Vocational education and training in 
Sweden

Short description

Vocational education and training in Sweden is in the midst of a series of major reforms to ensure labour market relevance and increase quality. The current system of integrated upper secondary education will be replaced in 2011 by a system with three broad orientations: (a) general education, mainly for those intending to pursue higher education; (b) school-based vocational programmes; and (c) work-based apprenticeship. The new upper secondary system will ensure that VET students acquire more vocationally specific knowledge and skills while retaining a strong theoretical core.

Another major VET reform is creation of the new Agency for Higher Vocational Education (Yrkeshögskolan) on 1 July, 2009. The new agency will bring together post-secondary VET types under one administrative structure, apply more robust quality assurance procedures and ensure that vocational education and training more closely meets labour market skill needs.

The economic crisis which hit Europe in 2008 lends urgency to the need for VET to respond to the immediate needs of learners and the labour market. The crisis also presents Sweden with an opportunity to reskill and upskill to improve its economic competitiveness in the coming years.
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Short description
A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (http://europa.eu).

Cataloguing data can be found at the end of this publication.


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The **European Centre for the Development of Vocational Training** (Cedefop) is the European Union's reference centre for vocational education and training. We provide information on and analyses of vocational education and training systems, policies, research and practice. Cedefop was established in 1975 by Council Regulation (EEC) No 337/75.

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Aviana Bulgarelli, *Director*  
Christian Lettmayr, *Deputy Director*  
Peter Kreiml, *Chair of the Governing Board*
‘Not all young people want to go to university. The quality of vocational education and training must be raised to meet labour market skills needs for qualified personnel.’

Jan Björklund, Swedish Minister for Education
April 13, 2007

‘Today the government tabled legislation for a new upper secondary school system. Many of the proposed reforms aim to raise the quality and status of vocational education and training. An upper secondary vocational certificate will be introduced, more time will be dedicated to vocational courses in programmes and industry will be given a stronger voice in vocational education and training. For far too long school policy has only concerned theoretical studies. We are focusing on vocational programmes.’

Jan Björklund, Swedish Minister for Education
April 28, 2009
Foreword

As this report goes to press, major reforms of vocational education and training (VET) are imminent in Sweden. At the same time, the current global economic crisis lends urgency to the need for VET to help learners develop the knowledge, skills and competences that suit their talents and match labour market requirements.

While European countries are supporting people and enterprises in the short term through stimulus packages that include training, it takes long-term thinking and systemic developments to pave the way beyond recovery. The training offered now needs to help people in hard-hit sectors to develop their competences to take on new tasks, help develop new technologies, working methods or services, or reorient themselves towards sectors where qualified labour is lacking. Europe’s longer-term strategies need to take account of rapidly changing skill requirements and a changing labour force: an ageing population with fewer young people entering employment later than previous generations; women whose qualifications are surpassing men’s; and more people who have acquired their knowledge, skills and competences in other countries.

At this challenging time for Europe, Swedish reforms emphasise VET. A country with a tradition of publicly-funded lifelong learning, Sweden is stressing the importance of opening the VET door to adults. The country is providing additional public funds for adult learning geared towards vocationally-oriented training to counteract the impact of the crisis. This is an interesting development, as several other countries offer general skills to help people adapt to job opportunities in new fields, also trying to learn from past experience during economic downturns.

These measures have to be understood in their national context. Based on past experience, youth unemployment and demographic developments, Sweden is also ‘revocationalising’ its upper secondary education and reforming its VET teacher education. The new school-based VET and apprenticeship are meant to suit young people’s talents better, make them fit for progress to further learning and provide the economy with the skilled labour force it needs. It will be interesting to observe the impact of Sweden’s VET reforms.
The rationale of bringing post-secondary VET forms under a common roof reflects a general trend in Europe to offer more vocational programmes above secondary level geared to meet labour market needs. It also shows that the outcomes of VET still need to be made more visible to be adequately valued. This is even truer for knowledge, skills and competence acquired outside formal learning settings. Recognising learning that occurred in the workplace or during leisure time is becoming increasingly important. Sweden intends to increase its efforts in this field.

By illustrating how Sweden integrates the tools and principles developed through European cooperation to make qualifications more transparent, to improve the quality of VET and promote mobility, this report adds a European dimension to the information on the country’s VET characteristics. Published during the Swedish Presidency of the Council of the European Union (second half of 2009), it forms part of a series of regular reports from the European Centre for the Development of Vocational Training (Cedefop) on national vocational education and training systems (1).

We hope that this report will contribute to a better understanding of VET in Sweden.

Aviana Bulgarelli

Director of Cedefop

(1) These reports can be downloaded or ordered from http://www.cedefop.europa.eu/etv/Information_resources/. Further detailed information is also available from Cedefop databases regularly updated by ReferNet (Cedefop’s European network of reference and expertise). Various descriptions of national vocational education and training systems (overviews, analyses, etc.) are also available on the Cedefop website: www.cedefop.europa.eu
Acknowledgements

Cedefop would like to thank Sylvie Bousquet, manager of the short descriptions project, who coordinated this report on the Swedish vocational education and training system. She commented on and edited the text from the Swedish contributor.

The initial report was prepared by Shawn Mendes, Director of Education at the Swedish National Agency for Education (Skolverket) (²). Shawn Mendes is a member of the ReferNet core group, leader of the ReferNet Sweden national consortium, coordinator of the Swedish national reference point for vocational qualifications and Sweden's representative to the European network for quality assurance in vocational education and training (ENQA-VET). He is also a member of the ENQA-VET Board and chair of the thematic group 'Making VET more attractive'.

Cedefop would also like to express its gratitude to Sten Petersson, who helped to prepare the initial text using the Thematic overview prepared for ReferNet Sweden.

Finally, thanks go to our colleagues at Cedefop for their helpful comments, in particular Lore Schmid, and to Anabel Corral-Granados, trainee in the research and policy analysis area, for her commitment to the project.

(²) For more information, log on to www.skolverket.se
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1. General policy context

1.1. Political, sociocultural and 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.

The Parliament (Riksdagen) is the country’s highest decision-making body and has had a single chamber with 349 members chosen by direct election every four years since 1971. Seats are distributed proportionally between those parties that receive at least 4% of the national vote or at least 12% in any electoral district. 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 formed an ‘alliance’ government with an ambitious agenda for change.

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 administration of many issues to municipalities (such as pre-, compulsory- and upper secondary school as well as adult education). Municipalities also receive the majority of income tax revenue in Sweden.

1.2. Population and demographics

Sweden is the fourth largest country in western Europe with an area of approximately 450,000 km². The country stretches over 1,500 kilometres from north to south. In 2008, the population was just over 9.25 million. The country is sparsely populated in the north with only three inhabitants per km². Over 90% of the population lives in the southern half of the country, many of whom in or near the three major urban centres: Stockholm (1.8 million inhabitants), Gothenburg (800,000) and Malmö (500,000). On 1 July 2009 the Language Act (Språklag) designated Swedish as the ‘main’ language in Sweden but there are also five minority languages: Finnish, all Sami dialects, Torne Valley Finnish (Meänkieli), Romani and Yiddish.

Swedish birth rates fell after the economic crisis in the early 1990s and reached an all-time low of 1.5 children per woman at the end of the 1990s. In recent years, however, the birth rate has increased significantly and exceeded 1.9 children per woman in 2008, well above the European Union (EU) average. Life expectancy has risen to 78.7 years for men and 82.9 for women. Figure 1 illustrates Swedish population trends between 1980 and 2000 and population projections between 2010 and 2050.
Much of Sweden’s, and Europe’s, population growth in the coming decades will consist of people above the age of 65. In Sweden, 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 (see Table 1).

Table 1. Population structure by age in Sweden and EU-27 in 2008 and projections to 2050 (%)

<table>
<thead>
<tr>
<th></th>
<th>0-14</th>
<th></th>
<th>15-64</th>
<th></th>
<th>65-plus</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sweden</td>
<td>EU-27</td>
<td>Sweden</td>
<td>EU-27</td>
<td>Sweden</td>
<td>EU-27</td>
</tr>
<tr>
<td>2008</td>
<td>15.7</td>
<td>14.6</td>
<td>66.8</td>
<td>68.3</td>
<td>17.5</td>
<td>17.1</td>
</tr>
<tr>
<td>2010</td>
<td>15.3</td>
<td>14.5</td>
<td>66.5</td>
<td>68.1</td>
<td>18.2</td>
<td>17.38</td>
</tr>
<tr>
<td>2020</td>
<td>16.3</td>
<td>14.4</td>
<td>62.9</td>
<td>65.6</td>
<td>20.8</td>
<td>20.1</td>
</tr>
<tr>
<td>2030</td>
<td>16.2</td>
<td>13.6</td>
<td>61.3</td>
<td>62.9</td>
<td>22.5</td>
<td>23.6</td>
</tr>
<tr>
<td>2040</td>
<td>15.2</td>
<td>13.0</td>
<td>60.6</td>
<td>60.1</td>
<td>24.3</td>
<td>26.8</td>
</tr>
<tr>
<td>2050</td>
<td>15.2</td>
<td>13.1</td>
<td>60.1</td>
<td>58.1</td>
<td>24.7</td>
<td>28.8</td>
</tr>
</tbody>
</table>


The demographic challenge facing Sweden, Europe and many other regions is becoming one of the most worrisome, and expensive, challenges of our time. Demographic projections show that the number of older people will grow faster than younger ones. This will put enormous pressure on governments, and will have implications for vocational education and training as relatively fewer people enter the labour force while an increasing number leave. This may lead to skills shortages which will make it especially important to develop VET options that can respond to labour markets needs.

Sweden is projected to have one of the lower old-age dependency ratios in Europe (almost five percentage points lower than the EU-27 average by 2040) in the coming decades (see Table 2). This is largely the result of two factors: a relatively high birth rate, in the European context; and a relatively high rate of gross and net immigration, which adds younger than average people to the population base in Sweden. However, even Sweden...
faces serious challenges financing the welfare state and ensuring adequate skilled workers in the coming decades. The role of VET will be critical in ensuring that Sweden, and Europe, remain competitive in the context of an ageing society. In concrete terms, this means ensuring that the relatively smaller working age population is effectively trained to contribute to increased productivity and economic development.

Table 2. **Projected old-age dependency ratio (%) in Sweden and EU-27, 2010-40**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>27.81</td>
<td>31.5</td>
<td>33.69</td>
<td>35.46</td>
<td>37.43</td>
<td>39.59</td>
<td>40.78</td>
</tr>
<tr>
<td>EU-27</td>
<td>25.9</td>
<td>28.26</td>
<td>31.05</td>
<td>34.23</td>
<td>38.04</td>
<td>42.07</td>
<td>45.36</td>
</tr>
</tbody>
</table>

NB: This indicator is defined as the projected number of persons aged 65 and over expressed as a percentage of the projected number of persons aged between 15 and 64. EU-27 countries will experience an increase in the dependency ratio from 1 to 4 in 2010 to almost 1 to 2 in 2040.


One way of addressing an ageing population is through immigration. Today, approximately 17% 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. Almost 100,000 people immigrated to Sweden in 2007, including almost 16,000 returning Swedes (see Table 3). The largest source countries of immigrants, by citizenship, in 2007 were as follows: Iraq, 15,200; Poland, 7,525; Denmark, 5,097; Somalia, 3,781; Germany, 3,614; Romania, 2,587; Finland, 2,561; Thailand, 2,548; and Norway, 2,395. This high immigration rate in recent years has underscored the importance of measures to ensure a smooth transition to Swedish society. Education and training are especially important for many immigrants. Municipalities are required by law to offer Swedish language training for immigrants (Svenskundervisning för invandrare, SFI) free of charge. After gaining initial knowledge in Swedish, many immigrants enrol in upper secondary vocationally-oriented courses through the municipal adult education framework (see Chapter 5 for more information on VET for adults). There are also many initial vocational programmes for adults specially targeted at immigrants that combine vocational education with Swedish language training relevant for their intended occupation.

Table 3. **Migration**

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</thead>
<tbody>
<tr>
<td>Immigration</td>
<td>49,806</td>
<td>39,955</td>
<td>99,485</td>
<td>101,171</td>
</tr>
<tr>
<td>Emigration</td>
<td>24,846</td>
<td>34,265</td>
<td>45,418</td>
<td>45,294</td>
</tr>
<tr>
<td>Net</td>
<td>24,960</td>
<td>5,690</td>
<td>54,067</td>
<td>55,877</td>
</tr>
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</table>

1.3. Economy and labour market indicators

Sweden is highly dependent on international trade and, in 2007, exports, more than half of which go to other members of the EU, accounted for over 45% 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.

Since the mid-1990s, Sweden has pursued a combination of low inflation policy (2% target) and prudent fiscal policy. Investments in human capital as well as the emergence of globally leading information and communication technology (ICT) and engineering industries are among the reasons the economy has performed comparatively well over the past 15 years. GDP growth rates in Sweden usually exceeded average growth rates in EU-27 between 1999 and 2006 (see Table 4). The strong fiscal situation put the country in a good position to implement fiscal stimulus measures in response to the sudden, and deep, economic crisis that started in the autumn of 2008.

Table 4. Real GDP growth rate in Sweden and EU-27, 1999-2009 (% change on previous year)

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>4.6</td>
<td>4.4</td>
<td>1.1</td>
<td>2.4</td>
<td>1.9</td>
<td>4.1</td>
<td>3.3</td>
<td>4.2</td>
<td>2.6</td>
<td>-0.2</td>
<td>-4.0*</td>
</tr>
<tr>
<td>EU-27</td>
<td>3.0</td>
<td>3.9</td>
<td>2.0</td>
<td>1.2</td>
<td>1.3</td>
<td>2.5</td>
<td>2.0</td>
<td>3.2</td>
<td>2.8</td>
<td>0.9</td>
<td>-4.0*</td>
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</table>

(*) Projection.


In terms of economic structure, employment in manufacturing industries is projected to continue to decline, following its long-term downward trend. Sweden can, however, expect large variations among different sectors and along with economic cycles. For example, employment in the construction industry increased with the start of a housing construction boom in 2003 but fell rapidly after the onset of the economic crisis from the autumn of 2008. Over the longer term, the number employed in agriculture and forestry is expected to fall by 50% 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. In public education, health and social services sectors (childcare, schools, health and medical care, care of the elderly, etc), employment growth is generally expected to follow changes in demand. Elderly care, in particular, will require a large increase in personnel in the coming years. 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.

The data in Table 5 reveal how different the labour market in Sweden is for men and women. For example, over 31% of women are employed by municipalities, which have responsibility for the delivery of education, social welfare, care of the elderly, etc., compared with only 7.5% of men. In contrast, the private sector is male-dominated.
### Table 5. Number (%) employed by sector in Sweden, 2007

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<thead>
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<th>County</th>
<th>State administration and service</th>
<th>Commercial and industrial</th>
<th>Other organisations/institutions</th>
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<tr>
<td><strong>All</strong></td>
<td>827 756</td>
<td>250 302</td>
<td>234 699</td>
<td>2 901 716</td>
<td>176 086</td>
</tr>
<tr>
<td></td>
<td>(18.9)</td>
<td>(5.7)</td>
<td>(5.3)</td>
<td>(66.1)</td>
<td>(4.0)</td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>172 903</td>
<td>49 814</td>
<td>120 123</td>
<td>1 874 487</td>
<td>73 720</td>
</tr>
<tr>
<td></td>
<td>(7.5)</td>
<td>(2.2)</td>
<td>(5.2%)</td>
<td>(81.8%)</td>
<td>(3.2)</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>654 853</td>
<td>200 488</td>
<td>114 576</td>
<td>1 027 229</td>
<td>102 366</td>
</tr>
<tr>
<td></td>
<td>(31.2)</td>
<td>(9.5)</td>
<td>(5.5)</td>
<td>(48.9)</td>
<td>(4.9)</td>
</tr>
</tbody>
</table>

**Source:** Statistics Sweden, 2009. Available from Internet: [http://www.scb.se/Pages/TableAndChart____23033.aspx](http://www.scb.se/Pages/TableAndChart____23033.aspx) [cited 13.7.2009].

A comparatively high proportion of people aged 15 to 65 are in the labour force and employed. In fact, in 2008 Sweden had the third highest employment rate in Europe after Denmark and the Netherlands, largely due to the high proportion of women in employment where Sweden trailed only Denmark among the 27 Member States (see Table 6).

### Table 6. Employment rate by gender in Sweden and EU-27 (%), between 2000 and 2008

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>European Union*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>2000</td>
<td>70.9</td>
<td>75.1</td>
</tr>
<tr>
<td>2005</td>
<td>70.4</td>
<td>74.4</td>
</tr>
<tr>
<td>2006</td>
<td>70.7</td>
<td>75.5</td>
</tr>
<tr>
<td>2007</td>
<td>71.8</td>
<td>76.5</td>
</tr>
<tr>
<td>2008</td>
<td>71.8</td>
<td>76.7</td>
</tr>
</tbody>
</table>

**NB:** The employment rate is calculated by dividing the number of persons aged 15 to 64 in employment by the total population of the same age group.


**Source:** Eurostat, European Union labour force survey, Eurostat database, 2009.

Many countries in Europe experience high unemployment rates among young people but Sweden lags behind many of the Member States (see Table 7). The government has introduced a number of measures designed to reduce youth unemployment. The reform was implemented on 1 January 2009.

### Table 7. Unemployment rate among those aged 15-24 in Sweden and EU-27, 2005-09

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sweden</strong></td>
<td>21.7</td>
<td>21.5</td>
<td>19.1</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>EU-27</strong></td>
<td>18.3</td>
<td>17.1</td>
<td>15.3</td>
<td>15.4</td>
</tr>
</tbody>
</table>

(b) break in series.

**Source:** Eurostat, population and social conditions, online database 2009.
Sweden spends a higher proportion of its GDP on education and training than the EU average (see Table 8) (3).

<table>
<thead>
<tr>
<th>Public spending on education and training as a percentage of GDP in Sweden and EU-27, 1999-2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>1999</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2001</td>
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<tr>
<td>2002</td>
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<tr>
<td>2003</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td>2006</td>
</tr>
</tbody>
</table>


1.4. Educational attainment of population

In the early 1970s, the highest level of completed education among 60 % of Sweden’s working age adults was compulsory school (ISCED 1-2); only 40 % of adults had completed upper secondary education, and the proportion of the population with higher education (ISCED 5-6) was less than 10 %. Sweden has relatively high levels of educational attainment compared with the OECD average but lags behind leading countries such as Canada. Relative to other EU Member States, Sweden has amongst the highest proportions of population with higher education (see Annex 1).

<table>
<thead>
<tr>
<th>Population aged 25-64 by level of education (%) in Sweden and EU-27, in 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower than upper secondary (ISCED 1-2)</td>
</tr>
<tr>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Sweden</td>
</tr>
<tr>
<td>EU-27</td>
</tr>
</tbody>
</table>

Source: Eurostat, population and social conditions, online database, 2009 [cited 18.6.2009].

In terms of the labour market, it is expected that demand for those with only compulsory school education will fall by half by 2020 (Statistics Sweden, 2008).

---

2. Policy development

Sweden enjoyed five years of sustained high economic growth until the autumn of 2008, which reduced unemployment levels and resulted in skills shortages in several sectors including construction. The country addressed skills shortages partly through the importation of skilled labour from new EU Member States, especially from the Baltic countries and Poland. Similar to most other countries in Europe, Sweden is also facing looming skills shortages due to demographic change as the large cohort of the ‘baby boom generation’ (those born in the first 20 years after the Second World War) leave the labour market for retirement.

Vocational education and training (VET) is characterised by high participation. Over 98% of compulsory school completers continue directly to upper secondary school and half enter initial vocational education and training (IVET). All IVET programmes offer the opportunity to continue to higher education and there is a well-developed adult education system allowing those who did not complete compulsory or upper secondary education to complement their education after the age of 19.

2.1. VET policy challenges

Two of the most pressing VET policy challenges are to increase upper secondary completion rates (\(^{(4)}\)) and prepare for demographic change. The demographic change will result in shortages of skilled workers as labour force exit due to retirement is higher than labour force entry of newly trained young people with VET skills. This will, in turn, put additional pressure on creating a better adult entry point to VET. At present, most adults who enter VET do so through municipal adult education and in 2009 the government announced the new adult VET initiative (\(\text{Yrkesvux}\)) to fund the creation of approximately 21,000 additional adult VET training places between 2009 and 2011 (see 5.1).

Sweden has responded to the challenges outlined above by appointing a series of government investigative commissions (\(^{5}\)) and, subsequently, introducing a series of reforms designed to make VET a more attractive option for young people and adults. These include major changes to the structures of both initial VET and VET for adults in the country over the next few years.

The status of VET in Sweden needs to be improved, partly due to the country’s emphasis on higher education (ISCED 5A and 6, international standard classification of education; see Annex 1) in recent decades. Under the current system of integrated upper secondary vocationally-oriented education, all programmes provide eligibility for higher

\(^{(4)}\) The proportion of students who successfully complete upper secondary school and qualify for entrance to higher education, which is a higher completion standard than basic upper secondary completion (see Annex 3, Glossary, National programme), varies by programme. Overall, 79% of those in the four theoretical/academic programmes complete upper secondary school and qualify for entrance to higher education while only 67% of those in the 13 vocationally-oriented programmes do so (Swedish National Agency for Education (\(\text{Skolverket}\)), 2009).

\(^{(5)}\) There is a tradition in Sweden for the government to appoint commissions (\(\text{utredningar}\)) with clear terms of reference (clearly articulated parameters and policy goals) to investigate issues and then issue final reports with detailed policy recommendations. Many of the more detailed recommendations then serve as the basis for legislation addressing the issues the government identified when appointing the commission.
education but many employers feel IVET in Sweden is too theoretical and does not adequately prepare students for the labour market. Major reforms scheduled for 2011 will move the focus of IVET programmes towards vocational studies and slightly away from theoretical studies.

In 2002, the government made permanent the pilot project on advanced vocational education (Kvalificerad yrkesutbildning – KY) (see 5.2). This form of post-secondary VET, which can be at ISCED 4B or 5B, raises the status of VET and should assist learning routes (including credit transfer) to higher education. To date, higher education institutions have been reluctant to grant KY completers university credits for their completed studies. However, surveys show that employers appreciate the fact that KY completers are typically labour market ready and this is reflected in follow-up surveys, which indicate that approximately 90% of KY completers find employment related to their studies. On 1 July 2009, this form of VET was reformed (see 2.2 and 5.2).

2.2. Current VET policy priorities

At the broad level, current VET policy priorities in Sweden are:

(a) lowering unemployment among young people; those without a complete upper secondary education are particularly vulnerable. A reform of upper secondary education, which includes IVET, should increase the proportion of students completing upper secondary education and better prepare them for labour market needs (see 7.5);

(b) improving upper secondary IVET completion rates to prevent social exclusion and promote integration through measures combining Swedish language training for immigrants with other measures that support integration. Practical vocational training in a workplace and shorter vocational training courses are also important measures;

(c) raising the competence of teachers and trainers as well as the status of the teaching profession, a high priority and essential for quality. To attract more people with enough competence from working life, VET-teacher education will be reformed. The government is also considering a new form of training for principals to improve school leadership;

(d) improving post-secondary VET (ISCED 4B and 5B) via a more attractive alternative. The aim is to create clear structures and establish more consistent guidelines governing post-secondary VET forms. All post-secondary VET forms have been brought under a common framework administered by the new Agency for Higher Vocational Education, created on 1 July 2009 (Myndigheten för Yrkeshögskola, see 5.2);

(e) developing a clearer system for validation that will contribute to social inclusion and recognise the competence of individuals, aiding entrance to the labour market, mobility between occupations and participation in education and training;

(f) responding to the needs of individuals affected by the economic crisis by increasing the number of initial and post-secondary VET courses and programmes for adults, offered in a flexible way and adapted to personal needs. This will aid their entry and return to the labour market and help address future skills shortages in occupations resulting from the ageing population.
2.3. Recent education and training reforms in Sweden

(For legislative references, see Annex 4.)

Since the early 1990s, the overall administrative trend has been characterised by a shift towards significant delegation and decentralisation, primarily to regional and local bodies, especially municipalities. The objective has been to allocate resources efficiently to respond to local demands and needs. Municipalities and other regional/local bodies now, within certain limits and in accordance with nationally-established objectives, independently allocate their tax revenue (i.e. State grants and taxes).

Since the election of the new government in 2006, decentralisation has been accompanied by calls for more quality assurance by central government agencies. The goal is to address concerns about quality, equal opportunity and conditions in schools. To support this, the new Swedish School Inspectorate (Skolinspektionen) has been allocated more resources to conduct more frequent school inspections and implement other quality assurance measures; the new agency was established in October 2008 (see 3.2.1). Reforms of upper secondary education, teacher training and certification, and post-secondary VET will also address quality issues.

VET policy in Sweden has generally been geared to improving access to, and equity in, VET. The focus is more on modest changes rather than wholesale reform but there is general agreement that the status of VET needs to be raised to attract more learners. The government has stated that IVET programmes should allow those who do not intend to pursue higher education to focus more on VET and work-based training. It is hoped that such reforms will lead to an increase in the upper secondary completion rate by retaining the interest of those VET learners who find it difficult to cope with the heavy load of general/academic subjects.

Another policy trend has taken shape in the government’s initiative to gather all post-secondary VET forms under one administrative roof, the Agency for Higher Vocational Education, as of 1 July 2009. This should increase access and equity in post-secondary VET in Sweden by making it more visible and transparent. VET programmes supported by the new agency will be organised in cooperation with industry to develop more demand-oriented VET (see 5.2). This trend has been accompanied by increased focus on quality development and assurance, goals supported by the new agency (see 8.1).
3. Institutional framework

3.1. Legal framework for vocational education and training (VET)

(See Annex 4 for the main legislative provisions.)

Legislative responsibility for education (including VET) rests with Parliament (Riksdag) and the government. With the exception of the University of Agricultural Sciences, under the Ministry of Agriculture, Food and Fisheries (Jordbruksdepartementet), employment training, which is the responsibility of the Ministry of Employment (Arbetsmarknadsdepartementet), and the training of officers and police under the Ministries of Defence and Justice, respectively, virtually all public education comes under the jurisdiction of the Ministry of Education and Research (Utbildningsdepartementet) (6). This is responsible for preschool education, childcare for school children, compulsory school, upper secondary school, independent schools, adult education, liberal adult education, post-secondary education, universities and university colleges, research and student financial assistance.

According to the Education Act (Skollagen, SFS 1985:1100), all children and youth have a right to equal access to education, regardless of gender, where they live, or social or economic factors. Education shall ‘provide pupils with knowledge and, in cooperation 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 independent (private) but the majority of students attend municipal compulsory schools.

Teacher and other employee organisations are entitled, under the Codetermination Act (Lag om medbestämmande i arbetslivet – MBL, SFS 1976:580), to information about, participation in and influence over impending decisions. Student determination rights are enshrined in the Education Act, but their practical implementation is determined locally. Parental and student influence in the management of schools is enhanced by participation on local school boards. All municipalities are obliged to offer young people, up to age 20, who have completed compulsory school, or the equivalent, upper secondary school education. To be admitted to a national or specially designed programme, students must have passed Swedish, English and mathematics at compulsory school or demonstrate equivalent knowledge. If a student’s choice of programme is not available in their home municipality, they have the right to apply to another municipality and their home municipality must pay the cost of the education (Lag om kommuners skyldighet att svara för vissa elevresor, SFS 1991:1110).

Occupational certification and qualifications are often administered by the social partners in Sweden. In fact, most vocational occupations are regulated not by government but by joint (business and labour) training boards, which control the few apprenticeable occupations in the country as well as certification of the few regulated occupations (such as electricians).

3.2. Institutional framework: IVET

Initial vocational education for young people is currently part of an integrated system of upper secondary schooling. The institutional frameworks for other forms of IVET, as well as vocational education and training for adults, are covered under Section 3.3.

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 decades (7). In accordance with decisions in Parliament, in 1991, responsibility for teaching staff was transferred from central authorities to municipalities and local school authorities, which were also given the task of organising and implementing school activities. The reforms of 1991 also ushered in an era 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.

Most municipal funding comes from municipal taxes, although municipalities also receive funds from the State budget for various services. The Education Act requires that each municipality establish a local school plan (skolplan) describing the financing, organisation, development and assessment of activities at each school. The school plan should indicate how the municipality intends to fulfil the national goals established for the school. The school administrator at each school is required to establish a local work plan (lokal arbetsplan) based on national goals and the local school plan. The work plan should define issues not articulated in the national regulations and should be developed in consultation with teachers and other staff. The school, or teacher, decides what teaching material to use. Independent schools that provide education equivalent to that provided in publicly-run schools are entitled to grants, paid according to the same criteria the municipality applies when distributing resources to the schools within its own organisation.

Today the government defines national goals and guidelines while central and local education authorities together with education providers are responsible for ensuring that the system is implemented in accordance with national goals. Within the framework and guidelines established by the government and administered by the Swedish National Agency for Education (Skolverket) (8), education providers enjoy considerable freedom to determine how activities are to be implemented and resources utilised. Central and local authorities, as well as individual schools, need to follow up and evaluate educational activities systematically in relation to nationally established goals. 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

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(7) Municipalities are responsible for the administration of preschool, preschool class, compulsory school, upper secondary education and adult education under guidelines and using curricula established by the Swedish National Agency for Education. Higher vocational education is administered by VET providers under a framework established by the Agency for Higher Vocational Education. Folk high schools operate independently but belong to a National Council of Adult Associations. Apprenticeship-like training leading to certification is fully devolved to sectoral joint training boards.

(8) www.regeringen.se/sb/d/1454 [cited 9.7.2009].
ordinances, approves curricula for the school system and determines general guidelines on the distribution of appropriations.

3.2.1. National level

Central government agencies work independently from the Ministry of Education and Research and determine their priorities in accordance with guidelines established by the government. There are two central agencies under the Ministry of Education and Research with responsibility for VET: the Swedish National Agency for Education (Skolverket); and the Swedish School Inspectorate (Skolinspektionen) (9).

The National Agency for Education is responsible for monitoring that the national goals for pre-, compulsory and upper secondary schools as well as adult education are achieved. This covers upper secondary IVET and municipal IVET for adults. The agency also develops steering documents (such as syllabi, curricula and grading criteria), supports a training programme for school heads, and funds national competence development for teachers and school personnel.

The School Inspectorate’s main task is to examine the quality and outcome of education in municipalities and independent schools, as well as supervise their activities.

3.2.2. Regional/municipal level

Municipalities (kommuner) have overall responsibility for educational activities within the school system. The 1991 Local Government Act (Kommunallag, SFS 1991:900) gives the municipalities and county councils (landsting) the option of designing their own organisational structures with different committees having different areas of responsibility.

The school system is one of the largest, most important responsibilities of municipal governments. During the 2008/09 school year, municipal school systems included over 1.6 million children, students and adult learners. The majority of education below university level is provided by municipalities. Privately operated ‘independent schools’ (friskolor) approved by the State may also provide education and are fully funded by municipalities (tuition/study fees may not be charged). Disaggregated by school form, municipalities are responsible for (number of students indicated in brackets):

(a) preschool classes for six-year-olds (97 587);
(b) nine-year compulsory comprehensive school for children typically aged 7-15 (906 189);
(c) upper secondary school, attended by almost all older teenagers (over 98 % of the age cohort continue from compulsory school to upper secondary school), including IVET (396 336);
(d) adult education, including VET for adults, as well as Swedish language instruction programmes for immigrants (174 159);
(e) special education programmes for children and youth, as well as adult programmes for people with intellectual disabilities (28 023) (Swedish National Agency for Education, 2009) (10).

(9) www.skolinspektionen.se [cited 9.7.2009].
(10) Data for adult education as well as for Swedish language training for immigrants are for the 2007/08 school year.
County councils (landstingen) operate a number of folk high schools; these are small, often residential adult schools (folkhögskolor) and are in charge of certain upper secondary school-level training programmes in healthcare professions as well as in agriculture and forestry. County councils can also cooperate with two or more municipalities to form a joint board to administer a given operation, such as upper secondary schools.

An objective of the education system so far has been to avoid a gap between vocational and general education. Consequently, there is an integrated system, which does not separate pupils attending different programmes and, even at the upper secondary level, pupils are obliged to study common core subjects.

The new government elected in 2006 stated its intention to reform upper secondary education. A government commission was formed to investigate and recommend how best to structure upper secondary school in the future and submitted its report (Framtidsvägen – en reformerad gymnasieskola; Future route – Reform of upper secondary school) on 31 March 2008. The new system, which is planned for 2011, will comprise:

(a) general/academic programmes;
(b) vocationally-oriented programmes without the same mandatory academic requirements as under the current system;
(c) upper secondary apprenticeship programmes.

Social partners play a significant role in IVET via advisory committees for vocationally-oriented programmes at upper secondary schools. Joint business-labour training boards also play a critical role in certifying many occupations at sectoral level.

3.3. Institutional framework: VET for adults

In Sweden, the main distinction is between upper secondary IVET, by far the largest VET form in Sweden with almost 178 000 students, and VET for adults, which can be either continuing or initial VET. There are several VET forms for adults including:

(a) upper secondary initial VET (IVET) through municipal adult education (Yrkesinriktad gymnasial vuxenutbildning inom kommunal vuxenutbildning);
(b) advanced vocational education (Kvalificerad yrkesutbildning – KY) (11);
(c) post-secondary training, often within the framework of municipal adult education (påbyggnadsutbildning) (12);
(d) supplementary education (kompletterande utbildning);
(e) apprenticeship-like training leading to sectoral vocational certification;
(f) VET programmes through folk high schools (folkhögskolor);
(g) labour market training funded through the National Labour Market Board (Arbetsmarknadsstyrelsen);
(h) in-company training or staff training.

(11) Responsibility for several of these VET for adult forms (the former advanced vocational education, post-secondary training and supplementary education) was transferred to the new Agency for Higher Vocational Education (Yrkeshögskolan) on 1 July 2009. The agency will establish a unified structure for post-secondary VET.

(12) Post-secondary training, a specific VET form for adults, should not be confused with the term post-secondary VET, which describes all VET forms for adults after upper secondary school (see Annex 3, Glossary).
3.3.1. National level

A bill was presented to the Riksdag in 2009 on the creation of higher vocational education institutions. Vocational higher education brings together post-upper secondary school vocational programmes not found in the higher education system, including advanced vocational education which became the cornerstone of post-secondary VET in Sweden after passing the Law on Advanced Vocational Education in 2001 (Lag om kvalificerad yrkesutbildning: SFS 2001:239). The new Agency for Higher Vocational Education (Myndigheten för Yrkeshögskolan) (13), established on 1 July 2009, effectively gathers all publicly-financed post-secondary VET in the country under one administrative structure and will lead to more consistent funding mechanisms and norms for post-secondary VET. The agency superseded the Agency for Advanced Vocational Education and also assumed responsibility for two smaller VET forms for adults – supplementary education (kompletterande utbildning) and post-secondary training (påbyggnadsutbildning) – from the National Agency for Education, which retains national responsibility for IVET for adults through municipal adult upper secondary education.

3.3.2. Regional/municipal level

Regional governments played a limited role in VET for adults through county labour market boards (länsarbetsnämnder) until their tasks were incorporated into those of the Swedish public employment service (Arbetsförmedlingen), a major reform that took effect 1 January 2008. However, labour market training is actually delivered to individuals registered at local employment offices (arbetsförmedlingar). Municipalities have administrative responsibility for IVET for adults through municipal adult upper secondary education, under the auspices of the Swedish National Agency for Education and the Swedish School Inspectorate.

3.3.3. Social partners

Social partners play a significant role in VET for adults in Sweden through, for example, joint business-labour occupation advisory committees (yrkesråd) or through their control of the certification of many VET occupations at sectoral level. Overall, while education as a whole has been developed as a result of government decisions, VET for adults has been more influenced by the social partners. Therefore, a significant proportion of VET for adults 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, including the sector-specific apprenticeship-like training some enter after completing a vocationally-oriented upper secondary programme (IVET).

(13) www.yhmyndigheten.se [cited 9.7.2009].
4. Initial vocational education and training

4.1. Background

(See Figure 2.)

Lifelong learning is the key principle for learning in Sweden, including formal, non-formal and informal approaches. Sweden has a highly developed system of adult education and training, which not only offers continuing training but also qualifications that young people can acquire through initial VET. Consequently, the usual distinctions between IVET (initial vocational education and training) and CVET (continuing vocational education and training) are difficult to apply in the Swedish context. Instead, it is usual in Sweden to distinguish between IVET (grundläggande yrkesutbildning), for those up to 19 years of age, and VET for adults (yrkesutbildning för vuxna), for those 19 years of age and older. This simple dichotomy is complicated somewhat by the well-developed system of adult education, which aids the entrance of many adults into VET through municipal adult upper secondary IVET.

Compulsory school in Sweden covers nine years; it typically starts in the autumn of the year a child turns seven and ends in the spring of the year a child reaches the age of 15. Prior to this, most children have the right to attend preschool between the ages of one and five.

Over 98% of compulsory school leavers proceed to the three-year upper secondary school, which offers both vocationally-oriented (IVET) and academic programmes. Municipalities are obliged under the Education Act to offer young people (typically between the ages of 15 and 20) who have completed compulsory school, upper secondary school education. To be admitted to a national or specially designed programme students 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 the number of applicants in a programme is higher than the number of places available, selection is on the basis of final grades from compulsory school. Completion of both theoretical/academic and vocationally-oriented programmes includes common core curricula that provide adequate credits to aid entrance to university. Moreover, academic and IVET programmes share several common core courses and are both categorised as ISCED 3A (see Annex 1). In this regard, the system is flexible, with IVET completers having options ranging from direct labour market entry to post-secondary VET to higher education.

Upper secondary programmes that are primarily vocationally-oriented must give broad basic education within the vocational field, as well as providing the foundation for further studies (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 regional, municipal or independent. In 2008/09, approximately 79.5 % of upper secondary students in Sweden attended municipal schools, 19.5 % attended independent schools and 1 % attended schools administered at county level (Swedish National Agency for Education, 2009). A growing number attend independent schools, which are also fully funded and may not charge tuition fees. Studies in agriculture, forestry, horticulture and certain caring occupations take place in schools run by county councils in cooperation with two or more municipalities.

The syllabi 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 Swedish National Agency for Education (Skolverket).

The Education Act (14) also extends the right of education to adults. This can be provided through municipal adult education (Komvux) or in adult education for adults with learning disabilities (Särvux) (see Chapter 5).

4.2. Upper secondary level IVET

In 2008/09, there were 177,935 students enrolled in IVET at upper secondary schools in Sweden, representing 49.5% of the upper secondary student population enrolled in national programmes (15) (see Table 10).

4.2.1. School-based and alternance IVET

Under the current system, which is based on the 1994 reform, IVET programmes are designed to confer wider and deeper knowledge compared to previous times. Successful completion of an upper secondary programme, whether theoretical/academic or vocationally-oriented, fulfils the requirements to enter higher education. However, the majority of higher education students come from one of the four academic programmes. Under the current system, students are also given significant choice with respect to the content of their own education and can choose from a variety of both common core and courses specific to their programme.

Currently, there are 17 national programmes, 13 of which are vocationally-oriented, and all cover three years. The VET programmes are typically 85% school-based. Every programme comprises 2,500 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 no 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 1,450 credits. The vocationally-oriented programmes (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 (organisers of schooling such as municipalities, independent schools, etc.) are responsible for finding workplace training opportunities and for supervising students; many schools see this as requiring major effort. 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 sufficient high quality placements, which underscores the importance of the network schools build with social partners in their community. Another challenge regarding the work-based training component of upper secondary education is ensuring that supervisors (those supervising students on work-based training placements) have sufficient knowledge of education and training to ensure a positive learning experience in the workplace.

(15) This differs from Eurostat data indicating that approximately 58% of the Swedish upper secondary population is enrolled in IVET because Eurostat defines the arts programme (art and design, dance, music and theatre, the Estetiska programmet) as vocational while Sweden defines it as non-vocational as it does not require at least 15 weeks of work-based training.
Most Swedish programmes are divided into different specialisations offered in years two and three. The Swedish National Agency for Education determines which courses are compulsory for national specialisations.

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. Over 42,000 students (10.6% of the upper secondary student population) were enrolled in specially designed programmes in the 2008/09 study year (National Agency for Education, 2009a).

Individual programmes (individuellt program) can vary in length and content and are organised by each upper secondary school to meet the needs of students unable to participate in a national or specially designed programme, often because of insufficient learning outcomes in Swedish, English and mathematics. The aim is for students to transfer later into a national or specially designed programme. Otherwise, students receive a final grade (learning certificate), when they have completed the set programme syllabus. In the 2008/09 study year, 31,532 (8%) upper secondary students participated in the individual programme, and 7,142 (23%) of them were also attached to a national programme.

There were also approximately 2,803 students in international baccalaureate (IB) programmes, accounting for only 0.7% of the total upper secondary student enrolment of 396,336 students in Sweden in the 2008/09 school year.

A student who has completed vocationally oriented education at an upper secondary school is more of a generalist than a specialist and the acquisition of more specialised skills is often the responsibility of the employer. Upper secondary completers do not receive specific qualifications (16), partly because the majority of jobs do not require qualifications or certification in Sweden. For the few occupations that do require occupational certification (such as electrician, plumber) a learner must complete an apprenticeship-like programme administered by joint training boards at the sectoral level. These joint training boards issue journeyperson certificates (Yrkesbevis) for many trades though healthcare occupations are certified by the National Board of Health and Welfare (Socialstyrelsen).

Overall, it is felt that upper secondary school should not be a dead end but, instead, the first step in a process of lifelong learning. Indeed, the transition rate from upper secondary to tertiary education has increased significantly during the past decade with almost 45% of upper secondary students continuing to higher education within three years of upper secondary completion. In principle, all IVET is provided at upper secondary school level and is almost entirely (over 99%) financed by public funds.

Several enterprise-based upper secondary schools have also 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. This type of upper secondary school receives the same funding formula as other schools, follow the core upper secondary curricula and students receive the same upper secondary leaving certificate.

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(16) The proposed new system of upper secondary education in Sweden, to be launched in the autumn of 2011, has provisions for awarding an upper secondary diploma to those who successfully complete all the requirements.
### Table 10. National upper secondary school programmes and participation, 2008/09

<table>
<thead>
<tr>
<th>National upper secondary programmes</th>
<th>Proportion/total students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts/art and design, dance, music and theatre (<em>Estetiska programmet</em>)</td>
<td>6.5 %</td>
</tr>
<tr>
<td>Business and administration/commerce and service, tourism and travel (<em>Handels- och Administrationsprogrammet</em>)</td>
<td>5.3 %</td>
</tr>
<tr>
<td>Child and recreation/recreational, pedagogical and social activities (<em>Barn- och Fritidsprogrammet</em>)</td>
<td>4.4 %</td>
</tr>
<tr>
<td>Construction/building, house construction, painting, platework (<em>Byggprogrammet</em>)</td>
<td>4.7 %</td>
</tr>
<tr>
<td>Electrical engineering/automation, electronics, electrical engineering and computer technology (<em>Elprogrammet</em>)</td>
<td>6.6 %</td>
</tr>
<tr>
<td>Energy/operations and maintenance, marine technology, heating, ventilation and sanitation and refrigeration (<em>Energiprogrammet</em>)</td>
<td>1.1 %</td>
</tr>
<tr>
<td>Food/local specialisations, countrywide recruiting (<em>Livsmedelsprogrammet</em>)</td>
<td>0.5 %</td>
</tr>
<tr>
<td>Handicraft/various trades and crafts (<em>Hantverksprogrammet</em>)</td>
<td>2.7 %</td>
</tr>
<tr>
<td>Health and nursing/no national specialisations (<em>Omvårdnadsprogrammet</em>)</td>
<td>3.9 %</td>
</tr>
<tr>
<td>Hotel, restaurant and catering/hotels, restaurant and meal services (<em>Hotell- och Restaurangprogrammet</em>)</td>
<td>4.3 %</td>
</tr>
<tr>
<td>Industry/local specialisations, countrywide recruiting (<em>Industriprogrammet</em>)</td>
<td>2.9 %</td>
</tr>
<tr>
<td>Media/media production, printing technology (<em>Medieprogrammet</em>)</td>
<td>4.9 %</td>
</tr>
<tr>
<td>Natural resource use/local specialisations (<em>Naturbruksprogrammet</em>)</td>
<td>3.1 %</td>
</tr>
<tr>
<td>Natural science/natural sciences, mathematics and computer sciences, environmental sciences, (<em>Naturvetenskapsprogrammet</em>)</td>
<td>12.5 %</td>
</tr>
<tr>
<td>Social science/economics, culture, social sciences, languages (<em>Samhällsvetenskapsprogrammet</em>)</td>
<td>25.7 %</td>
</tr>
<tr>
<td>Technology/local specialisations (<em>Teknikprogrammet</em>)</td>
<td>5.7 %</td>
</tr>
<tr>
<td>Vehicle engineering/aircraft, coach work, machine and lorry, cars, transport (<em>Fordonsprogrammet</em>)</td>
<td>4.7 %</td>
</tr>
</tbody>
</table>

*Source: National Agency for Education, 2009a.*

### 4.2.2. Apprenticeship

There is broad agreement among observers that there is a need for a better match between education and training output and labour market needs. Many also argue that there has been too little emphasis on VET in Sweden in recent decades. Therefore, the new upper secondary school system from 2011 will also include a new apprenticeship programme. Pilots were launched in the second half of 2008.
The ‘modern’ upper secondary apprenticeship training will entail at least 50% work-based training and apprentices may or may not earn a wage. As with the new vocational programmes at upper secondary school from 2011, learners in upper secondary apprenticeship will receive a vocational upper secondary diploma on completion of their studies/training. 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. To meet the entry requirements to higher education, upper secondary apprentices may take additional core courses during their time at upper secondary school or can, at a later date, supplement their education through municipal adult education (Komvux).

Employers that hire and supervise apprentices will receive approximately SEK 25 000 per apprentice per year to cover the cost of employing the apprentice and for training supervisors. In total, the government will set aside SEK 500 million over three years with SEK 400 million assigned to cover the costs for employing an apprentice and SEK 100 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 upper secondary apprenticeship training must establish an apprenticeship council (lärlingsråd) with representatives from schools, industry and trade unions to reflect current labour market skill needs. There is a great degree of flexibility to design programmes to meet local and regional needs, but, ultimately, upper secondary apprenticeship training must meet nationally established goals.

4.3. Initial vocational education and training for adults

We distinguish here between IVET (initial VET for those up to 19 years of age) and VET for adults (for those 19 years of age and older) (see Chapter 5).

However, IVET for adults is available through municipal adult education (Komvux) as well as through labour market training programmes. In addition, some programmes at folk high schools (Folkhögskolor), in post-secondary training (Påbyggnadsutbildning) and via supplementary education (Kompletterande utbildningar) can be considered as IVET at post-secondary level. However, most of the latter forms (other than municipal adult education and labour market training programmes) were moved to the new Agency for Higher Vocational Education (Yrkeshögskola) on 1 July 2009. The new agency will ensure the development of a logical framework for post-secondary, non-tertiary VET.

Post-secondary training programmes (Påbyggnadsutbildning) are a type of non-compulsory schooling for training or further training in a profession. Most last for one to one-and-a-half 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 (see Chapter 5).

(17) Sweden has not had broad apprenticeship training as part of the upper secondary school system for approximately 40 years.
(18) EUR 1 = SEK 10.8 on 1.7.2009.
5. Vocational education and training for adults

5.1. Background information

Sweden has a long tradition of VET for adults, provided in many different forms including IVET for adults, higher vocational education, labour market training and competence development in the workplace. VET for adults (yrkesutbildning för vuxna) can be targeted at both upper secondary completers and non-completers. Many participants are in their mid-20s but individuals in all adult age groups can participate. The main objective of this type of training is usually to assist labour force entry but it can also lead directly to higher vocational education and training (ISCED 4B and 5B) or to higher education (ISCED 5A and 6).

Adult VET programmes in Sweden include individual courses, apprenticeship-like training leading to certification to three-year diploma programmes. VET for adults is characterised by flexible and demand-driven curricula but does not always offer the same clear learning pathways featured in upper secondary IVET programmes (19). The few VET forms that result in occupational certification are usually administered by business-labour joint training boards (Yrkesnämnd) at sector level.

The two largest forms of VET for adults in Sweden are:

- higher vocational education, the majority of which was called advanced vocational education (Kvalificered yrkesutbildning) until 1 July 2009;
- upper secondary initial VET (IVET) through municipal adult education (Yrkesinriktad gymnasial vuxenutbildning).

There are, however, several smaller VET forms for adults including programmes through supplementary education (kompletterande utbildning), post-secondary training (påbyggnadsutbildning) and folk high schools (folkhögskolor). Responsibility for post-secondary training, supplementary education and the former advanced vocational training was transferred to the new Agency for Higher Vocational Education (Yrkeshögskolan) on 1 July 2009 (see 2.3 and 3.3.1). The agency will develop and implement a unified structure for higher vocational education and training in Sweden (Lag om yrkeshögskolan, SFS 2009:128).

There is also VET for adults through joint training boards at sector level. These are apprenticeship-like programmes leading to certification in trades such as electrician, automotive mechanic, and plumber and are administered exclusively by the social partners.

Upper secondary IVET through municipal adult education is the largest form of VET for adults in Sweden (20). It follows guidelines established by the Swedish National Agency for upper secondary education and therefore offers a clear pathway to higher education for those who wish to pursue that path. Other adult VET forms are more linked to the labour market and, in some cases, occupational certification, than to transition to higher education.

(19) Municipal upper secondary IVET for adults is designed in much the same way as upper secondary education and therefore offers a clear pathway to higher education for those who wish to pursue that path. Other adult VET forms are more linked to the labour market and, in some cases, occupational certification, than to transition to higher education.

(20) There were approximately 70 000 students enrolled in upper secondary IVET through municipal adult education in Sweden in 2008 but many studied part-time. Adjusted to a full-time basis, it is estimated that there were 40 000 students in this VET form in 2008.
Education (Skolverket). Over 170,000 participants enrol in approximately 700,000 courses per year. Municipalities are required to offer adult education free of fees to residents 20 years of age or older.

Between 1997 and 2002, a major programme, the adult education initiative (Kunskapslyftet), was established to stimulate lifelong learning by earmarking extra funding for municipalities to offer hundreds of thousands of additional municipal adult education places, primarily for those without a complete upper secondary education. Following this major investment in adult education, the policy emphasis shifted to the need to reform upper secondary education, including upper secondary IVET upon which municipal adult IVET is based. In the meantime, in 2009, the government has channelled extra funding to adult IVET through vocationally-oriented adult education (YrkesVux). This initiative has been largely developed in response to the economic crisis. It earmarks an additional SEK 1.1 billion to provide IVET places for an additional 21,000 adults under the municipal adult education framework between 2009-11 (Förordning om statsbidrag för yrkesinriktad gymnasial vuxenutbildning, SFS 2009:43).

5.2. Publicly promoted VET for adults

Until 1 July 2009, the administrative structure of VET for adults varied significantly. Upper secondary IVET for adults (yrkesinriktad gymnasial vuxenutbildning inom kommunal vuxenutbildning) and advanced vocational education (kvalificerad yrkesutbildning) were under the Swedish National Agency for Education and the Agency for Advanced Vocational Education respectively. Supplementary education (kompletterande utbildning), post-secondary training (påbyggnadsutbildning) and VET programmes at folk high schools were offered in a less structured manner. Many of these VET programme forms were funded by the government while some only offered learners the right to student financial assistance (to student loans and grants to support living costs and, sometimes, tuition fees) and others did not even offer that. Under the new unified administrative structure, the Agency for Higher Vocational Education will establish more consistent guidelines for post-secondary VET. Until 2009 quality had mainly been assured through follow-up studies on, for example, the destination of higher vocational completers, but the new Agency for Higher Vocational Education (Yrkeshögskolan) has a mandate to develop more robust quality assurance and improvement procedures (21).

Upper secondary IVET through municipal adult education gives individuals 20 years of age or more the chance to take both theoretical/academic and vocationally-oriented courses (22). Such courses may then allow the learner to either continue to post-secondary VET forms, higher education, apprenticeship-like training leading to certification at sectoral level or direct labour market entry. Steering documents and curricula are developed by the Swedish National Agency for Education.

(21) The new agency also assumed responsibility for much of supplementary education and post-secondary training in July 2009 and will establish guidelines and quality assurance procedures to ensure the quality of teaching and training.

(22) Municipal adult education is one of the main forms of education in Sweden and is regulated by the Ordinance on adult education, a supplement to the Education Act (Förordning om kommunal vuxenutbildning, SFS 2002:1012). It offers adults an opportunity to take upper secondary courses in a flexible form.
Higher vocational education is the largest form of purely vocational post-secondary training in Sweden with approximately 35,000 students in 2008. This type of training was first piloted in 1996 and made permanent in 2002. It is designed to provide training to meet labour market demand for specialist know-how in various sectors. Programmes are designed in consultation with employers and delivered by various education and training providers (23). Programmes can vary between one and three years. At least one third of this training should be workplace-based but the new Agency for Higher Vocational Education is establishing new guidelines to ensure that higher vocational education meets quality measures and better reflects actual labour market skill needs.

Supplementary education is provided outside the public education system and lasts from 200 hours to two years or more. Some of these programmes receive government funding. In others, participants may apply for student financial assistance. The third category covers programmes with government approval without funding or financial assistance (24). There are currently about 150 different education providers offering courses in, for example, fine arts, music, design, handicrafts and pilot training. Supplementary education programmes do not provide any formal eligibility for further study, but can be seen as vocational training that prepares for higher educational courses or labour market entry. Administration of this form of VET for adults moved from the Swedish National Agency for Education to the Agency for Higher Vocational Education on 1 July 2009.

Post-secondary training programmes provide further training in a profession. Most of them last for one-and-a-half years and are funded under the municipal adult education framework. The goal of post-secondary training is to lead to a new level within an occupation or to a new occupation. The Agency for Higher Vocational Education assumed responsibility for many post-secondary training programmes on 1 July 2009.

VET at folk high schools – independent adult education colleges – varies widely as each school decides independently what courses it provides and teaching methods to be used. Programmes can vary in length but year-long courses are common. Examples are specialised handicrafts, recreation leadership, sign language interpretation, etc. Folk high schools receive significant State funding following guidelines established in the Ordinance on State subsidies for popular education (SFS 1991:977).

Apprenticeship-like training for adults is provided outside the public education and training system and governed solely by joint training boards (the social partners at sectoral level). This apprenticeship-like training or in some cases validation of prior learning or of education and training acquired abroad, leads to certification in some trades.

It is difficult to specify an exact number of learners in VET for adult programmes in Sweden because of the decentralised system as well as problems defining whether or not a student is in a VET programme. It is estimated that just over half the participants in municipal adult education pursue vocationally-oriented studies, which means approximately 70,000 actual learners or an estimated 40,000 on a full-time basis in 2008 (National Agency for

(23) There are a wide range of training providers for higher vocational education including public institutions, private training companies, craft-related organisations, etc.

(24) Until July 2009, supplementary education was the only VET form operating according to public guidelines (provided after receiving approval from a government authority, in this case the Swedish National Agency for Education) where some of the programmes required students to pay tuition fees.
During the same year there were approximately 35,000 students enrolled in advanced vocational education programmes, 5,100 in supplementary education (\(^{26}\)) and 2,800 in post-secondary training. However, there are no national data on the number of individuals enrolled in VET programmes at folk high schools or on those active in apprenticeship-like training leading to certification at sector level.

5.3. Training for the unemployed and others vulnerable to labour market exclusion

The main authorities involved with training for the unemployed and others vulnerable to exclusion in the labour market are the Swedish Public Employment Service (Arbetsförmedlingen), the Swedish National Agency for Education (Skolverket) and the new Agency for Higher Vocational Education (Myndigheten för Yrkeshögskolan).

The Public Employment Service is responsible for developing, administering and evaluating labour market policy and funding active policy measures such as labour market training and skills upgrading for the unemployed, as articulated in the Ordinance on Labour Market Training (\(\text{Förordningen (2000:634) om arbetsmarknadspolitiska program: 29/06/2000).}\))

However, much skills upgrading occurs through the framework of municipal adult education (\(^{27}\)).

Until the mid-1980s, training for the unemployed was provided almost entirely by public training institutions but there is now a wide range of providers including public schools, social partners, non-profit organisations and private training enterprises. Labour market training is arranged in all municipalities through both regular and specially procured provision. The Public Employment Service purchases and funds training for the unemployed and offers targeted support for vulnerable groups such as new Swedes/immigrants, people with disabilities, and those with low skills levels. There has been a trend towards shorter, more targeted training to support as rapid an entrance, or return, to the labour market as possible. Longer-term training, not considered to be directly tied to the labour market, is mainly supported through public VET for adults (see 5.2).

\(\text{(25)}\) Learners in municipal adult education do not choose a programme as at upper secondary school but instead take individual courses, or even parts of courses. Consequently, it is difficult for the Swedish National Agency for Education to determine exactly how many participants in municipal adult education are pursuing general/academic versus vocationally-oriented studies. The estimate above reflects a review of national course data analysed by National Agency for Education staff on 2 July 2009.

\(\text{(26)}\) Not all students in supplementary education are in VET programmes.

\(\text{(27)}\) Municipalities have broad taxation powers in Sweden, mainly the bottom bracket of income tax, and are required to finance services such as education with these funds. However, municipalities must follow guidelines established by the parliament, government and the Swedish National Agency for Education. National authorities occasionally earmark extra funds to support national priorities in municipalities. One such example is the SEK 1.1 billion the government earmarked to support the adult VET initiative (\text{yrkesinriktad gymnasial vuxenutbildning}) covering the period 2009-11.
5.4. VET for adults at the initiative of enterprises or social partners

Staff training (personalutbildning) registered in Swedish statistics is formal or non-formal, teacher/trainer-controlled staff training financed by the employer. Two-thirds of this training is organised in the company or at the workplace. Teachers or trainers are internal or external. 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 sector or enterprise levels. Moreover, since the mid-1970s, all employees have the right to unpaid leave for studies of any kind, without any restriction on the duration of the studies (Lagen om arbetstagares rätt till ledighet för utbildning, SFS 1974:981). Paid education and training leave can be negotiated on a case-by-case basis at either firm level or, more commonly, individual level. Sweden does not have individual training accounts, which is perhaps not surprising given the combination of fee-free VET for adults, the right to unpaid education leave and the comprehensive system of student financial assistance, as articulated in the Act on Study Support (Studiestödslagen, 1996:605) (28). Employees are also entitled to attend training arranged by trade unions.

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 (Landsorganisationen i Sverige, LO) and the Council for Negotiation and Cooperation (Privattjänstemannakartellen, PTK) representing 26 trade unions of salaried employees. This is a general agreement on in-service training and information to employees about work organisation, technology and finance. These agreements contain 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 on education and in-service training (such as 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 (Lag om medbestämmande i arbetslivet – MBL, SFS 1976:580).

Several projects have been carried out, both at the initiative of the employers and of the trade unions. The Swedish Trade Union Confederation (LO) supports a large number of study circles through its partner organisation, the Workers’ Educational Association, and this allows unions to provide training opportunities to tens of thousands of workers annually. A very ambitious project carried out by LO and ABF in 2003 (KUL-projektet, competence development and learning in working life) provides many good examples of national and local agreements between trade unions and employers’ organisations concerning staff training.

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

(28) Those with relatively little previous education (such as those over 25 without a complete compulsory or upper secondary education) can receive special grants instead of the usual 70 % loan, 30 % grant ratio that most adult learners receive via student financial assistance (Förordning om rekryteringsbidrag för vuxenstuderande, SFS 2002:744).
proportion of women than men participate. The likelihood of participating in enterprise-initiated training increases with the size of the enterprise. In-service training in small and medium-sized enterprises (SMEs) is occasionally funded through European programmes such as the European Social Fund (ESF) 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.

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 workplaces, employees learn from one another but these types of informal learning are usually not included in statistics. Many employees also participate in study circles through one of the large associations such as the Workers’ Educational Association or ABF (Arbetarnas bildningsförbund) (29) or through others linked to the Swedish National Federation of Study Associations (Folkbildningsförbundet) (30).

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 % of the workforce).

Recent data collected for the third continuing vocational training survey (CVTS) indicate that Swedish enterprises are among the most training intensive in Europe, trailing only the UK, Norway, Denmark and Austria, with 78 % of enterprises listed as training enterprises in 2005 (see Table 11). Professionals are most likely to receive in-service training, followed by white-collar employees and, last of all, blue-collar workers.

Table 11. Proportion of training enterprises as percentage of all enterprises, in Sweden, EU-27 and selected countries, in 2005

<table>
<thead>
<tr>
<th></th>
<th>EU-27</th>
<th>GR</th>
<th>IT</th>
<th>PL</th>
<th>ES</th>
<th>DE</th>
<th>FR</th>
<th>SE</th>
<th>UK</th>
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<tbody>
<tr>
<td>Training</td>
<td>60</td>
<td>21</td>
<td>32</td>
<td>35</td>
<td>47</td>
<td>69</td>
<td>74</td>
<td>78</td>
<td>90</td>
</tr>
</tbody>
</table>

Source: Eurostat, 2009b.

5.5. VET for adults 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 of lifelong and lifewide learning. Within the framework of municipal adult education (Komvux), many municipalities have established special learning centres in community centres or in libraries. Here learning is provided and supported in various subject areas at the initiative of the individual. However, there are no data indicating the proportion of formal, non-formal and informal learning pursued by adults that is CVET.

(29) www.abf.se .
(30) www.studieforbunden.se .
A 2002 survey of informal learning at the initiative of the individual during the academic year 2001/02 (Shapiro, 2004) (31) covered the adult population and four types of informal learning:

(a) reading professional, technical or scientific literature;
(b) visits to exhibitions and fairs;
(c) learning through computers and the internet;
(d) 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 those who took part in formal or non-formal learning (such as courses and study circles) were more inclined to take part in informal learning (91 %) than those who have not taken part in formal or non-formal learning (65 %). Participation in informal learning follows a similar pattern to participation in all other kinds of education and training (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 on adult participation in education (Vuxnas deltagande i utbildning) by Statistics Sweden was published in 2007 and found that 73 % of 5 000 adults surveyed aged 25-64 participated in formal or non-formal learning during the autumn of 2005 and spring of 2006 (Statistics Sweden, 2007). Participation was quite similar between men and women (78 % and 74 %, respectively) and was higher among those with higher levels of education and among those employed. Participation in adult learning decreased with age.

Finally, information on the percentage of adults participating in lifelong learning in Member States is presented in Table 12.

The data indicate that participation in lifelong learning is higher in Sweden than in any other Member State. Indeed, the participation rate of adults in lifelong learning in Sweden (32.4 %) is more than triple the aggregated participation rate of EU-27 (9.5 %). It is interesting to note that females are approximately 50 % more likely to participate in lifelong learning than males, with 39.3 % participating according to the survey’s definition in 2007 compared with only 25.8 % of males. This is not entirely surprising given that females in Sweden have a higher completion rate of upper secondary school and significantly higher rate of participation in higher education, accounting for over 60 % of incoming student cohorts in recent years.

(31) The survey is cited in Shapiro’s country report on Sweden: Achieving the Lisbon goal: the contribution of vocational education and training systems (Shapiro, 2004).
<table>
<thead>
<tr>
<th></th>
<th>2002</th>
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<tr>
<td></td>
<td>Total</td>
<td>Females</td>
<td>Males</td>
<td>Total</td>
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**NB:** Percentage of the population aged 25-64 participating in education and training over the four weeks prior to the survey.

(b) break in series; (p) provisional value; (e) estimated value.

**Source:** Eurostat, February 2009.
6. Training VET teachers and trainers

The types of teachers and trainers in Swedish vocational education and training vary widely by VET type. VET teachers typically work at schools/educational institutions while trainers work in a more mentor-like role, supervising trainees in a workplace. In general, the regulation of VET teachers at the upper secondary level has followed similar guidelines to non-VET teachers in upper secondary education. However, the situation with teachers involved with VET for adults is much more diverse, with a wide range of teaching and training staffing procedures and norms used by a variety of education and training providers.

6.1. Teachers and trainers in IVET

In the largest VET form, upper secondary IVET, there are approximately 11 000 vocational teachers dedicated to purely vocational subjects (National Agency for Education, 2009). VET teachers, therefore, account for approximately 30% of upper secondary teaching staff. The situation is similar in municipal adult IVET, as it is governed by the same curriculum as upper secondary IVET.

Recruitment procedures for teachers in upper secondary education are open and unregulated. The responsibility for recruitment is decentralised to the municipalities or schools. According to a central agreement, fully qualified teachers (those with a teaching degree) are employed on a 12-month probationary basis before they receive a permanent position; the purpose is to give newly-qualified teachers a year of introduction under the guidance of an experienced teacher. An applicant without full qualifications may be employed on a temporary basis but this may be extended year after year.

Upper secondary IVET is typically 85% school-based and the school-based components are taught by specific subject teachers (karaktärsämneslärate) and core subject teachers (kärnämneslärate), for general subjects common for all programmes. The 15% work-based training (arbetsplatsförlagd utbildning) component is overseen by trainers for whom there are no formal or general requirements.

6.1.1. IVET teacher shortages

A report in 2006 concluded that Sweden would need to educate almost 4 000 vocational teachers between 2006 and 2011 (almost 800 teachers per year until 2011) but in 2006 only 200 vocational teachers graduated from teacher training (National Agency for Education, 2007a). Given the current and future shortage of vocational teachers in upper secondary IVET, several initiatives have been developed to attract more people into the VET teaching profession. Between 2002 and 2006, an initiative (Särskild lärarutbildning – SÄL II) supported over 4 000 IVET teachers to become fully qualified teachers by combining teaching with studies to gain a teaching degree. This was followed in 2005 by an initiative for IVET

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(32) It is important to note that all upper secondary students in Sweden take common core courses, which account for one third of the upper secondary curriculum and are not taught by vocational teachers but general subject teachers. Therefore, although almost 50% of upper secondary students are in IVET programmes, the actual proportion of teaching that is VET-related is closer to 35%.
teachers at upper secondary school (SÄL III – Särskild lärarutbildning för lärare i yrkesämnen på gymnasiet) involving eight teacher education institutions and geared to IVET teachers without teaching degrees. SÄL III is offered through distance and open education and the last students (the final intake was in 2007) will complete the programme at the end of 2009. Another initiative called special teacher education (VAL) is in effect until 2009 and allows non fully-qualified teachers to gain a teaching degree through a combination of work and study on either a full- or part-time basis or through Internet-based distance education. Several government commissions have examined these issues in recent years (see 6.2).

6.2. Teacher training requirements and introduction of teacher certification

Teacher education is currently regulated by the Higher Education Act (Högskolelag, SFS 1434). Fully qualified teachers are trained at university level and receive a teaching degree after a combination of study at higher education institutions and work-based learning in schools. During the 2008/09 school year, approximately 72 % of upper secondary teachers held teaching degrees. In upper secondary IVET, only 62 % held a teaching degree. Media (42.1 %) and vehicle engineering (47.8 %) programmes were the programmes with the lowest proportion of teachers with a teaching degree. The highest proportion of fully qualified teachers was found in the child and recreation (89.2 %) and health and nursing (82.4 %) programmes (Swedish National Agency for Education, 2009a).

Both the current and previous governments have expressed concerns about the relatively high number of teachers without a teaching degree. In response, three government commissions were appointed to investigate teacher training and qualification issues between 2006 and 2008.

The first commission, investigating teacher eligibility and certification (Lärarutredningen – om behörighet och auktorisation, U 2006:07), recommended the establishment of a teacher certification, which would be issued by the Swedish National Agency for Education. Teacher certification would follow a probationary year of employment after completion of studies, during which new teachers would work with an experienced teacher mentor. It is suggested that teacher certification be disaggregated by school form and field and that no teacher will be able to attain a permanent position without first being certified. To stimulate professional development, ‘specially qualified teachers’ will be recognised and be able to assume responsibility for fields of study, quality assurance, and to serve as advisors for teacher students and as mentors for newly-educated teachers. The new system of teacher certification is scheduled to come into effect in two stages starting in 2010 (Swedish Ministry of Education and Research – SOU 2008:52).

The second commission, investigating teacher education (Utredningen om en ny lärarutbildning, U 2007:10), released a final report entitled A sustainable teacher education (En hållbar lärarutbildning). The commission recommended the introduction of two new teacher degrees, one geared to general teaching and the other more rooted in in-depth knowledge of a field/subject. It proposed that universities and university colleges be required to seek approval to deliver teacher education. Despite the fact that teacher education programmes have the highest number of participants among all programmes at higher
education institutions in Sweden, many reports have pointed to weaknesses in teacher education, including an underdeveloped culture of academic research and lower than average levels of internationalisation. The commission’s recommendations aim to raise the status of the teaching profession, partly by increasing research funding by SEK 175 million per year as well as ensuring that more of those engaged in teacher education continue to postgraduate studies. The commission concludes that teacher education should be characterised by a critical and scientific approach, knowledge of history, an international perspective, and the use of information and communication technology as an education resource. The commission’s conclusions note that too few young people apply to enter teacher education today and that a more clear structure, higher quality and higher requirements will raise the attractiveness of the teaching profession (Swedish Ministry of Education and Research – SOU, 2008:109).

The third commission, investigating vocational teacher training (*Utbildning till yrkeslämare*, U 2008:5), issued a final report entitled *New paths to VET teacher education (nya vägar till yrkeslärarutbildning)* at the end of 2008. The goal is to help recruitment for VET teacher training and develop a system for assessing and recognising individuals’ VET knowledge and skills, which could have been attained through higher education, work or a combination of both. At present, to work as an upper secondary IVET teacher, 180 ECTS (European credit transfer and accumulation system) credits (three years of full-time study) are the minimum. Several initiatives have attempted to address the need to ensure that vocational skills are validated by awarding advanced standing for vocational knowledge and experience. The commission concludes that knowledge and skills acquired outside formal education should have the same legitimacy as knowledge and skills acquired through traditional courses at higher education institutions.

The VET teacher commission recommends the introduction of a one-and-a-half year (90 ECTS credits) programme for skilled vocational work comprising one year (60 credits) of course-based study and one semester (30 credits) of work-based training in upper secondary schools. The commission recommends three variations of IVET teacher education pathways:

(a) completion of 90 ECTS credits in a relevant field combined with relevant vocational experience in the workplace;
(b) completion of at least 60 credits of other post-secondary education in a relevant vocational field combined with relevant vocational experience;
(c) a certificate issued by the Swedish National Agency for Education (Skolverket) confirming knowledge and competencies that meet the qualifications required in the selected field of teaching.

The commission concludes that the National Agency for Education, in cooperation with its national programme councils, comprising VET programme stakeholders, develop criteria of required competences as well as validation procedures to support IVET teacher education and certification. It is also concluded that the Swedish National Agency for Education be the body that assesses and certifies the knowledge and skills that serve as the basis for upper secondary IVET teacher qualification and certification (Swedish Ministry of Education and Research – SOU, 2008:112).

In 2007, the government launched a major initiative – the teacher knowledge lift (*Lärarlyftet*) – to invest in the further education of teachers and raise the status of teaching.
In total, SEK 2.8 billion are available, enough to fund the participation of 30 000 teachers. The National Agency for Education is responsible for administering the initiative and the aim is to improve teacher competence, thereby increasing the proportion of students reaching national knowledge goals. Upper secondary teachers can study between 20 and 45 ECTS credits from either higher education institutions or education commissioned by the National Agency for Education, which are more tailored to the specific needs of active teachers. During 2008, the first full year of the programme, 5 700 teachers participated in further education with support from the initiative.

6.3. Teachers and trainers in VET for adults

The two main forms of VET for adults in Sweden, upper secondary IVET for adults and higher vocational education, had approximately 40 000 and 35 000 students respectively in 2008. Teachers in municipal adult education follow the same requirements as IVET teachers (specific subject teachers within vocational programmes or core subject teachers) within upper secondary school. Teachers with other qualifications may also be hired when necessary. When the training is organised by an independent training provider rather than a municipality, 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. Although IVET organisation within municipal adult education is separated from upper secondary school, they often share the same buildings (workshops, classrooms, etc.) and many teachers teach in both institutions.

Higher vocational education, known as advanced vocational education (kvalificerad yrkesutbildning, KY) until 1 July 2009, had a variety of different types of teachers and trainers, depending on the type of programme and on the training provider/institution (see 5.2). The only broad requirements are that teachers and trainers are to be competent for the teaching they provide, either through education or vocational experience. The trainers (handledare) in the work-based training component, around 30 % of the total time in higher vocational education programmes, are typically employees with significant vocational experience, but not working strictly in training roles in their companies.

There are also teachers for those enrolled in VET programmes at folk high schools (33) and trainers for those active in apprenticeship-like training leading to certification at joint training boards at the sector level in 2008. However, these training forms are not subject to consistent national guidelines. In summary, issues concerning VET for adult teachers, except for municipal adult education, tend to be managed by individual training providers rather than any regulatory regime.

(33) There are no national data on the number of individuals enrolled in VET programmes at folk high schools or on those active in apprenticeship-like training leading.
7. Skills and competence development and innovative pedagogy

The responsibility for competence development and innovative pedagogy in upper secondary schools and adult education is largely decentralised to municipalities. Responsibility for these issues for post-secondary VET forms is typically devolved to the VET provider.

The majority of vocational education and training in Sweden is highly modularised and course-based, which gives upper secondary schools a high degree of flexibility to organise education. Courses may be studied intensively, by taking several subjects at once, or by spreading them out over several years. Courses may also be integrated with other subjects, grouped into modules or studied by themes. Students may be grouped together from both academic and VET programmes and individuals may choose from a wide range of optional courses in all programmes. Those experiencing study-related difficulties may 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, students can complete upper secondary schooling over a shorter or longer period. Through municipal adult education learners can also take parts of courses, disaggregated into smaller subcomponents.

7.1. Use of ICT in education and training

Much recent work in innovative pedagogy has been on introducing information and communication technology (ICT) into teaching and learning. Since 1994, the Swedish schoolnet (Skoldatanätet) website has served to stimulate use of information technology in schools. The first national action plan for ICT in schools (IT i Skolan – ITiS) (34) was active between 1999 and 2002. It included in-service training for 75 000 teachers (half the teaching workforce), State grants to improve schools’ access to the Internet, e-mail addresses for all teachers and pupils, and support for developing the Swedish schoolnet and the European schoolnet.

The first four-year phase of ITiS had four guiding principles: equal standards between schools and quality for pupils; school development; supplementing and reinforcing programmes; and increasing schools’ access to the Internet. Parallel with this, ITiS provided a portion of the funding for the expansion of schools’ ICT infrastructure; access to ICT in schools has increased significantly in recent years from 4.2 upper secondary students per computer in the school in 2001 to 2.5 students per computer in 2008. The same survey found that over 75 % of upper secondary teachers had their own computer in the school in 2008 (National Agency for Education, 2009b).

(34) A commission for ICT in schools (ITiS) proposed in 1998 a national action plan for ICT in schools, which initially covered the period between 1999 and 2002. The ITiS programme is still active and is now administered by National Agency for Education. More detailed information on the entire IT in schools programme is available in Swedish: www.skolverket.se/sb/d/2366 [cited 9.7.2009].
The Swedish National Agency for Education (Skolverket) runs a website ICT for teachers (IT för pedagoger) (35) offering support for teachers in schools and adult education centres to use ICT and new media in a creative and critical manner. The website also offers relevant material for competence development such as PIM, a Swedish Internet resource designed to improve teachers’ practical IT and media skills. During the autumn of 2007, approximately 30 000 teachers worked on the PIM platform. The Swedish National Agency for Education also distributes a book (36), Digital learning resources – possibilities and challenges for the school, describing what digital learning resources are and how they can be used in education. Many schools in Sweden also have active e-twinning partnerships to collaborate on the Internet with partner schools in Europe.

7.2. 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 Swedish National Agency for Education. These are course tests in Swedish, English and mathematics and there is also an online tool with national test material for upper secondary vocationally oriented programmes (Yrkesprovbanken) (37). This national test material for VET online is a database that contains test material for nine different national VET programmes at upper secondary level. The material has been adapted to be usable in validating non-formal and informal learning.

National assessments for upper secondary school were developed to contribute to VET quality. They are competence-based and are built on authentic situations or problems, which teachers and representatives from working life have identified as crucial in their specific domains. The problems are presented in multimedia and students are expected to deal with them authentically. The student’s ability to handle the problem (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 are available on the Swedish National Agency for Education’s website.

7.3. Anticipation of skill needs

Although there is a wealth of high quality labour market and education data in Sweden, there is limited coordination between Statistics Sweden and bodies responsible for education and training. Instead, the main agency working on this issue (anticipation of future skills) has been the Public Employment Service. Work on this by agencies responsible for VET in Sweden has been more characterised by one-off studies than regular, institutionalised cooperation between responsible agencies for statistics, labour market policy and education and training.

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(35) Information in English on IT for teachers is available at: http://itforpedagoger.skolverket.se/in_english/ [cited 9.7.2009].
(36) A full version of the book Digital learning resources – possibilities and challenges for the school (including three chapters in English) is available at: http://itforpedagoger.skolverket.se/in_english/digital_learning_resources/ [cited 9.7.2009].
(37) Yrkesprovbanken can be accessed at: http://yrkesprovbanken.skolverket.se/ [cited 9.7.2009].
Overall, the links between labour market skill needs and VET programmes and curricula vary according to the type of VET. For example, the provision of upper secondary IVET, the largest VET form, is largely driven by student choice of programme, while post-secondary VET for adults is often driven by industry skill needs motivated by training providers. The new Agency for Higher Vocational Education, established on 1 July 2009, has a clear mandate to conduct labour market skill needs analyses to ensure that post-secondary vocational education and training delivery reflects industry skill needs.

7.4. Bridging pathways and new educational partnerships

Curricula state 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 to contribute to developing 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 courses, if they have attained the knowledge goals.

Post-secondary level VET often has very close links with the labour market and with social partners but links are not as well developed with higher education institutions (such as with universities and university colleges). It is hoped that vocational higher education will assist transfer of credits in case the student wishes to pursue a degree programme (ISCED 5A) at a higher education institution.

7.5. Renewal of curricula

The students enrolled in vocational and/or apprenticeship paths will not have to take all the core/academic courses required to meet higher education admittance requirements. They will, however, be able to take the required courses for higher education admittance if they wish (see 4.2.2).

National, regional, local and sectoral stakeholders are currently working on renewing all upper secondary curricula and other quality improvement issues with researchers, teachers/trainers, education authorities, social partners and learners.

To strengthen interest in mathematics and the natural sciences, a mathematics taskforce \(^{(38)}\) was appointed to put in place a national plan from preschool to higher education, including both upper secondary IVET and various VET for adult forms. The task force has a mission to improve attitudes towards mathematics, increase people’s interest in them and develop innovative mathematics teaching material. Target groups for the taskforce are students, teachers, researchers and parents.

The government 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 Swedish National Agency for Education assumed responsibility for this pilot project from the former Agency for School Development in October 2008. The pilot aims to support new forms of learning where ICT is an important means of support and also provides better opportunities for cooperation between municipalities.
8. Validation of learning

Recognising prior learning and experience acquired in work, in education and training, and via other means of formal, informal and non-formal learning, is an important area of policy development. Validation requires a structured assessment, documentation and recognition of knowledge and competences possessed by a person, independent of how they were acquired. However, recognition and validation are not centrally organised or regulated in Sweden but are being developed on several levels.

Validation and skills assessment services are offered through municipalities, the Public Employment Service and joint training boards, which issue certificates (Yrkesbevis) for many vocational occupations (such as electrician, plumber). Practices vary from occupation to occupation. Overall, there are few regulated occupations; those that exist tend to be administered by the social partners through sectoral joint training boards rather than by government. Some healthcare occupations have certification requirements; others, such as the electrical trades, have safety-related regulatory requirements.

The largest VET form, upper secondary vocationally-oriented education, does not result in occupational certification or even an upper secondary diploma at present (see 4.2.1).

8.1. Towards a national structure

Validation has increased in recent years, partly the result of the work done between 2004 and 2007 by the Swedish National Commission on Validation (Valideringsdelegationen), under the Ministry of Education and Research. The Commission on Validation was established to develop the processes of quality and methods for validation through 2007. The commission had a number of tasks: develop legitimacy and equivalence; carry on and support development; and strengthen regional cooperation to reach adapted working methods for development, consultation and evaluation.

The commission’s final report (Valideringsdelegationen, 2008) recommended establishing validation centres to assess different levels of qualification (a centre to assess initial vocational education and training, another to assess post-secondary/higher VET, and so on). From 1 July 2009, responsibility for supporting validation was given to the new Agency for Higher Vocational Education (Yrkeshögskolan) (39), which has the task to develop a more cohesive national structure for validating vocational education, skills and competences. The new agency should also promote and advance development of high quality methods and systems for validation.

However, despite moves towards developing a more coherent national framework for validation, the actual responsibility for validation in Sweden is shared between the government agencies such as the Public Employment Service and the Agency for Higher Vocational Education, the education system, municipalities, and also the social partners through joint training boards at sector level.

(39) www.yhmyndigheten.se [cited 9.7.2009].
8.2. How validation works

Validation of formal learning occurs at several levels. Assessment of upper secondary education and transcripts from abroad for admission to universities and university colleges is done by the National Agency for Services to Universities and University Colleges (Verket för högskoleservice, VHS) \(^{(40)}\). Higher education degrees, plus teacher training certificates, from outside Sweden are assessed by the Swedish National Agency for Higher Education (Högskoleverket) \(^{(41)}\). Several healthcare professions are assessed/validated by the National Board of Health and Welfare (Socialstyrelsen) \(^{(42)}\). Incomplete upper secondary education is assessed by education and career counsellors at municipal adult education centres (Komvux). Finally, validation of vocational education and training may be assisted by the Public Employment Service (Arbetsförmedlingen) \(^{(43)}\) in cooperation with the social partners at the sectoral level.

One of the main challenges of validation is financing; the cost of validating an individual’s knowledge, skills and competences can be more than SEK 10,000. An overview of how various forms of validation in Sweden are financed is presented below.

Municipalities have been responsible for the majority of 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 and need to have their competence, skills and experience documented. Validation can be carried out either as a separate activity or as part of the course to advance position in some areas. This form of validation is financed partly by the State (55%) and partly by municipalities (45%) and is typically delivered through the framework of municipal adult education (Komvux).

The Public Employment Service is the second biggest actor in validation. Labour market agencies are responsible either for finding a new job for the unemployed or for initiating training. They usually do not carry out 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 National Commission on Validation in 2005, the most frequent sectors for validation are production and manufacturing, healthcare and transport.

The Swedish Social Insurance Agency (Forsäkringskassan) \(^{(44)}\) works to validate the knowledge, skills and experience of individuals who need rehabilitation, either because of disabilities or because they need to change jobs. The agency is responsible for financing this form of validation.

In several sectors, the social partners (employer organisations and trade unions) have cooperated to develop tools and methods for validation. When companies reorganise, it is often necessary to train employees further and validation has often been used to help, usually financed by the employer.

\(^{(40)}\) www.vhs.se [cited 9.7.2009].
\(^{(41)}\) www.hogskoleverket.se [cited 9.7.2009].
\(^{(42)}\) www.socialstyrelsen.se [cited 9.7.2009].
\(^{(43)}\) www.arbetsformedlingen.se [cited 9.7.2009].
\(^{(44)}\) www.forsakringskassan.se [cited 9.7.2009].
The National Agency for Higher Education funds validation of international degrees, credits and academic experience, while individual universities validate the previous experience of Swedish applicants.

In 2000, only two-thirds of all municipalities had been involved in validation projects and activities but by 2005 over 90% of municipalities were involved. In 2000, approximately 2300 persons had their competence, knowledge and skills validated corresponding to one year of full-time studies in municipal adult education. By 2005, this number had increased to approximately 8000 people. Considering all validation activities, including those of the Public Employment Service via folk high schools, etc, over 10000 people had their informal and non-formal competence, or parts of it, validated in 2005, received documentation or credits for it or can use it to reduce their period of formal training (Valideringsdelegationen, 2008).

8.3. EU policy impact

Sweden has been an active participant in many EU initiatives related to validating formal, informal and non-formal learning. 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 Swedish National Agency for Education (Skolverket), which also serves as Sweden’s national reference point for information on vocational qualifications (45). The active participation of the Ministry of Education and Research and the National Agency for Education in such European initiatives and policies ensures that policy development in Sweden reflects emerging guidelines that aid validation and mobility.

Sweden has actively supported use of the five Europass documents (CV, language passport, Europass mobility, certificate supplement and diploma supplement). The International Programme Office for Education and Training (Internationella programkontoret för utbildningsområdet) was appointed as national Europass centre (46) and officially launched Europass in Sweden in December 2005. It cooperates with the National Agency for Education, responsible for certificate supplement; the Swedish National Agency for Higher Education, responsible for diploma supplement; the Public Employment Service, which supports use of Europass CV; the University of Uppsala (47), which supports use of the Europass language passport; and the International Programme Office, responsible for Europass mobility. The EU Europass website (48) recorded 169000 visits from Sweden; 30000 CV were completed online in Swedish, 18000 of which were by citizens residing in Sweden (June 2009).

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 the tradition in Sweden of not regulating many occupations, most of the occupations/qualifications in question were already open to people with training abroad prior to implementation of the directive.

(45) www.senrp.se [cited 9.7.2009].
(47) www.fba.uu.se/portfolio [cited 9.7.2009].
9. Guidance and counselling

9.1. Strategy and provision

There are no formal special institutions for guidance. All educational and vocational guidance (*studie- och yrkesvägledning*) is given in schools or municipalities. In all types of schools, it is the responsibility of the principal/headmaster 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 and municipal adult education centres have specially trained counsellors that provide learners with education and vocational guidance. However, there are no nationally determined guidelines regulating the types and number of guidance staff in schools.

The earliest education and career guidance typically occurs in the latter stages of compulsory school, where practical working life orientation (*praktisk arbetslivsorientering*) is usually arranged for students around the age of 15. During these placements, students spend one to two weeks gaining practical experience at a workplace mutually agreed between the student and school. Study visits and information about the labour market, different professions and career options are also often included in many subjects at compulsory school.

Schools cooperate locally with industry, the social partners and universities and colleges to provide students with guidance. This is not regulated centrally. Educational and career guidance are also provided by the Swedish Public Employment Service, trade unions and private employment service.

Several national websites offer information and guidance to young people and adults including Utbildningsinfo.se (49), a national portal for education and career guidance, geared to students, parents and education professionals (education and career counsellors as well as teachers). The website features a search tool for education pathways in Sweden, primarily at the upper secondary and municipal adult education levels, and is financed and administered by the Swedish National Agency for Education. It also offers a web-based career guidance tool, a description of the Swedish school system, a personal folder and a special section for guidance practitioners, which supports them in their daily work. Although Swedish guidance counsellors represent the main target group, practitioners from abroad are also welcome to register and take part in the discussions and information sharing. Although some information is provided in English, most of the content is in Swedish. There is also a national website primarily geared to inform about higher education, including a searchable database containing descriptions of courses and education programmes available (50).

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(49) www.utbildningsinfo.se [cited 13.7.2009].
(50) www.studera.nu
9.2. Target groups and delivery

Sweden supports several measures to strengthen access to independent guidance and counselling such as the website Utbildningsinfo.se.

Euroguidance Sweden (the National Resource Centre for Vocational Guidance) (51) is a resource for vocational and career guidance counsellors and professionals abroad. It offers information and documentation 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, plus general information on the labour market, forecasts and analyses of current labour market dynamics. The Public Employment Service is also Sweden’s partner in the EURES network (52).

Counselling for adults has been carried out both by adult education institutions and the Public Employment Service. According to the Education Act (1985:1100, see Annex 4), each municipality must try to reach all who have the right to adult education and motivate them to participate. Adult education has expanded rapidly in recent decades. The number of adult counsellors has increased, and new forms of organisation have been fostered through initiatives such as the adult education initiative (Kunskapslyftet) (see 5.1).

Several initiatives have been developed to reach groups traditionally without access to education and career counselling, such as adults outside the school system. One approach is to provide guidance and counselling in the workplace, in cooperation with trade unions, to try and reach those who did not attend, or complete, upper secondary school and/or have had negative experiences at school. Some employers also offer career counselling as part of in-company training and/or personal development.

Another approach has been information in shops and special market stalls in municipalities, which complement initiatives such as ‘open houses’ at the different training centres. In certain municipalities, brochures with education and career information have been distributed to all households. National and regional advertising in newspapers, on the radio and via other means is also common, partly because of the increasing number of independent upper secondary schools and higher vocational education providers competing for students. Finally, education and career guidance is available to the general public through the Public Employment Service, which also offers an online education and career guidance portal, the occupation compass (Yrkeskompassen). This portal provides information on approximately 200 occupations in Sweden and employment prospects by occupation over the next year as well as five- and 10-year periods. The one-year occupational forecast is available for the national and regional levels while the five- and ten-year forecasts are only at the national level (53).

(51) http://www.programkontoret.se/sv/Program-Stipendier/Euroguidance/Euroguidance---In-English/Guidance-in-Sweden/.
(53) More information on Yrkeskompassen is available in Swedish at: http://yrkeskompassen.arbetsformedlingen.se/.
9.3. Guidance and counselling personnel

Municipalities are responsible for guidance and counselling staff in schools while the Public Employment Service (Arbetsförmedlingen) is responsible for most labour market counselling. Most counselling staff in schools have either teacher training (an education degree) or other specialist competence usually associated with a social sciences university degree (54). Schools and the Public Employment Service provide further in-service training to improve counselling skills and keep skills and information up-to-date.

There are approximately 5 000 guidance specialists in Sweden, 2 000 of whom work in schools and the remainder at the Public Employment Service. However, education and career guidance offered by the Public Employment Service has, in recent years, become increasingly intertwined with job placement and other functions designed to get unemployed people into employment as quickly as possible.

A university degree for education and career counsellors in Sweden takes the form of a three-year course leading to a bachelor’s degree. Counsellors with a degree normally seek employment at schools or with the Public Employment Service but a limited number seek employment in the private sector. An increasing number of counsellors have been employed at the Swedish Social Insurance Agency (Försäkringskassan) or within projects aimed at people who are difficult to place in the job market.

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(54) Guidance counsellors typically must have at least one year of work experience before entering a three-year university programme leading to the education and career guidance counsellor degree (studie- och yrkesledareexamen).
10. Investment in human resources

10.1. Principles and policy priorities

The majority of VET in Sweden is publicly funded. Funding of schools (including initial vocational education and training through upper secondary schools or via adult education) is shared between the State and municipalities. State funds are paid through general State grants to municipalities which may also receive revenues from municipal taxes, and then allocate resources to individual schools. Higher vocational education is financed directly from the State budget. Most in-company training is paid by companies rather than through State subsidies or via training levies or funds. Training for the unemployed and other groups excluded from the labour market is publicly financed as stipulated in the Ordinance on labour market training (Förordning om arbetsmarknadsutbildning, SFS 1987:406).

Various forms of financial assistance are available to students: study assistance (grants and loans) and special educational grants. The system for study assistance covers all students in 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) (55).

Priority has recently been given to investment in teacher competence. The government has decided to provide municipalities with additional resources for an in-service training initiative (Lärarlyftet) totalling over SEK 2.5 billion between 2007 and 2010.

10.2. Initial vocational education and training

The largest share of VET funding goes to upper secondary IVET, which received approximately SEK 19 billion in 2007 (Swedish National Agency for Education, 2009a). Upper secondary level IVET is fully funded by municipalities through State funds and municipal taxes. Calculation of State grants 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 majority of resources for compulsory and non-compulsory education in the municipalities.

Each municipality determines how it will allocate resources and organise its activities. However, municipalities are obliged to provide their inhabitants with a certain level of services and schooling as determined by the government and central State agencies. In education, municipalities must fulfil obligations such as activities and quality in accordance with the Education Act.

There are no collective funds or training levies allocated to IVET but the new system of upper secondary apprenticeship will include funding to support the incremental costs of apprenticeship, to both municipalities and companies. SEK 25 000 per apprentice has been allocated for upper secondary apprenticeship pilot projects (see 4.2).

(55) www.csn.se [cited 9.7.2009].
10.3. Continuing vocational education and training, and adult learning

10.3.1. Publicly provided VET for adults

In contrast to upper secondary IVET, which receives SEK 19 billion per year, the largest adult VET forms – upper secondary IVET though municipal adult education and higher vocational education – received SEK 2 billion and SEK 1.5 billion respectively in 2007 (see 5.2) (56). Most VET for adults provided outside firms is free of charge and funded by municipalities (such as municipal adult IVET) and State grants (such as higher vocational education). Institutional and funding patterns vary, however. IVET through municipal adult education and the bulk of higher vocational education are fully funded (57).

10.3.2. Enterprise-based CVET

Sweden has one of the most intensive in-company CVET regimes in Europe along with Denmark, the Netherlands and the UK. This form of training in Sweden is primarily determined by collective agreements rather than by any State regulatory framework. However, State subsidies can be paid to companies to assist with labour market training (Förordning om bidrag till arbetsmarknadsutbildning i företag; Ordinance on subsidies to labour market training in companies, SFS 1984:518). In-company training has expanded faster than any other form of continuing vocational training in recent decades and every year, about 40 % of employees participate. In-company training is financed by employers.

Most staff training (about two-thirds) is given inside enterprises or organisations but it is unevenly spread within the workforce, with employees with higher education receiving more in-service training than their lower education counterparts (see 5.5).

10.4. The unemployed and others excluded from the labour market

Training for the unemployed 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. 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

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(56) The figure of SEK 1.5 billion for higher vocational education is an estimate derived by combining the 2007 budgets for advanced vocational education, supplementary education and post-secondary training. Funding for higher vocational education is growing rapidly and may exceed SEK 2 billion in 2010. Disaggregated estimates (by vocational versus academic studies) are not available for municipal adult education. However, the total budget for municipal adult education in 2007 exceeded SEK 3.8 billion and it is reasonable to assume that at least SEK 2 billion was allocated to support upper secondary IVET for adults.

(57) Until 1 July 2009 several forms of higher vocational education were administered separately. The core of higher VET – advanced vocational education – was fully funded by a national agency. Post-secondary training was also fully funded but was administered by municipalities under guidelines developed by the National Agency for Education. Finally, supplementary education programmes had irregular funding models ranging from full funding by the State to tuition-funded programmes. Almost all publicly funded post-secondary VET is now under the Agency for Higher Vocational Education. This will result in more harmonised funding guidelines and procedures.
national and county level with the Labour Market Administration and Work Life Services. It is divided into 68 labour market regions based on commuting patterns and on the regional preferences of companies in 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. 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 programmes as well as general information on the labour market, forecasts and 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 in response to the needs of the labour market and based on their knowledge of which job-seekers have difficulty finding work. Training lasts on average for about 20 weeks and the main goal is to prepare individuals, to make it easier for people wishing to work to enter the employment sector and find the right job. In 2007, almost 25 000 unemployed individuals participated in training to meet employer skill needs and eliminate bottlenecks in the labour market. Expenditure totalled SEK 17.5 billion in 2007.

10.5. From funding to investing in human resources

Given Sweden’s political traditions, the majority of both IVET and non-enterprise CVET will remain publicly funded.

The most significant change, in terms of funding, was the creation of the new Agency for Higher Vocational Education (Yrkeshögskolan) on 1 July 2009, which will result in more consistent funding mechanisms and norms for CVET. However, there is growing awareness by all parties that VET, and the quality of its provision, has been underemphasised in recent decades and it is likely that more resources will be devoted to it in the coming years.
11. European and international dimensions

Educating and training has long had an international dimension in Sweden. As early as 1962, the need for schools to foster international understanding was reflected in the curriculum. The curriculum for the non-compulsory school system (Läroplan för de frivilliga skolformerna, Lpf 94) states that schools should develop European and global values, and encourage international links and education and working experience in other countries.

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. Nordic cooperation on education and training issues has been well developed since the Helsinki Agreement in 1962 (58). Nordic citizens have the right to pursue upper secondary and adult education under the same conditions as a citizen of the host country. In the early 1990s, Sweden’s relations with the Baltic countries grew and Sweden’s entry into the European Union in 1995 was a strong catalyst for further internationalisation.

11.1. Government support for mobility and internationalisation

The International Programme Office for Education and Training (Internationella programkontoret, IPK) (59) is the main government agency supporting schools, companies, organisations and private individuals who wish to take part in international cooperation, mobility and projects. The office is responsible for the integrated lifelong learning programme, which includes Leonardo da Vinci for VET. It also administers other programmes such as ‘One year’ in Germany, Austria, France and Spain (60), Nordplus, Athena, and the ‘Global School’ (see below).

To promote the internationalisation of vocational training, in 2002, the government commissioned, the Swedish National Agency for Education to establish a national reference point for vocational qualifications (Nationellt centrum för yrkesutbildning, NRP) to serve as a first point of contact for those seeking information on VET and vocational qualifications in Sweden and throughout Europe (61). The NRP promotes recognition of foreign qualifications, serves as the national centre for the Europass certificate supplement and works on other issues of European cooperation in vocational education and training such as the European credit system for vocational education and training (ECVET) and the recommendation for a European quality assurance reference framework (EQARF).

(58) The Nordic countries are Denmark, Finland, Iceland, Norway and Sweden.
(59) www.programkontoret.se [cited 9.7.2009].
(60) ‘One year’ in Germany, ‘One year’ in Austria, ‘One year’ in France and ‘One year’ in Spain are mobility programmes open to students in the first or second year of upper secondary school. The Swedish student spends one year at an upper secondary school in Germany, Austria, France or Spain, and during the same period the sending municipality or school receives a student from the host country.
(61) www.senrp.se [cited 9.7.2009].
The Swedish Institute (Svenska Institutet) promotes the internationalisation of education by awarding scholarships for both foreign students in Sweden and 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. In 2006, a website was launched for this purpose (62). The institute also administers the Visby programme, supporting cooperation and exchange between Sweden and the Baltic countries, Poland, north-west Russia, Belarus and the Ukraine at all educational levels above compulsory school.

The Swedish International Development Assistance and Cooperation Agency (Sida), has bilateral agreements for development support with around 40 partner countries in the developing world. Activities range from international cooperation projects in education and competence development to placements and studies abroad. Sida funds the Global school project (see 11.4).

The Public Employment Service (Arbetsförmedlingen) funds and administers the Interpraktik programme (see 11.4). It also participates in the EURES (European employment services) network formed by public employment services to assist the free movement of workers within the European Union and European Economic Area (see 9.2).

11.2. European Union

Significant multilateral cooperation in education takes place within the framework of the European Commission’s integrated lifelong learning programme (63), including Leonardo da Vinci for VET. During the period 2007-13, the EU’s lifelong learning programme will promote exchange, cooperation and mobility, between students, teachers and educational institutions in Europe.

Swedish participation in EU education programmes is considerable and in 2007 over 4 000 Swedish VET students were engaged in studies, traineeships, etc. in EU-funded programmes. In addition, many schools and tertiary education institutions take part in transnational cooperation projects, such as developing new VET teaching and learning methods and new curricula, through the Leonardo da Vinci programme. VET students who participate in international exchanges (through Leonardo or Sweden’s Athena programme) receive credit for their placements and/or studies abroad, which are integrated into initial VET programmes at upper secondary school. 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 (ENQA-VET) (64), in which Sweden is an active member.

Sweden actively supports use of the five Europass documents (CV, language passport, Europass mobility, certificate supplement and diploma supplement) (see 8.3). The

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(62) www.studyinsweden.se [cited 9.7.2009].

(63) The programme includes the Erasmus, Leonardo da Vinci, Comenius and Grundtvig programmes. Detailed information on these and other EU programmes is available on the website of the European Commission, DG Education and Culture (http://ec.europa.eu/dgs/education_culture/index_en.htm) and the International Programme Office for Education and Training (www.programkontoret.se) [cited 9.7.2009].

(64) www.enqavet.eu [cited 9.7.2009].
International Programme Office was appointed as the National Europass Centre (65) and officially launched Europass in Sweden in December 2005 in cooperation with the National Agency for Education, the Swedish National Agency for Higher Education, the Public Employment Service and the University of Uppsala (see 8.3).

Euroguidance Sweden is the Swedish National Resource Centre for Guidance and provides a range of services to Swedish and foreign guidance professionals (see 9.2). The centre is an information and documentation resource for guidance counsellors who require information on studying and training opportunities in Europe.

11.3. Nordic and Baltic cooperation

Nordic Ministers for Education meet in the Nordic Council of Ministers three times a year and education and training issues are one of the main areas of cooperation. Each Nordic country recognises qualifications from other Nordic countries as equal to corresponding national qualifications. To strengthen Nordic educational cooperation, several cooperation and mobility programmes have been created for different target groups, such as teachers and students at all levels, including IVET.

The Nordplus framework programme offers financial support to educational cooperation between partners in lifelong learning for the eight participating countries (66) in the Nordic-Baltic region. The Nordplus framework programme for 2008-11 consists of four subprogrammes: junior; higher education; adult learning; and horizontal. Swedish participation is administered by the International Programme Office. Nordplus junior offers scholarships to students aged 13-19 years as well as their teachers. Secondary schools can apply for scholarships to organise study visits to other secondary schools in the region. Nordplus adult is designed for organisations, institutions, associations and other bodies working with adult learning. The programme awards grants to cooperation projects, teacher exchanges and work experience exchanges for learners. The Nordplus horizontal programme is cross-sectoral, involving activities such as workshops, conferences, studies and innovative courses.

Many Swedish schools are active in the Baltic Sea project, an international schools network for a better environment in the Baltic region. The project network started in 1989 the first regional project within the Unesco associated schools project to combine environmental education on a specific environmental issue, (the Baltic Sea) with intercultural learning.

Baltic 21 is a joint effort by the 11 countries of the Council of the Baltic Sea States (CBSS) to develop and implement a regional agenda for the Baltic Sea region to attain sustainable development. The work is focused on several sectors, including education, for which an Agenda 21 was adopted in 2002. The emphasis of the ‘Education sector programme’ is on strengthening the capacity of knowledge-building through formal and non-formal education.

The Visby programme stimulates long-term cooperation through upper secondary year and adult education student and teacher exchanges and school projects with the Baltic

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(65)  www.programkontoret.se/europass [cited 9.7.2009].
(66)  Nordplus includes the five Nordic countries and, from 1 January 2008, the three Baltic countries: Estonia, Latvia and Lithuania.
countries, Poland, northwest Russia, Belarus and the Ukraine. Support for projects and network building is granted in the form of scholarships for travel, board and lodging for up to two weeks.

11.4. Other international programmes

Between 2002 and 2008, the Swedish National Agency for Education (Skolverket) was responsible for distributing scholarships to upper secondary pupils for workplace training abroad (APU-utomlands) but in October 2008 this programme was moved to the International Programme Office and renamed Atlas practicum (Atlas Praktik). Activity is similar to the mobility support provided for IVET students through 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 Athena.

The former National Agency for School Improvement (67) (Myndigheten för skolutveckling) developed the pilot programme ‘Cooperation with developing countries’ (Samarbete med utvecklings länder) to aid cooperation between Swedish upper secondary schools offering vocational programmes and schools in developing countries. The pilot ended in 2006 but was made permanent under the name Athena – the programme for global exchange in vocational education and training (Athena – Programmet för globalt utbyte inom yrkesutbildning) and is administered by the International Programme Office. Athena is geared to teachers and students in upper secondary IVET programmes and supports international exchange with developing countries.

The ‘Global school’ (Den Globala Skolan) encourages intercultural dialogue and education in global questions regarding sustainable development in compulsory and upper secondary schools as well as via adult education. The programme is geared to teachers, including upper secondary and adult education IVET teachers; it supports them in organising seminars, and with travel expenses, in association with projects with developing countries. The programme is administered by the International Programme Office.

The Public Employment Service (Arbetsförmedlingen) funds and administers ‘Interpractice’ (Interpraktik) scholarships for unemployed people between the ages of 20 and 30 registered at a Swedish public employment office. The aim is to help young people to improve their competence and strengthen their position in the labour market through training outside Sweden. The training period can provide new experiences, better language skills and a deeper understanding of other cultures. This improves their opportunity to get employment in Sweden as well as abroad. The placement can be within companies, organisations or the public sector. The scholarship covers travelling costs to and from Sweden, full coverage insurance and basic living costs, according to the cost of living in the country of practice. The scholarship is awarded for a maximum period of four months.

(67) The agency was closed and many of its functions merged with the Swedish National Agency for Education (Skolverket) on 1 October 2008.
ANNEX 1
Educational attainment in EU-27 in 2008

Table 13. Population aged 25-64 by level of education (%) in EU-27, 2008

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<td>United Kingdom</td>
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ISCED: International standard classification of education.

ISCED 0-2: Preprimary education, primary education, lower secondary education, including 3c short (preparatory vocational and vocational education of less than two years duration).

ISCED 3-4: Upper secondary education without 3c short, post-secondary non-tertiary education.

ISCED 5-6: Tertiary education.


Unesco developed the international standard classification of education (ISCED) to aid comparisons of education statistics and indicators of different countries based on uniform and internationally agreed definitions. First developed in the 1970s, the current version, known as ISCED 1997, was formally adopted in November 1997.

ANNEX 2
Acronyms and abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBSS</td>
<td>Council of the Baltic Sea States</td>
</tr>
<tr>
<td>CVET</td>
<td>Continuing vocational education and training</td>
</tr>
<tr>
<td>CVTS</td>
<td>Continuing vocational training survey</td>
</tr>
<tr>
<td>ECTS</td>
<td>European credit transfer and accumulation system</td>
</tr>
<tr>
<td>ECVET</td>
<td>European credit system for vocational education and training</td>
</tr>
<tr>
<td>EQARF</td>
<td>Recommendation for a European quality assurance reference framework</td>
</tr>
<tr>
<td>EQF</td>
<td>European qualifications framework</td>
</tr>
<tr>
<td>ESF</td>
<td>European Social Fund</td>
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<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EURES</td>
<td>European employment services</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and communication technology</td>
</tr>
<tr>
<td>IPK</td>
<td>Internationella programkontoret för utbildningsområdet [International Programme Office for Education and Training]</td>
</tr>
<tr>
<td>ISCED</td>
<td>International standard classification of education</td>
</tr>
<tr>
<td>ITiS</td>
<td><em>IT i Skolan</em> *ICT in schools*</td>
</tr>
<tr>
<td>IVET</td>
<td>Initial vocational education and training</td>
</tr>
<tr>
<td>KY</td>
<td><em>Kvalificerad yrkesutbildning</em> *Advanced vocational education*</td>
</tr>
<tr>
<td>NRP</td>
<td>Nationellt referenscentrum för yrkesutbildning [National reference point for vocational qualifications]</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
</tr>
<tr>
<td>PIM</td>
<td>Practical IT and media skills</td>
</tr>
<tr>
<td>PTK</td>
<td>Privattjänstemannakartellen [Council for Negotiation and Cooperation]</td>
</tr>
<tr>
<td>SEK</td>
<td>The Swedish currency is the <em>Krona</em>; EUR 1 = SEK 10.8 on 1.7.2009.</td>
</tr>
<tr>
<td>SFS</td>
<td><em>Svensk författningssamling</em> *Swedish code of statutes*</td>
</tr>
<tr>
<td>SIDA</td>
<td>Swedish International Development Assistance and Cooperation Agency</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and medium-sized enterprises</td>
</tr>
<tr>
<td>SOU</td>
<td><em>Statens offentliga utredningar</em> *Swedish government official reports series*</td>
</tr>
<tr>
<td>Unesco</td>
<td>United Nations Educational, Scientific and Cultural Organisation</td>
</tr>
</tbody>
</table>
ANNEX 3
Glossary

Adult learning association (Studieförbund): the nine national adult learning associations are part of liberal adult education (folkbildningen) and foster learning, mainly through study circles (studiecirklar), officially defined as groups of three of more people that meet at least three times for a minimum of nine hours to further their common quest for knowledge. In 2008, over 1.9 million people participated in study circles, which can be run either with or without a teacher. See also definition for liberal adult education.

Advanced vocational education (Kvalificerad yrkesutbildning, KY): post-upper secondary vocational education designed in consultation with employers to meet labour market skill needs. One third of the learning is work-based and programmes typically cover two years but range from one to three years. This VET form was reformed on 1 July 2009. See also definition for post-secondary VET.

Compulsory school (Grundskola): nine years of compulsory school for children, typically from the year they turn seven but they may also start the year they turn six or eight. Compulsory school is mandatory for all children, has no IVET component and leads directly to upper secondary school for the majority (over 98 %) of young people.

Continuing vocational training: this term is not typically used in Sweden but may be understood, in the Swedish context, to refer to enterprise-initiated, in-company vocational education and training.

Folk high school (Folkhögskola): there are 148 folk high schools, sometimes referred to as independent adult education colleges. Folk high schools are a part of liberal adult education (folkbildningen) and offer courses at different education levels (ranging from compulsory to post-secondary education). Courses, content and levels are decided at each folk high school and people with little previous formal education are usually given priority of entry. Students must be at least 18 years of age.

Higher vocational training (Yrkeshögskola): since 1 July 2009 higher vocational education in Sweden refers to those post-secondary, non-tertiary vocational education and training forms (mainly at ISCED 4B but also 5B rather than traditional higher education at ISCED 5A and 6) administered by the Agency for Higher Vocational Education (Myndigheten för yrkeshögskola). See also definition for post-secondary VET.

Independent school (Friskola): independent schools are organised by bodies other than municipalities or county councils (private education providers, interest organisations). They are at both the compulsory and upper secondary school levels and they follow the same curricula and guidelines as municipal and county-administered schools (see 3.2.2).

Individual programme (Individuella program): an individual programme can be taken by a student who leaves compulsory school without the necessary qualifications to enter one of the national programmes at upper secondary school. The aim is, however, to help students transfer at a later stage to a national or specially designed programme at upper secondary school.
Initial VET (Grundläggande yrkesutbildning): in the Swedish context, initial vocational education and training usually refers to the 13 vocationally-oriented programmes at upper secondary school. However, IVET is also offered through municipal adult education and, less common, through programmes at folk high schools, in post-secondary training and/or in supplementary education.

Labour market training (Arbetsmarknadsutbildning): this training aims to increase the competences of the unemployed to meet employer qualifications demands.

Liberal adult education (Folkbildning): liberal adult education is non-formal, voluntary education for all ages and is not tied to academic qualifications. It is organised through 148 folk high schools (folkhögskolor) and adult learning associations (studieförbund) supporting study circles for over 1.9 million people in 2008. Liberal adult education aims to reach groups of people who have often remained outside the formal education system. See also definition for adult learning association.

Municipal adult education (Kommunal vuxenutbildning or Komvux): the adult education system includes municipal adult education (basic education for adults, upper secondary education and post-secondary training programmes), education for adults with learning disabilities and Swedish language training for immigrants. The aim of basic adult education is to help adults gain the knowledge and skills they need to take part in society and working life. It is also meant to prepare adults for further study.

Municipal upper secondary adult education (Gymnasial vuxenutbildning): municipal upper secondary adult education aims to increase adults' knowledge and skills so that they meet the standard acquired at upper secondary school level, either through complementing existing upper secondary studies or offering upper secondary education to those without any education after compulsory school. Upper secondary adult education provides access to higher education if the learner passes the appropriate courses.

National programme (Nationella program): the different education programmes at upper secondary school level are called nationella program. These programmes give students a broad education, which enables them to continue to higher education if they pass at least 90% of the courses in their programme.

Post-secondary training (Påbyggnadsutbildning): vocational training programmes for adults designed and adopted locally in consultation with the business community. Post-secondary training was administered under municipal adult education until July 2009 at which point it was moved under a new unified administrative structure for all post-secondary VET. The new Agency for Higher Vocational Education will establish more consistent guidelines for post-secondary training and other post-secondary VET forms.

Post-secondary VET (Eftergymnasial yrkesutbildning): unlike post-secondary training which has been a specific VET form in Sweden, post-secondary VET refers to all VET after upper secondary school. Post-secondary VET is a broader term than higher vocational education as it includes all post-secondary VET (higher vocational education, some forms of VET at folk high schools, etc.), not just those forms under the Agency for Higher VET. See also the definition for higher vocational education.
School plan (Skolplan): each municipality has a local school plan. This school plan describes the financing, organisation, assessment, quality assurance and development of activities of schools in the municipality.

Special needs school (Specialskola): schools for deaf or hearing impaired pupils who cannot participate in the mainstream schools and need more specialised tuition. There are five regional and one national specialskola.

Special needs upper secondary school (Gymnasiesärskola): upper secondary schools that adjust education to meet the needs of students with learning disabilities.

Supplementary education (Kompletterande utbildning): programmes, which are often vocational, provided outside the public education system and lasting from 200 hours to two to three years. Supplementary education may, or may not, receive State support. There are no guidelines on the type of certificate awarded. However, the new Agency for Higher Vocational Education, established in July 2009, will devise more consistent guidelines for this VET form.

Swedish language training for immigrants (Svenskundervisning för invandrare, SFI): this training aims to provide newly arrived adult immigrants with basic knowledge and proficiency in the Swedish language as well as knowledge about Swedish society. It is part of the municipal adult education framework.

Upper secondary school (Gymnasieskola): all young people who finish compulsory school, usually the year they turn 16, are entitled to three years of non-compulsory upper secondary school. Over 98% of 16 year olds enter upper secondary school in Sweden and approximately 50% of them enter one of the 13 vocationally-oriented programmes.

Upper secondary school-leaving certificate (Slutbetyg från gymnasieskolan): an upper secondary school-leaving certificate is issued to students who receive a grade in all their courses. The same certificate assists entrance to higher education if the student passed at least 90% of all courses.

Workplace training (Arbetsplatsförlagd utbildning, APU): workplace training is obligatory for all students enrolled in a vocationally-oriented upper secondary programme (see 4.2.1).
ANNEX 4
Legislative references

1974 Law on educational unpaid leave
Lagen om arbetstagsares rätt till ledighet för utbildning, SFS 1974:981

1976 Act on employee participation in decision-making
Lag om medbestämmande i arbetslivet – MBL, SFS 1976:580

1984 Ordinance on subsidies to labour market training in companies
Förordning om bidrag till arbetsmarknadsutbildning i företag, SFS 1984:518

1985 Education Act
Skollagen, SFS 1985:1100

1987 Ordinance on labour market training
Förordning om arbetsmarknadsutbildning, SFS 1987:406

1991 Local Government Act
Kommunallag, SFS 1991:900

1991 Ordinance on State subsidies for popular education
Förordning om statsbidrag till folkbildningen, SFS 1991:977

1996 Act on study support
Studiestödslagen, SFS 1996:605

2000 Ordinance on labour market training
Förordningen om arbetsmarknadspolitiska program, SFS 2000:634

2001 Law on advanced vocational education
Lag om kvalificerad yrkesutbildning, SFS 2001:239

2002 Ordinance on adult education, a supplement to the Education Act
Förordning om kommunal vuxenutbildning, SFS 2002:1012

2009 Municipal adult education framework
Förordning om statsbidrag för yrkesinriktad gymnasial vuxenutbildning, SFS 2009:43

2009 Law on higher vocational education
Lag om yrkeshögskolan, SFS 2009:128

2009 Language Act
Språklag, SFS 2009:600
ANNEX 5

Bibliography

Cedefop. Comparative analysis: initial vocational education and training (IVET): background information and synthesis of results. 2009. Available from Internet:


# ANNEX 6

## Main organisations

<table>
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<th>Government ministries and agencies</th>
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### Social partners

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<tr>
<th>Organisation</th>
<th>Website</th>
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</thead>
<tbody>
<tr>
<td>Byggnadsindustrins Yrkesnämnd – BYN [Swedish Construction Industry Training Board]</td>
<td><a href="http://www.byn.se">www.byn.se</a></td>
</tr>
<tr>
<td>Hantverkarnas Riksorganisation [National Association of Handicrafts]</td>
<td><a href="http://www.hantverkarnasriksorganisation.se">www.hantverkarnasriksorganisation.se</a></td>
</tr>
<tr>
<td>Landsorganisationen i Sverige – LO [Swedish Trade Union Confederation]</td>
<td><a href="http://www.lo.se">www.lo.se</a></td>
</tr>
<tr>
<td>Lärarförbundet [Swedish Teachers Union]</td>
<td><a href="http://www.lararforbundet.se">www.lararforbundet.se</a></td>
</tr>
<tr>
<td>Läramnas Riksförbund [National Union of Teachers in Sweden]</td>
<td><a href="http://www.lr.se">www.lr.se</a></td>
</tr>
<tr>
<td>Motorbranschens Yrkesnämnd – MYN [The Vocational Training Board of the Swedish Motor Trade]</td>
<td><a href="http://www.bilproffs.se">www.bilproffs.se</a></td>
</tr>
<tr>
<td>Svenskt näringsliv [Swedish Federation of Business]</td>
<td><a href="http://www.svensknaringsliv.se">www.svensknaringsliv.se</a></td>
</tr>
<tr>
<td>Sveriges akademikers centralorganisation – SACO [Swedish Confederation of Professional Associations]</td>
<td><a href="http://www.saco.se">www.saco.se</a></td>
</tr>
<tr>
<td>Teknikföretagen [Association of Swedish Engineering Industries]</td>
<td><a href="http://www.teknikforetagen.se">www.teknikforetagen.se</a></td>
</tr>
<tr>
<td>Tjänstemännens Centralorganisation – TCO [Swedish Confederation for Professional Employees]</td>
<td><a href="http://www.tco.se">www.tco.se</a></td>
</tr>
</tbody>
</table>

### Other organisations

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Website</th>
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</thead>
<tbody>
<tr>
<td>Arbetarnas bildningsförbund [Workers' Educational Association]</td>
<td><a href="http://www.abf.se">www.abf.se</a></td>
</tr>
<tr>
<td>Folkbildningsförbundet [Swedish National Federation of Study Associations]</td>
<td><a href="http://www.studieforbunden.se">www.studieforbunden.se</a></td>
</tr>
<tr>
<td>Folkbildningsrådet [Swedish National Council of Adult Associations]</td>
<td><a href="http://www.folkbildning.se">www.folkbildning.se</a></td>
</tr>
<tr>
<td>Folkhögskolornas informationstjänst [Folk High Schools Information Service]</td>
<td><a href="http://www.folkhogskola.nu">www.folkhogskola.nu</a></td>
</tr>
<tr>
<td>Sveriges kommuner och landsting – SKL [Swedish Association of Local Authorities and Regions]</td>
<td><a href="http://www.skl.se">www.skl.se</a></td>
</tr>
<tr>
<td>Vägledarföreningen [Swedish Association of Guidance Counsellors]</td>
<td><a href="http://www.vagledarf%C3%B6reningen.org">www.vagledarföreningen.org</a></td>
</tr>
<tr>
<td>Youth Skills Sweden</td>
<td><a href="http://www.yrkeslandslaget.com">www.yrkeslandslaget.com</a></td>
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</tbody>
</table>
Vocational education and training in Sweden

Short description

Vocational education and training in Sweden is in the midst of a series of major reforms to ensure labour market relevance and increase quality. The current system of integrated upper secondary education will be replaced in 2011 by a system with three broad orientations: (a) general education, mainly for those intending to pursue higher education; (b) school-based vocational programmes; and (c) work-based apprenticeship. The new upper secondary system will ensure that VET students acquire more vocationally specific knowledge and skills while retaining a strong theoretical core.

Another major VET reform is creation of the new Agency for Higher Vocational Education (Yrkeshögskolan) on 1 July, 2009. The new agency will bring together post-secondary VET types under one administrative structure, apply more robust quality assurance procedures and ensure that vocational education and training more closely meets labour market skill needs.

The economic crisis which hit Europe in 2008 lends urgency to the need for VET to respond to the immediate needs of learners and the labour market. The crisis also presents Sweden with an opportunity to reskill and upskill to improve its economic competitiveness in the coming years.