as much as possible. Consequently, it is an integrated school system, which does not separate pupils attending different programmes and, even at the upper secondary level, pupils are obliged to study a common core of subjects.

The distinction between IVET and CVET is presented below:

- the vast majority of IVET consists of vocationally oriented programmes at upper secondary level;
- labour market training (IVET and CVET);
- vocational training within the framework of municipal adult education (IVET and CVET);
- in-company training or staff training (CVET);
- advanced vocational education and training (CVET); and
- professional degrees at university level (CVET).

Table 1: Recent decisions concerning vocational education

1991	The Parliament (<i>Riksdag</i>) decided on a new management system for schools. The principle of management by objectives was introduced and a decentralisation of the school system occurred by transferring responsibility for the school system to the municipalities.
1991	The <i>Riksdag</i> reformed upper secondary school. Courses and special courses were replaced by 16 three-year national programmes. Vocationally-oriented programmes include at least 15 weeks as workplace training. All courses give basic eligibility for higher education.
1999	The <i>Riksdag</i> replaced the timetable of upper secondary schools with a credit plan. All programmes are worth 2 500 credits. Project work was introduced. A new national programme was introduced,

	the technology programme.
2000	The Committee for Upper Secondary Schools 2000 was appointed and assigned the task of reviewing the number of national programmes in upper secondary schools.
2000	The Riksdag raised the number of guaranteed teaching hours in programmes that are preparatory for further studies and by 60 hours in programmes with vocational subjects.
2001	The Committee for Upper Secondary Schools was given an extended assignment in an additional directive concerning a transfer to subject grades in the upper secondary school and a review of core subjects. The Committee should also examine the need for an upper secondary school examination and propose forms for ways in which apprentice training could be introduced into upper secondary school.

EUROPEAN UNION

The role of the European Union is largely limited to its funding of mobility programmes for IVET teachers and students through the Leonardo da Vinci programme as well as broad European-wide policies launched to support the goals of the Copenhagen Process and other EU initiatives. For example, Sweden has implemented a National reference Point for Vocational Qualifications (www.senrp.se), supports use of Europass Mobility and Certificate Supplement for IVET students, works on other European initiatives such as Cedefop/ReferNet, ECVET, ENQA-VET, etc.

CENTRAL GOVERNMENT

In 2006 a new Government was elected and stated its intention to reform the current integrated upper secondary education into three components consisting of: 1) general/academic programmes; 2) vocationally-oriented programmes without the same mandatory academic requirements as under the current system; and 3) upper secondary apprenticeship programmes. More details on these plans will be announced after a Government commission reporting on its findings in 2008 and the new system is tabled for implementation in 2010.

REGIONAL/LOCAL GOVERNMENT

Regional governments play a minimal role in IVET but municipalities play a major role through their responsibility for the upper secondary schools (see section 0301 for more information).

SOCIAL PARTNERS

Social partners play a significant role in IVET through participation in programme advisory committee for vocationally-oriented programmes at upper secondary schools. Joint business-labour training boards also play a critical role in the certification of many occupations at the sectoral level.

0303 - INSTITUTIONAL FRAMEWORK: CVET

As stated in section 0202, by far the largest VET form in Sweden is IVET at the upper secondary level. However, there are also several forms of CVET including:

- vocational training within the framework of municipal adult education though post secondary training (*Påbyggnadsutbildning*);
- Supplementary education (*Kompletterande utbildning*);

- CVET programmes through Folk High Schools (*Folkhögskolor*);
- Advanced VET (*Kvalificerad yrkesutbildning*);
- Labour market training funded through the National Labour Market Board (*Arbetsmarknadsstyrelsen*); and
- In-company training or staff training.

EUROPEAN UNION

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CENTRAL GOVERNMENT

The Swedish government plays a significant role in all education and training by setting broad policies, goals and curricula. Most administrative work is carried out by central government agencies. The National Agency for Education (*Skolverket*) is responsible for pre-, compulsory- and upper secondary schools as well as adult education including the following CVET forms: Post secondary training (*Påbyggnadsutbildning*); and Supplementary education (*Kompletterande utbildning*). A larger CVET form is Advanced VET (*Kvalificerad yrkesutbildning*), which is administered by the Agency for Advanced Vocational Education (*Myndigheten för Kvalificerad Yrkesutbildning*). Advanced VET is a relatively new form in which at least one-third of the time is spent in the application of theoretical knowledge in the workplace through active, but unpaid, workplace learning and problem-solving in an overall educational context.

REGIONAL/LOCAL LEVEL INVOLVEMENT IN CVET

Regional governments play a limited role in CVET through county labour market boards (*länsarbetsnämnder*). However, labour market training is actually delivered to individuals registered at local employment offices (*arbetsförmedlingar*). At the local government level, there is CVET through post secondary training under the municipal adult education framework (*Komvux*).

The County Labour Market Board (*Länsarbetsnämnden*) makes surveys of regional needs for different skills which influence the kind of education or training that they will purchase. The planning of CVET in the education system differs from that of the employment system.

SOCIAL PARTNERS

CVET is viewed by the social partners as a prerequisite for maintaining a highly qualified labour force in the face of rapid technological and industrial change. Well-educated employees are necessary for adaptation and renewal. Accordingly, social partners agree that almost all IVET and most CVET (with the exception of in-company training) should be publicly funded. This has to do in part with the extensive representation of the social partners in the various administrative bodies, especially at regional and local levels. Providers of CVET can be subdivided into public institutions, trade unions and employer associations, private enterprises, and training companies.

Social partners often play a significant role in CVET in Sweden though, for example, joint business-labour programme advisory committees (*yrkesråd and programråd*) or through their control at sectoral level of certification of many VET occupations. While education as a whole has been developed as a result of decisions of the government, VET has also been more influenced by the social partners. Thus a majority of CVET is not regulated by the government or parliament, but is subject to the negotiations and local solutions of social partners. This is particularly true of in-company training and various forms of workplace training. This is especially the case for the sector-specific CVET many students enter after completing a vocationally-oriented upper secondary programme (IVET).

Moreover, advanced VET programmes are based on close cooperation between enterprises and various course providers (higher education, upper secondary schools, municipal adult education and companies). They are intended to correspond to real needs in the employment market but have no restrictions in terms of sector.

Table 1: Summary of roles and responsibilities of social partners

	RESPONSIBILITIES OF SOCIAL PARTNERS	TYPE OF ROLE (ADVISORY/DECISION-MAKING, DIRECT/INDIRECT)
NATIONAL LEVEL	Policy input	Advisory
REGIONAL LEVEL	Policy input and labour market training	Advisory and decision-making
SECTORAL LEVEL	Training delivery, content and certification of occupations	Decision-making
ENTERPRISE LEVEL	In-firm training	Decision-making

04 - INITIAL VOCATIONAL EDUCATION AND TRAINING

0401 - BACKGROUND TO THE IVET SYSTEM AND DIAGRAM

The Swedish public school system comprises compulsory and non-compulsory schooling. Compulsory schooling includes regular compulsory school (usually nine years from the age of seven), Sami School (for Sweden's native population), special school (for the hearing and/or visually impaired) and programmes for students with learning disabilities. Non-compulsory school includes one-year preschool, upper secondary school, and municipal adult education. All education throughout the public school system is free and there is usually no charge to students or their parents for teaching materials, school meals, health services or transport.

According to the Education Act (*Skollagen*), all children and youth have a right to equal access to education, regardless of gender, where they live, or social or economic factors. It states that education shall "provide pupils with knowledge and, in co-operation with their homes, promote their harmonious development into responsible human beings and members of the community." Consideration shall also be given to students with special needs. Compulsory schools can be national, municipal or private (independent) but the vast majority of students attend municipal compulsory schools.

About 98 per cent of compulsory school leavers proceed to the three-year upper secondary school, which offers both vocationally oriented (IVET) and academic programmes. Students are typically aged 16 to 19. A basic objective is to narrow the gap between vocational and general education although a major reform of upper secondary education is scheduled to be implemented in 2010 and will feature more differentiated orientations for academic/theoretical, vocational and apprenticeship programmes.

Upper secondary schooling for young persons and adults has a common curriculum with specific goals for each type of school. The goals stated are of two kinds: goals that the education should strive towards and those that everybody shall be given the opportunity to learn and achieve. The set of fundamental values which are to influence the activities of the school, and the demands imposed on students and school staff have been set out in six different sections: knowledge and skills; norms and values; student responsibility and influence; teacher responsibility; choice and education - working life; and grades and assessment.

The educational aims of national programmes in upper secondary school are set out in programme goals. Programmes that are primarily vocationally oriented must give broad basic education within the vocational field, as well as providing the foundation for further studies at post-secondary level (i.e. all upper secondary programmes can lead to higher education). Vocationally oriented programmes must offer at least 15 weeks of work-based training during the three years of upper secondary school.

Like compulsory schools, upper secondary schools can be national, municipal or private (independent). The majority of students attend municipal upper secondary schools but a growing number attend independent schools, which are also fully funded.

The syllabi, which are drawn up as to ensure continuity with those of compulsory school, state the aims and goals of the course as well as the knowledge and skills that all students shall achieve on completion of the course. The Government has issued syllabi for all core subjects; syllabi for other subjects are determined by the National Agency for Education (*Skolverket*).

(See [here](#) a diagram of the Swedish VET system)

The Education Act also extends the right of education to adults. This can be provided through municipality run adult education (*Komvux*) or in adult education for adults with learning disabilities (*Särvux*).

0402 - IVET AT LOWER SECONDARY LEVEL

Although there is a degree of introduction to practical skills at compulsory school level in Sweden, there is no IVET at lower secondary level. IVET commences at the upper secondary level for those who enter one of the vocationally oriented programmes.

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

Municipalities are obliged under the Education Act (*Skollag*), to provide upper secondary schooling for all residents who start studying before the age of 20. Individuals beginning their studies after age 20 can pursue upper secondary studies within the framework for adult education (*Komvux*). In 2005, 97.9 per cent of those completing the ninth year of compulsory school proceeded directly to upper secondary school later that year. Students typically attend upper secondary school from the year they turn 16 until the year they turn 19.

The majority of upper secondary studies take place in schools under municipal jurisdiction but there are also schools run by private education providers, mainly in urban areas. The exception is studies in agriculture, forestry, horticulture and certain caring occupations, which take place in schools run by county councils in cooperation with two or more municipalities. The four-year upper secondary school for young people with intellectual disabilities is also the responsibility of municipalities. The larger upper secondary schools usually include a variety of study programmes and courses, both vocationally-oriented and academic/theoretical. Certain adaptations of programmes (e.g. for sports) have nationwide recruitment. Overall, there is currently no distinction between academic and vocationally-oriented programmes within the provider structure.

Current vocationally-oriented programmes are designed to confer wider and deeper knowledge compared with the former system. Students are also given increased choice with respect to the content of their own education, as well as better opportunities to influence their learning situation. There are 17 national programmes, all of which last for three-years and provide a broad general education and eligibility to study at university or post-secondary level (though the vast majority of higher education students come from one of the academic programmes). Every programme comprises 2500 credits and all national programmes include eight core subjects:

English, the arts, physical education and health, mathematics, general science, social studies, Swedish (or Swedish as a second language) and religion. Together, the core subjects add up to 750 credits. Under the current system there is not an upper secondary certificate issued but, instead, students receive a transcript of courses and grades.

The programme-specific subjects, determined by the Government, entail a total of 1450 credits. The vocationally-oriented programmes (i.e. 13 of the 17 upper secondary programmes) contain at least 15 weeks at a workplace outside the school, so-called 'workplace training' (*APU - Arbetsplatsförlagd utbildning*). Four programmes - Arts, Natural Science, Social Science and Technology - have an optional rather than compulsory workplace training component. Education providers (i.e. the organisers of schooling such as municipalities, private schools, etc.) are responsible for the procurement of workplace training opportunities and for supervising students. Many schools regard it as requiring major efforts in terms of both planning and implementation and the opportunities for arranging workplace learning vary as schools are dependent on the links they have established with private and public organisations and the local business community. It can be difficult to secure a sufficient number of high quality workplaces and supervisors feel that they have insufficient knowledge and that schools need to improve their network with the community to deliver a sufficient number of workplace training opportunities.

Most programmes are divided into different specialisations offered in years two and three. The National Agency for Education (*Skolverket*) determines which courses are compulsory for a national specialisation. Most municipalities do not offer all of them and students may attend the programme in another municipality. To meet local needs, municipalities may approve local specialisations.

Table 1: National upper secondary school programmes and participation, October 2005

NATIONAL UPPER SECONDARY PROGRAMMES ARE:	PROPORTION TOTAL STUDENTS
Arts Programme/Art and Design, Dance, Music and Theatre (<i>Estetiska programmet</i>)	6.4%
Business and Administration Programme/Commerce and service, Tourism and Travel (<i>Handels- och Administrationsprogrammet</i>)	5.2%
Child and Recreation Programme/ Recreational, Pedagogical and Social Activities (<i>Barn- och Fritidsprogrammet</i>)	5.1%
Construction Programme/Building, House construction, Painting, Plasterwork (<i>Byggprogrammet</i>)	3.9%
Electrical Engineering Programme/Automation, Electronics, Electrical engineering and Computer	5.1%

Technology (<i>Elprogrammet</i>)	
Energy Programme/Operations and Maintenance, Marine Technology, Heating, Ventilation and Sanitation and refrigeration (<i>Energiprogrammet</i>)	0.8%
Food Programme/Local specialisations, countrywide recruiting (<i>Livsmedelsprogrammet</i>)	0.6%
Handicraft Programme/Various trades and crafts (<i>Hantverksprogrammet</i>)	2.0%
Health and Nursing Programme/No national specialisations (<i>Omvårdnadsprogrammet</i>)	4.0%
Hotel, Restaurant and Catering Programme/Hotels, Restaurant and Meal Services (<i>Hotell- och Restaurangprogrammet</i>)	6.0%
Industry Programme/Local specialisations, countrywide recruiting (<i>Industriprogrammet</i>)	2.0%
Media/Media Production, Printing Technology (<i>Medieprogrammet</i>)	4.1%
Natural Resource Use Programme/Local specialisations (<i>Naturbruksprogrammet</i>)	3.0%
Natural Science Programme/ Natural Sciences, Mathematics and Computer Sciences, Environmental Sciences, (<i>Naturvetenskapsprogrammet</i>)	14.4%
Social Science Programme/Economics, Culture, Social Sciences, Languages (<i>Samhällvetenskapsprogrammet</i>)	26.0%
Technology Programme/Local specialisations (<i>Teknikprogrammet</i>)	7.2%
Vehicle Engineering Programme/Aircraft, Coach work, Machine and lorry, Cars, Transport (<i>Fordonsprogrammet</i>)	4.5%

By combining specific subjects from different programmes, a municipality can put together specially designed programmes (*specialutformade program*) to meet local and regional needs. They must include the eight core subjects and project work, and correspond to a national programme in terms of level of difficulty and number of hours.

An individual programme (*individuellt program*) can vary in length and content and is determined by the needs of a student. The aim is for the student to later transfer into a national- or specially designed programme. Otherwise, the student receives a final grade (learning certificate), when he/she has completed the set programme syllabus. PRIV is an individual programme especially for students who are not eligible for national programmes due to their not meeting the requirements for passing grades in Swedish, English and Mathematics. Approximately ten per cent of upper secondary students participate in the individual programme.

SPECIALLY DESIGNED PROGRAMMES (PUPILS OCTOBER 2005)	34,272
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INDIVIDUAL PROGRAMMES (PUPILS OCTOBER 2005)	26,568
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There are approximately 2,500 students in International Baccalaureate (IB) programmes, which makes the total sum 359,415 students in Upper Secondary Education in Sweden as of October 2005 (*Skolverket, 2006*).

The new curriculum gives students considerable influence over the content and planning of education, as well as influence over their schooling in general. A student can choose their programme and specialisation and every national programme also leaves room for course options and an individual option totalling 300 credits. Within these limits, the students may also choose from courses offered in the municipality.

Municipalities have an obligation to offer young people who do not meet the requirements of regular upper secondary, such as those with learning disabilities, a place in an upper secondary programme which also has national-, specially designed- and individual programmes albeit fewer. They are four-year programmes and offer a guaranteed number of course hours (3 600 hours) divided between core- and programme-specific subjects.

A student who has completed a vocationally oriented education at an upper secondary school is more of a generalist than a specialist; the acquisition of more specialised skills is often the responsibility of the the employer. That said, several enterprise-based upper secondary schools have been started during recent years. This type of school provides more company-based education and training, often with education adapted to the enterprise's own needs. Overall, most IVET provides basic skills and general qualifications, which allow those who complete the programme to carry out certain functions in an occupation. Moreover, it is felt that VET should not be a dead-end but, instead, the first step in a process of lifelong learning. Indeed, the transition rate from upper secondary education to tertiary education has increased significantly during the past decade with almost 45% of upper secondary students continuing to higher education within three years. In principle, all IVET is provided at the upper secondary school level and is almost entirely (over 99%) financed by public funds.

There are 172 000 IVET students in the country, representing 48% of the upper secondary student population. This differs from the Eurostat estimate of 53.4% IVET in Sweden because Eurostat defines the Arts Programme (Art and Design, Dance, Music and Theatre -- *Estetiska programmet*) as vocational while Sweden defines it as non-

vocational as it does not require that students receive at least 15 weeks of work-based training unlike other vocationally-oriented programmes. The distribution of students by gender in upper secondary IVET varies. In 2004 only 3.5% of students in construction, 2% in electrical engineering and 1.5% in the energy programmes were female. At the same time, only 15% of the students in the healthcare programme were male. Vocational programmes where the gender distribution is fairly equal were business and administration, hotel restaurant and catering, food, media and natural resource use www.skolverket.se/publikationer?id=1443.

Table 2: Students in upper secondary education by programme orientation (general/vocational) 2005

UPPER SECONDARY EDUCATION TOTAL ENROLMENT	359,415
UPPER SECONDARY EDUCATION VOCATIONAL PROGRAMMES (%)	48%
UPPER SECONDARY EDUCATION GENERAL AND PRE-VOCATIONAL PROGRAMMES (%)	52%

Upper secondary education: ISCED 97 level 3. Source: Eurostat, Newcronos, Education statistics based on ISCED 97

A new type of apprenticeship training was recently piloted called Learning in Working Life (LIA). It differed from traditional apprenticeship since no employment relationship was involved: wages were not paid and the municipality remained responsible for the pupil throughout the training. Learning in working life was an alternative method of taking a national programme but still gave eligibility to apply for higher education. The purpose of the pilot was to meet the changed requirement for qualifications in working life, to give employers the chance to take part and influence the contents and course of the training and to give pupils who so wish, the opportunity to carry out the major part of their training, at least 30 weeks, at a workplace. The pilot is complete but it will inform the new upper secondary apprenticeship programme starting in 2008.

Significant changes, including a new upper secondary apprenticeship programme, are expected to be implemented from autumn 2010. The new government, elected in September 2006, has stated its intention to reform the current integrated upper secondary schooling into three distinct programmes: academic; vocational; and apprenticeship training. Although the new upper secondary system is not scheduled to launch until 2010, the government has stated its intention to launch apprenticeship training from the autumn of 2008 (more information on this is available in section 0404). This means a new, differentiated upper secondary system will replace the current integrated system.

0404 - APPRENTICESHIP TRAINING

Since the 1970s, there has not been any general apprenticeship (*lärlingsutbildning*) system in Sweden although the social partners have established their own systems for employees after upper secondary schooling in certain sectors (e.g. in the construction sector).

In 1992, a possibility was created to integrate apprenticeship into upper secondary school for those engaged in the "individual programme" (i.e. for those who failed the three obligatory core subjects Swedish/Swedish as a second language, Mathematics and English from compulsory school) but this has been used only on a very small

scale. For example, in 2005 there were only 19 upper secondary apprentices in Sweden (out of an upper secondary school enrollment in excess of 359,000), split between the construction and hotel and restaurant sectors. In this small programme, students spend one year in the classroom and two years in work-based learning and the learning outcome is a school-leaving certificate, which gives general entrance to the labour market. These apprentices can be paid or unpaid.

There is broad agreement that there is a need for a better match between education and training outputs and labour market needs. It has also become increasingly clear that there has been too little emphasis on VET. To this end, the new government has stated its intention to reform the current integrated upper secondary schooling into three distinct programmes: academic; vocational; and apprenticeship training. Although the new upper secondary system is not scheduled to launch until the autumn of 2010, the government has stated its intention to start a new apprenticeship scheme from autumn 2008. The "modern" upper secondary apprenticeship training will entail at least 50 per cent work-based training and apprentices will earn a wage.

Those who participate in upper secondary apprenticeship training will be able to reduce their load of core courses in Swedish/Swedish as a second language, English, Mathematics, Social Sciences, History, Religion and Physical Education. Upper secondary apprentices may take courses to ensure entrance to higher education or can supplement their education through adult education (*Komvux*).

Employers that hire and supervise apprentices will receive approximately EUR 2700 per apprentice per year to cover the cost of employing the apprentice and for training of supervisors. In total, the government will set aside EUR 55 million over three years with EUR 44 million assigned to cover the costs for employing an apprentice and EUR 11 million earmarked for training apprentice supervisors. Thus, funding is in place to cover the costs for 18,000 apprentices over the first three years.

Those municipalities that introduce apprenticeship training will establish an apprenticeship council (*lärlingsråd*) with representatives from schools, industry and trade unions. There will be a great degree of flexibility to design programmes to meet local and regional needs. Overall, it will be seen as a compliment and/or alternative to the more school-based VET (*yrkesförberedande gymnasieutbildning*).

0405 - OTHER YOUTH PROGRAMMES AND ALTERNATIVE PATHWAYS

The main programme in Sweden designed to retain young people in education and training is the "individual programme" (*Individuella program*) in upper secondary education. It helps students who are not eligible, due to shortcomings in the three core subjects English, Mathematics and Swedish/Swedish as a second language, to apply to national or specially designed programmes. The programme is based on student needs and each student has an individual study plan which can vary both in terms of length and content. The main point of the individual programme is to give the students a chance to enter/re-enter one of the regular national or specially designed upper secondary programmes. Many of the students have barriers to learning such problems in the home, other social problems, etc.

Municipalities also have the right to establish individual programmes to which students may apply (PRIV). The aim of this alternative is that a student should be able to start education in national courses in a national programme at the same time as having the opportunity to study one or more of the subjects from compulsory school if necessary. Having done this a student can then be admitted to a national or a specially designed programme. The student is then credited with the courses completed in the individual programme. The ultimate learning outcome is an upper secondary leaving certificate, which can either lead to further studies at the tertiary or post-secondary levels or to CVET or labour market entry.

The individual programme can also be customised to incorporate different contents for young persons who have recently arrived in Sweden e.g. special introductory courses in Swedish as a second language and social studies. A student in the individual programme can also combine employment, as part of a vocational education with studies of certain subjects in upper secondary school. Other courses of study that may

be accommodated within the framework of the individual programme are those that cater for students with special needs, such as those with learning disabilities.

Those who are 20 years of age or older can enrol in municipal adult education (*Komvux*) in order to complete or supplement their upper secondary education.

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

Post secondary IVET is available through municipal adult education (*Komvux*) as well as in labour market training programmes. In addition, *some* of the programmes at folk high schools, in post secondary training programmes (also under the *Komvux* framework) and in supplementary education (*Kompletterande utbildningar*) programmes can be considered as IVET at post secondary level. It is not a regular form of education and training but, rather, an *ad hoc* series of courses that can be offered under the different frameworks mentioned above.

Post secondary training programmes (*Påbyggnadsutbildning*) are a type of non-compulsory schooling for training or further training in a profession. Most last for 1-1½ years with the idea that they are to lead to a new level within a profession, or a completely new profession. Similar rough guidelines apply to both supplementary education and programmes offered through Folk High Schools. There are no guidelines for workplace training or diploma and/or certification for these types of training.

IVET at post-secondary level is targeted at adults, including both upper secondary completers and non-completers. Typically participants are in their early- to mid-20s but individuals in all adult age groups can participate. The main objective of this type of training is usually to facilitate labour force entry but it can also lead to, for example, CVET or even to higher education. Learning outcomes are varied and can range from completion of an individual course to completion of a more specific VET programme with subsequent certification. In the case of certification, it is largely administered by joint business-labour sectoral organisations and occurs after a formal training programme.

0407 - VOCATIONAL EDUCATION AND TRAINING AT TERTIARY LEVEL

Although there is currently no IVET at tertiary level in Sweden, the Government is investigating the possibility of introducing an adult entry point. This could include IVET for those with higher education.

05 - CONTINUING VOCATIONAL EDUCATION AND TRAINING FOR ADULTS

0501 - BACKGROUND INFORMATION ON CONTINUING VOCATIONAL EDUCATION AND TRAINING

Lifelong learning is now the key principle for the organisation of learning in Sweden, including both formal, non-formal and informal learning. The main forms of CVET are advanced vocational education and training (*Kvalificerad yrkesutbildning* - www.ky.se). Some of the programmes through supplementary education (*kompletterande utbildning*), post secondary training (*påbyggnadsutbildning*), folk high schools and through bipartite sectoral training boards (apprenticeship-like programmes). CVET is typically restricted to adults (i.e. those 19 or over) as the main IVET programmes are in the upper secondary vocationally-oriented programmes. However, although there are clear links, or pathways, between IVET and higher education, links between IVET and CVET are less established with many temporary or *ad hoc* CVET programmes designed to respond to industry skill needs.

The main form of adult education is municipal adult education (*Komvux*), delivered by the municipalities following guidelines established by the National Agency for Education (*Skolverket* - www.skolverket.se). Adult education is extensive, based on long traditions and provided in many different forms and under many different auspices, ranging from national or municipal adult education to labour market and staff training and competence development at work.

The state is responsible for two actors: the Agency for Flexible Learning (CFL), which offers access to a range of programmes through open and distance learning methods; and the Agency for Advanced Vocational Education, focused on specialised VET in response to labour market needs. In addition, the Labour Market Board is

responsible for training geared to unemployed adults in need of retraining or further training and education.

A major programme (the Adult Education Initiative - *Kunskapslyftet*) was implemented in the late 1990s to stimulate lifelong learning but no recent initiatives have been launched as the education policy focus has shifted to compulsory and upper secondary (including IVET) education. Similarly, there have been new major developments regarding access to learning in recent years. There will, however, be a major policy initiative regarding CVET in 2008, designed to gather several disparate CVET forms under one administrative roof.

0502 - PUBLICLY PROMOTED CVET FOR ALL

The administrative structure of CVET in Sweden varies. There is a unified structure for the largest CVET form (Advanced Vocational Education and Training - AVE or *Kvalificerad yrkesutbildning*) whereby the training must last between one and three years, be provided fee free and comprise at least one-third work-based learning. In this regard, AVE is part of the formal education system. However, other forms of CVET have much more flexible guidelines and are often delivered outside the regular education system. For example, some of the programmes through supplementary education (*kompletterande utbildning*), post secondary training (*påbyggnadsutbildning*), folk high schools and through bipartite sectoral training boards (apprenticeship-like programmes) are also CVET.

CVET is typically restricted to adults (i.e. those 19 or over) as the main IVET programmes are in the upper secondary vocationally-oriented programmes. However, although there are clear links, or pathways, between IVET and higher education, links between IVET and CVET are less established with many temporary or ad hoc CVET programmes designed to respond to industry skill needs. Although CVET is called post secondary VET (*eftergymnasial yrkesutbildning*), not all participants have completed upper secondary school. The vast majority of CVET is publicly provided and fee free due to full funding through either municipalities or the state.

In terms of number of participants engaged in CVET in 2005 (i.e. those engaged in post secondary VET), there were 27,500 learners participating in AVE, 5300 in supplementary education, 4900 in post secondary training and 2900 in CVET programmes offered by folk high schools. Overall, just over 40,000 individuals participated in CVET in 2005, excluding those on labour market training and in-company training (Government Budget Bill 2008, 2007/08:1).

A Government Commission is currently reviewing all post secondary VET and will likely recommend gathering all CVET forms under one central administrative authority, possibly the national agency currently responsible for advanced vocational education and training.

Quality assurance mechanisms vary widely, according to the form of CVET. The National Agency for Education provides quality assurance, mainly in the form of inspection, for post secondary training and supplementary education while the Agency for Advanced Vocational Education (www.ky.se) supervises that CVET form, often through follow-up studies of their graduates. Folk high schools have a more decentralised quality assurance regime, at the school level.

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

The main authorities involved with training for unemployed people and others vulnerable to exclusion in the labour market are the Swedish Public Employment Service (*Arbetsförmedlingen*), the National Agency for Education (*Skolverket*) and the National Agency for Advanced Vocational Education and Training (*Myndigheten för kvalificerad yrkesutbildning*).

The Employment Service is responsible for labour market policy and funding active policy measures such as labour market training and skills upgrading for unemployed people. However, much skills upgrading occurs through the framework of municipal adult education, which is delivered by municipalities according to guidelines established by the National Agency for Education. Advanced vocational education is mainly for those with higher qualifications (i.e. at least an upper secondary leaving

certificate) but this form of CVET also attracts the unemployed and others vulnerable to exclusion.

Until the mid-1980s training for unemployed people was provided almost entirely by public training institutions but there are now a wide range of providers including public schools, social partners, non-profit organisations and private training enterprises. Labour market training, adult education and advanced vocational education are all delivered by different education providers. Labour market training is arranged in all municipalities through both the regular education system as well as specially procured provision.

The main target groups for training for unemployed people and others vulnerable to exclusion in the labour market are youth, immigrants and people with disabilities. Those with low levels of education (i.e. those whose highest level of education is compulsory school) and the long-term unemployed are also targeted by such measures.

Many forms of training including the largest, municipal adult education, have quality assurance mechanisms provided by the National Agency for Education. These include schools inspection and a wide range of studies into areas such as student satisfaction. Other forms of training are evaluated by the Public Employment Service as well as by other arms-length actors such as the Institute for Labour Market Policy Evaluation (www.ifau.se). Quality assurance of advanced vocational education focuses on follow-up studies of graduates.

Approximately 19,000 people participated in career-related labour market/employment training sponsored by the Public Employment Service in 2005. In addition, over 60,000 participated in special initiatives (everything from subsidised placements to training) for persons with a disability.

0504 - CVET AT THE INITIATIVE OF ENTERPRISES OR SOCIAL PARTNERS

In Sweden staff training (*personalutbildning*) that is registered in statistics is formal or non-formal, teacher/trainer-controlled staff training paid by the employer. Two-thirds of this training is organised in the company or at the workplace, and it involves an internal or external teacher or trainer. It can, however, also be arranged by external providers such as higher education institutions, educational associations or private training companies.

There are no government regulations that require enterprises or social partners to provide CVET to employees and members. Instead, these matters are often negotiated between social partners at either the sector or enterprise level. Moreover, since 1975 all employees have the right to unpaid leaves of absence for studies of any kind. Employees are also entitled to attend training arranged by trade unions. Neither the employer nor the trade union can give priority to persons opting for study programmes which they consider important from the viewpoint of the company or union and there are no restrictions on the duration of studies.

A range of competence development and informal learning takes place in Swedish workplaces. Enterprise initiated CVET is often a response to job rotation or restructured work organisation. In other cases employers supply employees with literature or study materials for independent learning. In many work places employees learn from each other but these types of informal learning are usually not included in statistics.

Staff training has increased over the past two decades as new technologies – above all computers – have been introduced and the organisation of work transformed. In many workplaces management became more decentralised, involving new tasks and new responsibilities for employees. In 2001 more than 2.5 million employees aged 20 to 64 participated in staff training (58 per cent of the workforce). The development of staff training in the 1990s is shown in the following table, showing the number of participants during the first half-year.

Tabel 1: Reference years 1990, 2000, 2002

	1990	2000	2002
NO OF PARTICIPANTS	1 493 000	1 798 000	2 650 000

Staff training is fairly evenly distributed among those aged 25-54 but younger people (20-24) and older workers (55-64) are less likely to participate. On average, a higher proportion of women than men participate (see the following table).

Table 2: Reference year 2002

AGE GROUPS	20-24	25-34	35-44	45-54	55-64
WOMEN	42 %	58 %	65 %	66 %	60 %
MEN	43 %	63 %	58 %	56 %	50 %

There is a significant difference in participation between small and larger companies. Data in the following table show that the likelihood of participating in enterprise initiated training increases with the size of the enterprise. In-service training in SMEs is often funded through European programmes such as the European Social Fund and structural funds. Between 2001 and 2003, 350 000 Swedish employees, largely employed by SMEs, participated in in-service training partially funded with ESF support.

Table 3: Reference year 2002

NO OF EMPLOYEES	1-9	10-49	50-99	100-249	250-499	500-999	1000+
	36 %	49 %	54 %	55 %	65 %	66 %	68 %

The likelihood of participating in enterprise initiated training also increases with the employee's highest level of completed education, as shown in the table below.

Tabel 4: Reference year 2002

HIGHEST LEVEL OF	COMPULSORY	UPPER	POST UPPER

EDUCATION		SECONDARY	SECONDARY
PER CENT PARTICIPATING IN STAFF TRAINING	40 %	55 %	70 %

MEASURES TO GUARANTEE PROVISION IN ENTERPRISES

Since 1982 there has been an agreement on development and on-the-job training in the private sector between the Employers' Confederation (*Svenskt Näringsliv*), the Trade Union Confederation (LO) and the Union of Private Salaried Employees (PTK). This is a general agreement concerning in-service training and information to employees about work organisation, technology and finance. These agreements contain general provisions on the responsibility of local partners to contribute together to improve conditions for employees to cope with new demands for knowledge and qualifications.

Several trade unions have agreements with their employers' organisations concerning education and in-service training (e.g. between the Electricians' Association and the Building Workers' Union). Others have signed development agreements. In other cases the conditions for in-service training are negotiated under the Act on Employee Participation in Decision-Making (MBL) at the local level.

The Employers' Confederation and the Trade Union Confederation have together created the Labour Market Trade Committee, which among other things has the task to investigate the need for education and training in the labour market and act to expand and improve VET.

Several employers have signed agreements with their local trade unions to support education and training for employees outside working hours where employers pay for course fees and study materials and employees contribute their time. This principle is often practised in subjects which might be useful both to the employer and the employee (e.g. languages, communication, mathematics, computer science, etc.).

MEASURES TO SUPPORT TRAINING IN SMES

Statistics show that the employees of small companies participate in staff training much less than those of large enterprises and the public sector. Since the late 1990s, a significant share of in-service training and competence development in SMEs has been partially financed by EU Structural Funds. For example, a 250 000 employees in 30 000 companies were estimated to have received competence development and training within the framework of Objective 4. A quarter of this was financed by the European Social Fund, a quarter from the Swedish state and half from employers.

The Swedish Council for the European Social Fund (*ESF-Rådet*) is responsible for the work with Objective 3. The Council and its regional organisations support the development of human resources with the aim to avoid unemployment and to strengthen those already unemployed. The work with Objective 3 is carried out in close co-operation with regional and local committees in which the social partners and other organisations are represented. Their major target groups have been SMEs, which have no competence and resources of their own to make analysis and provide in-service training. From 2002 to 2003 almost 15 000 projects involving 350 000 employees were jointly funded by the ESF and the Government of Sweden.

SOCIAL PARTNER BASED SCHEMES TO SUPPORT NON-JOB RELATED TRAINING

Several projects have been carried out, both at the initiative of the employers and of the trade unions. The Trade Union Confederation (LO -- www.lo.se) supports a large number of study circles through its partner organisation, the Workers' Educational Association (ABF -- www.abf.se) and this allows unions to provide training opportunities to tens of thousands of workers annually. A very ambitious project in 2003 was carried out by LO and ABF ("Competence development and learning in

working life” – *KUL-projektet*) provides many good examples of national and local agreements between trade unions and employers’ organisations concerning staff training.

As seen in table 0504, Swedish enterprises are among the most training intensive in Europe, trailing only Denmark with 91% of enterprises listed as training enterprises in 1999. In the first half of 2002 it was estimated that 2 650 000 Swedish employees participated in in-service training. The majority of this training (68%) is organised at the workplace but a variety of internal and external training resources are utilised. Professionals are most likely to receive in-service training followed by white-collar workers and, least of all, blue-collar workers.

Table 5: Training enterprises as % of all enterprises, by size class (1999)

	SIZE CLASS (NUMBER OF EMPLOYEES)			
	TOTAL (%)	10 TO 49 (%)	50 TO 249 (%)	250 OR MORE (%)
EU-25	61	56	80	95
SWEDEN	91	88	99	99

Source: Eurostat, NewCronos, 2nd Continuing Vocational Training Survey (CVTS2)

0505 - CVET AT THE INITIATIVE OF THE INDIVIDUAL

As in many other countries, the focus in Sweden has shifted in recent years from education and training to individual learning in line with the concept lifelong and lifewide learning. Many municipalities have established special learning centres within the framework of municipal adult education (*Komvux*), in community centres or in libraries. Here learning is provided and supported in various subject areas at the initiative of the individual. Unfortunately, there are no data indicating the share of formal, non-formal and informal learning pursued by adults that is CVET

In 2002 a survey was made of informal learning at the initiative of the individual during the academic year 2001/02. This survey covered the adult population and four types of informal learning were investigated:

- reading professional, technical or scientific literature;
- visits to exhibitions and fairs;
- learning through computers and the internet; and
- learning through educational radio and television.

The survey showed that a large proportion of the adult population (77%) participated in informal learning of these kinds. The most frequent type of informal learning was reading professional literature and the least frequent type was learning through radio and television. The survey also showed that persons who took part in formal or non-formal learning (e.g. courses and study circles) were more inclined to take part in informal learning (91%) compared to those who have not taken part in formal or non-formal learning (65%). Participation in informal learning gives the same picture as

participation in all other kinds of education and training (i.e. persons with a high level of education are more inclined to take part in informal learning than those with only a compulsory education).

A more recent study (Adult participation in education - *Vuxnas deltagande i utbildning*) by Statistics Sweden was published in 2007 and found that 73 per cent of 5000 adults surveyed aged 25-64 participated in formal or non-formal learning during the autumn of 2005 and spring of 2006. Participation was quite similar between men and women (78% vs. 74%) and was higher among those with higher levels of education and among those employed. Participation in adult learning decreased with age.

06 - TRAINING VET TEACHERS AND TRAINERS

0601 - TYPES OF TEACHERS AND TRAINERS IN VET

The types of teachers and trainers in Swedish vocational education and training vary widely by VET type. These details are described in sections 0602 (IVET) and 0603 (CVET).

The largest type of VET is upper secondary IVET, which is typically 85 per cent school-based. The school-based components are taught by specific subject teachers (*karaktärsämneslärare*). The education of teachers is regulated by the Higher Education Act but the 15 per cent work-based training (*arbetsplatsförlagd utbildning*) component is overseen by trainers for which there are no formal or general requirements.

Although IVET within municipal adult education organisationally is separated from upper secondary school, they often share the same buildings (workshops, classrooms etc.) and many teachers teach in both institutions. Specific (vocational) subject teachers and core subject teachers are required and the qualifications are the same as for upper secondary school. When work place-based education is part of a continuation course, the workplace is presumed to provide the trainers.

Others forms of VET teachers and trainers include those involved in:

- Advanced vocation education (*Kvalificerad yrkesutbildning*), the major CVET form involving 30,000 students;
- Municipal adult education (*kommunal vuxenutbildning, Komvux*), which offers IVET for adults, corresponding to those of upper secondary school; and
- Programmes through Post-secondary training (*Påbyggnadsutbildning*), Supplementary education (*Kompletterande utbildningar*), Folk High School (*Folkhögskolor*) and through labour market training.

Teachers and trainers in these IVET and CVET forms (i.e. not upper secondary school or municipal adult education) are not regulated. Instead, each education and training provider is free to determine the skills needed to teach specific courses.

Types of IVET and CVET teachers and trainers are summarised in the table below.

Table 1: Types of initial- and continuing vocational education teachers in Sweden								
EDUCATIONAL INSTITUTION & LEVEL:	UPPER SECONDARY SCHOOL	MUNICIPAL ADULT EDUCATION		ADVANCED VOCATIONAL EDUCATION			CRAFT EDUCATION FOR ADULTS	
	IVET	IVET	CVET	COLLEGE	MUNIC. ADULT EDUC.	OTHER	IVET	CVET (AVE)
TYPE OF TEACHERS:								

VOCATIONAL TEACHERS	X	X	X	(X)	X	(X)	(X)	(X)
GENERAL TEACHERS	X	(X)	(X)	X	X	X	X	X
TRAINERS, APPROVED BY EMPLOYER	X	X	X	X	X	X	-	-
TRAINER, APPROVED BY PROFESSIONAL ORGANISATION	(X)	-	-	-	-	-	X	X
ASSISTANT MASTERS	-	-	-	X	-	-	-	-

(X) indicates that this category of teachers may be found within some, but not all programmes.

Curricula for IVET delivered through upper secondary and adult education is developed by the National Agency for Education (*Skolverket*). Other IVET and CVET forms are loosely regulated, if at all, and curriculum development is decentralised to the education and training provider.

There have been no significant reforms in recent years but a Government Commission is currently investigating the issue of teacher certification and will report in 2008. Although the Commission is mainly investigating the issue of certification, it is also addressing issues such as teacher quality and training relevance. It is possible that new measures will be introduced to address a predicted shortage of IVET teachers in upper secondary education (e.g. there may be a shorter certification path for qualified trades people to become VET teachers).

The Government has also appointed a Commission to investigate CVET. It will also report in 2008 and may address the issue of teacher and trainer qualification in CVET.

0602 - TYPES OF TEACHERS AND TRAINERS IN IVET

IVET teachers in Sweden are regulated, unlike CVET teachers and trainers, and are found at upper secondary schools and in municipal adult education. A new, integrated teaching degree was established in 2001, which resulted in all future teachers sharing common basic competences, combined with a chosen specialisation in particular subjects/subject areas and/or age groups. The new teaching degree comprises a programme ranging from 3.5 to 5.5 years of full time study. To teach IVET at upper secondary level, 120 credits (three years) are required, 60 of which can be validated based on work-life experience in a vocation. Instead of a specialisation in certain subjects, this degree requires extensive professional experience, combined with 60 credits in relevant, vocationally oriented, higher education courses. The degree for upper secondary school was replaced by a degree for teaching in the higher levels of compulsory school and upper secondary school. The older degrees will be phased out during a period ending in 2008.

As there is a shortage of vocational teachers, there has also been a special initiative to attract more. Those without a teaching degree can teach half time and study half time to achieve a teaching degree. In the autumn of 2006 the government announced a plan to invest special teacher certification for IVET teachers. This will comprise 1.5 years of study in addition to competence in the vocation, which will result in validation of experience.

IVET teacher training is organised for two types of educational provision. *Gymnasieskolan* (upper secondary school), offering 17 national programmes of two types: 14 *yrkesföberedande program* (vocationally oriented programmes) and three *studieförberedande program* (general programmes) for the age group 16-19. Thereby VET and general education form an integrated upper secondary school. Within *yrkesföberedande program* (vocational programmes), part of the curriculum (minimum 15 weeks) is appointed for *arbetsplatsförlagd utbildning*, (APU - workplace based training). There are two kinds of teachers: *karaktärsämneslärare* (specific subject teacher); and *kärnämneslärare* (core subject teachers) for general subjects common for all programmes.

This division of teachers was introduced due to the reform of upper secondary school in 1991. Complementary to the national programmes, specially designed programmes (*specialutformade program*) may be formed locally. A third form is the pilot experiment learning at work (LIA *lärande i arbetslivet*) part of the curriculum (approximately 30%) for a national programme which includes hands-on/workplace training. For this form of specially designed programmes it is presumed that the workplace provides the trainers they find suitable for the task.

Municipal adult education (*Kommunal vuxenutbildning, Komvux*), offering IVET at upper secondary level for adults; continuation courses for adults; and complementing previous education with specific courses, either to complete an unfinished upper secondary programme or to complement a programme to qualify for higher education. Specific (vocational) subject teachers and core subject teachers are required and the qualifications are the same as for upper secondary school. When workplace-based education is part of a continuation course, the workplace is presumed to provide the trainers (as above).

Teaching diplomas may be awarded in the following areas:

- university degree in aviation education;
- university degree in folk high school education;
- university degree in education; and
- university degree in special education.

There are no regulations governing IVET trainers (i.e. the trainers in the workplaces students are assigned for their unpaid work-based training component of the upper secondary vocationally oriented education).

0603 - TYPES OF TEACHERS AND TRAINERS IN CVET

As outlined in section 0502, there are several forms of CVET in Sweden including: advanced vocational education (*Kvalificerad yrkesutbildning - KY*); supplementary education (*Kompletterande utbildningar*); CVET programmes through folk high schools; and post-secondary training programmes (*Påbyggnadsutbildning*) funded through the municipal adult education (*Komvux*) framework. The administration of these forms of CVET is often devolved to training providers, which are created to meet specific training needs. Unlike IVET teachers at the upper secondary level, post-secondary CVET teachers/trainers are recruited because of industry experience rather than possession of a teaching degree. Consequently, the most important factor for CVET teachers is expertise in the field combined with pedagogic aptitude. That said, some CVET is delivered by more established post-secondary institutions where teachers often possess post-graduate degrees and/or teacher certification.

The training of trainers/teachers at the workplace is the responsibility of the work place and comes under ordinary in-service training or learning on the job. Upper secondary schools cooperating with a certain work-place often offer a short course on how to function as a mentor for a student in workplace training.

The main form of CVET, with 30,000 students is advanced vocational education (*kvalificerad yrkesutbildning - KY*). It has a variety of teachers, depending on the type of programme and on the facilitator. Teachers and trainers are to be competent for the teaching they are to provide, either by education or by experience. The teachers in work-based training comprising 30% of KY-programmes are mostly employed by companies.

Under municipal adult education, the requirements are the same as for IVET teachers (specific subject teachers within vocational programmes or core subject teachers) within upper secondary school. People with other qualifications may also be hired when considered necessary. When educational enterprises are facilitators, they use both specific subject teachers and other employees with relevant experience for the school-based part of the programme and employees from the respective company as trainers.

Finally craft related organisations may be facilitators for KY-programmes. A pilot project on modern apprenticeship for adults requires that the trainers must be journey-people approved by the respective crafts organisation. For general subjects, core subject teachers are required. The main difference between modern apprenticeship and other types of advanced vocational education programmes concerns the proportion between teachers' and trainers' responsibility. Within programmes related to handicraft, the trainers are responsible for 80% of the programme and teachers for the remaining part, whereas within other types of programmes, teachers are responsible for 70% of the programme.

The different types of CVET teachers and trainers are highlighted in the table below.

Table 1: Types of teachers within vocational continuing vocational education

EDUCATIONAL INSTITUTION & LEVEL:	CONTINUATION COURSES	HIGHER VOC. EDUC. & TRAINING	ADVANCED VOCATIONAL EDUCATION			CRAFT EDUCATION FOR ADULTS
			COLLEGE	MUNIC ADULT EDUC.	OTHER	
TYPE OF TEACHER:	CVET	CVET				CVET
VOCATIONAL TEACHER	X	-	(X)	X	X	(X)
GENERAL TEACHER	(X)	-	X	X	X	X
TRAINER, APPROVED BY EMPLOYER	(X)	(X)	X	X	X	-

TRAINER, APPROVED BY PROFESSIONAL ORGANISATION	-	(X)	-	-	-	X
ASSISTANT MASTER	-	X	X	-	-	-

An (X) indicates that this category of teachers may be found within some but not all programmes.

PRE-SERVICE TRAINING FOR CVET TEACHERS

The initial pre-service training for CVET teachers varies. For all teachers within advanced vocational education programmes, the following formulation is the only guidance regarding formal qualifications: "Teachers and trainers are to be competent for the teaching they are to provide, either by education or by experience." The various facilitators have interpreted this sentence differently. For teachers employed by municipal adult education (continuation courses, and advanced vocational education programmes), the pre-service training is the same as for IVET teachers (specific subject teachers within vocational programmes or core subject teachers) within upper secondary school and municipal adult education (see 060201). Others may, however, also be used when considered necessary with regards to the competence needed.

In cases when universities/university colleges are the facilitators of advanced vocational education programmes, the formal qualifications primarily concern the teachers' subject knowledge as specified by the Higher Education Ordinance (SFS 2002:761) for a position as an adjunkt (assistant master).

For CVET-trainers working within advanced vocational education programmes organised as apprenticeship, the vocational competence of each trainer is assessed by the respective vocational/branch organisation. No general qualifications are specified and no teacher education is required. General subject teachers require a teacher education relevant for upper secondary school.

When an advanced vocational education programme is organised by an enterprise, the employer is responsible for the interpretation, as there are no further guidelines. To date, there is no general description of the qualifications of these teachers.

IN-SERVICE, CONTINUING TRAINING AND DEVELOPMENT FOR CVET TEACHERS

For CVET-teachers employed within municipal adult education, the same applies as for teachers within IVET. Every municipality and county council is obliged to facilitate in-service training for its teachers. Due to the decentralisation of the educational system, in-service training for IVET teachers lacks organisation. Instead, it is an open market, with enterprises or organisations offering specific in-service courses related either to each of the vocational programmes of upper secondary school or to specific areas within one or a few vocational programmes. The examples found regarding in-service and continuing training all relate to IVET.

07 - SKILLS AND COMPETENCE DEVELOPMENT AND INNOVATIVE PEDAGOGY

The Swedish system of upper secondary IVET is part of integrated upper secondary education and is therefore characterised by open learning pathways to higher education. Specifically, all programmes include common core curricula that provide adequate credits in English, Swedish and Mathematics to facilitate entrance to university. In this regard, the system is flexible with IVET completers having options ranging from CVET to higher education to direct labour market entry. The CVET system is characterised by flexible and demand driven curricula but does not offer the same clear learning pathways featured in upper secondary IVET programmes.

Much work in recent years in the development of innovative pedagogy has been related to introducing information and communication technology (ICT) into the teaching and learning process. The National Program for ICT in schools (IT i Skolan, ITiS) gives teachers support in acquiring and exploiting the opportunities provided by ICT. A focus has been on overcoming teachers' obstacles to using ICT to develop the work of the school. The national programme for in-service training in ITiS was based on teachers taking responsibility for their own learning at work where they should feel they receive powerful support from school management and facilitators. Parallel with this, ITiS provides a portion of the funding for the expansion of schools' ICT infrastructure.

The ITiS initiative included in-service training for 75,000 teachers in teams; computers for participating teachers; state grants to improve schools' access to the Internet; e-mail addresses for all teachers and pupils; support for developing the Swedish Schoolnet and the European Schoolnet; measures for pupils with special needs; and awards for excellent pedagogical contributions. ITiS was implemented over a four-year period and had four guiding principles: equal standards between schools and quality for pupils; school development; supplementing and reinforcing programmes planned and already completed by municipalities; and increasing schools' access to the Internet and e-mail. Since 1994 the Swedish Schoolnet (*Skoldatanätet*) has served as a website to stimulate the use of information technology in schools.

INNOVATION IN ASSESSMENT

For assessment to be as unified as possible across the country, teachers are recommended to use national course tests for upper secondary education set by the National Agency for Education (*Skolverket*). These are course tests in Swedish, English and Mathematics and there is also a pilot project with an aim is to develop course tests in vocational subjects through the use of multimedia.

National assessments for upper secondary school were developed with the purpose to contribute to the quality of VET. They are competence based and are built on authentic situations or problems, which teachers and representatives from working life have identified as key in their specific domain. The problems are presented in multimedia and students are expected to deal with them authentically. The student's ability to handle the problem (i.e. dealing with various aspects of planning, practical action and evaluation) is thus assessed. The new assessments are regarded as a service material for schools, and they are available through the Internet

0701 - MECHANISMS FOR THE ANTICIPATION OF SKILL NEEDS

Although there is a wealth of good labour market and education data in Sweden, there is limited coordination between Statistics Sweden and bodies responsible for education and training. Instead, the anticipation of future skills needs has been more characterised by one off studies than regular, institutionalised cooperation between responsible agencies for statistics, labour market policy and education and training.

Overall, the linkage between labour market skills needs and VET programmes and curricula varies according to the type of VET. For example, the provision of upper secondary IVET, the main IVET form, is largely driven by student choice of programme while post-secondary CVET is often driven primarily by industry skills needs as motivated by decentralised training providers. For example, advanced vocational education programmes are only funded if there is a demonstrated industry need for the training.

The National Agency for Education (*Skolverket*) is interested in examining Cedefop's Skillsnet and potentially applying lessons learned from that experience to help better inform learners of future skills needs in Sweden and Europe.

0702 - BRIDGING PATHWAYS AND NEW EDUCATIONAL PARTNERSHIPS

INTER-INSTITUTIONAL PARTNERSHIPS

To ensure relevance, IVET programmes at upper secondary level are part of integrated upper secondary education and therefore offer the same pathways to higher education as more academic programmes.

The curriculum states that activities in school should be combined with contact with the labour market as well as with other activities outside school. Teachers have a

responsibility for contributing to the development of contacts with organisations, companies and other bodies. Compulsory and upper secondary schools should also cooperate closely with working life, higher education institutions and society in general. This helps ensure quality and provides a basis for choosing courses and continuing to further studies or vocational activity.

To increase cooperation between different parts of the education system, students may take courses at the upper secondary level while at compulsory school, and those in upper secondary school may take higher education subjects if they have attained the knowledge goals, while completing their upper secondary education.

ADMISSION REQUIREMENTS AND CHOICE OF SCHOOLS

All municipalities are obliged under the Education Act to offer young people, until age 20, who have completed compulsory school, or the equivalent, upper secondary school education. To be admitted to a national programme or a specially designed programme, pupils must have passed Swedish, English and Mathematics at compulsory school or demonstrate equivalent knowledge. The municipality must provide a broad range of education and try to match the number of places in different programmes with student choice. If the programme of choice is not available in a student's home municipality, they have the right to apply to another municipality. If accepted, their municipality must pay the cost of the education. If the number of applicants is higher than the number of places available, selection is on the basis of final grades from compulsory school. A limited number of places at upper secondary school are set aside for pupils who should be given preferential access.

COURSE-BASED SYSTEM

The course-based system together with the absence of a nationally decided timetable gives upper secondary schools freedom to organise education. Courses may be studied intensively by taking several subjects at once or, instead, spreading them out over their entire upper secondary education. Courses may be integrated with other subjects, grouped into modules or studied by themes. Students studying a course may be grouped together from different classes and programmes. Subjects are divided into one or more courses.

Students may choose to specialise within the block of options and have greater freedom of choice within their individual options or take part in one or more courses outside the complete programme: referred to as an expanded programme. Those experiencing significant study-related difficulties may be allowed to opt out of one or more courses in what is called a reduced programme. The normal period of study is three years, but under the system of courses and credits, pupils can complete upper secondary schooling over a shorter or longer period.

BRIDGING POST-SECONDARY VET PATHWAYS

VET forms at the post secondary level (i.e. advanced vocational education, post secondary training and supplementary education) have very close links with the labour market and with social partners but have not achieved satisfactory bridging mechanisms with higher education. In future, it is hoped that advanced vocational education will provide transfer credit in case the student wishes to pursue a degree programme at a higher education institution.

0703 - RENEWAL OF CURRICULA

MODERNISATION OF UPPER SECONDARY EDUCATION

In October 2004 Parliament decided to reform the curricula for upper secondary education, including IVET, as follows:

- subject grades to replace current course grades;
- an upper secondary diploma to be introduced;
- modern apprenticeship training will revitalise vocational training;
- better quality individual programmes;

- unrestricted application to give pupils greater freedom of choice and to stimulate regional cooperation;
- history to be a new core subject;
- core subjects should be characterised by the focus of the programme;
- local programmes must be quality audited by the National Agency for Education;
- quality of upper secondary vocational programmes to be improved;
- upper secondary school projects to give better overall picture of students' upper secondary education; and
- more extensive contextual and advanced programmes

This reform of upper secondary education was planned for the autumn of 2007 but the new government, elected in September 2006, stated its intention to develop a new system, based on new priorities. It is likely some of the elements highlighted above will be included in the new system. The details of the reforms are not yet known but it will likely include two distinct VET streams including an apprenticeship system. In this renewal of curricula as well as quality improvement of upper secondary school stakeholders such as researchers, teachers/trainers, education authorities, social partners and learners will be involved both at national, regional, local and sectoral levels. More details will be included in a subsequent update to this Thematic Overview, including information on the type of basic skills and competencies emphasised in coming reforms.

To strengthen interest in mathematics and the natural sciences, a Mathematics Committee has been appointed with the task of developing and implementing a national plan from pre-school to higher education, including VET.

The Government has started a pilot project on distance learning in upper secondary schools. By means of distance learning, pupils can combine studies in their home municipality with other courses, not provided in their home municipality, at an upper secondary school elsewhere. The Agency for school development is responsible for the pilot project, which also aims at developing new forms of learning where ICT is an important means of support and also provides better opportunities for cooperation between municipalities.

08 - ACCUMULATING, TRANSFERRING AND VALIDATING LEARNING

0801 - ACCUMULATING, ACCREDITING AND VALIDATING FORMAL LEARNING

Very few occupations are regulated, that which does exist tends to be administered at sectoral level, by social partners, rather than by government. Consequently, practices concerning validation of IVET vary somewhat from occupation to occupation and there is no formal legal framework for validation in Sweden. Moreover, there are very few labour market requirements with the exception of a few safety regulations (e.g. in the electrical trades) and certification of some health care occupations such as nurses.

The responsibility for validation in Sweden is divided between the education system and the social partners. In December 2003, the government established The Swedish National Commission on Validation to develop the processes of quality and methods for validation through 2007. The tasks of the commission were to:

- develop legitimacy and equivalence;
- carry on and support development;
- strengthen regional cooperation to reach adapted working methods for development, consultation and evaluation;
- inform; and

- work out proposals on what measures should be taken to assure validation activities after 2007.

The Commission's final report recommended the establishment of validation centres to assess different levels of qualifications (e.g. a centre to assess IVET, another to assess CVET, etc.). During 2008 the government will announce special measures to support validation.

Like the labour market, the education system is flexible and open. Since both theoretical education and vocational training co-exist in the same upper secondary system and are usually organised by the same schools, it is easy to change from one type of education and training to another. All upper secondary national programmes also contain the same core subjects, which cover approximately one of three years. This means that all students, whether in theoretical or IVET programmes, get the same basic education in subjects such as Swedish, English and mathematics. Therefore students who want to change from one programme to another only have to complete subjects that are specific to the new programme.

Another feature of the educational system is municipal adult education (*KomVux*), which gives the same qualifications as upper secondary school. Students who have not managed to reach their goals in the upper secondary system or who want to change career can supplement their education via municipal adult education. Both school types are parts of the same formal system and give the same qualifications. It is possible to change from theoretical studies to vocational training or the other way around. Employers and further and higher training institutions acknowledge the credits and certificates from both systems in the same way.

A third feature of the system is that all national programmes at upper secondary level qualify for entrance to higher education if students pass 90 per cent of their subjects. Students who do not reach these results can re-study failed subjects in municipal adult education. Where university programmes have special entrance requirements students can also add these subjects to their competence profile after completion of upper secondary school. This means that it is easy to accumulate and transfer qualifications between theoretical and vocational training, between upper secondary schools and municipal adult education, and between upper secondary education and higher education.

MECHANISMS

Both theoretical and vocationally oriented programmes at upper secondary school are modular. Students achieve credits for every module they complete making it easy to transfer credits from general education to vocational training and vice versa. Students can change careers and move from one programme to another and take their credits with them and it is up to the individual school to decide what additional courses are required, if any.

Municipalities are responsible for upper secondary education. Very often students who want to change careers can find new programmes in the same school or at least in the same municipality. If that is not the case, the student has the right to move to another municipality or to an independent school, and the home municipality will pay for the education and training. Since Sweden has a national system for accreditation, students have the right to take credits with them, and the credits are acknowledged by the new school or municipality.

Municipal adult education has the same modular system as upper secondary school. Students can take credits from upper secondary school to municipal adult education where they can add additional modules or subjects. Municipal adult education is open to students aged 20 or over or has completed three years of upper secondary education. After completing studies students receive a new certificate including credits both from the upper secondary school and municipal adult education.

IMPACT OF POLICY

Since 2000 Sweden has initiated an integrated teacher training system from pre-school to upper secondary school teachers including vocational teachers and teachers in municipal adult education. The main pedagogical content is the same for all categories of teacher trainees and contains 60 credits (three terms) with different specialisations

of varying length - from three to five years. Teachers and trainers in VET have very different backgrounds. Approximately half have no formal qualifications but they have a vocational competence and have had their teaching and training competence validated using the following methods:

- applicants are accepted to training and during the first part their previous experiences and skills are validated. An individual study plan is developed and studies can be shortened according to the results of the validation; and/or
- the competence of students is validated before studies start, and an individual study plan is developed. Studies are adapted to the results of the validation.

FINANCING VALIDATION

There are several ways of financing validation just as the training for adults is financed from different sources. The most frequent ways are highlighted below.

- Municipal adult education (*Komvux*). Validation can be carried out either as part of the training or as a special activity. There is a special course, an orientation course for introduction and guidance, and validation could be part of this. It is financed partly by the state (55%) and partly by municipalities (45%).
- The Public Employment Service (*Arbetsförmedlingen*). For unemployed people labour market agencies are responsible either to find a new job or to initiate training. Validation could be a necessary measure in either of these processes. Validation is usually commissioned from a regional or a private validation centre and financed by the labour market agency.
- The social insurance agency (*Forsäkringskassan*). For people who need rehabilitation either because of disabilities or because they need to change jobs, validation might be needed. The social insurance agency is responsible for financing.
- The social partners. In several sectors employers' organisations and trade unions have cooperated in developing tools and methods for validation. When companies have re-organized their work it has often become necessary to further train employees and validation has usually been necessary. Employers usually finance this validation.
- Higher education. Validation is financed either by the National Agency for Higher Education (*Högskoleverket*) or individual universities or university colleges. The Agency has the main responsibility for validating international exams or credits and academic experience, and universities validate the previous competence of Swedish applicants.

Sweden is still in an experimental phase, and validation has not been formally regulated yet. Three national authorities have carried out or supported experiments and projects of various kinds to find the best practice and organisation for the future.

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

Sweden has not formally regulated its methods for validating non-formal/informal learning hence there is no definition, which is accepted and used by all actors. Nevertheless it is evident that validation has increased in recent years. From 2003 to 2007 it was led by the National Commission on Validation, under the Ministry of Education and Research. The Commission submitted a final report and it is likely national validation centres will be established as central government agencies in 2008 or 2009. The social partners and municipalities are also active but mainly in terms of delivering validation services rather than developing broad, national guidelines. According to the Committee on Validation, people who have their competence validated fall into three categories:

- One-third are unemployed (often immigrants) and have their competence validated as part of counselling or training programmes;

- One-third are employees in municipalities or private companies and have their competence validated as part of an in-service training programme, which might be needed because of change of organisation or new demands;
- One-third are students who want to change career or enter a new programme and therefore need to have their competence validated.

The main reasons to participate in validation activities are employability, change of career or the wish to have the period of training shortened because of previous knowledge and skills. There are no statistics showing how many persons belong to the different categories.

MECHANISMS

While there is as yet no system for validating and transferring knowledge and skills a number of experimental projects are ongoing. A report by the Commission identified a number of mechanisms, methods and practices to assist in validating informal and non-formal skills. Moreover, the National Agency for School Improvement and representatives of several sectors agreed on ten general competences or key qualifications that should be validated in addition to knowledge, skills and competence in certain subjects or occupations.

Municipalities have carried out the most frequent validation activities especially in sectors where they are both employers and responsible for education and training (e.g. in the healthcare sector and care for elderly people). People, particularly women, might have worked for many years as assistants in these sectors and may want to become trained nurses whereby they want to have their competence, skills and experience documented.

The second biggest actors in the field of validation are employment agencies. They usually do not carry out the validation themselves but commission it from a municipality or a validation centre. According to the answers from the regional employment agencies to a questionnaire sent out by the Commission in 2005, the most frequent sectors for validation are: production and manufacturing; healthcare; transport; building and construction; handicraft; hotel, restaurant and meal services; installation, management and maintenance; business and administration; computers, ICT and communication; pedagogical work; and buying, selling and marketing.

In 2000, only two-thirds of all municipalities had been involved in validation projects and activities but by 2005 over 90 per cent of municipalities were involved. In 2000 approximately 2 300 persons had their competence, knowledge and skills validated corresponding to 1 year's full time studies in municipal adult education. By 2005 this number had increased to approximately 8 000 people. Taking into account the validation activities of employment agencies, folk high schools and in-service training in companies, over 10 000 people have their informal and non-formal competence or parts of it validated and received documentation or credits for it or can use it to reduce their period of formal training.

IMPACT OF VALIDATION POLICIES

As validation is not regulated or defined, several actors would like national guidelines. The development of such criteria is ongoing, and in several sectors negotiations between the social partners are underway. Many partners have been reluctant to take initiatives due to concern about the amount of work involved.

Another barrier is that most municipalities and other actors are small and have only a limited competence. In some cases it is not registered as a special activity and is only available to enrolled students.

Perhaps the most significant barrier from the individual's point of view is lack of motivation. Adults have access to further education and training in folk high schools, municipal adult education and higher education without formal qualifications. They can apply for entrance without having their previous knowledge and skills documented. Therefore they do not see the need for validation.

Another problem, particularly in times of high unemployment, is the difficulty to recruit adults with only basic education (particularly young men) to further education and

training, if they are not convinced that it would lead to a job. Sweden has a very well developed system for adult education coupled with fairly generous financial support, yet lower qualified people tend not to participate. Some say that this is also due to the generosity of unemployment and social benefits combined with the informal economy and temporary seasonal jobs.

The open and unregulated labour market with few regulated occupations also has an impact. Most employers when employing adults would not ask for formal qualifications or documents, they would ask what the person has worked with before and hire him or her on a six month trial basis. Formal qualifications do not automatically lead to higher salaries and personal performance is more important. Again, this limits the demand for the validation and documentation of competence.

The National Agency for School Improvement (*Myndigheten för skolutvecklingen*) and other actors offer training on the validation of non-formal and informal learning. The Commission on Validation had the task to propose a systematic training for guidance counsellors in the future. This in-service training should also include teachers and trainers who provide information about the possibilities for validation without a formal qualification.

0803 - IMPACT OF EU POLICY COOPERATION

Sweden has been an active participant in many EU initiatives related to validating formal, informal and non-formal learning. Europass was officially launched in December 2005 and all Europass tools are supported. The Ministry of Education and Research has led work on implementing a European Qualification Framework (EQF) but has delegated work on the European Credit System for VET (ECVET) to the National Agency for Education (*Skolverket*). *Skolverket* is also the centre for Europass Certificate Supplement, ReferNet and represents Sweden on the European Network for Quality Assurance in VET (ENQA-VET).

The active participation of the Ministry of Education and *Skolverket* in the aforementioned European initiatives and policies ensures that Sweden will ensure its system(s) reflect emerging guidelines that facilitate validation and mobility.

0804 - FACILITATING EU MOBILITY

As Sweden does not have a tradition of regulated and certified occupations provisions/mechanisms to validate knowledge, skills and qualifications acquired abroad are not well developed in the country. The final report submitted by the National Commission on Validation (*Valideringsdelegationen*) at the end of 2007 recommended the establishment of validation centres for IVET skills and competences at the National Agency for Education (*Skolverket*) and for CVET skills and competences at the Agency for Advanced Vocational Education (*Myndigheten för kvalificerad yrkesutbildning*). These will likely be established in 2008 or 2009.

Sweden has actively supported the use of the various Europass tools and the International Programme Office for education and Training (*Internationella programkontoret för utbildningsområdet*) officially launched Europass in December 2005 in cooperation with the National Agency for Education (*Skolverket*), the National Agency for Higher Education, the Public Employment Service (*Arbetsförmedlingen*) and the University of Uppsala. All documents, which have been developed by the European Commission, can be used officially in Sweden (e.g. Certificate Supplement, Diploma Supplement, Europass Mobility and Europass Language Passport). The University of Uppsala has developed a special language portfolio, which can be used in combination with the language passport and the Public employment Service supports Europass CV.

Sweden is in full compliance with EU Directive 2005/36/EC on the recognition of professional qualifications. This was achieved by establishing a working group with representatives from each relevant Ministry to ensure that procedures were changed, if necessary, to comply with the Directive. However, given a tradition of not regulating many occupations, many of the occupations/qualifications in question were already open prior to implementation of the Directive.

09 - GUIDANCE AND COUNSELLING FOR LEARNING, CAREER AND EMPLOYMENT

0901 - STRATEGY AND PROVISION

There are no formal special institutions for guidance and all education and vocational guidance is given in schools. In all types of schools, it is the responsibility of the principal/head master to ensure that all students receive educational and vocational guidance before choosing from the range of options that the school has to offer and before deciding how best to continue an educational route. Most schools have specially trained officers to deal with such questions.

Compulsory schools arrange practical work life orientation when the students are approximately 15 years of age. During these placements students spend one to two weeks gaining practical experience at a workplace. Study visits and information about the labour market, different professions and career options are also often included in many subjects in compulsory school.

At local level, schools cooperate with industry, social partners and industrial organisations, as well as with universities and colleges to provide students with educational guidance. This is not regulated at central level. Educational and careers guidance are also provided by other actors such as the national employment agency, trade unions and private employment service. The website www.studera.nu has information about higher education including a searchable database containing descriptions of courses and education programmes available.

The government supports a number of measures to strengthen access to independent guidance and counselling. The National Agency for Education (*Skolverket*) recently developed a national web-based portal for information and guidance: www.utbildningsinfo.se. This is a web site for students, parents and professionals in the field of education. The site is a source for collected, current and neutral information about education, which is financed or supervised/monitored by the state. The web site contains different parts: a search tool for education, a web-based career guidance tool, a description of the school system, a personal folder and a special section for guidance practitioners.

Euroguidance Sweden: the National Resource Centre for Vocational Guidance (www.programkontoret.se/templates/Page_2111.aspx) is a resource for vocational and career guidance counsellors. The centre provides a range of services to guidance professionals and to professionals abroad. It is an information and documentation centre for counsellors who require information on studying and training opportunities in Europe.

The Public Employment Service (*Arbetsförmedlingen*) provides services such as the Job Bank, Job Seeker Bank, Temporary Worker Bank, Image and Artist Bank, information on occupations and training programmes as well as general information on the labour market, forecasts and in-depth analyses of current labour market dynamics.

0902 - TARGET GROUPS AND MODES OF DELIVERY

The Education Act requires that all students in compulsory and upper secondary school be offered vocational and career guidance to support students' subsequent studies and career and personal development. Vocational guidance is concerned both with the labour market as a whole and with individual sectors. In primarily vocationally oriented programmes, contact with working life is an integral part of teaching.

All programmes may include workplace training (APU). In all vocationally orientated, or IVET, upper secondary programmes, APU forms a compulsory part and at least 15 weeks of the three years of upper secondary school must be spent on workplace training.

There are a number of specific measures, mainly through the national labour market authority but also through municipal programmes and through other national agencies and programmes, designed to provide vocational and labour market guidance and assistance to young people, people with disabilities, the long-term unemployed and immigrants. Most of these measures are provided for those registered as unemployed with the Public Employment Service (*Arbetsförmedlingen*) but there are also pro-active programmes through the municipalities and other agencies such as the National Board for Youth Affairs (*Ungdomsstyrelsen*).

Counselling for adults has been performed partly by different adult education institutions and partly by employment offices. According to the Education Act (1985:1100) each local authority shall try to reach all who have the right to adult education and motivate them to participate. Adult education has expanded rapidly in the last few decades. The number of adult counsellors has increased and new forms of organisation have started through initiatives such as the Adult education Initiative. How counselling is organised is dependent upon the size of the municipality.

To reach new groups (e.g. adults outside the school system) a variety of methods and initiatives have been developed. One is to provide guidance and counselling at work. In cooperation with trade unions, schools try to find those adults who did not attend upper secondary school and/or have had negative experiences at school. Another method has been information via shops and special market stalls in municipalities. This in combination with "open house" at the different training centres. In certain cases, brochures have been distributed to all households in a municipality. Advertising in newspapers and on the radio has also been common. Some areas have produced Websites to describe what is available.

In meetings with adults, methods have been prioritised which create confidence and activation. An example of this is group counselling which has been developed by the department of employment over many years. There is a tradition in Sweden that counselling shall be an individual right, without cost and available to as many groups as possible. This comprehensive approach can be combined with a more targeted approach. This means that specific investments are made on a number of groups. Efforts are, of course, made to reach young people who did not continue after compulsory school, did not receive a complete certificate or dropped out of upper secondary school. Municipalities have a specific responsibility, which means that these individuals are offered some form of work-related activity, practice or education. This responsibility lasts until the individual reaches 20 years of age.

Those outside the education system or not registered at a labour market office have difficulty finding information on counselling. Labour market offices have previously given comprehensive service to "change seekers" - those applicants in work or education who wanted to discuss their situation but this group of applicants has a low priority today. Possibilities available are to seek information via Internet, via self-service at the employment office.

MODES OF DELIVERY

The decentralised system in Sweden has reduced the number of initiatives from central authorities. The Government and central agencies establish guidelines and goals but leave the actual administration of guidance and counselling to municipalities or private companies. On the central level the most visible initiatives are in the form of online information.

Although the services and tools used by counsellors include tests that help assess interests and competences, the main services range from finding labour market intelligence and forecasts, information on specific careers and qualification requirements, information on education and training providers and opportunities for international mobility, both within Europe and beyond.

At local level, guidance is mainly accessed either through in-person career and vocational guidance sessions in schools and public employment offices, via the telephone or, increasingly common, via the internet from the home, school or other access point. Careers fairs have become more common in recent years and these can be organised by a range of actors such as schools, sectoral associations or trade unions.

0903 - GUIDANCE AND COUNSELLING PERSONNEL

Municipalities are responsible for guidance and counselling staff in schools while the Public employment Service (*Arbetsförmedlingen*) is responsible for the majority of labour market counselling. Most counselling staff in schools have either teacher training (i.e. an education degree) or other specialist competence usually associated with the attainment of a social sciences university degree. Schools and the labour

market authority provide further in-service training to improve counselling skills and keep skills and information up-to-date.

Data from Statistics Sweden (SCB) indicate that there are about 5000 guidance specialists, 2000 of whom are in schools and the remainder at labour market offices. However, guidance in the labour market offices are today intertwined with job placement and some other functions. According to statistics from universities, which have education programmes for counsellors, the students are mainly female.

EDUCATION AND TRAINING OF STAFF

There is one main training course for counsellors: a three-year course leading to a Bachelors degree. Counsellors with a degree normally seek employment at schools or at a labour market office. A limited number apply for work in the private sector. An increasing number of counsellors have been employed at the social insurance office or within projects aimed at people who are difficult to place in the job market.

To be employed as a guidance specialist in the school system (except for higher education) there are some special demands in the curriculum. That said, this is open for interpretation and in some municipalities guidance specialists are employed with a teacher's degree or another academic degrees, as mentioned above.

A report from the government (SOU 2001:45) underlines that too many guidance specialists do not have suitable education for fulfilling their task. In regions where there are few trained guidance specialists there is a tendency to employ teachers or other persons, sometimes transferred from another job, as guidance counsellors. It estimated that 15 to 25 per cent employed counsellors lack formal training, which is cause for concern. In some cases, a special shortened education has been arranged for these people to give them a more stable basis in their counselling activities.

In labour market offices the picture is unclear but many employment officers who may have different background. The official term is employment officer with emphasis on information, supervision or counselling (advice giving). There are also officers at the social insurance office that have counselling responsibilities without this role dominating their work.

The Public Employment Service has special internal training for counsellors, which lasts for about a year and includes both short courses as well as a practical placement with a tutor. The Public Employment Service also offers a range of courses, which can be described as further education. It has traditionally recruited people with long work experience and/or experience of trade union work but the trend is to employ people with academic qualifications in counselling, personnel administration or social work. Group counselling is more prominent at the employment service than in schools.

Academic training for a counsellor is three years and includes several different elements including sociology, psychology and practical placements of about six months. There is also special examination work including a major research paper connected to an area of counselling. The few private counsellors can have a background in psychology or a financial education combined with personnel administration. The difference from the training at the Public Employment Service is that the latter is much less detailed and does not have the academic stamp.

IN-SERVICE TRAINING

Counsellors generally have possibilities to receive in-service training and further education within the framework of their employment. Within municipalities a subscriber system is common in certain regions. This means that counsellors receive between 5-10 in-service training days per year for a fixed sum. These days can focus on development of different skills or a deeper insight into the employment market, education, forecasts, etc. Smaller groups of counsellors have the possibility to take part in shorter courses of 1-2 weeks duration. Sometimes the employer pays the cost and the employee may attend the course on work time, an approach that has been especially common among counsellors at the employment service. The courses may be targeted towards certain methods such as Myers and Briggs testing or Holland's Self-Directed Search, or more theoretical courses about changes in the employment/educational environment.

The faculty for counselling also offers courses of different lengths for active counsellors. Examples of courses offered are: group counselling skills, computers in guidance or development of interview techniques.

10 - FINANCING - INVESTMENT IN HUMAN RESOURCES

1001 - BACKGROUND INFORMATION CONCERNING FINANCING ARRANGEMENTS FOR TRAINING

The structure of government funding has not changed significantly since the early 1990s. Funding of schools (including IVET and adult education) is shared between the state and municipalities. State funds are paid to municipalities through the general state grant to municipalities, which then allocate resources to individual schools. The municipalities may also receive revenues from municipal taxes, which are used to finance municipal activities. Higher education and university colleges are financed directly from the state budget.

There are plans to improve and increase the emphasis on IVET and this may result in more funding for vocationally oriented programmes at the upper secondary level, though the structure of funding (i.e. state grants to municipalities) would remain the same.

Some forms of CVET such as supplementary education may involve tuition fees while others, such as the largest CVET form: advanced vocational education have received significantly higher state funding in recent years. A Government Commission recently recommended gathering all forms of CVET under one national administrative structure and this will affect funding procedures.

An overview of funding of selected education and training forms is provided in the table below. The table excludes higher education (e.g. ISCED 5 and 6) as well as some other forms.

Table 1: Cost of selected forms of education and training in 2006

EDUCATION AND TRAINING FORMS	BILLION SEK/EUR
Pre-school (No VET)	40.9/4.3
compulsory school (No VET)	74.1/7.8
Education for pupils with learning disabilities (Some IVET)	5.8/0.61
Upper secondary school (50% IVET)	31.9/3.4
Supplementary education (IVET & CVET)	0.35 /0.04
municipal adult education (Mainly IVET)	4.3/0.447
Swedish lang. training for immigrants (No VET)	1.0/0.11

Advanced vocational education (CVET)	1.0/0.11
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Source: www.skolverket.se/sb/d/1751#paragraphAnchor0

The Government's current policy priorities include a major investment in teacher competence supported by an in-service training initiative (*Lärarlyftet*) totalling over SEK 2.5 billion (EUR 265 million) between 2007 and 2010. Funding of VET will also be affected by major reforms of upper secondary IVET, the introduction of upper secondary apprenticeship and the centralising of all CVET under one national authority.

1002 - FUNDING FOR INITIAL VOCATIONAL EDUCATION AND TRAINING

In Sweden the vast majority of VET is publicly funded with most IVET (i.e. at upper secondary level) fully funded by municipalities through their portion of income tax and other state grants. Municipal tax revenues are the municipality's main source of income. Apart from income taxes, which finance the majority of municipal education, municipalities also receive state grants that are not earmarked for specific activities. The structural element of the grant is determined by several underlying factors such as the size of the population in the municipality, its age structure, population density, social structure and number of immigrants. Tax revenues and state grants thus provide the vast majority of resources for compulsory and non-compulsory education in the municipalities.

The system of governance is very decentralised and each municipality determines how it will allocate resources and organise its activities. They are, however, obliged to provide their inhabitants with a certain level of services and schooling as determined by the government and central state agencies. In the area of education, municipalities must fulfil obligations in accordance with the Education Act regarding, for example, activities and quality.

Municipalities usually have a local board of education, which decides on the allocation of funds between different schools and to independent schools. There are no national regulations on how resources should be allocated between schools. The responsibility for determining teacher salaries and other expenditures are usually decentralised to the individual school, but the municipality may choose to make such decisions at a higher level. When it comes to capital expenditures such as school infrastructure, municipalities show a less uniform platform. Some prefer to decentralise responsibility to each individual school, while others keep responsibility for local costs at the municipal level.

The Government has decided to set aside specific funds for research in the area for pupils with disabilities and for the competence development of teachers.

In addition to the general state grant to municipalities, the government decided that over a five-year period (2001-2006) additional resources will be given to municipalities specifically for the employment of teaching and other staff. The reason for introducing this grant was the difficult economic situation in most municipalities, and subsequent decrease in education budgets resulting in less staff in schools. A major investment in teacher competence, including IVET teachers at upper secondary school, will provide SEK 2.4 billion (approximately EUR 255 million) for in-service and other education and training between 2007 and 2010.

1003 - FUNDING FOR CONTINUING VOCATIONAL EDUCATION AND TRAINING, AND ADULT LEARNING PUBLICLY PROVIDED CVET

Most CVET in Sweden is provided free of charge and funded by municipalities and state grants, respectively. The largest CVET form, advanced vocational education (*Kvalificerad yrkesutbildning*) with approximately 35,000 students in 2006/07, is fully funded, centrally through the Agency for Advanced Vocational Education. Funding of post-secondary training (*Påbyggnadsutbildning* – a training form that can include CVET under the municipal adult education framework) is also fully funded but is administered by municipalities while supplementary education and VET at folk high schools have

irregular funding models ranging from full funding by the state to tuition-funded programmes. There are forms of supplementary education (*Kompletterande utbildningar*), in particular, such as pilot training that have study-tuition fees.

The share of funds received is outlined in the table in section 1001. The largest share of VET funding, by far, goes to upper secondary IVET (approximately SEK 19 billion in 2006), followed by the IVET component of municipal adult education (approximately SEK 3 billion in 2006). The largest CVET form which is advanced vocational education and training received approximately SEK 1 billion in 2006. In 2009 all CVET forms will be administered by one state agency, which will make comparisons of funding less difficult.

STUDENT FINANCING FOR CVET

To create better opportunities for adults to study, there are different forms of study financing: study assistance (grants and loans) and special educational grants. The system for study assistance covers all students in compulsory and secondary education, including adult education, as well as higher education and other post-secondary education. Adults in municipal adult education can apply for study assistance or special education grants. This funding is administered by the National Board of Student Aid (CSN).

The system for study assistance consists of two components – grant and loan. There are two grant levels: 34.5 per cent and 82 per cent. The lower grant can be received by all, irrespective of educational level (compulsory school, upper secondary or post upper secondary levels) while the higher grant level is directed towards priority groups. The total amount (grant and loan) is approximately EUR 200 per study week.

In 2003 a new study system of adult study support – Adult Education Recruitment Grants – was brought in to replace the special education allowance. People from the age of 25 who have relatively little previous education, who either are unemployed or at risk of becoming unemployed or who have functional disabilities and are in need of additional time for their studies may be awarded support. The recruitment grant is 100% grant with no loan element and provides approximately EUR 230 per week.

ENTERPRISE-BASED CVET

Sweden has one of the most intensive in-company CVET regimes in Europe along with Denmark, the Netherlands and the UK. In-company training provided by companies and public authorities has expanded faster than any other form of CVT in recent decades. Over the past two decades the participation rate in in-company training has almost doubled and in any given year about 40 per cent of employees participate. In-company training is by definition, financed by employers. The costs of in-company training account for the vast majority (95%) of the total costs of CVET.

Table 1: Cost of CVT courses as % of total labour cost (all enterprises), by type of cost (1999)

	TOTAL COSTS	DIRECT COSTS	LABOUR COSTS OF PARTICIPANTS
EU-25	2.3	1.4	0.8
SWEDEN	2.8	1.6	1.3

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

Direct costs: costs of CVT courses

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

INCENTIVES FOR ENTERPRISE INVESTMENT IN CVT

A general and jointly shared attitude is that public investments in CVT is necessary to keep the labour force up to date and to develop their skills. There are many financial incentives for enterprises to invest, mainly publicly financed provisions for vocational training courses. Municipal adult education is provided free of charge with study grants paid to participants by the State. Wage costs for the temporary employee within the temporary replacement scheme entitle employers to a tax reduction to meet the cost of the training given. There are no other special tax policies concerning CVT for enterprises. There are very few government regulations governing in-company training but collective agreements cover over 80 per cent of the work force and play a role in determining in-company training.

Individual incentives for participating in CVT are to a large extent determined by the new efficient and flexible work organisation, which also has an impact on the individual's study motivation and incentives for learning.

ENTERPRISE-BASED CONTINUING TRAINING

Most staff training (about two-thirds) is given inside the enterprises or organisation but it is unevenly spread within the workforce with employees with higher education receiving more in-service training than their lower education counterparts. The percentage of woman participating in staff training is somewhat higher than for men.

During the second-half year of 2003 there were approximately 4.1 million employed people and 49 per cent of them (2 million people) participated in staff training according to Statistics Sweden's definition. On average those participating took part in 4.3 days staff training per person and per half year.

ISSUES AND TRENDS FOR FUNDING CVT AND ADULT LEARNING

Sweden has a long tradition of adult education and participation in adult education is high by international standards. To give adults with a short education a better chance of establishing themselves on the labour market by enhancing their skills, a comprehensive adult education project was implemented between 1997 and 2002 called the "Adult Education Initiative". This was one of the largest education initiatives ever taken, even by international standards. More than 800 000 people were involved and over EUR 2.1 billion were allocated to the municipalities as a part of the measure. The measure led to a reform of adult secondary education and was replaced by targeted government grants from 2003.

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

Funding for training for unemployed people and other groups excluded from the labour market in Sweden is totally publicly financed and integrated into the country's labour market policies and programmes including, of course, funding for employment training. The government (Cabinet) and Parliament decide on the objectives, rule systems and financial framework of labour market policy. The Public Employment Service (*Arbetsförmedlingen*) was recently created by merging the previous Labour Market Boards at national and county level with the Labour Market Administration and Work Life Services. It is divided into 68 labour market regions based on the commuting patterns and on the regional preferences of the companies in connection with staff recruitment. In total, the Public Employment Service has a staff of 10 000 and reports to the Ministry of Employment

Employment training is primarily intended to help unemployed people and hard-to-place job seekers lacking occupational skills. Training programmes are primarily vocational, but can also include introductory and general theoretical instruction as a necessary adjunct of training. As a rule, employment training is conditional on current and imminent unemployment. In addition, the applicant must be at least 20 years old and registered as a job seeker. Services provided include various job banks, information on occupations and training programs as well as general information on the labour market, forecasts and in-depth analyses of the job market situation, all accessible via the agency's offices or the internet.

Funding this training is an important part of active labour market policy. Employment training primarily takes the form of courses purchased by regional employment offices,

which plan their purchase of training with reference to the needs of the labour market and their knowledge as to which job-seekers have difficulty finding work. Training lasts on average for about 20 weeks and the main goal is to prepare individuals (i.e. to make it easier for people wishing to work to enter the employment sector and find the right job).

It should be emphasised that there is a division of responsibility that leaves the public sector as the main provider of training for unemployed people and enterprises as the provider of training services for their employees. Consequently, virtually 100 per cent of the funding for unemployed people and other groups excluded from the labour market is channelled to the central government agency (i.e. the Public employment Service). It then distributes funding to regional offices according to their needs.

In 2007 almost 25,000 unemployed individuals participated in employment training – vocational training outsourced by the Public Employment Service to meet employer skills needs and eliminate bottlenecks in the labour market. Expenditure totalled SEK 17.5 billion (approx. EUR 1.85 billion) in 2007.

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

There are no known changes in policy priorities for funding VET at the moment. Therefore, the vast majority of both IVET and non-enterprise CVET will remain publicly funded. However, both the previous and the new government have stated the importance of improving the quality of both IVET at the upper secondary level and CVET at post secondary levels. There is a growing realisation by all parties that VET has been under-emphasised in recent decades and it is likely that more resources will be devoted to it in the coming years.

The most significant change, funding-wise, in the coming years will likely be a result of the creation, in 2009, of a new agency for post secondary VET. This will effectively gather all publicly-financed CVET in the country under one administrative structure compared with several different regimes today. Moreover, this will likely result in more consistent funding mechanisms and norms for CVET.

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

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

The European Union has reached several agreements on shared goals and objectives for education and training systems. As an initial follow-up exercise, the Swedish Ministry of Education and Research has drawn up a status report primarily intended to emphasise that the goals and objectives are taken seriously, among other things by presenting a clear picture of the education and training system and policy in relation to the shared goals and objectives.

PLACEMENTS ABROAD AS PART OF UPPER SECONDARY EDUCATION

Since 2002, the National Agency for Education (*Skolverket*) has been responsible for the distribution of scholarships to upper secondary pupils for workplace training abroad (*APU-utomlands*). This activity is complementary to mobility for people in IVET in the Leonardo da Vinci Programme, but is not limited to Europe. About 500 IVET students do part of their work-based training abroad every year through this programme. Moreover, the National Agency for School improvement (*Myndigheten för skolutveckling*) recently developed forms for cooperation between Swedish upper secondary schools offering programmes incorporating vocational subjects and educational programmes in a number of developing countries. The pilot ended in 2006 but the pilot project will be made permanent from 2008.

To promote internationalisation of vocational training the government has commissioned the National Agency for Education to establish a National Reference Point for Vocational Qualifications (*Nationellt centrum för yrkesutbildning*) for information on VET, and further to allocate support for pupils in upper secondary vocational programmes who do their work-place training abroad. The NRP is an international information network, which promotes the recognition of foreign qualifications. The Swedish NRP (www.senrp.se) serves as a contact point for vocational qualifications and also serves as the national centre for Europass Certificate

Supplement. The government may also further encourage the use of the EUROPASS by introducing provisions regulating the document in the Ordinance in Upper Secondary Education. The NRP also leads Sweden's work on important European VET initiatives such as the European Network on Quality Assurance in VET (ENQA-VET), the European Credit Transfer system for VET (ECVET) and also coordinates ReferNet in the country.

A number of national initiatives have been taken with the aim of promoting internationalisation at all education levels. Besides Western European and Nordic integration, another political priority since the early 1990s has been cooperation in the Baltic region, especially with Estonia, Latvia and Lithuania.

The International Programme Office for Education and Training (*Internationella programkontoret* -- www.programkontoret.se) is the main national agency supporting schools, universities, companies, organisations and private individuals who wish to take part in international cooperation, mobility and projects. This covers activities ranging from international co-operation projects in education and competence development to placements and studies abroad. The International Programme Office is responsible for the integrated lifelong learning programme, which includes, of course, Leonardo da Vinci for VET. The office also administers other programmes such as *Linnaeus-Palme* and "One year in Germany, Austria, France and Spain," mobility programmes open to students in the first or second year of upper secondary school. The International Programme Office is also responsible for the implementation of International Association for the exchange of Student for Technical Experience (IAESTE) for students in technical higher education while the Public Employment Service (*Arbetsförmedlingen*) is responsible for administering Inter-practice (*Interpraktik*) scholarships for unemployed young people.

Sida, the Swedish International Development Assistance and Cooperation Agency, has bilateral agreements for development support with around 40 partner countries in the developing world. The promotion of basic education is a central objective in many of these programmes. In addition, a majority of schools, universities, university colleges and other education institutions also have their own bilateral cooperation agreements with institutions in other countries. The *Linnaeus-Palme* programme (LP), established by the government in 2000, aims at strengthening co-operation between universities in Sweden and developing countries. LP is modelled on the Erasmus programme but promotes exchange with countries outside the OECD area.

The Swedish Institute (*Svenska Institutet*) promotes the internationalisation of education by awarding individual scholarships for long-term or brief study visits, both for foreign students in Sweden and for Swedish students abroad. Another function of the Institute is to disseminate information outside Sweden, about Sweden in general and about Swedish education and opportunities to study in Sweden. Recently a special website was launched for this purpose: www.studyinsweden.se. The Institute also has the responsibility to promote the teaching of Swedish as a foreign language at universities abroad, and administers the Visby programme, supporting co-operation and exchange between Sweden and one or more of the Baltic countries, Poland, north-west Russia, Belarus and the Ukraine at all educational levels above compulsory school.

1102 - IMPACT OF EUROPEANISATION/INTERNATIONALISATION ON EDUCATION AND TRAINING

Sweden collaborates with other countries on education and training issues through several international organisations: the central ones being the European Union, the Council of Europe, UNESCO, OECD and the Nordic Council of Ministers. This cooperation takes different forms, depending on the aim and activities of the organisation.

EUROPEAN UNION

The largest multilateral cooperation in education takes place within the framework of the European Commission's integrated lifelong learning programme, including Leonardo da Vinci for VET. Swedish interest in participating in EU education programmes is considerable and, over the course of a year, over 4 000 Swedes are engaged in studies, traineeships, etc. in EU-funded programmes. At the same time, over 5 000 students and trainees come to Sweden every year through these

programmes. In addition, a large number of schools and tertiary education institutions take part in transnational cooperation projects, for instance, projects to develop new VET teaching and learning methods, curricula development etc. through the Leonardo da Vinci programme. Learners that participate in international exchanges (e.g. through Leonardo or Sweden's Workplace Training Abroad programme) receive credit for their placements and/or studies abroad. Indeed, these are integrated into IVET programmes at upper secondary school through the provision for at least 15 weeks of work-based training. Quality assurance is assisted by tools such as Europass Mobility as well as by trans-European confidence building measures such as the European Network for quality Assurance in VET, in which Sweden is an active member.

Swedish IVET programmes also require knowledge of a least one foreign language and English is a mandatory part of all upper secondary IVET programmes. Learning additional languages are an option in upper secondary IVET.

THE COUNCIL OF EUROPE AND UNESCO

The Council of Europe is an important European co-operation forum for Sweden. Together with UNESCO, it has drawn up the so-called Lisbon convention on recognition of diplomas in higher education in Europe. The Convention, which aims to facilitate the international mobility of students, was adopted in 1997 and ratified by Sweden in 2001.

A large number of Swedish schools are active in the Baltic Sea Project – an international network among schools for a better environment in the Baltic area.

OECD

Of particular interest has been the development of statistical indicators within the field of education (INES programme) and thematic reviews of various policy issues (www.oecd.org). Sweden is an active participant in benchmarking activities such as PISA.

NORDIC COOPERATION

Ministers of education and research meet in the Nordic Council of Ministers three times a year and education, including VET, is considered to be one of the main areas of cooperation. To strengthen Nordic educational cooperation, a number of cooperation and mobility programmes have been created for different target groups, such as teachers and students at all levels, including IVET.

IEA-INTERNATIONAL ASSOCIATION FOR THE EVALUATION OF EDUCATIONAL ACHIEVEMENT.

Sweden, via the National Agency for Education, is also engaged in the work of the IEA. The primary purpose of this international co-operative of research institutions and governmental agencies is to conduct large-scale comparative studies of educational achievement (www.skolverket.se).

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