

2007 National Report
Iceland

The Ministry of Education, Science and Culture

April 2007

Chapter 1: Presentation of the National Life Long Learning Strategy

1.1 Current state of play

1.1.1 Whether a lifelong learning strategy was established in your country by the end of 2006, and if not what is the timetable for its establishment

During the last two years there has been intensive work ongoing in Iceland towards the formation and implementation of a comprehensive national lifelong learning strategy (overall revision of the education policy). It is not in place yet as educational reform take a long time especially when it has to be secured that all stakeholders, i.e. parliamentarians, education authorities, social partners, teacher unions, local authorities and parents work together in the planning phase so that the reform i.e. the lifelong learning strategy can be implemented successfully.

Early in 2006 the Teachers' Union and the Minister of Education Science and Culture signed an agreement to work in unison during the overall revision of the education policy at the different school levels. Committees were set up to revise the existing legislation on Pre-primary School, Compulsory School and Upper Secondary School the main focus being on co-operation and continuity between school levels, improved governance, increased decentralisation and autonomy, quality assurance and evaluation and the enhancement and improvement of vocational education and training as well as flexibility and second chance for those who drop out. The committees are about to finalise the draft bills but whether they will be put before the parliament unchanged will not be decided until after parliamentary elections that will be held on 12 May 2007. The committees consisted of representatives of all relevant stakeholders as listed above and they succeeded in coming to an agreement on almost all accounts.

One part of the lifelong learning strategy is already being implemented i.e. revised law on Higher Education Institutions no. 63/2006 that was adopted by parliament in July 2006. The elements of the law will be explained below (see 2.1) but the main emphasis is on autonomy, accreditation, quality assurance, efficiency, flexibility and excellence.

In accordance with the agreement by the Teachers' Union and the Minister of Education, Science and Culture there were in addition to the above mentioned committees set up working groups to make proposals on further educational reform. Three working groups listed below put forward their proposals:

- A group working closely with the law committees outlined how to change the structure of the Compulsory and Upper Secondary School to make it possible to shorten the total of 14 years (10 for Compulsory and 4 for Upper Secondary) by one year so that Icelandic students would normally graduate from Upper Secondary School at the age of 19 instead of 20 today. The curriculum for both these school stages are being revised and some courses will be moved from the Upper Secondary School to the Compulsory School without diminished quality through curriculum changes and increased teaching hours.
- A working group has finalised their work on reform of teacher education and some of their proposals have already been accepted by the Higher Education Institutions that offer teacher training. In-service training will also be augmented in accordance with the proposals of the group (See 3.2.3).
- A working group on the enhancement of vocational training has also delivered its proposals which have been taken into account by the committees revising the law. As will be discussed in 3.4.1 the main proposals cover the organisation of academic as well as vocational lines with the main emphasis on flexibility and to make it easier to combine academic and vocational education so that those who choose vocational lines will have easier access to Higher Education Institutions should they choose to do so.

If the government formed after the elections 12 May 2007 is in agreement with the strategy already laid out the legal framework can be in place before the end of the year and the implementation would start. Should this be the case the implementation will be completed before the end of 2008, a part from the curriculum reform that will need more time and will not be fully implemented until 2010.

After the work on the reform and the lifelong learning strategy started the European Commission, DG EAC, offered financial support to national authorities who participate in the implementation of the Education & Training 2010 work programme. Iceland decided to take advantage of this opportunity in order to maximise results from the participation at European level by widening the discussion at home on some of the aspects already included in the revision work to better integrate the work undertaken at European level with the Icelandic reform. There were set up 5 discussion groups deliberating the same issues as the 5 country clusters in which Iceland presently participates. These clusters are:

- Modernisation of Higher Education
- Teachers & Trainers
- Increasing participation in MST
- ICT in Education
- Recognition of Learning Outcomes

It is clear from this national report that these issues are at the forefront of the deliberation and planning of the reform in Iceland, and therefore the support from the European Commission and the actions taken on the basis of this support have been extremely valuable. The discussion groups were all chaired by officials from the Ministry of Education, Science and Culture and they prepared a conference that was held in Reykjavik 26 October 2006 titled: "Education and Training 2010 – The development of Education Policy in Iceland in the context of Europe". The aim of the conference was to promote "Education and Training 2010" and Iceland's involvement in the work programme, and to invite reactions and views of varying stakeholders to the conclusions of the five discussion groups. A report from the conference can be found at: http://bella.mrn.stjr.is/utgafur/education-training_2010.pdf

1.1.2 Plans for future adjustment, completion or modification of the strategy

The status of our work towards the lifelong learning strategy is explained in 1.1.1 and as matters stand there are no further plans for adjustment or modification, but we are hoping to be able to complete the implementation a part from the curriculum changes before the end of 2008, depending on the political situation after the elections in May.

1.1.3 Any obstacles encountered in the establishment of your strategy

Only the higher education part of the strategy is already being implemented and so far no obstacles have been encountered.

1.2 Comprehensiveness, coherence and relevance

1.2.1 Which systems and levels of education are covered?

All systems and levels are covered as explained in 1.1.1.

1.2.2 The challenges addressed by the strategy, including improving efficiency and equity of education and training systems, and how these have been identified

There are different challenges for different levels of education. They have been identified in consultation with stakeholders and by evaluations of performance of the institutions. 1.1.1 explains in which areas it is hoped that the strategy will improve the efficiency, but inequity is not a problem in the Icelandic school system as explained in 3.1.3

1.2.3 The priorities for action and policy development within the strategy, in the light of these challenges.

The priorities for action on the basis of the strategy as explained in 1.1.1. are set out in the agreement between the Teachers' Union and the Minister of Education Science and Culture.

1.3 Main policy measures:

1.3.1 The main policy measures in the strategy and how they fit together.

As explained in 1.1.1 the main thrust of the policy measures is to make all levels of education as comprehensive as possible so that the pupils' paths through the system are as transparent and direct as possible although there is always a stress on flexibility. The draft bills on all school levels are prepared under wide consultation and the committees' have worked closely with one another to ensure coordination. There is an increased emphasis on the pupils and their rights; increased decentralisation and autonomy for the schools but also a renewed emphasis on accountability and efficiency and on the role of the Ministry to secure this, by evaluation and auditing. The schools will also have more leeway for innovation and to use their own initiative to develop the teaching environment.

1.3.2 Outline the measures designed to address progress towards the EU benchmarks, including any national targets in these areas.

Iceland has not formally adopted the EU benchmarks as a part of the national lifelong learning strategy. No specific measures have consequently been taken to reach those targets in particular. However, the strategic objectives outlined in Education and Training 2010 are to a large extent in line with the educational policy being formed in Iceland. Although it is possible to point to specific measures taken by national and local authorities that are intended to work towards the same goals, such as for example measures to reduce early school leaving, it would be misleading to construe them as measures taken to address particular EU benchmarks. Icelandic educational policy has not been based on setting specific measurable targets but advancing educational reform through multi-stakeholder consultation and agreement on main policy issues on the basis of evaluation and quality assessment.

1.3.3 Allocation of resources to main policy measures, including any national targets for more efficient use of funds and the use of EU funds to support lifelong learning.

There is an ongoing cooperation with the Ministry of Finance to secure funds to finance the reforms and both last year and this year there are special allocations in the budget to facilitate the preparation and implementation of the strategy. As Iceland is not a member of the EU there is no access to the Structural Funds or funds from the European Investment Bank.

1.3.4 Measures to change attitudes to learning

As Iceland has moved rapidly over the last decade towards becoming a knowledge society, attitudes to learning have changed as can be seen from the ever increased demand for education both at the Upper Secondary, and Higher Education level. In 1999, 89 % of the pupils leaving Compulsory School entered Upper Secondary School, but in 2005 the percentage had risen to 94%. In 1997 pupils at Upper Secondary School were 20.613, but in 2005 the number had risen to 23.345 the increase being 13.2 %. In higher education one can talk about an explosion as in 1997 the total enrolment in higher education was 8.372 students, but in 2005 this figure had risen to 18.863. The main reason for this increase is the ever stronger demand for well educated people in the labour market. It can be maintained that the increased and more varied educational offers at both school levels have also played a part.

1.3.5 Strengthening evidence-based policy making, using a culture of evaluation leading to innovation in education and training

The revised law on Higher Education Institutions no. 63/2006 already stipulate the strengthening of evidence-based policy making through more specific measures of evaluation and quality assurance as explained in 3.1.6 The same will be the case for the other three school levels if the draft bills under preparation will be accepted by the parliament. The aim of all evaluation and quality assurance performed in Iceland is to encourage innovation and enhance quality.

1.3.6 Measures to target the needs of disadvantaged people (e.g. immigrants, ethnic minorities, the disabled)

Generally these measures are described in 3.1.3. Disadvantaged people do according to law have the same rights within the school system as others and where special measures are needed to accommodate the disadvantaged mostly in the form of guidance, specialist teaching and care. In Iceland the policy of integration has been followed for over 20 years and only the most heavily disabled attend special schools.

Due to great demand by the labourmarket, immigration has been increasing. The curriculum for the Compulsory School has a special section on Icelandic as a second language and several schools have special preparatory classes for the children of immigrants until they are able to join the mainstream. The same is true for the Upper Secondary School.

Regarding adult immigrants the main emphasis is on teaching them Icelandic and about the Icelandic society. There are special courses all over the country given either by schools, adult education providers or in the work place. These courses are sponsored by the Government.

1.4 Development, implementation and dissemination of the strategy:

1.4.1 Coordination and consultation mechanisms involving all relevant stakeholders.

The formal coordination and consultation mechanisms were set up to prepare the lifelong learning strategy (educational reform) on the basis of the agreement between the Minister of Education, Science and Culture and the Teachers' Union (see 1.1.1) There were committees formed of representatives from all stakeholders i.e. teachers, social partners, parents, local authorities, education authorities and students. The representatives on the committees were entrusted to inform the stakeholders they represented of the progress of the work and get a feedback to discuss in the committee in question. The committees also held meetings to consult with wider groups and the compulsory school committee held an open conference in the autumn 2006, where all interested parties could express

their opinion. As explained in 1.1.1 the conference supported by DG EAC also served to widen the discussion on some aspects of Education & Training 2010 and the lifelong learning strategy still in the formation stage.

1.4.2 Implementation arrangements, including publicity and dissemination

Implementation of law no. 63/2006 on Higher Education Institutions started last autumn by extensive information campaign aimed mainly at the Higher Education Institutions students and staff. One of the new features of the law is the stipulation that the Minister of Education, Science and Culture shall grant accreditation to Higher Education Institutions. The accreditation is limited to specific fields of study in accordance with OECD's Frascati manual. Before the accreditation process was initiated the Minister issued a National Qualification Framework no. 80/2007 based on the Framework for Qualifications of the European Higher Education Area. The National Qualifications Framework is a systematic description of degrees and diplomas, with emphasis on general description of learning outcomes and competencies that students are to have attained at each level of study.

Higher Education Institutions are required by law to issue comparable learning outcome descriptions for every study programme. The National Qualification Framework was put together by a committee with representatives from all the Higher Education Institutions in Iceland and student representatives.

The accreditation process for the Higher Education Institutions is now being conducted. For each of the six fields of study according to the Frascati manual there have been appointed three independent international experts who form a committee which provides review for accreditation. It is expected that all fields of study have been through the accreditation process by the middle of 2008.

The accreditation shall provide a confirmation that the activities of the Higher Education Institution are consistent with the provisions of the law and of regulations issued on the basis of the law.

Regarding implementation of other aspects of the lifelong learning policy it has not started yet (see 1.1.1), but the reports from the working groups on teacher education, the structure changes shortening the Compulsory and the Upper Secondary School by one year and the enhancement of vocational education and guidance have all been published on the Ministry's web site.

Chapter 2: Implementation of Transversal Policy Objectives

2.1 The establishment of national qualification systems and frameworks (in line with the European Qualifications Framework), and the elimination of obstacles between levels and systems

In July 2006 the new act for Higher Education Institutions no. 63/2006 adopted by the Icelandic parliament came into force. The act stipulates that a National Qualification Framework (NQF) is to be implemented in line with the Framework for Qualifications of the European Higher Education Area. This is in accord with the developments in the Bologna process, as the Ministers of Education of the participating countries decided in Bergen 2005 to establish a NQF for the higher education area. Before the act on Higher Education Institutions was passed 2006, work was already underway preparing the NQF for higher education. Representatives from all higher education institutions and student representatives participated in the formation of the NQF and a general agreement was reached on the structure. NQF for higher education in Iceland no. 80/2007 was formally adopted and published early this year. It has been widely introduced and forms the basis for accreditation of the Higher Education Institutions stipulated by the act no. 63/2006. The accreditation committees consist of international experts for each field of knowledge in accordance with OECD's Frascati Manual and all the higher education institutions will have gone through the accreditation process 1 July 2008.

The NQF describes the structure for studies and degrees with emphasis on student's knowledge and competence at the end of a course of study. The NQF has clear guidelines for the structure of courses of studies and for the degrees the universities will award.

The NQF is one of the steps taken to facilitate reciprocal recognition of qualifications, while at the same time creating a better environment for student mobility and increasing opportunities for cooperation between Higher Education Institutions both at home and abroad as the emphasis is on transparency. While enhancing reciprocal recognition of qualifications, provisions are also made for increased flexibility within institutions.

The European Qualification Framework proposed by the European Union also covers the upper secondary system and adult education. The EU proposals have been widely introduced in Iceland both to schools, social partners and other stakeholders and this EU initiative has been generally welcomed. There are plans to introduce NQF in upper secondary education and adult education using EQF as a reference to allow for easy links with EQF and to bridge the gap between formal and non-formal education. The plans for NQF have been taken into account by the committee composed of all stakeholders drafting the new bill for Upper Secondary Schools. In Iceland the same law applies both to general academic upper secondary education and vocational education and these two types of education will be even more integrated by the new bill with more flexible pathways between the two. If NQF for adult education is adopted, as planned, this will make it easier for adult learners to have their former education and professional experience evaluated to enable them to gain access to further education on the basis of accumulated credits. The NQF will aim at seamless transition between levels.

2.2 Identification and validation on non-formal and informal learning.

The Education and Training Service Centre was founded by the Icelandic Confederation of Labour and the Confederation of Icelandic Employers in 2002. The Centre cooperates closely with the providers of adult education and vocational training. The Centre has received increased funding from the government over the last years on the basis of an agreement with the Ministry of Education, Science and Culture to cooperate in developing methods to evaluate peoples' real skills i.e. to evaluate the individual's learning status on the basis of knowledge and skills gained, regardless of whether through formal or informal education, work experience or elsewhere, for example from participation in social activities. A special evaluation committee has been set up with representatives from the Ministry, Upper Secondary Schools and the Education and Training Centre, representing the labour market. The committee has agreed on a set of rules for evaluation of learning resulting from courses offered by adult education providers. The committee examined the curricula for these courses and delivered proposals to the Ministry on how the courses could be evaluated in the context of studies at the upper secondary level. The Ministry has confirmed the evaluation of the courses with a circular to the Upper Secondary Schools. This process has resulted in a base reference for evaluation of non-formal learning that will be used to support continued development of a system for evaluation of real skills. The system will ensure the right of individuals to have their education assessed in a more fair manner where the knowledge and skills that the individual has gained are evaluated regardless of whether they originate from within the formal school system or outside it.

2.3 Widely accessible lifelong guidance policies and systems

There are nine Lifelong Learning Centres in rural areas in Iceland operated in collaboration by the local authorities, the local schools and the trade unions. Last year the Ministry of Education, Science and Culture for the first time provided these Centres with special funding as well as the adult education providers in the capital, to enable them to employ guidance counsellors. The main task of

these counsellors is to offer services to the general public related to the choice of education and employment. It is considered to be of great importance that the counsellors meet the workers in a familiar environment e.g. at their work place. This is a part of the process of building a homogenous system that can serve individuals wanting to complete formal education but need help in getting their previous education and experience assessed. Those who are not in a position to enter Upper Secondary Schools directly are offered special courses preferably at their workplace to enable them to add to their learning experience and gain the confidence needed to enter the formal school system.

2.4 Measures to reinforce transnational mobility in all sectors, including through the removal of administrative and legal obstacles, the implementation of Europass, or by the provision of financial or other support

As stated in our 2005 report no legal obstacles to mobility have been detected in Iceland and thus there has been no need to change the legislation. The Higher Education Institutions are relatively autonomous and therefore there are no general national procedures or uniform guidelines for academic recognition of prior learning. All Higher Education Institutions have their internal procedures for recognition of prior learning based on published regulations describing these procedures. Mobility of Icelandic students during their educational programme at Icelandic Higher Education Institutions has increased dramatically through the EU programmes as well as the attendance of students from abroad. The framework for academic recognition has worked quite well and recognition of studies and training conducted abroad has generally been deemed satisfactory although there is no specific legal base other than the Lisbon Recognition Convention, ratified by Iceland 2001. To strengthen the base of recognition of prior learning there is a stipulation in the new law on Higher Education Institutions No. 63/2006 where the HEIs are authorised to evaluate for course credits studies carried out in other education and research institutions, on the condition that they guarantee that the studies in question meet with comparable demands for quality and organisation of study as those offered on the basis of law no. 63/2006. It is also stipulated that the HEIs can accept students that do not have formal school leaving certificate from an Upper Secondary School, if the institution in question considers the applicant to have reached the maturity necessary for university studies as well as the knowledge to embark upon such studies. Practical experience can be defined by the HEIs to be accepted as credits.

The Diploma Supplement for higher education is now issued automatically free of charge to all higher education graduates both in Icelandic and English.

Europass has been widely introduced in Iceland since it was launched in 2005, and a homepage was recently activated. The Ministry of Education, Science and Culture has signed a contract with the University of Iceland Research Liaison Office entrusting them with the implementation of Europass. The Liaison Office has initiated a campaign to explain to schools and pupils the usefulness of Europass and encourage them to use this transparency tool.

Finally regarding mobility it is important to point out that the Icelandic Student Loan Fund supports all students at HEIs and in vocational education and training at the upper secondary level, encouraging mobility as the grants are portable if the student chooses to study abroad.

Chapter 3: Implementation of Policy Objective in Schools, Higher Education, Vocational Education and Training, and Adult Education

3.1 Elements to be reported on for all levels (schools, higher education, vocational education and training, adult learning)

3.1.1 Governance and leadership of education and training institutions

The only change in the governance and leadership of education and training institutions in Iceland since 2005 derives from the new law on Higher Education Institutions no. 63/2006. The legal framework reflects government policy for higher education and is to a certain extent an answer to recent developments in this sector, the development of international standards and to the conclusions of recent studies (OECD, EUA, Icelandic National Audit Office and others). The law applies to institutions that provide higher education leading to degrees at university level. The autonomy of the institutions to decide their own affairs is one of the main feature of the law and the purpose is to ensure that the government does not interfere with academic work within universities and respect freedom of research and academic independence.

According to the new law the governance is the responsibility of the university council and of the rector in accordance with provisions in regulations for administration, in its charter and other foundation documents. There are no provisions in the framework law that prescribe how the university council is comprised except that students are guaranteed a place on the council. There are, on the other hand, provisions on access for staff and students to university meetings, which shall be held at least once a year. The objective is to ensure that all interested parties, teachers, students and other staff have a say in the institutions academic policy making.

In the proposals put forward by the committees revising the law on pre-primary, compulsory and upper secondary education do not include changes in the governance of these institutions. The Pre-primary Schools are generally run by the local authorities and the same goes for the Compulsory Schools. The local authorities hire headmasters and teachers and supervise the work of the schools. The Upper Secondary Schools are run by the state. The headmaster is hired by the Minister of Education, Science and Culture and the Minister also appoints a school board for four years duration. The school board has five members. Two are designated by the local authority and three chosen by the Minister from the inhabitants of the area where the school is situated. Regarding the organisation of vocational education and training at the upper secondary level there is a close cooperation with the social partners and the trade associations. There is a committee of 18 members from all stakeholders advising the Minister on the implementation of VET. The Minister also appoints professional councils composed of representatives from the trade associations who have the task to oversee curriculum development and propose changes to the Minister.

3.1.2 Stimulating private investment from enterprises, households and individuals

Although Pre-primary Schools are generally run by the local authorities there are a few private ones who receive voluntary grants from the local authorities. The parents generally pay 1/3 of the total running cost.

An amendment of the legislation on Compulsory Schools no. 66/1996, adopted by the parliament 2006, encourages the establishment of private schools where the parents contribute to the running cost. A few private Compulsory Schools have been operating in Iceland for decades with a voluntary grant from the local authorities and a contribution from the parents. The recent change in the law makes it compulsory for the local authorities to contribute towards the running of the private schools thus

encouraging their establishment. There are also few private schools at the upper secondary stage supported by the government and student fees. The officially run Upper Secondary Schools are free.

New law on education materials no.71/2007 encourages private publishers to enter this market, which has up to now been serviced almost solely by the state.

Looking at the labour market almost all trade unions have established a vocational training fund and through wage agreements reached an understanding with the employer unions that the employers pay a percentage of salaries into these funds. The purpose of the funds is to assist unskilled workers in improving their education and skills. According to the rules employees that have already attended a course and paid for it themselves can apply for reimbursement. The funds can also allocate grants to employers or trade unions having set up courses for the employees who can then attend without paying.

In Iceland as in other European countries there have been extensive discussions on funding of higher education. The EU opened the debate in connection with the Lisbon Objectives and has pointed out the necessity of increasing public funding, while at the same time aiming for higher contributions from other sources, both individuals and companies.

There is a consensus in Iceland that investment in education and training provides a demonstrable return that clearly benefits citizens, the economic sector and society as a whole. If higher education is to fulfil its role it is necessary to make up the financial deficit with which most Higher Education Institutions are grappling if they are to fulfil their role of being hubs for the knowledge society in the future. The debate on tuition fees at state run Higher Education Institutions has not yet matured in Iceland, but privately run Higher Education Institutions although receiving a grant from the state do charge fees. To ensure equity, the Student Loan Fund offers loans to cover the tuition fees at the private institutions.

Some enterprises have already established funds to support Higher Education Institutions and several firms cost professorships at the institutions. In some cases local authorities sponsor Higher Education Institutions in their area. These are only few small steps but hopefully trendsetting for the future and being encouraged by the government. The EU aim that 2% of GDP be allocated to the higher education sector has still not been reached in Iceland. The allocations for 2005 were 1, 60 % of GDP. The government allocations have increased substantially over the last years as has the number of students, but we do not have newer figures than from 2005.

3.1.3 Widening access, and improving equity of participation, treatment and outcomes, especially for disadvantaged learners (e.g. migrants, ethnic minorities, the disabled)

It can be maintained that there is equal access to the Icelandic education system, from Pre-primary School to higher education. The system has been praised for equity in many reviews e.g. OECD, Directorate for Education: Thematic Review of Higher Education-Iceland Country Note 2006 and PISA 2003. All children have the right to enter Pre-primary School at two years of age and according to the latest figures from Statistics Iceland 2005, 89% of that age group was enrolled. Law on Pre-primary schools no. 78/1994 stipulates that children with disabilities and other problems such as those coming from an ethnic minority have the right to receive assistance by appropriate specialists generally employed by the local authorities as well as the Pre-primary School teachers. Same kind of service is guaranteed for children attending the Compulsory School in accordance with law no. 66/1995.

All 16 years olds graduating from Compulsory School have the right to enter an Upper Secondary School in accordance with law no. 80/1996. There are special lines for those who have not completed the Compulsory School successfully where assistance is offered to encourage them to continue their

education. Those who drop out of Upper Secondary Schools are welcomed back and have their prior learning recognised.

The effort described in 2.2 to improve the process of evaluation of prior learning will help those who wish to enter upper secondary education after some years in the labour market to have their experience assessed as a part of the upper secondary programme.

The access to Higher Education Institutions is equal for all those who have completed upper secondary education or equivalent see 2.4. Iceland participates in OECD's Thematic Review of Tertiary Education and in a Country Note published 2006 after a study visit in Iceland by experts appointed by the OECD in September/October 2005 it says about equity in Icelandic tertiary education (page 25):

“Five features characterize the Icelandic vision of equality of opportunity: a dominant focus on gender issues, a strong definition of equality in the rationale of student funding, the absence of any marked preoccupation with social class, successful integration of life long learning into the mainstream establishments of higher education and a student culture that takes study abroad as the natural course of things. Each of these dimensions contributes to the reality of Icelandic exceptionalism. At the same time each has significance. Viewed from inside Iceland each provides a species of marker points against which to place the achievements of current reforms. From an external standpoint, however, these five dimensions illustrate the specificities of higher education in Iceland. They also permit developments within the latter's system of higher education to be placed in a broader international backdrop.”

Another reference to equity in the Country Note is of interest (page 40). There it says: “In common with many systems of higher education in Western Europe, the basic ethic that drives policy in Iceland has moved from equality of opportunity to equity, from equal chances for equal talent to enter higher education towards equal chances to acquire “employability”, appropriate and relevant skills to stand them in good stead in the labour market. In obedience to this shift in the referential framework of policy, the criteria used to judge and to weigh institutional performance have been reset and have moved from input to output.”

3.1.4 Measures to address gender aspects in education and training

As already mentioned in 3.1.3 one of the basic principle of the Icelandic educational system is the equal opportunity for all in education. There have over the years been several measures taken to stress this equality, mainly addressing girls and women. This culture of equality is also embedded in the law and the curriculum at all school stages. As a result the educational participation and attainment of the female population has been steadily increasing. Girls have scored equally well or better than boys at PISA tests, both in literacy and mathematics and more women than men complete secondary education.

Over 60% of the students in higher education are female. There is some gender difference in the number of female students if one looks at specific fields of study, but in all fields the gap has been closing or female students already outnumber men. For example more than 80% of students in medicine and health care are female and of students in mathematics and natural sciences 45% of the students are female.

3.1.5 The use of learning outcome based approaches for the definition and design of education and training objectives, standards and curricula, and their relevance to the needs of society and the economy

National curricula for the Compulsory School and the Upper Secondary School (academic courses, art courses and vocational courses) have traditionally been based on behavioural objectives and measurable criteria. Current revision builds on this tradition, develops it and advances learning

outcome based approaches. Revised National curriculum for the Compulsory School will become operational in the fall 2007 although the schools have three years to adjust and it is planned that a revised curriculum will come into force for the Upper Secondary School in the autumn of 2010.

Law for the Upper Secondary School nr. 80/1996 stipulates that professional councils from the various trades should be formally established to advise the Minister of Education, Science and Culture on curriculum development for the vocational lines. This cooperation with the social partners has been very fruitful and curricula for almost all vocational lines now have been revised to align them to the needs of society and the economy.

3.1.6 Quality assurance systems

The Ministry of Education, Science and Culture is responsible for the evaluation and supervision of educational institutions and the entire educational system. There are two approaches for external evaluation organised by the Ministry either evaluation of schools and institutions at all levels or evaluation of the internal evaluation methods of schools and institutions. In accordance with law for all school levels all schools and institutions are obliged to carry out internal evaluation of their work.

The Compulsory and Upper Secondary Schools internal evaluation procedures are subject to evaluation and validation by an external party with experience and knowledge of quality management and of the school level in question. In accordance with the law on Higher Education Institutions no. 63/2006 the Ministry of Education, Science and Culture has published rules on quality control in higher education.

The rules include provisions on monitoring of the internal quality systems set up by the Higher Education Institutions and on regular external evaluations of defined units within the institutions or of an institution as a whole. The Ministry takes the initiative in having external evaluations conducted at the level of higher education, decides when they are carried out and what the focus will be. Iceland has been following and taking part in the work of the European Association for Quality Assurance in Higher Education (ENQA) for some years, and as a member of the Bologna-process the Icelandic Minister of Education, Science and Culture was among the Ministers in Bergen that adopted the European Standards and Guidelines for Internal and External Quality Assurance in Higher Education and those applying to Quality Assurance Agencies. The law no. 63/2006 states that although an independent Quality Assurance Agency will not be established in Iceland for the time being the Ministry will ensure that the external quality assurance will be upheld by independent international experts, as prescribed in the Standards and Guidelines and that foreign experts will be called upon to conduct the evaluation of fields of study during the accreditation process (see 2.1).

3.1.7 Developing learning partnerships with stakeholders (policy-makers at national, regional and local levels, social partners, learners and representatives of civil society)

The Education Training Service Centre (see 2.2) is a good example of partnership being operated on the basis of an agreement between the social partners and the Ministry of Education, Science and Culture. The same is true of the nine Lifelong Learning Centres around the country. The Centres are non-profit, autonomous corporations run in collaboration by the local authorities, local school authorities and the local trade unions.

All education institutions as well as adult education in Iceland fall under the auspices of the Ministry of Education, Science and Culture, except two Higher Education Institutions in the field of agriculture, where the Ministry of Agriculture is in charge. The Ministry of Social Affairs is not engaged in education matters, but regarding some fields of vocational training they nominate representatives for committees set up by the Ministry of Education, Science and Culture.

There are formal consultation committees set up by the Ministry for the Pre-primary School, Compulsory School and Upper Secondary School. For the first two levels the teacher unions and local

authorities are represented, but for the Upper Secondary School the representatives of the Ministry hold meetings with the rectors of all the schools twice a year for consultation. Regarding the higher education sector the rectors' conference is regularly consulted.

The Ministry has signed a cooperation agreement with the National Parents Union (compulsory level) and representatives from the Union are always called upon to take part in policy making for the compulsory stage.

In the last years it has become more common that firms sponsor professorships at the Higher Education Institutions and there have been favourable discussions on the possibility that direct contributions from enterprises should be to some degree tax-deductible although no decisions have been taken.

3.3 Schools

3.2.1 Increasing investment in and strengthening pre-primary education

It is impossible to assess whether investment in pre-primary education has risen for the last two years as the newest reliable figures available are from 2005 when the public expenditure amounted to 0, 49 % of GDP or 6, 4% of the total public expenditure on education. The focus has, however, been on "Early Childhood Education and Care" to use the term proposed by the OECD. 89% of 2 year olds attended pre-primary education in 2005 (see 3.1.3.)

From May 2006 a committee has been working on the revision of the law on pre- primary education although the existing law no. 78/1994 have been considered quite satisfactory there are several points that need to be further stressed. The committee was composed of representatives from the Teachers' Union, the National Parents Union and the Union of Local Authorities and the Ministry of Education, Science and Culture. Before starting to write the proposals for a new bill the committee consulted with stakeholders all over the country and there is a relative consensus on the proposals the committee has put before the Minister of Education, Science and Culture. The draft bill, if adopted, strengthens the role of the Pre-primary School as an educational establishment, for example by making it obligatory for the local authorities running the schools to secure cooperation between the Pre-primary Schools and the Compulsory Schools to make the children's transition between school stages more smooth. In the new bill there is also increased emphasis on quality control, cooperation with parents and the strengthening of the expert teams employed either by the local authorities or the schools themselves to provide services to pupils that are disabled or from minority language background.

There is unanimity on issue of the importance of early learning as the foundation for successful performance later in life. There is a National Curriculum for the pre-school stage, but each institution publishes its own working guide. The schools have autonomy to decide the main lines of their education policy within the framework of the National Curriculum and there has in recent years been increased emphasis on the combination of learning through play and more formal instruction for the oldest age group the 5 year olds to make it easier for them to enter the Compulsory School. Due to increased cooperation between school stages some Compulsory Schools have started to use some of the methods like learning through play for their youngest classes.

3.2.2 Modernising school curricula and assessment arrangements (inter alia to address learning outcomes and the attainment of key competences)

The National Curriculum is under constant development and modernisation. During the last years the curriculum for the Compulsory and Upper Secondary School has moved away from a centralized curriculum with prescribed objectives towards a framework curriculum with generally described

learning outcomes thus encouraging decentralized curriculum where individual schools will define learning objectives in local school curricula.

According to the draft bill on Upper Secondary Schools, the schools will be able to develop course plans according to their school curriculum, but these plans have to be approved by the Ministry of Education, Science and Culture. These new local course plans will replace course descriptions in the current National Curriculum. This new arrangement will require a new system of quality assessment and evaluation. External evaluation and school based internal evaluation systems need to be extended and new system of centralized examination will be developed both at the compulsory and upper secondary level to secure the attainment of key competences. On EQF see 2.1.

3.2.3 Addressing the specific learning/training needs of teachers (including pre-primary) to enable them to cope with their changing roles in the knowledge based society

A special working group was formed in 2006 to make proposals on the future structure of teacher education has completed its work and submitted a report to the Minister of Education, Science and Culture. The members of the working group came from the Ministry, the Iceland University of Education, the University of Iceland, the Teachers' Union and the Union of Local Authorities.

The education of teachers in Iceland has been an integrated part of the higher education system for several decades and accordingly it has been aligned to the Bologna process. Upper Secondary School teachers already need five years to complete their education, but the teachers at the pre-primary and compulsory stage only need three years. On the basis of the report from the working group on teacher education a new bill has been drafted stipulating that in future the Pre-primary School and Compulsory School teachers will have to complete a five year course to get a licence. Same minimum requirements will thus be made for teachers at all school levels.

To further strengthen teacher education for all levels the main teacher education institution, Iceland University of Education will become a school within the University of Iceland, which is multidisciplinary research institution. Although the Iceland University of Education has functioned well and been constantly developing its educational offers in accordance with the changing needs of schools and pupils, for example the increased emphasis on individual learning, it is felt that closer cooperation within a multidisciplinary university will serve to make the teacher education more flexible and offer the students more options to specialise.

Emphasis is on the need for varied routes to qualified teacher status and less sharp demarcation between school levels when awarding the status of qualified teacher. The working group's report underlines the importance of work place training for student teachers, parallel with academic studies even in the years of master studies, before the status of qualified teacher is formally awarded.

There is also a great emphasis on in-service training for teachers and more extensive use of ICT in schools is promoted so that teaching does not lag behind the current developments in technology experienced by students outside the school. The teachers do not only need the opportunity for further education in their subjects but they also need to take part in the debate on development in individual schools and of the education system as a whole. It has to be ensured that the teachers' working environment encourages continuous development and facilitates professional cooperation between teachers.

3.2.4 Measures to reduce early school leaving, to increase rates of completion of upper secondary education, to reduce proportion of low achieving 15 year olds in literacy and to increase the take up of mathematics, science and technology subjects (EU benchmarks)

A part from the measures described in 3.1.3 to reduce early school leaving the Ministry of Education, Science and Culture enters into three year result based contracts with each Upper Secondary School where financial contributions from the state are decided. According to these contracts the schools only get reimbursed for pupils that sit exams or deliver papers where the course requires. These stipulations are to encourage the schools to try to prevent the pupils from leaving without finishing their courses.

There is a considerable shortage of labour in Iceland and unemployment is negligible. Because of this situation the young people attending Upper Secondary School, especially the vocational lines, get tempting offers from the labour market and this is the main reason why they leave school early to earn some money.

These young people go on record as early school leavers, but fortunately many of them return to education as can be seen from the fact that although the normal leaving age from upper secondary education is 20, in 2006 out of a total of 23.345 pupils at this school stage 4.552 were between 20-24 years of age and 1.699 from the age group between 25 and 29.

To make it easier for those who leave school without graduation to continue their education, the Upper Secondary Schools have greatly increased the availability of distance learning where the students have the opportunity to study regardless of time or place. The schools offer the same courses by distance learning as in the ordinary school and they have proven very beneficial to those returning to school after taking breaks, even extensive ones, in their education. Specific measures to increase the take-up of mathematics, science and technology subjects are described in 3.3.4.

3.3 Higher education

3.3.1 Measures to reinforce the knowledge triangle between education, research and innovation

In its strategy for 2006-2009 the Science and Technology Policy Council of Iceland (STPC) underlines that the Universities need to make an effort to spread knowledge about the results from scholarly work, scientific research, and technological development and opportunities arising from these, to the society as a whole. To be able to accomplish this the Council proposes several actions:

- Scientists must be made more aware of the value of patenting and intellectual property rights, and the importance of exploiting their intellectual assets for the benefit of society, without discouraging the efforts to publish in peer reviewed journals.
- More effort should be put into to acquiring patents based on research and to encourage companies to use them, as well as to increase awareness of the importance and ways to secure patents.
- Efforts should be made to make companies aware of the technological and innovative potential of scientific results.
- A market for intellectual assets should be promoted and the exploitation of research results particularly in sectors that often are considered to be outside the scope of innovation, such as trade and services should be encouraged.
- A forum should be created for cooperation between universities, spin-offs and research-intensive SME's, innovative and high-tech companies, and public research institutions.

The strategy of the STPC is widely published and taken note of by the Universities and some of the proposals are already being acted upon.

3.3.2 Any participation targets and measures to achieve them

The Ministry of Education, Science and Culture published a strategy in 2006 where it is emphasized that efforts should be made, for example by distance education and evaluation of prior learning and experience to increase the number of young people (20-24 years old) graduating from upper secondary schools. (See also 3.1.3 and 3.2.4.) And the same methods are used to increase the opportunities for the age group 25-64 years old to achieve a university degrees' as well as strengthening formal adult education. According to Statistics Iceland 2005 out of the total of 18.863 students at Higher Education Institutions 12.126 are older than 25 and those over 40 years of age are 2.961.

3.3.3 Measures to increase excellence

One of the chapters in the Science and Technology Policy Council's (STPC) strategy for 2006-2009 focuses on "stronger universities- demands for quality" and proposes that the Universities and the public authorities should take the following measures to achieve this before the end of the period in question:

- Improve regular quality control of teaching and research through evaluation of performance and working practices
- Develop further indicators, reflecting the objectives and intended societal impact of the funds spent on higher education. This is an ongoing project.
- Link budget appropriations to the universities to evaluation of their performance.
- Assess how the education offered by universities corresponds to the needs of society,
- Introduce more flexible and a wider scope of academic and practical university education that meets both academic quality standards and the diversified needs of society
- Increase flexibility in fulfilling the obligations of university staff between research, teaching and administrative tasks.

The law on Higher Education Institutions no. 63/2006 takes into account the recommendations from the STCP that are already being implemented on the basis of the law and direct reference to the recommendations are a part of the result based contracts between the universities and the Ministry of Education, Science and Culture. See also 2.1 and 3.1.6

3.3.4 Measures to increase the number of graduates in mathematics, science and technology

A working group formed in 2005 by the Ministry of Education, Science and Culture in 2005 was entrusted with the specific task to prepare actions designed to increase the number of science students. The group delivered its proposals to the Minister late 2006. The chairman of the working group, Edda Lilja Sveinsdóttir, is the Icelandic representative taking part in the work of the cluster on MST.

The recommendations of the working group have been published and presented to all stakeholders; especially the Teacher Training Institutions which were asked to take them into consideration in their strategy planning. Discussion on this subject with very wide participation was also part of the preparation for the conference "Education and Training 2010-The Development of Education Policy in Iceland in the context of Europe" held in Reykjavik in October 2006 (see 1.1.1).

The main conclusions from these deliberations were that in order to increase the number of graduates in MST it was most important to improve:

- Education and training of teachers
- Science knowledge and scientific literacy
- Assessment of teaching and
- The image of science and scientists

In addition teachers will have the opportunity to improve their competence in science teaching based on simple experiments and observations, field work and trips and on the use of ICT. Emphasis must be placed on extending the flora of teaching methods at the expense of the narrow book-learning approach and that the teaching environment should become more flexible. It is also thought necessary to improve the scientist's image in the eyes of young people, by e.g. having scientists visit schools to explain their work to the students and visits by young people to laboratories could also serve this purpose.

There is a general understanding in Iceland as all over Europe that being science literate is increasingly becoming a prerequisite for functioning well in the knowledge society. Lack of knowledge in key competition areas can have a negative effect on an individual's future prospects on the employment market and on his potential earnings, not to mention his ability to fully participate in society.

3.4 Vocational education and training and adult learning.

3.4.1 Measures to improve the quality and attractiveness of vocational education and training and of adult education

One of the main aims of the revision of law no. 80/1996 on the Upper Secondary School, now in the final stage, is to improve the quality and attractiveness of vocational education. The existing law already resulted in the enhanced quality of VET by actively involving the social partners in the decision making and identification of skills needs in the labour market. In accordance with the stipulations of the law professional counsels were established to modernise the curriculum for both the trades and other vocational lines and almost all sectors have taken part in this work under the auspices of the Ministry of Education, Science and Culture.

Although there are over 80 vocational lines to choose from at the Upper Secondary Schools, for the year 2005 according to Statistics Iceland out of the total of 23.345 pupils at Upper Secondary Schools only 6.215 have chosen vocational lines.

According to the bill being prepared structural reforms are being proposed making the integration of academic and vocational courses more flexible. This will give the pupils the opportunity to combine academic and vocational education and those who choose the vocational lines will have even easier access to Higher Education Institutions, and there are no dead ends in the Icelandic education system. Those who wish to enter higher education can do so by adding some academic courses to their vocational education.

Regarding adult education the participation in Iceland is relatively high. One of the benchmarks of the Lisbon objectives was to increase the participation of adults aged 25-64 in lifelong learning to 12.5 % in 2010. According to figures from the Labour Force Survey in 2005, 26, 6% of Icelanders from that age group participated in education and training activities over a period of four weeks that year. Participation has thus increased from 23.5% in 2000 or by 3.1%.

Among those with low educational attainment, i.e. less than upper secondary education the participation 2005 was 17%. See also 3.1.2

3.4.2 Measures to reinforce the link between VET and labour market needs including early identification of skills needs, improving the relevance of curricula and qualifications.

The involvement of the social partners as described in 3.4.1. should secure that the skills needs of the labour market are mirrored in the curriculum, ensuring this as well as the relevance of the qualifications obtained. (See also 3.1.1 and 3.1.5)

3.4.3 Opening up pathways to further and higher education

Some Upper Secondary Schools offer further education to those who have graduated from vocational lines, and some of the trade unions operate Further Education Centres for those who work in the trades. As mentioned in 3.4.1 additional requirements for those who complete four year course in vocational training and wish to enter Higher Education Institutions have been defined as well as the additional requirements for those who wish to change from a vocational line to an academic line after two years of study. Vocational training is assessed for the most part as the equivalent of general academic study. On this basis there no pathways should be closed to Icelandic students.

3.4.4 Addressing the specific learning/training needs of vocational and adult teachers and trainers to enable them to cope with their changing roles in the knowledge based society.

The reforms of teacher education in Iceland described in 3.2.3 include the education of teachers of vocational subjects in accordance with the Copenhagen Declaration of 2003. To ensure the quality of the education it is planned that in addition to the prescribed courses in the subject being taught there will be two years additional course tailored especially to the needs of VET. In principle the role of the VET teachers is no different from that of other Upper Secondary School teachers; they have the same position, contract and salary scheme as teachers in other fields.

VET teachers in accordance with the current system must be qualified in the field in which they teach or be a master craftsman in the trade in question and have in addition a minimum of two years experience working in the trade. They also have to take a one year programme of study in education and instructional methodology. The courses are now built mainly on academic requirements and do not always cover the specific needs of work based teaching methods, but this will be taken into account during the reform of the overall teacher education. The Higher Education Institutions and the Lifelong Learning Centres offer courses for teachers in adult education.

3.4.5 Measures which reinforce social partner involvement in training, in particular sectoral approaches to skills and qualifications

As already stated in 3.4.1. and 3.4.2. The social partners have in accordance with law no. 80/1996 on upper secondary education been fully involved in curriculum development in their sector. The social partners have also been involved in the work that forms the basis of the draft bill for Upper Secondary Education. Traditionally those managing the education system in Iceland have been convinced that it is impossible to offer education which serves the purpose of the labour market as well as the individuals without close cooperation with the social partners and therefore their views have been listened to and taken into account when changes and reforms have been planned.

3.4.6 Enhancing access and opportunities for learning among the disadvantaged, and alternative pathways, including for early school leavers

The alternative pathways offered to early school leavers are described in 3.1.3 and 3.3.2

There is a specialist assistance offered to disadvantaged pupils in upper secondary education. Pupils that do not complete their compulsory education with sufficient results are encouraged to enter specific academic or vocational lines where they get counselling on which subjects are best suited to their abilities and both the teachers and the counsellors encourage them to stay on in education. These special lines were established on the basis of law no. 80/1996 and are constantly being developed on the basis of the experience gained over 10 years. There are also special lines within the Upper Secondary Schools for the severely disabled.

According to the draft bill on Upper Secondary Schools all 16 year old pupils should, at the end of Compulsory School, be able to enter the special lines and stay there until the age of 18 irrespective of academic achievement. At the end of the two years these pupils will get a certificate where it says that they have stayed the course for two years. If the pupils wish to continue their education the counsellors will find a pathway for them.

3.4.7 Measures to increase the rate of adult participation in lifelong learning and to reinforce key competences among adult learners and older people whether employed or not (EU benchmark).

The rate of adult participation in life long learning is higher in Iceland than in most EU countries as described in 3.4.1 As unemployment in the country is negligible most people work until the retirement age from 67-70. Adult education has been for several years and still is in focus both by the authorities and the social partners, as described in 3.1.2 A department for adult education has recently (2006) been established at the Ministry of Education, Science and Culture to put further emphasis on this sector of the education system.