



**The Ministry of Education and Research**

**Sweden's National Report 2007; material for the 2008 Joint Interim Report on the implementation of the Education and Training 2010 work programme**

**Introduction**

The EU-Commission in a written communication dated 11 December 2006 *Preparation of the 2008 Joint Interim Report on the implementation of the Education and Training 2010 work programme*, has asked member states to provide the material for the joint interim report.

In Sweden the common European goals are not handled in isolation, but integrated as far as possible into national policy. Goals for the Education and Training 2010 work programme have an impact as they are a clear part of the policy being applied, whilst at the same time the European dimension is not always transparent.

Of importance since the previous report is that Sweden in autumn 2006 had a change in Government, from a social democratic Government to a conservative Government. This means that some of the measures and priorities made earlier have since changed. Given that the new Government has only had less than half a year, many of the reforms to be implemented are still at the preparatory stage.

This year's report is a follow-up of the report submitted to the EU Commission spring 2005: *Cooperation in Education and Training under the Lisbon strategy - Towards the 2010 Common Goals*. The previous report was a description of how Sweden is working on certain areas of the Education and Training 2010 work programme, especially as regards issues concerning effectiveness, quality, lifelong learning and the European dimension in the education system, particularly in vocational education and higher education.

This year's report is written in accordance with the recommended guidelines submitted by the EU Commission. The report to the Commission in 2005

gave a more overall view of current Swedish education policy. This report does not cover what was presented in the former report. For details of these areas, please refer to the earlier report.

## **Chapter 1. Presentation of the strategy for lifelong learning**

### **1.1. The current situation:**

1.1.1 - 1.1.3 Whether a strategy was established in the country at the end of 2006, and, if not what timetable applies to such an establishment. Plans for adjusting and supplementing the strategy. Possible obstacles to the establishment of the strategy

Lifelong learning has been regarded in our country as the approaches, system characteristics and evaluations which over a number of years have been the guiding principles for educational policy and learning policy in a broad sense. Thus the strategy is something which has emerged over time, rather than introduced at a specific point in time. The Ministry of Education and Research has, however, in a special memorandum provided a current and summary description of the principles and policy orientation which the strategy for lifelong learning today rests on. The memorandum has been communicated to the other ministries involved.

The memorandum expresses both the traditions in the educational area that are related to lifelong learning and the currently applicable policy of the Government that took office in October 2006. The strategy, similar to the memorandum, should be developed as policy in relevant areas is clarified and decisions made on notified changes and reforms.

### **1.2. Independence, correspondence and relevance**

1.2.1 – 1.2.3 What parts and levels of the education system are included. What challenges should be taken up in the strategy and how should they aim at e.g. improving not only effectiveness but also equivalence. Priorities and policy development in the strategy

As regards contents of the strategy, it can generally be stated that:

- it covers all parts of the education system and all forms of learning (including non-formal and informal learning),
- the individual and the individual's learning, as well as knowledge, remain the focus whilst the structures and systems should support and strengthen individuals in their efforts. Dead-ends in the educational system should be eliminated,
- it aims at providing access to learning for all groups – however, quantity and expansion should not be at the cost of quality,

- it emphasizes the importance of fundamental parts of the education system for continuing learning, both the role of the preschool and the compulsory school, and also that each education form has its role and responsibility in the whole system,
- increased quality is a starting point and a number of measures have been taken to bring about a higher throughput in the education system,
- co-ordination between different sectors and policy areas is crucial if support for lifelong learning is to be effective.

In general implementation of lifelong learning involves bringing about an adaptation to the different needs and conditions of individuals and groups, so that motivation and the desire to learn can be developed and maintained. More specifically the challenge is to raise quality in all educational forms and to increase the proportion of young people who become eligible for and complete their upper secondary education.

Raising the effectiveness of the educational system largely involves working so that those who start an education program can also complete it with good or at least acceptable results. At present approximately three quarters of students leave the compulsory school with pass grades in all subjects and approximately the same proportion complete upper secondary school within four years of starting their studies. Effectiveness in this respect should increase. Equivalence is promoted not only through high access to education and the effort to attract new groups, but also through directing more resources to students who have experienced the greatest difficulties in completing their education satisfactorily. In order to achieve this, the Government is initiating a number of measures, as can be seen from the attached memorandum.

In this context it can be noted that upper secondary education as a whole is to be reformed. The intention is that upper secondary studies should lead either to a vocational qualification, a general qualification, or a completed apprenticeship training programme. This division should not lead to any dead-ends, as it should still be possible for all to study courses that provide eligibility for higher education, even when choosing these courses become optional

### **1.3. Main policy measures**

1.3.1 – 1.3.6 The main measures related to the strategy, specific measures which can contribute to the achievement of specially set up goals, the allocation of resources to main measures, more effective use of resources, measures to change attitudes to learning, how evidence-based policy development is supported through cultures of evaluation leading to innovation, as well as measures directed to disadvantaged groups

As mentioned under 1.1, lifelong learning is regarded as an overall expression of a number of approaches, system characteristics and values

which are the foundation of the main parts of the education system and related systems. In a strategy for such learning, there are no measures that are specific and isolated, but instead measures which are incorporated in the regular policy for learning which themselves change as policy evolves. The measures which are now relevant for supporting and developing lifelong learning have been described in an appendix to this report and under points 1.1 and 1.2 above. They are measures for ensuring a higher throughput in the school system and higher quality in all forms of education. For learning related to labour market policy, the measures are directed so that as many as possible will have work, which is a precondition for learning at work. This learning must be regarded as fundamental to developing and maintaining competence, not just vocationally specific but general competence. For example, it has been shown that adult reading skills in a broad sense are maintained and developed, amongst other things, by the demands imposed in vocational life.<sup>1</sup>

Some of the measures which the Government recently proposed or announced, especially those concerning the compulsory school, deal with creating conditions for following up pupils' knowledge outcomes. The purpose is to support the progress of the pupils towards the goals and to be able to allocate support to the pupils who do not reach the goals, and furthermore to set a guaranteed level for the continuing follow-up of the teachers.. Additional national tests, for example, will provide for increasing equity throughout the country and decreasing the variation in learning outcomes. In this way, follow-up of each pupil's development in terms of knowledge is strengthened.

No specific national goals related to the Lisbon Strategy have been adopted. Sweden, however, follows up these goals, both through reports, conferences and in reports to the Swedish Riksdag on changes in Europe and the benchmarks set up concerning Sweden.

Attitudes to learning and school are regularly measured by the National Agency for Education. There are also other sources such as the PISA studies. Generally these indicate involvement in the school and learning amongst the young, and the sense of satisfaction with the school is generally high. Obviously there are groups where motivation needs to be raised and attitudes changed. It should be borne in mind that motivation can be closely related to the general environment and social situation of the pupils. The lack of good examples, and parents' weak links with the labour market are all factors of importance, as well as the general climate for learning that exists at a school. As regards reading skills, it is evident boys have a significantly lower level of motivation in reading literature, a factor which strongly influences reading skills and which needs to be supported in local work on improvement. There are also groups of adults with a negative attitude to studies. Study financing for these groups is of great importance, as are also other obstacles that need to be overcome. Adult education should thus be organized flexibly so it can match the varying needs of different individuals and their preconditions. The municipalities also have a legal

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<sup>1</sup> See e.g. the analysis of OECD International Adult Literacy Survey (IALS).

obligation to target their recruitment to those with the shortest education. For example, in popular adult education (folkbildning) where good opportunities to provide education for groups who for different reasons may be disadvantaged, such as those with functional disabilities.

#### **1.4. Development, implementation and dissemination of the strategy**

1.4.1 – 1.4.2 Coordination and consultation with all stakeholders on the strategy, as well as measures for its introduction and publication etc

Earlier it was mentioned that coordination between different sectors and policy areas is crucial for effectively supporting lifelong learning. Through the preparation and reference groups where representatives of the labour market partners participate, ongoing discussions take place on developments and measures that may need to be taken. In the official consultation process, which is a foundation stone in the Swedish way of steering and preparing decisions, a broad view is obtained of commissions and proposals that are submitted. All Government decisions have the full backing of the cabinet, and this is ensured by special procedures for consultation, reactions and views. One assessment nevertheless made is that there is scope for increasing and improving coordination between different sectors, covering also coordination between ministries

As also mentioned, there is an intention that the policy for lifelong learning should be developed and clarified, with decisions thereafter made and reforms implemented. Consideration should be given to determining whether such a reinforced strategy should be publicised and disseminated in a special way, in addition to measures of the kind which take place on an ongoing basis.

## **Chapter 2. Implementation of overall policy goals**

### **2.1 The establishment of national qualification systems and frameworks (in line with the European framework for qualifications) and how obstacles between different educational levels and the educational system have been removed**

Within the framework of the Commission's consultation process on proposals for a European framework for qualifications for lifelong learning (EQF), the proposal has been submitted to Swedish stakeholders in the education and labour market areas; authorities, labour market partners, stakeholders as well as representative bodies in vocational education areas.

The Swedish Government was generally positive to establishing the tools to facilitate mobility in education and the labour market, and attaches particular prominence to the status of the framework as an informal instrument. The Government was positive to the fact that the framework was based on expected learning outcomes and covers all forms of learning,

as well as the validation perspective. The Government's reservations concern the comparability of corresponding frameworks for higher education developed within the framework of the Bologna process, as well as the description of learning outcomes in the subarea "competences".

These viewpoints were shared by Swedish stakeholders, who also emphasized the importance of continuing a wide-ranging discussion so that Swedish stakeholders would have the opportunity of influencing future development, especially as regards discussions on a possible national framework. It was also considered important that the proposal should be examined in real situations, in some sectors or countries before a final decision is made.

In the recommendation it is said that the framework will be examined in practice and possibly reviewed five years after introduction. Funds for examining the framework have been set aside in Leonardo da Vinci. The Swedish Ministry of Education and Research is running a project within the framework of Leonardo da Vinci where the Nordic countries jointly discuss how EQF can be implemented. A meeting was held in January 2007 within the framework for consultation of the Commission's proposals on ECVET. Future meetings will deal with national frameworks; the linkage between EQF and the corresponding framework in higher education; implementation of EQF in past secondary vocational education, as well as reporting on a Nordic pilot project and discussions with stakeholders in the different countries.

In line with the agreements in the Bologna process, a framework was introduced for degrees in higher education in conjunction with the implementation of the new education and degree structure as of 1 July 2007. The Swedish Government has not determined its position on how the implementation of the European framework for lifelong learning, EQF, is to be implemented in Sweden. Different models are possible; establishing a national framework, linking existing qualifications to EQF or from the state side only linking the qualifications that are covered within the framework of higher education. These alternatives are currently being examined within the Ministry of Education and Research.

Concerning obstacles between educational levels and the education system, see section 1.

## **2.2 Identifying and assessment of non-formal and informal learning**

It is important for both the individual as well as the society that all knowledge and competence, irrespective of how it is obtained, is used. One way of making competence transparent is through validation. In 2004 a delegation for working with development in this area was set up. The Validation Delegation is currently in its final year and will subsequently present proposals on how validation can be carried out in the future. The Delegation has in addition to its original mission also been given the task, in conjunction with the National Agency for Higher Education and the National Agency for Services to Universities and University Colleges, to

review the effectiveness and quality of the current distribution of responsibility for validation of foreign higher education programs. This is being done in order to facilitate the validation of foreign education and vocational experience.

Swedish institutions of higher education are obliged to examine the real competences of individuals when they apply to higher education. A person who by means of Swedish or foreign education, practical work experience or other circumstances fulfils the conditions for pursuing higher education should be regarded as eligible.

A person who has been admitted to higher education has the right to receive credits for other education or knowledge and skills that have been acquired through vocational activities if the knowledge and skills so obtained in principle correspond to the education for which credit is being applied for.

### **2.3 Generally accessible system for guidance and counselling in lifelong learning**

The National Agency for Education evaluated in 2005 how study and vocational counselling in the public school system for children, young people and adults is implemented and organized in municipalities. In the evaluation, this was found to be uneven in quality and appears to have stagnated. The National Agency for Education will report the measures it has taken with respect to the findings of the evaluation.

The National Agency for Education has the task together with the National Labour Market Board (AMS) of developing information for pupils in the compulsory school about the labour market and future work prospects, in order to increase student access to information prior to choosing upper secondary school. The agencies will also draw up a long-term strategy on how such information shall be provided on a regular basis to students.

In addition, the National Agency for School Improvement has been commissioned to provide support to a sample of municipalities and schools in order to develop quality in study guidance and vocational counselling. Experiences from these pilot projects will be used to develop activities in other municipalities and schools.

The National Agency for Education launched its internet-based portal for study guidance and vocational information in October 2005.<sup>2</sup> During 2007 the National Agency for Education has the task of continuing its work on quality raising measures and further development of the portal covering information on education at all levels. The National Agency for Higher Education publishes information on its web site about higher education, what is involved in studying in higher education, student finance, accommodation issues etc.<sup>3</sup>

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<sup>2</sup> [www.utbildningsinfo.se](http://www.utbildningsinfo.se)

<sup>3</sup> [www.studera.nu](http://www.studera.nu)

**2.4 Measures to strengthen cross-border mobility in all sectors, by i.a. removing administrative and legal obstacles, introducing Europass or by providing financial and other means of support**

In Sweden the International Program Office is responsible in the education area for the implementation of a number of education programs, national, bilateral, Nordic and European. For some years, the goals of the Government for the International Program Office have been to increase Swedish participation in EU programs, especially in-service training grants from Comenius, student and teacher mobility in Erasmus, as well as development projects in Leonardo da Vinci.

The Riksdag has decided to launch a special initiative for teacher training. SEK 700 million will be added in the first stage for school year 2007/2008. An additional SEK 2 050 million will be added up to 2009. Particularly important is the focus on areas that are important in terms of increasing quality by making teachers' competences deeper or broader. Another important issue is to give the students increasing opportunities for achieving good results, in mathematics, for example, as well as in the development of reading and writing skills. By combining the national initiatives with the in-service training project in Comenius, teachers can further develop in their profession through obtaining an international dimension.

Knowledge of a number of languages is a significant initiative for creating cohesion in Europe. Sweden has thus supported the common European education goal of promoting knowledge in two languages, in addition to the mother tongue goal. Good language skills are relevant for both higher education, as well as for vocational and societal life as a whole. For this reason the Government in its bill "Routes to higher education through knowledge and quality" (Vägar till högskolan för kunskap och kvalitet) (bill. 2006/07:107) considered that all in-depth studies in languages based on the syllabuses for modern languages in upper secondary education should lead to additional credit points when applying for admission to higher education.

By means of Europass, merits and qualifications can be described in the same way and evaluated similarly throughout the EU. Europass consists of five documents which aim at helping students and employers to make their skills and competencies transparent and easy to understand within Europe. In Sweden responsibility for the different documents is assigned to five different authorities: The Swedish National Labour Market Board is responsible for Europass Curriculum Vitae, Uppsala University for Europass language portfolio, the International Program Office for Europass mobility, the National Agency for Education is responsible for Europass – Certificate Supplements, and the National Agency for Higher Education is responsible for Europass – Diploma Supplement. The International Program Office is the coordinator and Sweden's national Europass Centre. Universities and university colleges have been issuing the Diploma Supplement since 2003 as a supplement to the degree certificate for all

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students who take a degree. The National Agency for Education is a national reference centre for information on vocational education, the first contact point for those wishing to have information on vocational education and vocational qualifications in Sweden and Europe. Another purpose is to provide information about the Swedish system for vocational education and facilitate comparisons between Sweden and other countries.

On 1 July 2007, a new education and degree structure will be introduced for higher education in order to increase internationalisation and raise quality of higher education. The new structures are in line with the intentions of the Bologna process and mean that higher education is divided into three levels: undergraduate, advanced, postgraduate levels. At the same time a new credit system is being introduced in line with the European Credit Transfer System (ECTS) which means that full-time studies in a normal study year correspond to 60 higher education credits.

### **Chapter 3. The implementation of policy goals in the school, higher education, vocational education and adult education**

#### **3.1 Areas that should be taken up in the report for all levels (compulsory school/upper secondary school, higher education, vocational education, adult education)**

Chapter 3.1.1 Administration and management of educational establishments (e.g. organisational and administrative reforms, measures concerning independence and responsibility, public/private initiatives)

Since July 1 2006 privately run preschools and leisure-time centres for school-age children have the right to establish themselves. The change means that municipalities will be required to approve private pre-schools and distribute grants for activities if these institutions fulfil certain quality requirements and are open to all children.

The Government emphasized in the budget bill for 2007 (bill 2006/07:1) that it considers independent adult education important in providing adults with the same opportunities as children and young people to choose an education based on their wishes and needs. The Government thus appointed a Commission in March 2007 to investigate independent adult education (dir. 2007:32). The Commission will present its report by 3 September 2008.

In January 2007 the Government presented a bill "Freedom to choose – increased influence for universities and university colleges when board members are appointed" (bill 2006/07:43 (Frihet att välja – ett ökat inflytande för universitet och högskolor när styrelseledamöter utses)) containing proposals and assessments that aim at depoliticizing the boards of universities and university colleges. The Riksdag passed the bill in March 2007 (bet. 2006/07: Ubu 11; rskr. 2006/07:122). The decision means that

institutions of higher education will have greater influence over the composition of their own boards.

The Government will in several ways work for diminishing political steering of higher education. Issues on management and organization of universities and colleges will be investigated. The purpose is to enable the evolvement and stability of strong universities and university colleges with great integrity.

The Government has also set up a Commission to phase out the requirement to be a member of the student union when studying in higher education (dir. 2007:49).

Advanced vocational education, which is a state financed form of education with close cooperation to working life, could be provided as commissioned education from 1 August 2006. This means that companies can purchase advanced vocational education as components of in-service training and that different courses could also be used in both labour market and rehabilitation contexts. The KY-Agency (Advanced Vocational Education and Training) continues to have supervisory responsibility for all advanced vocationally education.

As from June 1 2007 Swedish Prison and Probation Service will be given the opportunity to arrange education in accordance with public schooling for adults. The Service must thus establish its own head teacher function and come under the auspices of the National Agency for Education. It must also follow existing regulations concerning teacher eligibility etc.

The Government has decided to carry out a review of the authority structure in the school system etc. (dir 2007:28). A clearer, more effective and more streamlined authority structure with fewer national authorities will facilitate state steering in a school system governed by goals and results. The tasks of the Commissioner are to propose a new state authority structure for the school system, pre-schooling, school-age child care and those parts of adult education that are not part of the school system.

### 3.1.2 Encourage companies, households and individuals to make private investments

In the budget bill of 2007 (bill 2006/07:1), the Government stated that during the mandate period it wished to investigate the question of providing tax relief on donations for research under the tax system.

A commission appointed by the Government has investigated if it is possible for universities and university colleges to introduce a tuition fee (Studieavgifter för studenter från länder utanför Europeiska ekonomiska samarbetsområdet, SOU, 2006:7). The commission was also given the task to propose a law to emphasize the principle of free education for students from the EES-countries. The commission's report has been circulated to authorities and stakeholders and are now under consideration in the Government offices.

3.1.3 To improve access to and increase participation in education, especially amongst disadvantaged groups [e.g. immigrants, ethnic minorities, persons with functional disabilities] and make sure that the treatment of these groups and their study results are improved

The Government has decided to re-introduce special state schools for visually impaired persons with functional disabilities or serious language impediments (bill 2006/07:69). The Government has thus decided that the state should be the principal organizer for the special school. In order to support schools' work with pupils in need of additional support in their language, reading, and writing development, the Government has strengthened the training programmes for special teachers and special pedagogues.

The directives to universities and university colleges for 2007 states as earlier directives that universities and university colleges should actively promote and broaden their recruitment. Institutions of higher education are required to broaden recruitment and report results in relation to goals in connection with the annual report for 2008.

In its budget bill for 2007 (bill 2006/07:1) the Government has also taken a number of initiatives such that immigrant academics should be offered enhanced opportunities for supplementary education in order to facilitate their entry to the Swedish labour market. Special initiatives have also been taken to provide supplementary training for lawyers, teachers and to increase the proportion of academics with a foreign background in the state authority sector.

In 2006 the Swedish Agency for Networks and Cooperation in Higher Education was commissioned in addition to its regular tasks, to support, coordinate and administer the development of IT mediated distance education. The agency should also promote and support higher education institutions in broadening recruitment and pedagogical development.

Apprenticeship training and vocational education in the Upper Secondary school, see section 3.4.

On 1 July 2006 some changes were made to the Education Act (1985:1100) concerning Swedish tuition for immigrants (sfi) (bill. 2005/06:148). The changes were made i.a. order to improve integration of immigrants into Swedish society and facilitate their opportunities to establish themselves in society and on the labour market. The legislation has been clarified to take into account the fact that municipalities have the opportunity of arranging basic reading and writing learning for illiterate immigrants in their own mother tongue or in another appropriate language.

In addition, an obligation has been introduced requiring municipalities to provide a certain number of hours of Swedish tuition for immigrants per week. By this means the level of ambition has been raised and a common

minimum level for all municipalities in the country is being established and the equivalence of education between municipalities is also increasing.

An obligation has been introduced into the Education Act to the effect that municipalities in conjunction with county employment boards should work to provide pupils with opportunities to train their Swedish in working life, and that Swedish tuition for immigrants can be combined with other activities such as gainful employment, working life orientation, validation, practice or other forms of education.

As of 1 January 2007 the right to take part in basic education for those with severe learning disabilities (särsvux) was introduced. This means that all adults, who reach certain conditions, now have the right to basic education.

Sweden has a favourable student aid system which makes it possible for broad groups in Sweden to study (see report 2005, section 2). During 2006 there have been several reinforcements of the student aid system. Extra child allowance has been introduced for students caring for children, the opportunity for older persons to apply for student aid has been improved, and the amount of student aid was raised by SEK 300 per study month, of which SEK 100 is a grant component and SEK 200 a loan.

#### 3.1.4 Measures to bring about an equal gender distribution in education

The vocationally oriented programs in the upper secondary have been very strongly gender biased and in many respects still are. For example, in autumn 2005 the proportion of women in the health care program was approximately 87 percent. The corresponding proportions were only about 2 percent in the energy and electricity programs. Also in other vocationally oriented programs, the gender imbalance is very pronounced.

The recently appointed upper secondary school commission (dir. 2007:8) mentioned in greater detail in section 3.4 will examine and submit proposals on what national programs and orientations should exist. From the directive, it is clear that analysis of the educational needs of the labour market should take account of existing gender differences on the labour market and the scope for reducing these. The commission will also present an analysis of the consequences of the proposal from a gender equality perspective. The commissioner will also submit proposals for apprenticeship training. The proposed arrangement should according to the directive decrease gender distortions on the labour market.

The National Agency for School Improvement works on gender equality as a national prioritised area. Amongst other things, the agency carries out development work in a number of pilot municipalities.

Universities and university colleges are required each year to report to the Government on how they are working with gender equality, and measures taken to bring about a more even gender distribution in different education programs and in different positions, as well as take greater account of the gender perspective in educational programs provided.

3.1.5 Use result-based methods in order to define and formulate education goals, educational standards and curricula, and also make sure they correspond to the needs of society and the economy

The background to the previously mentioned commission on the upper secondary school is, amongst other things, the need to adapt upper secondary vocational education to the changes that have taken place and are taking place in different industries and vocational areas. Working life and different industries have given clear indications of the need for changes in education. There is a shortage of skilled manpower in areas where the employees normally receive basic vocational education in the upper secondary school. At the same time education that does not correspond to the needs of the labour market is provided.

The commission on the upper secondary school will, given this background, analyse and assess what the needs for vocational education are within the domain of the upper secondary school, and in what way these needs can best be satisfied. In order to ensure that the needs of the labour market and stakeholder interests are satisfied in the proposal, the commission should work in conjunction with trade organisations and stakeholders on the labour market.

As a result of the new education and degree structure introduced in higher education in Sweden from 1 July 2007, the descriptions of degrees have been reformulated based on learning outcomes. Higher education institutions are also required to formulate goals for each course in higher education. The degree descriptions have been drawn up in conjunction with relevant players such as representatives of different trades and industries.

### 3.1.6 Quality assurance systems

All the central authorities for the school area have the responsibility for evaluation in their respective areas.

Many schools, preschools, leisure time centres and municipalities are required each year to provide quality reports. The National Agency for Education regularly carries out inspections in each municipality concerning pre-schooling, school-age child care, school and adult education. The Government considers that the inspection and examination of the schooling system should be made more rigorous. The Government has announced its intention of giving from 2008 the National Agency for Education the task of carrying out educational inspections at least once every three years into quality at each school, as compared with the current six yearly interval.

Over a six year period the National Agency for Higher Education examines the quality of all education leading to a minimum of a bachelor's degree, a degree in arts or a vocational qualification at undergraduate level. The National Agency for Higher Education also examines quality work and applications to award a specific degree or to establish a scientific area. However, the Government will decide on the right to award degrees at the post-graduate level. Prior to the six-year period 2007-2012, the National Agency for Higher Education has introduced a new quality assurance

system. The system is adapted to the changes introduced to the education and degree structure during 2007.

The new quality assurance system for the period 2007-2012 combines experiences from the earlier system with new thinking concerning quality assurance and quality development. The new quality assurance system is based on five different components:

- subject and programme evaluations,
- examination of the quality work of institutions of higher education,
- assessing the right to award degrees,
- thematic studies, and also
- awards for outstanding education environments.

Concerning quality assurance for vocational education, see section 3.4

3.1.7 Develop partnerships for learning with stakeholders as well as decision-makers at the national, regional and local levels, the labour market partners, learners and representatives of civil society.

See 3.4 about adult education.

In addition, initiatives are being taken concerning the supply of labour and competence development within the framework of the EU structural funds and the Swedish regional growth program. This involves initiatives in learning centres, competence development of employees to develop their competence and strengthen opportunities for successfully managing ongoing structural change, coordination between different authorities and organisations concerning the supply of competence, e.g. labour market boards, county administrative boards, universities and university colleges, and also initiatives to bring about a change in work organisations.

## **3.2 Schools**

3.2.1 Increase investments in and strengthen preschooling

In recent years the financial position of municipalities has been strengthened. This has created preconditions for initiatives in the preschool. By this means staff student ratios have been increased by 5 percent since 2003, despite the fact that the number of children registered has increased over the same period.

3.2.2 Modernize school curricula and assessment systems (amongst other things, process study outcomes and key skills)

The Government is focusing on the school's knowledge task by making the compulsory school goals fewer and specifying them more clearly. A commission with the directives to propose more and earlier checkpoints in

the compulsory school, will soon be finished (U2006:02). Goals and national tests in the third year will also be introduced. The grading system will also be reviewed and grades introduced from the sixth year.

3.2.3 Special in-service training needs (including preschool teachers) are to be identified so that teachers will be better equipped to manage changes in their professional roles brought about by the knowledge-based society

The Riksdag has taken a decision to introduce substantial support for supplementary training for teachers (bet. 2006/07UbU1; rskr 2006/07:54). The support is among other things directed to teachers in the lower years to strengthen their work in teaching pupils to read, count and write. The intention is also that the support will be provided in order to increase the number of teachers who are carrying out research.

A working group at the Ministry of Education and Research will submit a proposal on the orientation and scope of a nationwide head teacher training program, as well as how this is to be organized. The task of the working group involves submitting proposals on what should be the target group for the programme and also on whether the training should be compulsory. The working group will present its findings and proposals in a Ministerial memorandum by 1 June 2007.

3.2.4 Measures to reduce the number of young people leaving school early, increasing the proportion of young people completing upper secondary education, reducing the proportion of 15 year-olds who do not have basic reading skills, and increasing the proportion of pupils who choose to study mathematics, sciences and technology (EU benchmarks)

In Sweden nearly all pupils proceed from the compulsory to the upper secondary school, but far too few complete their education with a final certificate. Many pupils need more than the 3 years set aside to reach the goals of upper secondary education. This postpones their entry to the labour market. The Government has thus appointed a commission which will review the current upper secondary school and propose changes required in the upper secondary school thereby enabling more students to complete their education within the stipulated time period (dir. 2007:8).

Different interests and aptitudes must be taken into account in education preparatory for higher education, vocational education and apprenticeship training. By means of better opportunities to choose their specialisation, the motivation of pupils can increase. Young people who do not complete an upper secondary education find it increasingly difficult to establish themselves on the labour market. More young people than hitherto will have the opportunity of completing the education they have started. As a result of new vocational and apprenticeship training programs of high quality, as well as measures to improve the compulsory school and relevant admission requirements to upper secondary school, the drop-out rate from upper secondary school should be substantially reduced.

In spring 2003 a Mathematics Delegation was appointed (dir. 2003:8) to draw up an action plan with proposals for measures to change attitudes to

and increase interest in the subject of mathematics, as well as submit proposals for developing the teaching of mathematics. The Delegation submitted its report "Enhancing the status of mathematic - interest, learning, competence" (Att lyfta matematiken – intresse, lärande, kompetens) (SOU 2004:97) autumn 2004. A number of measures have since been taken to strengthen teaching of mathematics.

The description of the degree for teaching qualifications has been changed in order to clarify the importance that qualified teachers have relevant knowledge in developing both reading and writing skills, as well as learning of mathematics. In addition, universities and university colleges have been allocated funds over a three-year period to give students additional support in mathematics at the beginning of higher education studies. The funds could also be used to simulate contacts between upper secondary schools and university colleges.

The National Agency for School Improvement was commissioned in February 2006 to initiate and implement development measures over several years to raise quality in mathematics teaching in order to increase goal attainment in the preschool, school and adult education, as well as in corresponding school forms. The measures cover competence development of already practising teachers with the help of local support persons, the development of support material and increasing coordination with higher education and working life. A final report will be submitted by 2010. The agency will where appropriate consult with the National Center for Mathematics teaching (NCM).

In addition priority is given to teachers of mathematics and natural sciences in the major initiative for in service-training which the Government announced for the coming years, a very important part in the development of teaching in mathematics and natural sciences.

The National Agency for School Improvement received in December 2004 the task from the Government of drawing up an action plan for on how the interest of children, pupils and adults in natural sciences and technology can be better used and developed. The action plan should also aim at increasing interest in further studies in the area. The action plan should cover the preschool, preschool class, the compulsory school, and also the upper secondary school and municipal adult education.

In November 2005, the agency was given the task by the Government, in line with the agency's earlier action plans, to initiate and implement competence and development initiatives in the areas of the natural sciences and technology. The measures will be directed to municipalities and schools to facilitate their own work of increasing quality in teaching. The agency will take the initiative to establish a national strategy group for the coordination of initiatives to be taken by different players in the areas.

### 3.3 Higher education

#### 3.3.1 Measures to reinforce the linkage between education, research and innovation

The Agency for Innovation Systems (VINNOVA) has the task of promoting the development of effective Swedish innovation systems in the areas of technology, transport, communication and working life. VINNOVA has been commissioned by the Government to develop cooperation between industrial research institutes, universities and university colleges as well as players in the private and public spheres and in doing this take into account knowledge developments particularly in small and medium-sized companies. VINNOVA will also promote mobility between higher education, industrial research institutes and industry.

The Agency for Industrial and Technical Development (Nutek) is implementing in conjunction with other authorities and organisations over the period 2005 - 2007 a national program to promote entrepreneurship in compulsory and upper secondary schooling, and also in higher education. Entrepreneurship at universities and university colleges aims to get more students to think along entrepreneurial lines, and this in its turn can lead to the start-up of more companies. This will happen not only by stimulating higher education to introduce a greater measure of entrepreneurship in education, but also through focusing on new target groups of students, for example, in the humanities, nursing/care and aesthetic subjects.

The Government stated in its budget bill for 2007 that the capacity of higher education institutes to provide researchers wishing to commercialise their research findings should be improved by reinforcing the right of some institutions of higher education to set up holding companies.

#### 3.3.2 Possible goals for participants and measures taken to fulfil these

The letter of instructions to universities and university colleges for 2007 states that institutions of higher education should actively promote and broaden their recruitment. Information and vocational guidance on educational pathways in higher education and the labour market for different education programs will also be improved.

#### 3.3.3 Measures aimed at increasing excellence

The Government considers that the current resource allocation system for higher education has shortcomings in that it gives priority to quantity over quality. Appropriations to higher education are very largely based on how many students are approved. The Government thus states in its budget bill for 2007 that allocation of resources also needs to give priority to quality. Research resources should also be allocated in accordance with quality indicators.

At present a commission (Resursutredningen, U 2004:3) is instructed to analyse the resource allocation system for higher education, research and researcher education at universities and high schools. A starting point for

the commission is the need of scientific quality and increased profiling, closer cooperation and the distribution of work among the educational centres.

VINNOVA's program - VINN Excellence Center - is a form of collaboration between industry, public activities, universities and university colleges, research institutes and other organisations carrying out research. The program focuses on dynamic, internationally competitive research environments and networks for applied and multidisciplinary research in conjunction with existing industry. In this way the link between research in higher education and the R&D of other players is strengthened, and this is of particular importance for innovation systems in Sweden. The centres, which are selected on the basis of an application process, are financed step-wise and for a maximum period of 10 years. The period 2006-2011 is a build-up and establishment phase, and at the end of this period, it is estimated there will be between 25-30 centres. Vinnova is investing up to SEK 70 million at each VINN Excellence Center. Another programme run by Vinnova, Berzelii Centra, supports excellence in basic research. In addition, a clear ambition is required to actively co-ordinate with stakeholders from industry and the public sector to eventually make better use of research in commercial applications. Support is given for up to ten years.

The Swedish Research Council and the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas) provide support to strengthen research environments through funds from Linné Support.

In the quality assurance system of the National Agency for Higher Education for the period 2007-2012, an annual award is made to one or more prominent educational environments for innovation in relation to the earlier period. The agency through the award wishes to give recognition to educational environments representing very high quality. The assessment is made by an international group of experts.

#### 3.3.4 Measures to increase the number of graduates in mathematics, science and technology (EU benchmark)

The Government has set up goals for the minimum number of full-time annual students in technological and natural science areas for all universities and university colleges. The Government has also set up goals for the number of persons obtaining degrees in civil engineering. In addition, the Government has stated that in higher education institutions providing teacher training, at least 30 percent of teacher qualifications should include training in mathematics, technology and the natural sciences.

The initiative for in service-training for teachers in mathematics and natural sciences is mentioned in 3.2.4

### 3.4 Vocational education and training and adult learning

3.4.1 Measures to increase vocational education and the quality of adult education and make these more attractive

3.4.2 Measures to reinforce the linkage between VET and the needs of the labour market, e.g. early identification of needs as well as curricula and qualifications of greater relevance for the labour market

3.4.5 Measures to increase participation of labour market partners in education, especially through sector based strategies for skills and qualifications

For a long time Sweden has had an integrated upper secondary school, where not only vocational but also theoretical study routes are provided. Basic vocational training takes place mainly within the upper secondary school. Since the most recent major upper secondary school reform at the beginning of the 1990s, all programs are three years in duration as are the vocational programs and those mainly preparing for higher education. Corresponding vocational and general programs are also provided in municipal adult education.

The proportion of an age cohort starting upper secondary school studies has been approximately 98 percent since the upper secondary school reform that was mentioned above. The proportion of 25-34 year olds with upper secondary education or higher is at a very high level in Sweden from an international perspective. A well developed adult education system has contributed to this.

The goals for the Swedish upper secondary school are high. All students, whether they choose a general or a vocationally oriented study route, should be well prepared for their future activity after upper secondary school. At the same time evaluations show that this goal has not been fully attained. The proportion of pupils leaving the upper secondary school without a complete final school certificate is too high and many choose to supplement their upper secondary school studies in municipal adult education. Overall this delays entry to the labour market.

Changes in the upper secondary school were planned to be introduced in autumn 2007. The new Government which came into power autumn 2006 considered that the planned measures were not sufficient and that more wide-ranging reform of the upper secondary school needed to be carried out. The planned reform of the upper secondary school 2007 was cancelled and a new commission into the upper secondary school was appointed in spring 2007 with the task of submitting proposals for the future structure of study pathways in the upper secondary school. There is a need to review what changes are required in the organisation of the upper secondary school so that more pupils will complete their education within the appropriate period. The starting point should be that the upper secondary school provides education of high quality that takes advantage of the students' opportunities

to choose education on the basis of aptitude and interests. The commission will work in close collaboration with higher education and representatives of working life.

Since the most recent upper secondary school reform, developments in society and working life have been very rapid. Global competition and rapid technological development create entirely new conditions. The study pathways of the upper secondary school need to be adapted to changes in different industries and vocational areas. There is a shortage of skilled manpower in some vocational areas in which the employees normally receive their basic education in the upper secondary school, whilst other programs do not satisfy the needs of the labour market. In order to ensure the relevance and quality of education, co-ordination between school and working life needs to be intensified.

The new commission into the upper secondary school will analyse the needs of the labour market for upper secondary education and submit proposals on how the labour market's needs can best be satisfied within the upper secondary school's program structure. The commissioner will also consider the coverage of work place located training components of education and how quality can be assured. The work will take place in conjunction with industry representative and partners on the labour market.

Vocational education has by tradition mainly been carried out by schools in Sweden. By means of the upper second school reform in the 1990s, workplace located training components of the vocationally oriented upper secondary education became obligatory. Now it is the right time to take a further step in development. The new commission on the upper secondary has the task of submitting proposals on apprenticeship training in the upper secondary school as a complement and alternative to the more traditionally designed vocational education and training programmes. The major part of the education should be located in a workplace and the responsibility of the employer for the education should be regulated in an agreement with the principal organizer of the school. The commission on the upper secondary school will finalize its work during spring 2008 (dir. 2007:8).

The National Agency for School Improvement in 2006 received the task together with the National Agency for Education, and the National Centre for Flexible Learning (CFL) to provide special support to municipalities and county councils to develop the scope and contents of vocationally oriented education in municipal adult education and municipal education for adults with learning disabilities. In addition a task was submitted to the National Agency for Education to determine in conjunction with industries and working life the syllabuses for overall vocationally oriented education as well as advanced programs. The purpose of this is to facilitate individuals wishing to change occupations or obtain a vocational education. The National Agency for Education also has the task of identifying possible additional needs and where appropriate draw up and determine national syllabuses in municipal adult upper secondary education and supplementary education.

### 3.4.3 Open educational pathways to further education and higher education

All the study pathways of the Swedish upper secondary school, as well as the vocational education programmes, when successfully completed provide basic eligibility for higher studies. In the directives for the previously mentioned upper secondary school commission, the focus should increasingly be directed to vocationally oriented subjects in the vocationally oriented programs. It should, however, always be possible for students in the vocational programs and apprenticeship training to choose those subjects and courses which provide basic eligibility for higher studies. Corresponding knowledge can also be obtained after upper secondary education through adult education.

3.4.4 Specific in-service training needs of teachers in vocational education and adult education enabling them to be better equipped for changes in their professional roles brought about by the knowledge-based society.

See points 3.3.4

3.4.6 Increased accessibility and opportunities for education amongst the disadvantaged e.g. through alternative educational routes, as well as for early school leavers

Individual programs (IV) provide individualized study pathways for pupils who do not fulfil the admission requirements for a national program. In these programmes, studies in both courses provided by the compulsory school and upper secondary are combined with workplace located learning or practice. As of 1 July 2006 the IV programme is given full time and its coverage corresponds to the national programmes.

In order to ensure that legislation fulfils its intended effects, the National Agency for School Improvement and the National Agency for Education have been given special tasks by the Government. The National Agency for School Improvement will support and stimulate the work of municipalities and schools in raising quality of education in the individual programs so they are based on pupils' needs and preconditions. The National Agency for Education monitors how the municipalities are implementing the new legislation where all pupils with individual programs are to be offered full time education, and also report on how the municipalities are using the financial compensation granted.

3.4.7 Measures to increase adult participation in lifelong learning and strengthen key competencies amongst adult students and older persons, irrespective of whether they are professionally active or not (EU benchmark)

Adult education in Sweden is comprehensive and is made up of many different forms. The educational forms cover municipal and state adult education, adult education for those with learning disabilities, instruction in Swedish for immigrants, advanced vocational education, supplementary education, and popular adult education. The basic choices for those who are to benefit from society's initiatives in terms of adult education is that resources should be directed to those who have a great need for education

e.g. those who have not had the opportunity of obtaining basic eligibility to higher education or who need education in order to strengthen their position on the labour market. One starting point is that the individual municipality as the principal organizer, has the preconditions on the basis of existing regulations and an overall municipal perspective to assess what the need for adult education is, and on the basis of this decide on scope and contents in accordance with the needs analyses. Given this background, the Government has determined that the earlier state grant directed to the education of adults will from 2007 be included in the general state grant at the same time as the amount is reduced.

The basis for adult education is the individual needs of adults for education and personal development. Today there is a right for adults to obtain an education corresponding to that of the compulsory school. The Government intends to examine how a similar right could be introduced at the upper secondary school level.

In addition, independent (i.e. private) adult education is important so that adults will have the same opportunities as children and young people in choosing an education based on their desires and needs. The Government has appointed a commission on these questions (dir. 2007:32). The commission will deliver the report March 3 2008 at the latest.

It is important to reach those who feel they do not have the motivation to study. The municipalities thus have the responsibility for promoting out-reach recruitment and for making vocational education accessible to all their inhabitants.

Popular adult education has a major role in providing adult learning opportunities, not least for those with weak educational backgrounds. State grants to popular adult education increased during 2007 by approximately SEK 500 million.. The Government has in guidelines for 2007 commissioned the Swedish National Council of Adult Education during 2007 and 2008 to implement special initiatives in order to improve the abilities and competencies for older persons and other groups to use modern technology.

Post upper secondary education outside higher education must be strengthened and transformed into a more powerful alternative. Crucial for the quality of vocational education is that it corresponds to the real needs of society and working life. A special commissioner was assigned the task of carrying out a review of post upper secondary vocational education outside higher education (dir. 2006:33 och 2006:108). The commissioner submitted the report "Post upper secondary vocational education - descriptions,

problems and opportunities" (Eftergymnasiala yrkesutbildningar – beskrivning, problem och möjligheter) (SOU 2006:115) to the Government in January 2007.

Given the background of the earlier commission, on 29 March 2007 a new commission was set up with the task of carrying out an analysis and submitting proposals on how post upper secondary vocational education outside higher education could be brought together under a common framework to be known as the Vocational University College (Yrkeshögskolan) (dir. 2007:32). The commissioner's proposals should aim at simplifying and clarifying the system proposed for post upper secondary vocational education as well as facilitating allocation of priorities and distribution of resources at the national level. The proposals should also aim at ensuring that follow-up, evaluation and quality assurance takes place within the area. The commission will present its report by 29 September 2008.

The essence of the Government's labour market policy is to create preconditions for more people to enter the labour market at an earlier stage, and that more people of working age work and fewer leave before normal retirement age. This means, amongst other things, a clear focus on jobs and effective measures for those who are most distant from the labour market. Labour market policy can and should operate as a lubricant for the labour market. This should contribute to ensuring that people can move from one job to another, or from unemployment to work on the regular labour market as rapidly as possible. Labour market training should to a high degree be focused on strengthening the competence of unemployed persons and focus on areas where there is a lack of labour. A special commissioner will review labour market training and education preparatory for further studies (dir. 2006:70 and 2006:125).

A working organisation with good opportunities for employees to participate and develop on the basis of their individual preconditions is important. Sweden is at a comparatively high level as regards competence development at work. Of the total labour force aged between 25–64 years, 33.5 percent participated in some form of in-service training during 2005.<sup>4</sup> Developments in this area are very largely an issue for the labour market partners and the Government is considering researching new means of stimulating individuals and employers to put additional resources into lifelong learning.

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<sup>4</sup> EU Labour Force Survey.