

Education and Training 2010 - Finland's Interim Report for 2005-2007

**DEVELOPMENT OF LIFELONG LEARNING IN FINLAND AND
THE EDUCATION AND TRAINING 2010 WORK PROGRAMME OF THE
EUROPEAN UNION**

This report has been drawn up by a group of authors set up by the Ministry of Education, with Reijo Aholainen as chairman and Marita Häkkinen as secretary. The group of authors comprised Jorma Ahola, Seija Astala, Kirsi Kangaspunta, Jari Rajanen, Ilkka Turunen and Elise Virnes from the Ministry of Education and Hillevi Lönn from the Ministry of Labour. In writing the report, the group has received assistance from experts in the Ministry of Education, the Ministry of Labour, the National Board of Education, the Centre for International Mobility and the national co-ordination centre for lifelong guidance.

CONTENTS

CHAPTER 1: NATIONAL STRATEGY FOR LIFELONG LEARNING	4
1.1. PRESENT SITUATION	4
1.1.1 Finland's Strategy for Lifelong Learning	4
1.1.2 Strategy Development	4
1.2. COVERAGE, CONSISTENCY AND RELEVANCE	5
1.2.1 Coverage	5
1.2.2 Challenges	5
1.2.3 Action policy priorities of the strategy	5
1.3. MAIN ACTIVITIES	7
1.3.1 Main activities of the strategy and their compatibility	7
1.3.2 Attainment of the EU level benchmarks and corresponding national objectives	7
1.3.3 Resource allocation	7
1.3.4 Changing the attitudes to learning	8
1.3.5 Knowledge-based policy, evaluation culture and educational innovations	8
1.3.6 Needs of vulnerable groups	9
1.4. STRATEGY DEVELOPMENT, IMPLEMENTATION AND DISSEMINATION	9
1.4.1 Co-ordination of relevant interest groups and consultations	9
1.4.2 Publicity and dissemination	10
CHAPTER 2: HORIZONTAL POLITICAL OBJECTIVES	10
2.1 DEVELOPMENT OF THE QUALIFICATIONS FRAMEWORK	10
2.2 VALIDATION OF NON-FORMAL AND INFORMAL LEARNING	10
2.3 STRATEGIES AND SYSTEMS OF LIFELONG GUIDANCE	11
2.4 PROMOTING INTERNATIONAL MOBILITY	12
CHAPTER 3: IMPLEMENTATION OF THE OBJECTIVES IN DIFFERENT FORMS OF EDUCATION	14
3.1 OBJECTIVES RELATING TO ALL LEVELS OF EDUCATION	14
3.1.1 Administration and management of educational institutions	14
3.1.2 Private funding	15
3.1.3 Expanding and equalizing access to education	15
3.1.4 Promoting gender equality	17
3.1.5 Use of learning outcomes-based approaches for defining objectives of education	17
3.1.6 Quality assurance systems in education	19
3.1.7 Developing education partnerships	19
3.2 SCHOOL EDUCATION	20
3.2.1 Strengthening pre-primary education	20
3.2.2 Bringing curricula and evaluation systems up to date	20
3.2.3 Developing teacher training for the needs of a knowledge-based society	21
3.2.4 Improving well-being in schools and reducing dropout rate	21

3.3	HIGHER EDUCATION	22	
3.3.1	Strengthening the knowledge triangle of education, research and innovation	22	
3.3.2	Attendance goals and measures to met them	24	
3.3.3	Boosting excellence	24	
3.3.4	Number of graduates in mathematics, science or technology		25
3.4	VOCATIONAL EDUCATION AND TRAINING AND ADULT EDUCATION	26	
3.4.1	Quality and attractiveness of vocational education and training and adult education	26	
3.4.2	Strengthening the link between vocational education and training and the labour market	26	
3.4.3	Opening routes into further and higher education	27	
3.4.4	Developing vocational and adult education teacher training	27	
3.4.5	Participation of labour market parties in vocational qualifications	28	
3.4.6	Improving training opportunities for vulnerable groups	28	
3.4.7	Measures to increase adult participation in lifelong learning	29	

APPENDICES

CHAPTER 1: NATIONAL STRATEGY FOR LIFELONG LEARNING

1.1. PRESENT SITUATION

1.1.1 Finland's Strategy for Lifelong Learning

Finland's objectives for lifelong learning are set forth in The Development Plan for Education and Research 2003-2007¹ approved by the Cabinet in 2003 and in the strategic policy definitions recorded in the Government Programme. The whole education system, including vocational education and training and self-motivated adult education, is centralized into the sector of the Ministry of Education; the Cabinet approves every fourth year a development plan covering the whole education system. In Finland, forming majority coalition Governments has been the practice already for a long time; the Government prepares for the whole electoral period a Government programme that deals with the development of education issues also for the parts beyond the Ministry of Education's sector. A separate strategy for lifelong learning has not been considered necessary.

1.1.2 Strategy Development

The Cabinet has prepared many initiatives; their future will be settled by the new Government, probably in the future development plan for education. They include initiatives such as:

- In Finland's national action plan for the Lisbon strategy, increasing the employment rate and improving the functioning of the labour market are suggested as the tools to meet the employment goals. From the education viewpoint, the tools relating to these goals comprise the extension of careers and improving the demand/supply match of labour force².

- More equitable raising of the educational level in different employee groups will be a focal task of adult education policy and employment policy also in future. The competences of the immigrant population should be exploited better in the world of work. In addition to the labour and education administrations, this requires action also by the employers³.

- A working group of civil servants from the Ministry of Education, the Ministry of Labour, the Ministry of Social Affairs and Health, the Ministry of Trade and Industry, and the Ministry of Finance prepared a proposal on the development needs of vocational and higher adult education, labour market training, staff training and on-the-job learning⁴. The proposal concerns the division of duties in adult education, its financing, increasing demand-based provision and efficiency, reinforcing the position of adult education in guidance, improving equality, adult education supporting work-based immigration and competence-building at workplaces. The fate of the proposal shall be decided by the new Government, which has committed to a reform in adult education and training.

The new Government nominated in April 2007 after the parliamentary elections will probably approve a new development plan for education and research 2007-2012 towards the end of 2007. The preparation of a new development plan was started by the officials of the Ministry of Education

¹ Opetusministeriö: Koulutus ja tutkimus 2003-2008. Kehittämissuunnitelma. Opetusministeriön julkaisuja 2004:6. Yliopistopaino, Helsinki 2004. (Ministry of Education: Education and research 2003-2008. Development plan. Publications of Ministry of Education 2004:6. University Press, Helsinki 2004)

² Valtiovarainministeriö Julkaisuja 3 a/2006. (Ministry of Finance, Publications 3 a/2006)

³ TM:n tulevaisuuskatsaus ensi hallituskaudelle. (Ministry of Labour's Forecast for the next government term)

⁴ Muutoksen ennakointia ja hallintaa kysyntälähtöisellä aikuiskoulutuksella. Viiden ministeriön virkamiesryhmän muistio työ- ja koulutusasiainneuvostolle. Opetusministeriö, 29.9.2006. (Anticipation and management of change by means of demand-based adult education. Ministry of Education, 29.9.2006)

in 2006. The Government may decide whether a separate national strategy for lifelong learning should be drawn up also for Finland or whether the present practice should continue.

1.2. COVERAGE, CONSISTENCY AND RELEVANCE

1.2.1 Coverage

In Finland, lifelong learning has been defined as a development principle directing education policy and other policy sectors relating to education and concerning the whole education system from pre-primary education to adult education. The goal is that high educational level and good learning skills provide people with prerequisites for continuous learning of new things and that people at all ages have the opportunity to maintain and develop their competence. A high-quality, equal education system is the cornerstone of lifelong learning but invariably people learn also outside the education system, before entering schooling, while attending it and after it.

1.2.2 Challenges

The major challenges to the Finnish education system include demographical changes (aging, the decreasing number of young age cohorts and immigration), globalization and the development of knowledge-based economy. Increasing the employment rate and simultaneous demographical change require from the education system a flexible reforming ability, training provision for the whole age group and the use of talent reserves and improving training opportunities for the labour force. Also the changing social and cultural environment and internationalization call for a reform in education. The response to the challenges includes raising the educational level of the whole population, improving the quality and efficiency of education, preventing the exclusion of young people and decreasing the educational differences between age groups.

1.2.3 Action policy priorities of the strategy

Raising the competences of the population and labour force. The goal is that by the year 2015 in the population aged 25-29 the proportion of those with a minimum of a completed upper secondary level qualification - either a general upper secondary or a vocational upper secondary qualification - would increase from the present 85% to no less than 90% and in the population aged 30-34 that the proportion of those with a higher education degree would increase from the present 40% to no less than 50%⁵. There has been a constant increase in the educational level of the Finns as the young educated age groups replace little by little the less educated age groups. In the young age groups, however, the proportion of those with a vocational qualification or a higher education degree has no longer increased in the recent years because the dropout rate is too high and the rate of completion of studies is too low. Only about 70% of those who enter education leading to a vocational upper secondary qualification or a polytechnic degree or who enter Bachelor studies at universities, complete a degree⁶.

Improving the quality and efficiency of the education system. The goal is to speed up the transition of young people after basic education to secondary-level education, and further to higher education or to employment. The goal is also to shorten study times by means of cutting down overlapping education, increasing the role of completed degrees and other results in financing and by means of

⁵ Opetusministeriö: Koulutus ja tutkimus 2003-2008. Kehittämissuunnitelma. Opetusministeriön julkaisuja 2004:6. Yliopistopaino, Helsinki 2004. (Ministry of Education: Education and research 2003-2008. Development plan. Publications of Ministry of Education 2004:6. University Press, Helsinki 2004)

⁶ Tilastokeskus: Lämpäys selvitys opetusministeriölle. Muistio. 7.3.2007. (Statistics Finland: Survey of completed education. Memorandum submitted to Ministry of Education, 7.3.2007)

enhancing incentive in student financial aid. Recognition of prior learning will be reinforced and those studying for a second degree of the same level will be referred to adult education programmes.

Preventing social exclusion of children and young people. The goal is that in 2008, 97% of young people finishing comprehensive school and 97.5% of them in 2009 will start in a upper secondary school or in additional basic education schooling in the same year; the corresponding figures were 93.1% in 2001 and 95.1% in 2005⁷. The actions include the development of remedial teaching, special needs education, guidance and counselling and enhancing pupil welfare services, the development of immigrant education and the implementation of educational guarantee. The actions to achieve these goals include enhancing preventive measures to address the comprehensive school dropout rate and problems at the secondary level transition point, personalizing guidance and counselling and increasing careers guidance and preparatory training for vocational upper secondary education and training.

Learning skills. In the development plan for education and research, one of the goals set by the Government for teaching and learning environment development is that they should provide an individual with a firm basis for lifelong learning. This has been taken into account in the national core curricula for basic education schools, upper-secondary schools and vocational education and training as well as in teacher training. One of the aims of supporting liberal education institutions, the open university and the open polytechnic and other non-degree education, is to give space and opportunities for spontaneous learning. Web-based learning has been developed at all levels of education. The educational provision of upper secondary distance learning, the virtual polytechnic and the virtual university has been developed through development projects funded nationally and by the ESF. Opportunities for virtual studying have been enhanced in upper secondary vocational education and training, in the polytechnics and the universities.

Maintaining and developing skills and knowledge. A goal set by the Government in the 2005 budget foresees that by 2008 the share of those in the working adult population who participate in education will be up to 60%⁸. The share in 2000 was 54%. The longterm goal is to provide the adult population with an opportunity for a 1-2 weeks training period each year as well as a basic revision of skills and knowledge calculatorily in six-month training periods in every 10-15 years. The goal will be promoted by improving co-ordination and collaboration between self-motivated adult education provided under educational administration, labour market adult training provided under labour administration and staff training provided by the employers. Measures to be taken include increased supply of self-motivated adult education, directing the supply especially to the adults without any qualification and the development of adult-oriented training provisions and information and guidance services intended for adults.

1.3. MAIN ACTIVITIES

⁷ Opetusministeriö: Tilinpäätöskertomus vuodelta 2006. (Ministry of Education: Report from the Board of Directors for 2006)

⁸ Valtion talousarvioesitys 2005. Hallituksen esitys Eduskunnalle valtion talousarvioksi vuodelle 2005. Edita Prima Oy. Helsinki, 2004. (Budget Proposal for 2005. Government's Proposal to Parliament for State Budget 2005. Edita Prima Oy. Helsinki, 2004)

1.3.1 Main activities of the strategy and their compatibility

On-the-job learning and work placements are contained in the curricula and training programmes in vocational upper secondary education and training, further vocational education and training, labour market training and polytechnics and universities. Apprenticeship training has been systematically increased as a form of educational provision both in vocational upper secondary education for young people and further vocational education and training for adults. The Government has made a decision to increase in labour market adult education the share of training provided as joint procurement by enterprises and the labour administration.

A committee of the Ministry of Education (Ministry of Education Committee memorandums and reports 2005:38) investigated the relationship between adult education provided by the universities, the open university in particular, and continuing education and the payment policy of the open university. The committee prepared proposals and recommendations for good lifelong learning practices in universities and for necessary measures to be taken for widening the open university route to degrees and ensuring accessibility and equity of open university education. On the basis of the committee's proposals the Ministry of Education requested the universities to prepare strategies for lifelong learning in 2006 for the 2007 performance negotiations.

With a view to implement the strategy, the Ministry of Education and the Ministry of Labour have launched numerous programmes aiming at implementing the educational guarantee, developing guidance and counselling, improving well-being at school, enhancing additional basic education, developing for young people finishing comprehensive school careers guidance and preparatory training for vocational education and training, developing student admission and the financing system. These programmes will be presented more in detail in later chapters. The extensive cross-administrative programmes Noste, Tykes and Veto relating to the Government's Employment Policy Programme are presented in Appendix 3.4.

1.3.2 Attainment of the EU level benchmarks and corresponding national objectives

Finland has attained the EU benchmarks. A more detailed comparison is presented in Appendix 2.1.

1.3.3 Resource allocation

In 2003, the Government made a decision concerning the budget frame for 2004-2007. In comparison to the previous years, the frame increased the share of the sector of the Ministry of Education in the state budget but after that the relative share of the Ministry of Education in the budget has remained stable.

The funds allocated by the Ministry of Education to education, research and student financial aid total about €5,743 million in the 2007 budget. In addition, the municipalities finance basic education, vocational education and training and polytechnic education with more than €3,000 million. The Ministry of Labour finances labour market adult education with about €339 million, the Ministry of Social Affairs and Health finances adult education allowance and training allowance with about €38 million and the Ministry of Trade and Industry finances technology and innovation related research with about €73 million. The share of sector of the Ministry of Education in the state budget is 16.2% in 2007. During the term of office of the Government, financing has been allocated especially to reinforcing resources in vocational education and training and adult education as well as to development programmes complying with the development plan for education and research. See attached tables 2.2 and 2.3.

In particular, vocational upper secondary and vocational adult education and training, teaching staff competence-building and student guidance services have been developed with co-financing from *the European Social Fund (ESF)*. The following development areas have also been supported by the ESF: training needs anticipation, study guidance, career and recruitment services, vocational education and training for immigrants and their integration into the labour market to prevent social exclusion. Within the framework of innovation policy and with co-financing from the ESF such areas as entrepreneurship, research and development activities and effective use of new technology have been promoted.

1.3.4. Changing the attitudes to learning

Learning to learn and developing teaching and learning environments in such a way that they provide an individual with a firm basis for lifelong learning constitute some of the fundamental goals for the curricula of basic education, general and vocational upper secondary education and for teacher training. In addition to these, positive attitudes to learning are promoted by information campaigns, for example the annual Adult Learner's Week, and by organising actual campaigns such as Skills Finland in 2005.

1.3.5 Knowledge-based policy, evaluation culture and educational innovations

The Ministry of Education acquires in various ways data needed for political decision making. The main ways of data collection include sectoral research, evaluation reports, working group reports, data in various registers and statistics prepared using these data as well as utilization of research results.

Sectoral research is planning, research and development work as well as data production intended to support decision making in the Ministry of Education. Sectoral research programmes in the field of education and research policy focus on actual education policy issues. Sectoral research work in education policy is mainly commissioned to universities, polytechnics and research institutions. The universities and VTT Technical Research Centre of Finland are the main actors in sectoral research in science policy. The Ministry of Education has co-operated with the Ministry of Trade and Industry and Tekes (Finnish Funding Agency for Technology and Innovation) in mapping the research needs of science and technology policy and in developing research in this field. In 2004, the volume of sectoral research in the sector of the Ministry of Education was about €9.9 million in total, the share of education and research accounted for about half of this volume⁹.

The Ministry of Education and Evaluation Councils are responsible for national evaluation and its development. *The Finnish Higher Education Evaluation Council (KKA)* is an independent expert body; its task is to assist higher education institutions and the Ministry of Education in performing higher education evaluations. *The Educational Evaluation Council* functions as an expert body for general, vocational and adult education evaluation.

The National Board of Education, being part of an educational evaluation expert network, participates in the evaluation of curricula and learning achievements based on qualification requirements.

⁹ Opetusministeriön hallinnonalan sektoritutkimuksen kehittämissuunnitelmat 2010 Opetusministeriön työryhmämuistioita ja selvityksiä 2006:2 (Definitions of development policy for sectoral research in Ministry of Education's sector 2010)

At the regional level, *State Provincial Offices* evaluate the availability and quality of basic educational services.

The *evaluation of education* is regulated by laws¹⁰ relating to each particular form of education, with detail covered by a decree issued by the Council of State¹¹. All training providers are obliged by law to evaluate their educational provisions and their effectiveness and to participate in an assessment of their activities conducted by an external body. The aim of educational evaluation is to ensure compliance with education laws, to support the development of education, and to improve preconditions for learning. The main results of evaluations must be published. The Ministry of Education has appointed a working group whose task is to carry out an assessment of the present state of the evaluation system for the whole of the education system. Taking into account national and international development needs pertaining to educational evaluation, the group will prepare a proposal to organise external evaluation of education and submit a proposal for new legislation regulating external educational evaluation. The working group should submit their proposal before the end of 2007.

1.3.6 Needs of vulnerable groups

Educational equality has already been a central national goal for decades. The measures taken in recent years to promote equality are presented in detail in the following sections, in particular 3.1.3.

1.4. STRATEGY DEVELOPMENT, IMPLEMENTATION, AND DISSEMINATION

1.4.1 Co-ordination of relevant interest groups and consultations

Interest groups are closely connected with the preparation of the Finnish education policy. In addition to the Ministry of Education, other government ministries, labour market organisations, the Association of Finnish Local and Regional Authorities, and the organisations that represent principals, teachers, students and educational institutions all participate in this work. Policy design is usually conducted in committees set up by the Ministry of Education, and through an extensive hearing and reporting procedure.

To develop a lifelong learning strategy, the Council for Labour and Education Affairs and the Adult Education Council are the central expert groups for the education and labour administrative bodies. The task of *The Council for Labour and Education Affairs* is to deal with major challenges and strategies in labour policy and those parts of education policy that are most important for business and industry. The council is chaired by the Minister of Labour and the Minister of Education. The members represent mainly labour market organisations, central government ministries, and municipalities. *The Adult Education Council* is an adult education expert body nominated by the Council of State; it comprises representatives from various adult education sectors, political parties, and labour market organisations. The task of the Council is to present initiatives and proposals for developing adult education and to monitor national and international adult education developments and research. The Council is affiliated to the Ministry of Education.

¹⁰ Lukiolaki (Act on upper secondary schools) 629/1998, Laki ammatillisesta koulutuksesta (Act on vocational education) 630/1998, Valtioneuvoston asetus ammattikorkeakouluista (Decree on polytechnics) 353/2003, Valtioneuvoston asetus yliopistojen tutkinnoista (Decree on university degrees) 794/2004. Laki ammatillisesta aikuiskoulutuksesta (Act on vocational adult education).../1998, Laki vapaasta sivistystyöstä (Act on liberal education) 632/1998..

¹¹ Valtioneuvoston asetus yliopistojen tutkinnoista (Decree on university degrees) 794/2004.

1.4.2 Publicity and dissemination

The Ministry of Education and the National Board of Education regularly invite representatives and experts from educational institutions, administration, and various educational interest groups to seminars and other events, where they have the opportunity to discuss and affect education policy and lifelong learning policy and their implementation. In February 2007, the Ministry of Education and the Ministry of Labour jointly organised a conference called "Lifelong Learning and Education Policy 2012" which dealt with the preparation of a new development programme for education and research and with the development of a lifelong learning strategy in the light of European experience and co-operation.

CHAPTER 2: HORIZONTAL POLITICAL OBJECTIVES

2.1 DEVELOPMENT OF THE QUALIFICATION FRAMEWORK

The national core curricula and the qualification requirements in vocational education and training are drawn up so that their starting point is to describe the goals of the curricula and qualification requirements in terms of learning achievements. In 2005, a working group in the Ministry of Education prepared a proposal for a higher education national qualification framework¹² which included all the higher education degrees awarded by Finnish universities and polytechnics on the basis of the amount of work required, educational level, specific learning achievements, eligibility for further studies, and professional competence. From a qualification system founded on learning achievements, Finland has a good starting point for building a national framework corresponding to the European Qualifications Framework (EQF).

2.2 VALIDATION OF NON-FORMAL AND INFORMAL LEARNING

Regulations governing credit transfer in upper secondary schools, vocational upper secondary education and training, polytechnics, and universities, are outlined in the Finnish legislation¹³. In addition, the national core curricula for general and vocational upper secondary education include instructions for recognition of prior learning.

Recognition of prior learning is already defined as a target for expansion in many development plans for education and research. Current development is attempting to unify sectors of recognition practice relating to qualifications and completed courses. In 2004, in a memorandum prepared by a committee¹⁴ of the Ministry of Education, the general principles for recognition of prior learning were defined for the whole system of education. The committee proposed that procedures and

¹² Korkeakoulututkintojen viitekehys. Kuvaus suomalaisista korkeakoulututkinnoista. Opetusministeriön työryhmämuistioita ja selvityksiä 2005:4. Yliopistopaino, 2005. (Framework of university degrees. Description of Finnish university degrees, Ministry of Education committee memos and reports, 2005:4, Ministry of Education photocopy, University Press, 2005)

¹³ Lukiolaki (Act on upper secondary schools) 629/1998, Laki ammatillisesta koulutuksesta (Act on vocational education) 630/1998, Valtioneuvoston asetus ammattikorkeakouluista (Decree on polytechnics) 353/2003, Valtioneuvoston asetus yliopistojen tutkinnoista (Decree on university degrees) 794/2004.

¹⁴ Aikaisemmin hankitun osaamisen tunnustaminen koulutusjärjestelmässä. Opetusministeriön työryhmämuistioita ja selvityksiä 2004:27. Yliopistopaino, 2004. (Recognition of prior learning in educational system. Ministry of Education committee memos and reports 2004:27. University Press, 2004)

national principles for good practice should be reinforced, and that the recognition processes should be clearly defined.

In compliance with the legislation¹⁵, a university or polytechnic student is entitled to include, in their degree, studies completed at another domestic or foreign higher education institution or other educational institution, and to compensate obligatory studies included in degree requirements with other studies of corresponding content. The decree on university degrees additionally states that competence proved in other ways can also be included in a degree.

A committee from the Ministry of Education has prepared 25 recommendations for the recognition of prior learning for higher education institutions¹⁶. Applicants and current higher education students must be able to request recognition of their prior learning, wherever this knowledge has been acquired. A student must be able to make earlier learning visible, to receive an assessment of these competences, and to obtain a decision on the recognition of these competences. It is the student's duty to substantiate the learning. Higher education institutions must have a system for recognising prior learning. Higher education institutions must also develop systems for recognising learning and knowledge acquired outside the formal education system. The committee's recommendations should also be applied to the recognition of studies completed abroad.

2.3 STRATEGIES AND SYSTEMS OF LIFELONG GUIDANCE

The Department of Educational Administration is responsible for guidance and study counselling, while the Department of Labour Administration provides vocational counselling. Co-operation between the Departments of Educational Administration and Labour Administration has been developed within the framework of the Educational and Social Guarantees for young people: these guarantees aim to ensure that all young people finish comprehensive school with access to upper secondary education. The main focus has been on activities supporting the transition from comprehensive school to upper secondary education.

Study counselling is provided in comprehensive schools in forms 7-9, in upper secondary schools, and in vocational institutions. Study counsellors are required to have completed teacher training and additional specialised study counsellor training. In Finland, study counselling is a fundamental part of education: it aims to encourage students to complete their studies, to advance on to further studies, and finally, to employment. In higher education institutions, counselling issues should be addressed as part of developing the quality assurance of education. In addition to study counselling, the polytechnics and the universities are obliged to develop the preparation of personal student study plans and monitor their progress. The Ministry of Education finances these activities through national development programmes. The goal is to intensify the diversification of services by using information and communication technology applications.

¹⁵ Valtioneuvoston asetus ammattikorkeakouluista (Decree on polytechnics)353/2003, Valtioneuvoston asetus yliopistojen tutkinnoista (Decree on university degrees)794/2004.

¹⁶ Aiemmin hankitun osaamisen tunnustaminen korkeakouluissa. Opetusministeriön työryhmämuistioita ja selvityksiä 2007:04. Yliopistopaino, 2007. (Recognition of prior learning in educational system. Ministry of Education committee memos and reports 2004:27. University Press, 2004)

Fifty local cross-sector guidance expert groups have been set up with funding from a national guidance and study counselling programme (2004-2007), co-ordinated by the National Board of Education. Their task is to support network-based guidance services, local guidance strategies, and the introduction of national requirements for guidance. A national network of regional trainers has been established to support the groups' work. Along with the programme, development work has produced guidance services aiming at preventing young people in at-risk groups from being excluded from the labour market. Targeted continuing education has been applied to promote the adoption of an attitude of joint responsibility among the parties involved in the guidance activities in compliance with the legislation regulating cross-administrative student welfare provision.

In January 2006, the Ministry of Education allocated to the municipalities an appropriation for developing activities intended to motivate school dropouts in basic education and at the transition point to upper-secondary education. A programme of flexible basic education encompasses the development of work practices and teaching methods in the upper level of comprehensive school so that they better meet the individual needs of young people and create diverse options for completing basic education and being awarded the basic education certificate. The goal is to prevent dropout from comprehensive school with the means of early intervention.

The Ministry of Education and the Ministry of Labour have launched a joint-action programme supporting the development of information, counselling, and guidance services for adult education in 2007-2012¹⁷. The programme is composed of a number of extensive project entities dealing with the development of electronic services, tools, and methods for the identification and recognition of competences, the building up of guidance skills and the development of evaluation and research activities and methods for guidance. The aim is also to improve the availability of said services by establishing regional cross-administrative service points. To support the action programme, a broad-based co-ordination group has been nominated with representatives from various interest groups.

National Centre for Lifelong Guidance Expertise operates at the University of Jyväskylä. It has been set up for the period 2006-2011 as a multidisciplinary research unit with a mandate to collect and produce research with a view to developing lifelong guidance services and lifelong guidance policy. A further goal, by means of national and international cooperation projects and networks, is the development of counsellor training, service delivery modes, and quality assurance in counselling. The Ministry of Education and the the Ministry of Labour support the development of the Centre for Expertise.

2.4 PROMOTING INTERNATIONAL MOBILITY

International mobility have increased during the reporting period. Finland has been one of the most active participants in the European Union action programmes, and in the Scandinavian programmes as well. The number of people coming to Finland within the framework of the *Erasmus* programme continued to grow. By contrast, the number of Finnish students going abroad decreased slightly from the level of the two previous years, but it is still high on a European scale. The Finnish volume of mobility in the *Nordplus* programme continued to grow. In the *Leonardo da Vinci* programme, the mobility of teachers and trainers more than tripled in the period 2004-2006. In an attempt to

¹⁷ Ministry of Labour 365/2006

improve the quality of international mobility, Finland has taken part in the European Quality Award for vocational education and training; in a number of projects, working methods have been developed for completing competence-based qualifications abroad. Interest in the programmes intended for general education and adult education - *Comenius* and *Grundtvig*, *Nordplus Junior* and *Voxen* - has also grown year by year, and it is very high in both the Scandinavian and European contexts. In addition to the individuals appearing in the statistics, a significant amount of international transfers takes place within the framework of extensive programmes. See Appendices 2.8 -2.10.

Internationalisation and international mobility are central objectives of the development plan for education and research, but no separate mobility strategy has been drawn up. In the Comenius and Nordplus Junior programmes, supplementary national funding for the EU and Scandinavian programmes grew by about a third in 2004-2006. It is still a challenge to compile commensurable and comparable statistics on mobility to and from Finland.

An increase in the number of foreign students, especially degree-students, in Finnish higher education institutions has been sought by means of developing joint degrees and adding study programmes provided in foreign languages. The Finnish Higher Education Evaluation Council has published a follow-up evaluation of the quality of instruction given in foreign languages, and the Educational Administration in co-operation with the higher education institutions has prepared instructions for those institutions planning to set up joint degrees.

Student and teacher mobility to and from developing countries has also been promoted nationally. As a part of the Ministry of Education's strategy for Asia, CIMO has launched an Asia co-operative network programme. A postgraduate student and expert exchange programme with India has been launched with funding from SITRA (the Finnish Innovation Fund), and student and teacher exchange with the developing countries (the North-South programme) has been supported with the Ministry of Foreign Affairs' development aid funds.

The new Aliens Act¹⁸, based on the provisions of an EU directive, came into force in spring 2005. The Act makes it easier for students coming from outside the EU to work in Finland. According to the new Act, a student coming from outside the EU has the right to stay in the country and look for a job for six months after graduation, whereas under previous regulations, the residence permit expired immediately after graduation. If the former student obtains employment, a work permit is granted automatically. On the other hand, as result of the Act, the visas for traineeship exchange have become more expensive for young people coming from outside the EU, which in some cases can hinder mobility.

International mobility has also been supported by development of the credit transfer system. *The ECTS system* was introduced into Finnish universities in 2004 and into polytechnics in August 2005. Introduction of the *Europass* documents has been supported by instructions and information. Europass attachments on all Finnish vocational qualifications have been compiled in an open database. The use of Europass documents has increased significantly. In 2006, Europass CVs were searched for on the Internet about 8,000 times, whereas in 2005, the corresponding figure was about 3,000. At the same time, the number of Europass Mobility documents increased from 152 to 504.

¹⁸ Aliens Act (301/2004)

CHAPTER 3: IMPLEMENTATION OF THE OBJECTIVES IN DIFFERENT FORMS OF EDUCATION

3.1 OBJECTIVES RELATING TO ALL LEVELS OF EDUCATION

3.1.1 Administration and management of educational institutions

Decision making in the educational administration was largely decentralised in the 1990s, when the financing of education became based on allotment per student and the curriculum system was revised. The Ministry of Education grants education providers the authorisation to provide education, defines the educational mission, and steers the providers' work with the aid of law, funding, curricula, national qualification requirements, and information. The education providers, however, make independent decisions on most of the practical arrangements for educational provision. The financing system gives the education provider the ability to allocate public funds appropriately, assuming that all statutory obligations concerning the volume of education, guidance and counselling, student welfare services, special needs education, and so on, are met. The National Board of Education designs the national core curricula stating educational objectives and evaluation criteria, but the schools themselves design the local curricula.

Universities are state-run, but polytechnics are either municipal or private. The university functions rely on the principles of university autonomy and the freedom of science and the universities determine their own internal administration. The polytechnics are granted authorisation to provide education by the Government, but they have autonomy in their internal matters. The Ministry of Education steers the work of universities and polytechnics with the aid of result-based and goal-based objectives; these steering functions are used to reach agreement on finances, the goals of the activities, and their monitoring, evaluation, and development.

As a rule, the responsibility for financing education is split between state and municipalities. However, universities, vocational further training, and liberal education receive their basic funding from the state. Funding for the basic education schools, upper-secondary schools, vocational institutions and polytechnics is mainly determined by the number of students and a unit cost per student. In vocational education and training and polytechnics, unit cost is determined by incurred sectoral costs. Furthermore, part of the funding for vocational education and training is performance-based, while part of the funding for the polytechnics is based on the number of completed degrees. Public funding is not labelled for the training provider; the training provider decides independently how to use it.

Finland is involved in the OECD programme *Improving School Leadership*, the aim of which is to help the decision makers create conditions for developing school leadership and systematically steer instruction and learning. The programme produces country reports and surveys on school leadership, which help to assess national development needs in the field of administration and management. The programme will end in early 2008.

The adaptation of the education system to the change of age cohorts will be a major challenge in the next few years. The young age cohorts are decreasing and the demographic structure will become differentiated in different parts of the country. In early 2007, an Act was passed which was intended to diminish the number of regional municipalities and increase co-operation between them in the field of basic services, including basic education. In early 2006, the Ministry of Education launched the Vauhti programme, with the purpose of uniting the network of vocational education providers

into wider regional vocational education and training centres. Structural development of the higher education institutions has also been launched (see 3.3.1) respectively.

3.1.2 Private funding

In Finland, everyone is entitled to receive a basic education free of charge. Similarly, after basic education degree-studies in upper secondary schools, vocational institutions, polytechnics, and universities are free of charge. However, in vocational further training and liberal education, reasonable tuition fees can be charged. Tuition fees account for about 20% of funding in liberal education institutions, and about 10% in vocational further training. In addition, there are specific aid forms for adult learners. Continuing education provided by universities is not funded from the state budget; its funding is based on the money collected from participants or their employers.

In all forms of education, education providers can raise additional funding by arranging paid services, selling training, research or other services to the public service, private companies, or private individuals. In basic education and upper secondary education, the proportion of paid services in funding is very small. The proportion of paid services in the total funding of vocational education providers accounted for about 26%, and in the total funding of polytechnics, about 12% in 2003.

Sixty-five per cent of university funding comes from the state budget, 35% from external sources. More than half (61%) of the external funding was spent on research in 2005. The major sources of external funding were the Academy of Finland (18%), Finnish companies (16%), the Finnish Funding Agency for Technology and Innovation Tekes (13%) and the European Union (12%).

Vocational further training with public funding can be arranged in the form of staff training, in which case half of the funding is provided by the employers. Labour market training is also partly organised in the form of joint procurement in co-operation with employers, who in this case cover part of the costs. The amount of such joint procurement training in labour market training accounted for 4% in 2004.

From the viewpoint of the whole national economy, investment in education by companies and employers is an important factor. In 2002, the member companies of the Confederation of Finnish Industry and Employers invested about €495 million in staff training, and the member companies of the Employers' Confederation of Service Industries¹⁹ about €257 million. The state funded its staff training with about €77.5 million in 2003 and the municipalities with about €125.5 million in 2000.

3.1.3 Expanding and equalizing access to education

Special needs education. In 2006, the Ministry of Education told a steering group to prepare a proposal by September 30, 2007, for a long-term development strategy of special needs education and proposals for possible changes in legislation. The strategy proposal would analyse the development needs in special needs education, legislation, teacher training, and administrative procedures related to special needs education. The steering group's work covers pre-primary, and basic education.

¹⁹ The Confederation of Finnish Industry and Employers and the Employers' Confederation of Service Industries merged into the Confederation of Finnish Industries EK in 2005

The goal of educating a whole age group requires that the opportunities to access education and employment are ensured for those students who need special support. In recent years, the number of special needs students has increased greatly in both special education schools and vocational institutions. About 11% of students attending vocational institutions need special instruction. A strategy has been drawn up for vocational special needs education, and on the basis of this strategy, an action programme was designed in 2004. With a view to coordinating special needs education development, an advisory council of vocational special needs education has been set up, and, affiliated to it, a co-operation body of the vocational special needs education institutions.

Education of disabled children. In spring 2006, a report was submitted to Parliament by the Government on disability policy. Disabled people are entitled to the same educational opportunities as others, including the goal of lifelong learning. The Government promotes the integration of disabled children and young people at all levels of education and tries to prevent social exclusion. Basic education effectively reaches disabled children, and schools arrange the necessary supportive measures fairly well. However, shortcomings have been identified in post-comprehensive education. They are related to such problems as the mismatch between the demand and supply of education provision, absence of learning materials, restrictions to accessibility on school premises, and lack of available support facilities such as interpreters, personal assistance, and aids.

Immigrant education. The objective of immigrant education is attainment of the skills and knowledge necessary for equal participation in Finnish society and to maintain the cultural identity of immigrants. Any immigrant of compulsory school age with permanent residence in Finland has the right to obtain the same basic education as Finnish citizens. The integration of immigrants into Finnish society is promoted with the aid of instruction in the immigrant's mother tongue, Finnish/Swedish as a second language instruction, and study and guidance counselling. Some of the language goals are a functional bilingualism, a good knowledge of Finnish or Swedish, and maintenance of the immigrant's mother tongue and culture. Immigrant education also aims to improve the identification and recognition of immigrant skills and knowledge and to improve the opportunities for girls and women from other cultures to participate in education.

Because of the increasing numbers of children and young people with immigrant backgrounds, the need to provide education services for them has also increased. In the pre-primary and basic education age groups, an average of 3% of the pupils have a mother tongue other than Finnish or Swedish. Municipalities can provide preparatory instruction for pupils who are about to enter basic education and whose ability in the Finnish language is not sufficient for studying in a basic education group. The aim of preparatory instruction is to contribute to the pupil's balanced development and integration into Finnish society and to provide the skills and knowledge necessary for moving to general basic education.

The objectives of vocational education and training for immigrants are the same as for other students. The special needs of immigrants have been taken into account in the national core curricula, instruction provision, and in the assessment of academic achievement. A curriculum must include a plan for the instruction of immigrant students. Students whose mother tongue is not the language of instruction of the educational institution are supported, if necessary, with special instructional arrangements, in particular in language studies. School dropout is prevented with the aid of remedial teaching, support services, and instruction in the mother tongue. Furthermore, preparatory training for vocational education and training is arranged for immigrants: it aims to provide the student with language and other skills and knowledge necessary for studies in a vocational education institution.

The goal is to increase the numbers of immigrants accessing vocational education and training after preparatory training and to improve the opportunities for immigrants to participate in apprenticeship training. In 2006, a separate grant was approved to support immigrants in basic vocational education and training. This appropriation was allocated to Finnish language instruction, language instruction in general, and study guidance. One of the additional arguments for this funding was the development of vocational education and training for immigrant girls and women.

3.1.4 Promoting gender equality

Equality is integrated into the objectives and lesson distribution of basic education, and in the national core curricula for pre-primary, and basic education and morning and afternoon activities. Gender equality was also integrated into the National Board of Education's programme *Diverse Learners - One School*²⁰ (2004-2006), which aimed to reinforce learning skills, the early identification of learning difficulties, and intervention in problems. Special attention was paid to learning differences between boys and girls. Development work is focused on daycare and pre-primary education.

In education, the dropout rate of men is higher than that of women. The fact that more women apply for and are admitted to upper-secondary education and tertiary education and their lower dropout rate can be seen in the level of education in young adults: the general level of education of women in this group is clearly higher than that of men. The proportion of those with a higher education degree in the age group 25-34 was 28% for women and 20% for men in 2003.

Differences between the sexes in attendance rates, and segregation in particular, have been the targets of intervention through education policy for decades, but without any clear success. Segregation begins immediately after basic education. In upper-secondary education, women form the majority. In vocational education and training, in polytechnics and universities, the imbalance of the gender structure is visible in the fact that students tend to opt in a traditional gender-related way for "male" and "female" professions. The segregation of educational choice across fields maintains segregation in the world of work.

Examples of recent actions aiming at decreasing segregation are collected in Appendix 3.1. dealing with good practices.

3.1.5 Use of learning outcomes-based approaches for defining objectives in education

Competence-based qualifications - independent of the manner in which the skills have been acquired. Competence-based qualifications are qualifications specially designed for adults. They are independent of the manner in which the skills have been acquired. The qualification certificate is awarded after qualification tests once the examinee has demonstrated the skills defined in the qualification requirements. In this way, the person taking the test can benefit from the competence acquired in work, studies, or hobbies. These qualifications offer professional people opportunities and goals for competence-building and for substantiating this competence during their career.

In a vocational upper-secondary qualification, one should demonstrate the skills and knowledge that are required to obtain vocational proficiency; in a further vocational qualification, one should demonstrate the vocational proficiency that is required from a professional worker in that particular

²⁰ *Erlaisset oppijat - yhteinen koulu*²⁰ hanke (2004-2006) ks. www.edu.fi (Diverse Learners - One School 2004-2006, see www.edu.fi)

field; and in a specialist vocational qualification, one should demonstrate the mastery of demanding work assignments. Vocational upper-secondary qualifications completed in the form of competence-based qualifications are the same qualifications that young people complete after a three-year vocational upper secondary education and training. Their qualifications are made up of components that can be also taken separately. The system is under the authority of the Ministry of Education, and the requirements for the qualifications are defined by the National Board of Education. The qualifications are arranged and supervised by qualification committees nominated by the National Board of Education, with committees comprised of the representatives of employers, employees, and teachers. The qualification committees also award the qualification certificates.

Competence-based qualification tests can be taken without prior training, but the majority of the examinees brush up their competence in preparatory training courses financed by the Departments of Educational Administration and Labour Administration. In 2005, a total of 58,500 adults took a competence-based qualification test, about 29,200 of them completed a qualification, and 13,400 adults completed a partial qualification. This situation cannot be considered satisfactory. The Education Evaluation Council on assignment of the Ministry of Education has carried out an evaluation of the functioning and performance of the competence-based qualifications system. The results will be published in spring 2007.

Vocational skills demonstrations were introduced in vocational upper-secondary education in autumn 2006. Since 2000, introduction of the demonstrations had been prepared with extensive piloting. The goal of the vocational skills demonstrations is to improve the quality and effectiveness of educational education, and to facilitate student transition from education to employment. The attainment of vocational skills is assured with vocational skills demonstrations performed in practical assignments. The demonstrations are assessed in co-operation with the education provider and representatives of business and industry. To organise vocational skills demonstrations, the education provider sets up a group to plan and supervise the skills demonstration activities. The education provider, teachers, students, and business and industry are represented in this group. Programmes carried out by the National Board of Education and Provincial State Offices have trained teachers and workplace instructors to organise vocational skills demonstrations. The introduction of the vocational skills demonstrations is assisted by a specific support programme.

The goal of the programme *Personalising Adult Education (AiHe)*²¹ (2000-2007) is to improve the quality and effectiveness of preparatory training for competence-based qualifications. Those involved in projects that were part of the programme committed to an extensive implementation of a three-stage competence-based qualification system by the end of 2006. Personalisation in the system of competence-based qualifications means customer-oriented design and implementation of guidance, counselling, teaching, and support activities intended for the examinee and the student. Personalisation is embodied in the process of completing a competence-based qualification or applying for education leading to a competence-based qualification and acquiring the necessary professional proficiency. Possible special needs arising from different cultural or linguistic backgrounds or medical reasons such as dyslexia are taken into account in the personalisation process.

3.1.6 Quality assurance systems of education

²¹ More in detail www.oph.fi/nayttotutkinnot/aihe

The national quality assurance system of higher education has three components: the steering of national higher education policy, national external evaluation, and the institutions' own quality assurance. The Ministry of Education steers higher education institutions with the aid of performance and target agreements, legislation, and financing. The Finnish Higher Education Evaluation Council takes national responsibility for the external evaluation of higher education institutions. The universities and polytechnics determine for themselves the specific goals and methods of their own quality assurance and its development, and bear responsibility for their own quality assurance system. According to the law²², universities and polytechnics²³ must evaluate their education, research and artistic activities and their impact, and also take part in external quality evaluations at regular intervals.

Since 2004, the Finnish Higher Education Evaluation Council has prioritised quality assurance audits in higher education institutions. Auditing aims to ensure that any higher education institution has a quality assurance system that supports the continuous development of the institutions' functions, that the system works in accordance with its goals, it supports development actions and is internationally reliable. So far, 12 auditing projects have taken place. Six polytechnics and three universities have acceptably passed the audit. The goal is to have the quality assurance systems of all of Finland's higher education institutions audited by 2011. The auditing principles and guidelines are published in a manual by the Finnish Higher Education Evaluation Council²⁴.

Quality assurance systems of vocational education and training. The quality and effectiveness of vocational education and training are based on the authorisation to provide education, the national core curricula, the requirements for competence-based qualifications that are drawn up by the National Board of Education in co-operation with business and industry, and on the vocational skills demonstrations introduced in 2006. The system of competence-based qualifications in vocational adult education is also a national quality assurance system for competence acquired in many ways. Quality management in vocational education and training and its development are supported with the aid of evaluation, financing, quality management recommendations, and development projects.

3.1.7 Developing education partnerships

The National Education and Training Committees (33 organised for different fields) and the *National Co-ordination Group for Education and Training* affiliated to the Ministry of Education function as expert bodies for the development of vocational upper-secondary and further education and training, for polytechnic studies, and profession-oriented university education. It is their task, in co-operation with the Ministry of Education and the National Board of Education, to promote interaction between education and business and industry. The National Education and Training Committees discuss, for example, the national core curricula and the requirements for the competence-based qualifications. At a minimum, the Committee members should represent the educational administration, teachers, employers, and employees. The task of the National Co-ordination Group for Education and Training is to deal with extensive issues covering different

²² Yliopistolaki (L 645/97), erityisesti 4 § ja 5 §. (Act on universities, in particular 4 § and 5 §)

²³ Ammattikorkeakoululaki (L 351/03), erityisesti 9 §. (Act on polytechnics, in particular 9 §)

²⁴ Auditing Manual by the Finnish Higher Education Evaluation Council:
http://www.kka.fi/pdf/julkaisut/KKA_405.pdf

training areas, and its members comprise the chairs of the National Education and Training Committees and representatives from the central organisations of employers and employees.

The qualification committees are representative bodies nominated by the National Board of Education, representing employers, employees, teachers and self-employed persons. Their task is to supervise the arrangement of competence-based qualifications and to award qualification certificates. One or more qualification committees have been nominated for each vocational upper-secondary qualification, further vocational qualification, and specialist vocational qualification. Altogether, there are over 300 committees.

Local co-operation bodies. Co-operation groups embracing representatives of the labour market parties operate in affiliation with almost all educational institutions. An education provider can assign the arrangement and supervision of the vocational skills demonstrations for upper-secondary education to the co-ordination group or establish a separate group for this purpose. The education provider, teachers, business and industry, and the students have their representatives in this group.

3.2 SCHOOL EDUCATION

The main focus in school development activities is to reinforce basic educational security for all, regardless of the pupil's domicile, language, or socio-economic status. Other focal areas include a reform of both pre-primary education developing school readiness, and morning-afternoon activities intended to improve pupil well-being. At the Government's proposal, the legislation regulating student welfare services has been specified with a view to enabling early intervention into problems of school attendance.

3.2.1 Strengthening pre-primary education

Every child's right to pre-primary education and the obligation of all municipalities to provide it came into force at the beginning of the autumn term in 2001. The school transport benefit for pre-primary education has been effective since August 1, 2004. About 57,300 pupils, or 96% of six-year-olds are attending pre-primary education in 2007. About €275 million is allocated to pre-primary education from the 2007 state budget. Finland has quickly achieved the OECD level in terms of the number of children attending pre-primary education. The statutory school transport benefit has improved the accessibility of pre-primary education for all children. The main objective is to ensure that the educational rights of children and young people are realised through professional teaching, guidance, a safe learning environment, and school community well-being. In spite of the good results, the aim is still to improve the quality and accessibility of pre-primary education.

3.2.2 Bringing curricula and evaluation systems up-to-date

The national objectives, lesson hour distribution, and core curriculum for pre-primary, basic, upper-secondary, and basic art education have been reformed. These reforms aim to increase the uniformity of education provision nationally and pupil and student learning potential and their legal protection. The national core curriculum for basic education includes a description of what good knowledge and skills look like: they form the basis for pupil assessment. The national core curriculum defines good skills and knowledge by the subject and the criteria for the marks in each subject. The specified assessment instructions aim for a unification of marking practices and an improvement of student legal protection when continuing further studies.

A reform of the matriculation examination that is taken at the end of upper-secondary education is ongoing. In spring 2005, the examination was changed so that the only subject that is compulsory for all

is Finnish or Swedish (mother tongue) with a literature test. Since spring 2006, the general studies test has been split into tests covering individual subjects. The revised mother tongue language test was introduced in spring 2007. The goal was to make the matriculation examination provide a better measurement of all-round education and qualifications for further studies achieved in upper-secondary schools.

3.2.3 Developing teacher training for the needs of a knowledge-based society

Teaching staff training development is to yield a reinforced continuum between basic and continuing training; it should also take into account the diverse training needs of teachers at various stages of their careers. Continued training is combined with other development work in educational institutions. School leadership is supported by developing training intended for principals.

The main responsibility for continued training is borne by the employer, or the education provider. Annually about €10 million is allocated in the state budget to teaching staff training programmes to maintain and extend their professional skills in areas that are key in terms of education policy.

3.2.4 Improving well-being in schools and reducing dropout rate

Action programme for promoting well-being in schools. In 2006, the Ministry of Education launched an extensive national action programme for improving well-being in schools and cutting dropout rates. The goal is to develop schools into communities contributing to the well-being of children and young people. The focal areas include the pre-emption of problems and early intervention, a reduction in school bullying, and the development of student welfare. *The Flexible Basic Education (JOPO) programme*²⁵ serves to prevent comprehensive school dropout and leaving school without a certificate. The goal is to develop teaching and teaching methods used in the upper forms of basic education so that they would meet youngsters' needs with the aid of on-the-job learning periods, action-oriented work methods, the utilisation of various learning environments, and by offering targeted support and counselling services for young people and their families. The aim is to ensure that all pupils studying in a group of flexible basic education would have access to further studies in upper-secondary education.

*The Inclusion of Youngsters programme*²⁶ (2003-2007) aims to prevent the social exclusion of youngsters. Its goal is to ensure each young person access to further studies or some other meaningful options for building one's own life.

In their report on education policy²⁷, the Government informed Parliament that an extensive additional action programme²⁸ will be launched *to cut down school dropout rates*. The aim is to include this extensive additional action programme in the next development plan for education and research.

²⁵ The Flexible Basic Education (JOPO) programme aims at preventing school dropout and intervening in problems as early as possible, see www.minedu.fi/koulutus/artikkelit/koulupudokkaiden_aktivointi/index.html

²⁶ The Inclusion of Youngsters programme 2003- 2007, see <http://www.edu.fi>

²⁷ Valtioneuvoston koulutuspoliittinen selonteko Eduskunnalle. Opetusministeriön julkaisuja 2006:24. Yliopistopaino, 2006. (Government's report to Parliament on education policy. Publications of Ministry of Education 2006:24. University Press, 2006)

²⁸ Opijien keskeyttämisen vähentämisen toimenpideohjelma. Keskusteluistio 8.2.2007. Opetusministeriön monisteita 2007:2. (Action programme for cutting down school dropout rates. Discussion memo 8.2.2007. Ministry of Education photocopy 2007:2)

Workshop activities are described in the appendix on good practices 3.2.

3.3 HIGHER EDUCATION

3.3.1 Strengthening the knowledge triangle of education, research, and innovation

In spring 2005, the Finnish Government adopted a resolution²⁹ on the structural development of the public research system. The goal of development is to improve the functioning of the innovation system as an entity and its ability to renew itself, to reinforce the competence base, to improve the quality and targeting of research, to boost the utilisation and commercialisation of research results, and to ensure sufficient economic preconditions for research.

According to the Government resolution, development activities concerning the whole research system will be directed to reinforcing the prioritisation of activities, the profiling of research organisations, and selective decision making on the basis of future predictions. A crucial challenge is to develop world-class R&D in those fields most relevant to the national economy, societal development, and citizen well-being. Another central aim for the whole research system is to further internationalise education, research, and innovation.

The Government resolution will steer higher education development in the long-term. According to this resolution, the relationship between universities and polytechnics will be clarified, the universities' financial powers will be increased, their profiling will be encouraged, a sufficient size and versatility for higher education units will be ensured without expanding the higher education system. Higher education institutions will focus on the impact, quality, and effectiveness of their work by compiling their resources into larger entities, by boosting networking and management, and by evaluating their functions.

On 27 June 2006, the Science and Technology Policy Council of Finland chaired by the Prime Minister adopted the policy report "Science, Technology, Innovation". The report presents the Council's national strategies and a development programme, which aims at the continued sustainable and balanced development of society and the economy in the coming years. The determined development of both knowledge and competence and their quick and flexible exploitation are the core issues of the report. Public and private sectors have to jointly continue to reinforce investments in science, technology and innovation.

According to the report, the resources will have to be allocated in an increasingly focused manner. One of the most significant focus of co-operation between public and private sectors will be the *Strategic Centres of Excellence in STI*, which are due to be established. They are international high-level centres of STI in fields that are crucial to the future of the Finnish business sector and society. The Science and Technology Policy Council has decided that concrete steps must first be taken in the following theme areas: energy and environment, metal products and mechanical engineering, forest cluster; health and well-being, information and communication industry and services. The Ministry of Trade and Industry and the Ministry of Education have appointed a committee to steer and evaluate the implementation of the measures.

²⁹ Valtioneuvoston periaatepäätös julkisen tutkimusjärjestelmän rakenteellisesta kehittämisestä 7.4.2005. (Government's resolution on the structural development of the public research system 7.4.2005)

The Ministry of Education launched further evaluation action as part of the structural development. Structural development, or the amalgamation of higher education institutions and/or their functions, and measures relating to the clarification of the division of work, were discussed in the performance review negotiations between the Ministry of Education and the higher education institutions in spring 2006. In autumn 2006, the Ministry of Education and the universities further agreed separately on actions to speed up structural development. An OECD evaluation of the condition of higher education institutions and their ability to meet future challenges was completed in autumn 2006. OECD experts decided that the Finnish tertiary education system is strong and provides a good foundation to meet future challenges. The dual model has so far served national needs well. But in the future, more flexibility will be required from higher education institutions and higher education policy by regional and international development.

The universities have significantly increased mutual co-operation and division of work, such as that done in graduate schools and in educational networks in different fields. A survey has been started to explore the structures and procedures for intensifying co-operation between art universities. Similarly, in the fields of engineering, economic sciences, and law, surveys have been performed on training needs and on the number of units providing education. Universities have also conducted a lot of internal structural development work; as a result of this, department and unit sizes have grown significantly. These activities have had positive qualitative and economic consequences. It has often been said that co-operation and interaction between Finnish universities and business provides a good example for others to follow.

Polytechnics have several ongoing structural development projects with a view to ensuring sufficient size and versatility in higher education units. Some polytechnics or their branches have been amalgamated, small one-field branches have been closed, training programmes have been incorporated into larger entities, units have been reorganised, and existing organisations have been reformed. Three amalgamation projects are under way in polytechnics. The new polytechnics to be formed will start in 2007-2008. As a result of the changes in the branch network, degree education intended for young people will cease in ten small localities. Education provided in the Swedish language is being aggregated to larger entities.

Universities and polytechnics have also intensified their field-specific co-operation crossing institutional borders. There are several ongoing projects aimed at a new model of co-operation between universities and polytechnics, such as that in eastern Finland, in the capital city area, and between Swedish-language higher education institutions.

Several legislative reforms were implemented in 2004-2006. Their aim was to encourage co-operation between universities and business enterprises, to increase the universities' financial autonomy, to boost the commercial and societal utilisation of knowledge and competence, and to reinforce the universities' regional impact. A legislative amendment³⁰ effective since October 2005 obliges the universities to interact with society and promote the societal effects of scientific and artistic activities. Another legislative amendment³¹, also effective since October 2005, gives universities the right to establish university enterprises, the profit from which belongs to the university. The universities can also own shares in companies that aim at knowledge transfer or commercial exploitation of innovation.

³⁰ Laki yliopistolain muuttamisesta (Act on amendment of the Act on universities) (715/2004).

³¹ Laki valtion talousarviosta annetun lain muuttamisesta (Act on amendment of the Act on state budget) (1111/2004).

A legislative amendment³², effective since the beginning of 2007, requires that people from outside universities should be included in University Senates. The new Act expands the universities' financial autonomy, because it gives all the universities the opportunity to own property outside the state budget economy, and have certain legal rights connected to this ownership. For historical reasons, only the University of Helsinki and Åbo Akademi University had this right earlier.

The new Act on the ownership of university inventions³³ regulates the ownership rights of people employed by higher education institutions or the Academy of Finland over inventions they have made during their employment relationship and that can be protected by patent. This change boosts the identification and utilisation of inventions and clarifies the rights and remuneration practices related to them. The Act³⁴ on the ownership of employee inventions extends the rights from the researchers to all those employed by the higher education institution.

The statutory tasks³⁵ of the polytechnics is, in addition to providing education, to carry out research contributing to higher education instruction and to carry out research and development work supporting business, industry, and regional development. The degree structure of polytechnics was redesigned into a two-cycle structure in 2005, when higher polytechnic degrees were established as degrees of the second cycle. The higher degrees are intended for experts employed in business and industry and who have at least three years' work experience after the Bachelor degree. Business-related research and development work is emphasised in the degrees, and their scope is 60-90 ECTS credits.

3.3.2 Attendance goals and measures to meet them

Anticipation of labour force and training needs is explained more in detail in 3.4.2. The 2008 entry targets for the current development plan are indicated in Appendix 1.2. The entry targets for 2012 will be presented in the next development plan.

3.3.3 Boosting excellence

Performance-based steering, competitive funding, a policy of centres of excellence and an operational quality assurance system of research and education are the central tools for supporting the performance, effectiveness and high quality of higher education institutions. The quality assurance systems of the universities have been developed so that they will meet European requirements by 2007.

Each university and the Ministry of Education agree on the university's functional and quantitative goals, the funding necessary for achieving those goals, the monitoring and evaluation of the implementation of the goals, and the development of activities in three-year performance agreements that are revised in annual negotiations. In April 2006, the Ministry of Education and the Finnish universities agreed on a funding model for 2007-2009. In this model, the focus of funding will be shifted to reinforce the preconditions for research, graduate schools, and internationalisation.

³² Laki yliopistolain muuttamisesta (Act on amendment of the Act on universities) (715/2004).

³³ Laki oikeudesta korkeakouluissa tehtäviin keksintöihin (Act on the ownership of university inventions) (369/2006).

³⁴ Laki oikeudesta työntekijän tekemiin keksintöihin (Act on the ownership of employee inventions) (270/2006).

³⁵ Ammattikorkeakoululaki (Act on polytechnics) (351/2003)

The *universities*' total funding is made up of the allocated financing of operational expenditure and funding supplementing it. The financing of operational expenditure allocated from the state budget consists of core funding, project funding and performance-based funding. A major part of the supplementing funding is national competitive research funding, which has a particular impact on reinforcing quality and effectiveness. The *polytechnics*' funding consists of core funding, project funding, performance-based funding, and funding allocated for the polytechnics' shared expenditure. Performance-based funding aims at encouraging the polytechnics to work effectively and economically and to improve quality and effectiveness. The grounds for performance-based funding granted on the basis of general criteria include the development of teaching and teaching methods, the attractiveness of the education provision, progress of studies, connections with business and industry, research, development, and regional impact. Centres of excellence with impact on regional development and educational centres of excellence are selected in accordance with the proposals of the Finnish Higher Education Evaluation Council.

The national centre of excellence programme is a central form of funding for the Academy of Finland to promote the emergence and development of creative research environments. The centres of excellence are at the international cutting edge of their field. Twenty-six units from different fields of research were involved in the six-year centre of excellence programme launched by the Academy of Finland in 2000. In addition to the centres of excellence, this programme also funded seven supporting organisations. The second centres of excellence programme 2002-2007 provides funding for 16 new units. The size of the centres of excellence varies between 20 and 200 people. In both programmes, decisions on funding are made for three years at a time. The status of a centre of excellence serves as a criterion for receiving performance-based funding from the Ministry of Education's university budget.

Centres of excellence in the field of education, adult education, research, and artistic activities have been supported with a view to improving the quality of university work. The Ministry of Education allocates performance-based funding to universities for high-quality education by the three-year terms of the performance agreements. The selection of university education centres of excellence aims to emphasise the importance of university education and studies and that of the quality of learning, at developing education, and at highlighting good practice. The criteria for selecting centres of excellence include the linkage of education with research and society, strategic management, and collegial collaboration. The selection process also takes into account such criteria as how scientific aspects are combined with a business and industry perspective, the evaluation and development of education, and student involvement. It is also important how pedagogical development in the unit, curriculum content work, and degree review are linked with each other. A proposal for the units to be selected is made by the Finnish Higher Education Evaluation Council.

3.3.4 Number of graduates in mathematics, science or technology

In Finland, education in mathematics and science was largely expanded in the 1990's. As a result, the proportion of students in these fields in the number of all higher education students was one of the highest in the EU member countries (about 35.7% in 2006). According to the preliminary data on labour force demand and supply and the development of occupational structure, there is no need to further increase their numbers in the next few years. There is, however, the challenging task of increasing the number of female students and graduates in these fields.

3.4 VOCATIONAL EDUCATION AND TRAINING AND ADULT EDUCATION

3.4.1 Quality and attractiveness of vocational education and training and adult education

With a view to *improving the quality of vocational education and training* the financing system has been supplemented with performance-based funding where qualitative evaluation is a component. Vocational education and training providers are encouraged with quality awards to take on continuous evaluation and development of quality. The quality award evaluation criteria are based on the European quality award model (EFQM) and on the joint EU framework for qualitative evaluation of vocational education and training (CQAF).

The attractiveness of vocational education and training has grown. The number of applicants shows a clear increase for 2005-2006. In the spring joint application process of 2006, there were 3,058 primary applicants more than in spring 2005. At the same time, the share of vocational education and training primary applicants in the number of upper secondary education applicants increased from 57% to 60%. There were, on average, about 1.3 primary applicants to one admitted vocational education student in 2006. Even if the vocational education and training intake grew in the period 2003-2006, still only 87% of the primary applicants could be offered a study place³⁶. Since 2006, *an electronic application system* has been under construction for upper secondary education. It should cover all upper secondary education, both for young people and adults. The system will help to boost the number of applicants to education, enrolment in educational institutions, and the distribution of information on available education.

Polytechnics have become rather popular, but the attractiveness varies greatly in different fields and different parts of the country. The annual number of applicants is approximately 3.8 times bigger than the number of places available. In 2005, the polytechnics received 96,000 applications for youth education, while the number of accepted students was 30,000. Some 70-75% of the new students are matriculated from upper-secondary general schools.

Measures taken to improve *the quality of labour market training* include procurement of all training courses on a competitive basis, collection of feedback from students at two stages of the training course, and the monitoring of student success in finding a job with a delay of three, six, and twelve months after completion of the training course. *The effectiveness of labour market training*, especially in some problematic fields, is currently being investigated. This investigation is concentrated on training as a component of the labour force service process, and it tries to find points in the process that are critical from the effectiveness viewpoint.

3.4.2 Strengthening the link between vocational education and training and the labour market

On-the-job learning is today a compulsory part of upper-secondary VET. Guided and target-oriented training given at the workplace provides part of the work-based skills included in the qualifications. It includes focused, supervised and assessed studies in the workplace that are planned by local educators and labour or business representatives. The periods of on-the-job learning differ according to occupational proficiency. Students also have the opportunity to complete some on-the-job learning abroad. The idea behind assessment was to develop a student's self-worth and sense of confidence with different kinds of competences. Proficiency is based on the students' own self-assessment as well as interviews with teachers. On-the-job instructors also participate in assessments in the workplace, asking students to demonstrate their new skills before a

³⁶ Ammatillisen koulutuksen hakijat, valitut ja vetovoimaisuus, OPM, 2006. (Vocational education: applicants, admitted students, its attractiveness, Ministry of Education 2006)

panel of employers and employees. Depending on the study program, students might face four to ten demonstrations.

Apprenticeship training provision has been consciously increased by the government since the 1990's. All upper-secondary level vocational qualifications available at educational institutions as well as all further vocational qualifications and specialist vocational qualifications may also be obtained through apprenticeship training. The emphasis in apprenticeship training is on practical skills. Apprentices are engaged 70 to 90% of their training time doing the jobs in their workplaces. The workplace assigns an instructor to guide and supervise the student's work. This provides the student with education closely linked to practical work and the enterprise gets an employee, who masters the specific features of its field of work.

The central tasks of economic prediction include forecasts of economic development and employment, anticipation of the occupational structure of labour force, and estimates of labour force demand and supply in the mid-term and in the long-term. Prediction of labour force and training needs is based on a labour force model where the starting point is a labour force forecast prepared by the Ministry of Labour and organised by types of industry. The demand for new labour force is calculated on the basis of the change of the quantity of labour force and labour force attrition. The National Board of Education is responsible for carrying out training needs predictions while the Ministry of Education uses the data produced by the National Board of Education for preparing national entry targets for all fields and levels of education. Predictions are based on extensive cooperation between ministries, state provincial offices, regional councils, employment and economic development centres, education providers, and higher education institutions. The entry targets for 2008 are presented in Appendix 1.2. The next development plan will include the entry targets for 2012.

3.4.3 Opening routes into further and higher education

All the vocational upper-secondary qualifications take three years to complete and they provide general eligibility for further studies in polytechnics and universities. At the moment, about 30% of the new polytechnic students come from vocational institutions, the corresponding figure for universities being about 5%.

One can pursue upper-secondary level studies at the same time in an upper-secondary level school and in a vocational institution. This is done either so that a vocational student takes upper-secondary school courses to improve eligibility for further studies, or an upper-secondary school student supplements academic studies with vocational studies. A student may also simultaneously complete two qualifications: in most cases, a vocational upper-secondary qualification and the matriculation examination. About 5% of the students completing a vocational upper secondary qualification also take the matriculation examination at the same time.

3.4.4 Developing vocational and adult education teacher training

Vocational teachers must have a Master's degree or an applicable polytechnic degree, pedagogical studies with a minimum of 35 credits, and at least three years' work experience in the field of teaching. Teacher skills and knowledge are maintained and developed with profession-specific continuing education and placements in enterprises. There are several national continuing education programmes for vocational teachers under way in Finland. The development plan for education and research specifies the training of study counsellors and special needs teachers as key areas of teacher training.

Vocational teacher training was expanded in 2003-2005 by an intake of close to 300, because a large number of vocational teachers will be retiring in the next few years, and the age groups starting in vocational education are still quite large, even if they are gradually shrinking in the long run. A vocational teacher's pedagogical studies can be completed as full-time, multimode, or competence-based qualification studies which makes it possible to study while working. Courses are also provided outside the localities where vocational teacher education colleges are located.

Training of trainers or workplace instructors, who work together with teachers and students in on-the-job learning and in apprenticeship training, has been one of the new developments of VET since 1996.³⁷ Trainers provide supervision for training in the workplace, plan the on-the-job learning periods, and assess the learning agreed for the learning periods. The formal training available is a 2-credit course (ca. 80 hours of work) which is based on core curricula approved by the National Board of Education and provided by VET institutions. Train-the-trainer projects have been co-financed by the European Social Fund. In 2005, approximately 40% of trainers had taken this training. In 2001-2006, some 20,000 trainers were trained.

3.4.5 Participation of labour market parties in vocational qualifications

Labour market groups are in many ways involved in the design of vocational field-specific curricula and requirements for vocational qualifications, in the conduct and assessment of competence-based qualifications and vocational skills demonstrations, and in the prediction of training needs. For more, see the earlier sections 1.4.1, 3.1.5, 3.1.7 and 3.4.2.

3.4.6 Improving training opportunities for vulnerable groups

Encouraging vocational education and reducing dropout rate. Taster courses with counselling and preparation for vocational upper secondary education (2006-2008)³⁸ were launched on August 1, 2006. The goal is to support those young people who, after comprehensive school, are undecided about their career choices, and to guide them in finding interesting educational options and professions and to improve their school-readiness. Fifty-six education providers from different parts of the country participated in the experiment. In addition, vocational institutions were involved in 29 local ESF-funded projects aimed at encouraging young people to enter vocational education and reducing dropout rates. A major part of the projects focused on reducing dropout rates by developing flexible education provisions. About one thousand students were involved in the projects in 2006³⁹.

With the aid of performance-based funding, vocational education and training providers are encouraged to foster the quick employment of their graduates or their access to further studies and to reduce dropout rates. The Research Institute of Finnish Economy ETLA conducted a survey of the functioning of performance-based funding in 2006. In addition, 15 ESF funded projects focusing on developing career and recruitment services have been in progress. Together with enterprises, the projects aimed at developing activities supporting the transition from vocational education and training to employment and counselling services in vocational institutions. About 3,000 students were involved in the projects in 2006.

³⁷ VET Teachers and Trainers in Finland. Publications of the Ministry of Education, Finland 2006:41, Helsinki University Press, 2006.

³⁸ Perusopetuksen ja toisen asteen koulutuksen nivelvaiheen kehittämistyöryhmän muistio. Opetusministeriön muistioita ja selvityksiä 2005:33 (Memo by the committee on development of the transition from basic to upper secondary education. Memos and reports of Ministry of Education 2005:33)

³⁹ Hallituksen työllisyyskertomus vuodelta 2006. (Government's report on employment for 2006)

3.4.7 Measures to increase adult participation in lifelong learning

To address the problem of matching the demand to the supply of the labour force, forecast of labour force demand and training needs has been developed, recruitment problems in industries have been investigated, and various training, mobility, and encouragement measures have been developed for job-seekers. Job matching and employment are also facilitated with redesign of employment services and labour market benefits. The reforms have been jointly agreed by the Government, the employee and employer organisations. Legislation pertaining to these reforms was prepared in 2006, and the requisite financial allocations have been included in the state budgets for 2007 and 2008. Programmes such as Noste and a programme for the development of productivity and quality in workplaces (TYKES) are conducted with the express aim of extending people's careers. See Appendix 3.3.

Labour market training for adults has targeted industries with recruitment needs and job seekers have been encouraged to move across occupations and territories. The amount of qualification-oriented labour market training has been increased in order to raise the training level of job seekers because about 47% of the unemployed do not have any vocational qualifications. The share of so-called joint procurement training that is designed and funded in cooperation with employers has also increased. More and more training courses are provided for currently-employed people who are at a risk of losing their jobs. In 2006, 77,600 persons entered labour market training, and there were 6.6 million student working days in total.

The Government's report to Parliament⁴⁰ on education policy cites the improvement of training opportunities for SME staff as especially challenging. The organisations providing adult education will be able to reinforce innovation activities in small enterprises and to offer educational solutions that are suitable for the situation of each particular enterprise. The organisations providing adult education will be able to reinforce innovation in small enterprises and to offer educational solutions that are suitable for the situation of each particular enterprise. State appropriations worth over €7 million were allocated to this service in 2006. A labour market training development project called⁴¹ Proactive and demand-based change management is intended for staff employed in SMEs. In this project, methods are being developed for staff competence-building as part of the company's business strategy and changes in the operating environment.

APPENDICES

Appendix 1 Finnish Education System

⁴⁰ Valtioneuvoston koulutuspoliittinen selonteko Eduskunnalle. Opetusministeriön julkaisuja 2006:24. Yliopistopaino, 2006. (Government's report to Parliament on education policy. Publications of Ministry of Education 2006:24. University Press, 2006)

⁴¹ Ministry of Labour 2006

- 1.1. Education system diagram
- 1.2. Educational entry targets for 2008

Appendix 2 Statistics

- Table 2.1. Average objectives, indicators and benchmarks for the Education and Training 2010 programme in Finland and other EU member countries
- Table 2.2. Financing of education and research under the Ministry of Education in the Finnish State Budgets 2004-2007
- Table 2.3. Distribution of funding for education and research between different Ministries in the 2007 Finnish State Budget
- Table 2.4. The proportion commercial services in the total costs of different forms of education and training in 2004
- Table 2.5. Labour market adult education 2004-2006
- Table 2.6. Continuation of studies immediately after basic education in 2002-2005
- Table 2.7. Dropout rate from qualification-oriented education in different forms of education 2003-2005
- Table 2.8. Statistics of EU training programmes 2005-2006
- Table 2.9. Mobility statistics for the Nordplus programme 2005-2006
- Table 2.10. Mobility of staff and students from vocational education institutions 2003-2005

Appendix 3 Good practices

- 3.1. Examples of actions to prevent segregation
- 3.2. Workshop activities
- 3.3. Noste, Tykes and Veto
- 3.4. JOPO

Table1.1. Finnish Education System

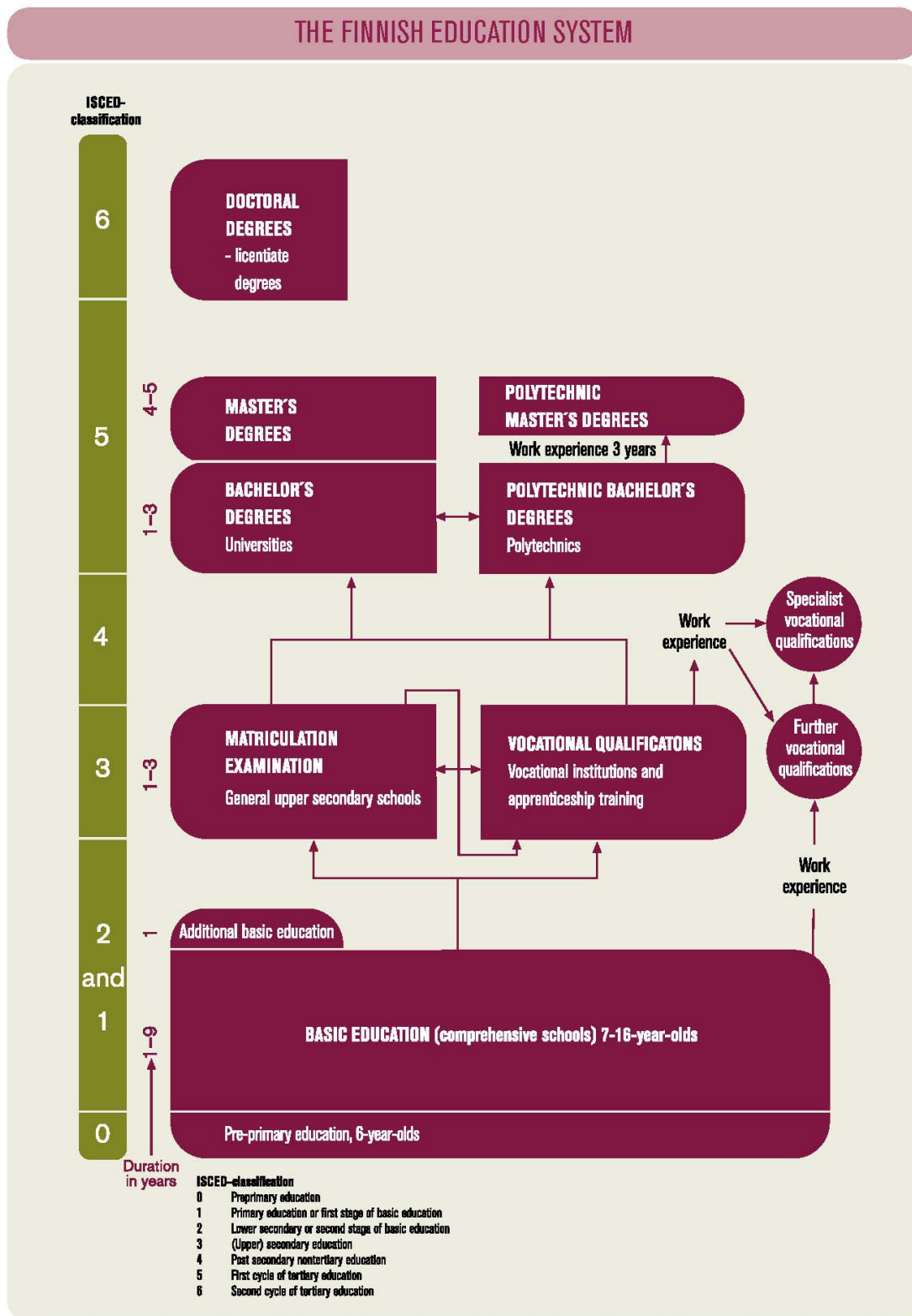


Table 1.2. Educational entry targets for 2008¹

Appendix 1

Education 2002	Entry targets for 2008			Entries Into
	Education for young people	Education for adults	Total	Total
Upper secondary school				
Upper secondary education	36,000	5,000	41,000	41,000
subject syllabi ²		15,000	15,000	13,000
Vocational upper secondary education				
upper secondary qualifications ³	45,700	13,500	59,200	60,700
further and specialist qualifications ⁴		49,000	49,000	38,000
other further education ⁵		5,000	5,000	5,900
Polytechnic				
Bachelor degrees	25,900	6,000	31,900	31,400
postgraduate degree		2,000	2,000	200
specialisation studies		5,000	5,000	6,000
open polytechnic		20,000	20,000	7,600
University				
Bachelor degrees ⁶	18,900	5,000	23,900	24,600
postgraduate studies ⁷		2,000	2,000	
specialisation studies ⁸		6,000	6,000	
open university		90,000	90,000	85,000
Liberal education⁵		24,000	24,000	20,500
Qualification-specific basic ed.	90,500	24,500	115,100	117,000

¹ Education covered by the Ministry of Education

² Number of participants

³ Partly apprenticeship training, entry targets for 2008 do not include a 20-credit course in home economics, preparatory and remedial instruction and guidance for the disabled, or preparatory education for immigrants.

⁴ Partly apprenticeship training

⁵ Weighted mean per annum

⁶ Figures for 2002 mean first enrolments in education programmes starting that year, includes 5,080 admitted through a special admission process

⁷ Full-time postgraduate education

⁸ The universities' target for continuing education in the agreement term 2004-06 is on average about 100,000 students annually, including about 6,000 students pursuing specialisation studies

Appendix 2

Table 2.1 Average objectives, indicators, and benchmarks for the Education and Training 2010 programme in Finland and other EU member countries

Strategic objective 1: Improving the quality and efficiency of education and training

1. Improving the quality of teacher and trainer training

Ratio of pupils to teachers in primary and secondary education:

Year	EU25	Finland
2002	in most countries less than 15%	14.4%
2003	13.7%	14.3%

2. Building competences for a knowledge-based society

Benchmark 3: By 2010, at least 85% of 22-year-olds should have completed upper-secondary schooling

Percentage of population with completed upper-secondary education, 20-24 age group:

Year	EU25	Finland
2004	76.4%	84.6%
2005	77.3%	84.6%

Benchmark 4: By 2010, the percentage of low-achieving pupils in reading literacy in the EU should have decreased by at least 25% compared to the year 2000.

Percentage of pupils with proficiency level 1 or lower on the PISA reading literacy scale:

Year	EU25	Finland
2003	19.8%	5.7%

1. Ensuring access to ICT for everyone

Percentage of school computers connected to the Internet:

Year	Germany	Norway	Finland
2003	70.7%	81.2%	92.1%

2. Increasing recruitment to science and technology studies

Benchmark 2: By 2010, the total number of graduates in mathematics, science, and technology should increase at least by 15%, while at the same time, the level of gender imbalance should decrease

Increase of tertiary graduates in mathematics, science, and technology 2000-2006:

Year	EU25	Finland
2000-2003	7.1%	7.4%
2000-2006*	-	14%

*Source Ministry of Education's KOTA database, includes university graduates

Percentage of students enrolled in mathematics, science, and technology among all tertiary students:

Year	EU25	Finland
2002	25.8%	37.2%
2003	25.9%	38.2%

Female graduates as a percentage of total graduates in mathematics, science, and technology:

Year	EU25	Finland
2001	30.5%	26.8%
2003	31.1%	29.2%
2006*	-	33.9%

*Source Ministry of Education's KOTA database, includes university graduates

3. Making best use of resources

Public expenditure on education as a percentage of GDP:

Year	EU25	Finland
2001	5.10%	6.24%
2002	5.22%	6.39%
2003	0.6%	0.13%

*Source: Combination of documents from 2007 state budget

Private expenditure on education as a percentage of GDP:

Year	EU25	Finland
2001	0.6%	0.13%
2002	0.6%	0.13%
2003	0.6%	0.13%

Strategic objective 2: Facilitate access to education and training

4. Open learning environment

Benchmark 5: By 2010, the average level of participation in lifelong learning in the EU should be at least 12.5% of the adult working-age population (25-64 age group)

Percentage of working age population participating in education and training four weeks prior to the survey:

Year	EU25	Finland
2004	9.4%	24.6%
2005	10.8%	24.8%

5. Making learning more attractive

Benchmark 1: By 2010, the average rate of early school leaving in the EU should be no more than 10%.

Percentage of population aged 18-24 in the whole age group with only basic education (lower secondary) and not in education and training:

Year	EU25	Finland
2004	15.9%	8.7%
2005	14.9%	8.7%

Rates of students aged 15-24 currently participating in education:

Year	EU25	Finland
2002	58.9%	68.3%
2003	59%	69.4%

Strategic objective 3: Approximate educational systems to the surrounding world

6. Improvement in the learning of foreign languages

Average number of foreign languages per student in upper secondary education:

Year	EU25	Finland
2002	1.6%	2.8%
2003	1.6%	1.6%

7. Increasing mobility and exchange

Foreign tertiary students as a percentage of all tertiary students:

Year	EU25	Finland
2001/2002	5.5%	2.4%
2002/03	6.2%	2.5%

Percentage of tertiary students enrolled outside their country of origin:

Year	EU25	Finland
2001/02	2.7%	3.5%
2002/03	2.9%	3.6%

Erasmus exchange in academic year 2004/2005:

Year	EU25	Finland
outgoing	137,645	3,932
incoming	140,858	5,351

Source: Progress towards the Lisbon objectives in education and training - Report based on indicators and benchmarks - Report 2006. Commission staff working document. Commission of the European Communities. Brussels, 16.5.2006. SEC(2006) 639.

Table 2.2. Financing of education and research under the Ministry of Education in the Finnish State Budgets 2004-2007

a) Proportion of state budget allocated to the Ministry of Education 2004-2007:

a) Proportion of the state budget allocated to the Ministry of Education 2004-2007:	2004	2005	2006	2007	2004-2007 change	2004-2007 change
	million €	million €	million €	million €	million €	%
State budget in total	36,996	35,686	39,927	40,569	3,573	9.7
Ministry of Education	6,065	6,207	6,502	6,565	500	8.2
State budget allocation to the Ministry (%)	16.4	17.4	16.3	16.2		

Source: State budgets adopted by the Parliament 2004-2007

b) Education, student financial aid and research covered in the state budget 2004-2007:

Appendix 2

b) Education, student financial aid and research covered in the state budget 2004-2007	2004	2005	2006	2007	2004-2007 change	2004-2007 change
	1,000 €	1,000 €	1,000 €	1,000 €	1,000 €	%
State budget in total	36,996,000	35,686,000	39,927,000	40,569,000	+ 3,573,000	+ 9.7
University education and research	1,298,612	1,333,334	1,352,984	1,396,849	+ 98,237	+ 7.6
Polytechnic education	335,107	346,583	365,158	367,711	+ 32,604	+ 9.7
General education	1,800,327	1,842,579	1,969,612	1,939,029	+ 138,702	+ 7.7
Vocational education and training	544,209	573,348	639,305	662,634	+ 118,425	+ 22
Continuing vocational training and liberal adult education	303,614	319,244	331,056	339,998	+ 36,384	+ 12
Education in total	4,281,869	4,415,088	4,685,115	4,706,221	+ 424,352	+ 10
Student financial aid	740,299	736,320	776,765	766,854	+ 26,555	+ 3.6
Science	238,910	241,101	258,371	270,238	+ 31,328	+ 13
Education, student financial aid and science in total	5,261,078	5,392,509	5,693,251	5,743,313	+ 482,235	+ 9
a) Proportion of state budget (%)	14.2	15.1	14.3	14.2		

Source: Proposal for state budget 2007

Table 2.3. Distribution of funding for education and research between different Ministries in the 2007 Finnish State Budget, in thousands of euros

a) Education, student financial aid and science in the state budget in 2007:

	State in total	Ministry of Education	Ministry of Labour	Ministry of Social Affairs and Health	Ministry of Trade and Industry
University education and research		1,396,849			
Polytechnic education		367,711			
General education		1,939,029			
Vocational education and training		662,634			
Continuing vocational training and liberal adult education		339,998			
Acquisition of vocational labour market training			156,480		
Acquisition of coaching labour market training			44,270		
EDUCATION IN TOTAL	4,906,971	4,706,221	200,750		
Student financial aid		766,854			
Social benefits of participants in labour market training			137,854		
State subsidy in daily training allowance				12,000	
State subsidy in adult education grants				26,000	
Student financial aid and social benefits in total	942,708	766,854	137,854	38,000	
Science		270,238 ¹			
Technology and innovation policy					569,263
Research ¹					
Education, student financial aid and science in total	5,849,679	5,743,313	338,604	38,000	569,263

¹ Ministry of Education finances also R&D activities in higher education institutions, see next table b) Research and development activities in the state budget by ministry 2007.

Appendix 2

b) Research and development activities in the state budget by ministry 2007:

Ministry	Research and development 2007
	1,000 euros
Ministry of Foreign Affairs	8,900
Ministry of Justice	1,900
Ministry of Interior	11,800
Ministry of Defence	41,300
Ministry of Finance	8,500
Ministry of Education	751,700
Ministry of Agriculture and Forestry	99,900
Ministry of Transport and Communication	32,400
Ministry of Trade and Industry	609,600
Ministry of Social Affairs and Health	125,600
Ministry of Labour	12,800
Ministry of the Environment	23,100
Prime Minister's Office	800
Parliament	1,700
IN TOTAL	1,730,000

Appendix 2

Table 2.4. The proportion of commercial services in the total costs of different forms of education and training in 2004

Form of education	Total costs (1000 euros)	Proportion of commercial services in the total costs (1000 euros)	%
Perusopetus ¹	3 510 784	58 182	1,7
Lukiokoulutus ¹	562 111	11 982	2,1
Ammatillinen koulutus ²	1 715 154	431 990	25,2
Ammattikorkeakoulut	863 308	123 957	14,4
Vapaa sivistystyö			
- kansanopistot	88 016	10 453	11,9
- liikunnan koulutuskeskukset	34 912	8 274	23,7
- kansalaisopistot	155 829	5 187	3,3
- kesäyliopistot	14 123	893	6,3
Taiteen perusopetus	111 720	2 785	2,5

Source: National Board of Education

- 1) Only basic education provided by the municipalities and upper secondary education.
 2) Includes apprenticeship training

Appendix 2

Table 2.5. Labour market adult education 2004-2006

	2004	2005	2006
Started labour market training, total	69,801	64,280	69,354
- vocational	39,786	34,739	36,495
- coaching	30,015	29,500	32,859
Student working days total/ (in thousands of days)	7,005	5,992	6,089
- vocational	5,074	4,253	4,214
- coaching	1,932	1,738	1,875
Appropriations for acquisition total/ (in thousands of euros)	197,155	184,023	184,496
- vocational	149,909	139,621	140,769
- coaching	47,246	44,402	43,727

Appendix 2

Table 2.6. Continuation of studies immediately after basic education 2002-2005

	2002	2003	2004	2005
In preparatory education for vocational upper-secondary education (%)	37.6	37.0	38.4	39.4
In general upper-secondary education (%)	54.8	55.1	54.1	53.3
In additional basic education (%)	2.6	2.4	2.5	2.5
In qualification-oriented education or in additional basic education, in total (%)	94.2	94.5	95.0	95.1
	57,900	57,550	60,400	60,200

Source: Ministry of Education 2005

Table 2.7. Dropout rate from qualification-oriented education in different forms of education 2003-2005¹

	2003	2004	2005
General upper-secondary education (%)	2.0	1.9	2.0
Vocational upper-secondary education ² (%)	10.2	9.7	
Polytechnic education (%)	6.2	6.3	6.4

Source: Ministry of Education 2005

¹Education in under educational administration. Status in September of the following year for those who studied in the previous September. Total dropouts who do not continue in any other part of the education system.

²Apprenticeship training or education in special educational institutions

Table 2.8. Statistics of EU training programmes 2005-2006

<u>COMENIUS</u>			
Comenius I - School Partnerships			
School projects	Projects	249	266
Language projects	Projects	31	28
Development projects	Projects	68	60
Preparatory visits	Persons	91	85
School receiving language assistants	Schools	40	44
Comenius 2 - Training for school education staff			
In-service training grants	Persons	105	145
Language assistants			
outgoing	Persons	18	23
- incoming	Persons	26	44
International cooperation projects			
coordinators	Projects	2	1
partners	Projects	12	5
Basic student mobility	Persons	25	12
Comenius 3 - Networks			
coordinators	Projects	0	0
partners	Projects	2	2
<u>ARION</u>			
- expert visits	Persons	39	40
<u>ERASMUS</u>			
Student exchange			
outgoing	Persons	3,932	3,851
- incoming	Persons	5,540	5,531
Teacher exchange			
outgoing	Persons	992	1,043
Language courses			
- Finnish participants	Persons	193	254
Projects (Finnish-led)	Projects	14	14

<u>LEONARDO DA VINCI</u>			
Mobility			
Vocational upper secondary education	Persons	915	945
Higher education student	Persons	135	178
Young employee	Persons	17	28
Teachers, trainers	Persons	249	362
Total		1,316	1,513
Development projects (Finnish-led)			
Pilot projects	Projects	5	8
Language projects	Projects	2	0
Networks	Projects	0	1
Reference materials	Projects	1	0
Thematic actions	Projects	0	0
Total		8	9
<u>GRUNDTVIG</u>			
Cooperation projects			
coordinator	Projects	2	0
- Partner	Projects	7	6
Learning partnerships			
- coordinator	Projects	11	11
- Partner	Projects	48	81
Mobility			
Teachers' continuing professional education	Persons	51	34
- Preparatory visits	Persons	52	36
Networks	Projects	7	1

Source: Centre for International Mobility CIMO

Table 2.9. Mobility statistics for the Nordplus programme 2005-2006

Persons outgoing from Finland	2005	2006
<u>Nordplus Junior</u>		
-Students	869	1526
-Teachers	229	329
Total	1,098	1,855
<u>Nordplus Voxen</u>		
- Teachers and adult students	76	87
<u>Nordplus Higher Education</u>		
- Students	696	781
- Teachers	150	188
Total	846	969

Source: Centre for International Mobility CIMO

Appendix 2

Table 2.10. Mobility of staff and students from vocational education institutions 2003-2005

Students and staff	2003	2004	2005
Persons outgoing from Finland			
- Students	4,569	4,076	4,492
- Teachers or experts	1,870	1,328	1,540
Total	6,439	5,404	6,032
Incoming			
- Students	2,200	1,847	1,838
- Teachers or experts	850	744	1,008
Total	3,050	2,591	2,846

Source: The National Board of Education

Appendix 3.1 Examples of actions to prevent segregation

Developing the Matriculation Examination to favour examination in mathematics

The structure of the Matriculation Examination was reviewed in spring 2005 so that the examinee must take at least four compulsory tests, of which the test in Finnish or Swedish (mother tongue) is common for all; the other three tests can be picked by the examinee from a group of tests in mathematics, general studies, a foreign language, and the second national language (other than the mother tongue). As a result of the review, the number of those taking the mathematics test has slightly increased. The structure of the test in general studies was reviewed in spring 2006 so that there is now a separate test in each general study subject.

Introducing the subject Man and Technology into the curricula

The subject Man and Technology has been included in the national core curriculum of basic education (2004) and the subject Technology and Society in the national core curriculum of general upper-secondary school (2003) respectively. The subjects as they appear in the curriculum are instruction principles that integrate instruction and cover a number of more specific topic areas. The goal is to increase female interest in technology.

Increasing communal and experiential work methods

The national core curriculum allows for increasing the amount of communal and experiential work methods to academic instruction. The final decision on the use of different teaching methods is made in individual schools. In basic and continuing teacher education, more attention has been paid to teaching competence in experiential work.

Increasing handicraft instruction common for all pupils

Handicraft instruction in grades 1-4 of comprehensive school is delivered with the same content to all pupils and consists of content from technical and textile handicrafts. In grades 5-9, instruction covers both content common for all, and the technical and textile handicrafts.

Teacher education

In connection with revision of the university degree structure in 2005, universities also evaluated and revised their teacher education curricula. As a cooperation effort between teacher training and women's studies departments, many universities are able to provide students with study modules of varying scope on equality issues.

Gender equality as a component in programmes intended to increase the attractiveness of vocational education

A gender equality focus has consciously been emphasised in VET-related communication. Across various communication channels (TV programmes, publications, web sites), information about the National Year of Vocational Training and Young Professionals was distributed about vocational education and occupations in different fields. Special attention was paid to reducing gender-typing.

Student admissions to vocational education and training

The Ministry of Education reviewed the requirements for student admission to vocational education, effective at April 1, 2004. It was discussed whether it would be possible to influence the strong gender-bound tendency in student applications in some fields. In 2004, 92% of students in the fields of social affairs, health, and sports were women, and 85% of students in technology and transport were men. An applicant gets two additional admission points when applying for studies in a field which is determined by the education provider, and where less than 30% of the primary applicants are of the same sex as the applicant. In practice, these additional points have not been of great importance, but they were left in the admission requirements to encourage gender equality and help to prevent segregation problems.

Appendix 3.2 Workshop activities

Youth workshop activities have two main functions: guidance towards education and employment, and personal support, social reinforcement, and building up a mastery of everyday life to prevent or stop the vortex of social exclusion. The principles of preventive and early intervention are followed in the workshop activities, while intended to foster further development of existing competences.

In the 2005 state budget, €1 million of lottery profit funds and €2 million of operating funds were allocated to youth workshop activities and activities preventing social exclusion. The figures for 2006 were €1.4 million and €4.1 million, and in 2007, €1.6 million and €4.1 million respectively. The youth workshop activities were granted financial support worth some €3.6 million from the European Social Fund in 2005. The amount of financial support from the ESF has remained the same.

In 2005, 69.5% of the young involved in the youth workshops were without any vocational education (2004/52%), and 4.5% of them lacked the comprehensive school certificate. The proportion of young people without vocational education has increased by 17.5% since 2004. Twelve per cent of the young who have participated in the workshops had completed general upper secondary school or the Matriculation Examination. Twenty per cent had completed secondary education. New workshop participants include youngsters who have completed general upper-secondary school or the Matriculation Examination and are living on social benefits, and young people without a basic education. The majority of workshop participants are unemployed and under 25 years old. In 2005, workshop activities involved 10,100 persons, and 7,100 of them were under 29 years of age. There were about 220 workshops nationwide.

In most cases, young people participate in the workshops for six months. Most of them are sent to the workshops by employment offices (63%) but the number sent by social services and educational institutions is increasing (31%). The number of participants entering the workshops without referral by the authorities is also slowly increasing (6%).

From 1995-2003, workshop participants were very successful at obtaining a place in mainstream educational programmes or employment after their workshop period (national mean value 60% / one year after the workshop period). In 2005, the number of participants who had moved from the workshops to education and employment was 55%, and in 2006, 75%. In 2006, the workshops reached 10% of those young people who were outside education, employment, and social security.

The workshops operate in the middle ground between the education system and work and social and health services. Cooperation between authorities across these areas is of great importance for the success of such activities, so that participants find their way to the workshops and from there enter mainstream educational programmes and/or to the labour market.

The development of an education and training provider network has been started by putting people and organisations in contact so that education and training can be targeted at the right regions and the right fields and to ensure sufficient availability of education and training in different regions (see above).

Appendix 3.3 Noste, Tykes and Veto

From 2003 to 2007 the *Noste* programme³ has offered the least-educated working adults aged between 30-59 additional opportunities for completing a vocational qualification or a computer “driving licence”. The programme aims to relieve the shortage of skilled labour due to the exit of the large post-war (“baby boomer”) age groups from the labour market and to raise the general level of education and training among the adult population. The programme also provides funding for study guidance and the personal planning of studies, distribution of information, and private counselling (which could even happen at the workplace). By mid-March 2007, some 17,600 persons had started preparatory training for a vocational qualification or a computer driving licence in the programme. The programme has been funded with a total sum of €122.5 million from 2003-2007. In compliance with the Government report on education policy, measures to raise the level of education and training among the general adult population will continue after the completion of the *Noste* programme.

*The Programme for the Development of Productivity and Quality at work (TYKES)*⁴ aims to assist workplaces in finding new ways to retain skilled employees, gain new strength, and develop their competitive ability. The programme provides funding for workplace development projects and disseminates information about good development practice. In these projects, the management and the staff, with the support of an outside expert, develop and improve work practices such as work processes, management or cooperation with the aid of surveys, management coaching, quality and team work training and collaborative work methods, in their own workplaces. The impact of the programme includes better competence development, increased levels of staff well-being, improvement in performance and quality of company products, increased productivity, and better opportunities for the staff to use and develop their proficiency. It is estimated that within the framework of the overall programme, there are 850 development programmes and projects in the period 2004-2009, and the estimated number of participants is about 200,000. The programme was funded with a total sum of €32 million Euros from 2004-2006.

*The Veto programme*⁵ (2003-2007) aims to sustain and contribute to the attractiveness of work and the world of work. The goal is to encourage people to extend their careers by 2-3 years. The idea is that care for employee safety, health and well-being creates the conditions for preserving the joy of work throughout the entire working life. The programme supports the spread of good practice by means of training and communication, and new forms of cooperation where research institutions, training organisations, occupational health care, and various labour protection representatives are involved. The Ministry of Social Affairs and Health is the main responsible body for the programme. The programme is being implemented in cooperation with labour market and entrepreneurial organisations, the Ministry of Labour, the Ministry of Education, and the Ministry of Trade and Industry.

Appendix 3.4 JOPO

³ The Ministry of Education

⁴ See: http://www.mol.fi/mol/fi/03_tutkimus_ja_kehittaminen/02_tykes/index.jsp

⁵ Veto-ohjelma 2003-2007. Valtakunnallinen toimenpideohjelma työssäoloajan jatkamisesta, työssä jaksamisesta ja kuntoutuksesta. Sosiaali- ja terveysministeriö, Helsinki 2003. (The Veto programme 2003-2007. The national action programme for extending careers, coping at work and rehabilitation. The Ministry of Social Affairs and Health, Helsinki 2003)

Flexible basic education activities (JOPO)⁶ aim to support young people in the completion of comprehensive school and encouraging them not to leave education and training for good after graduation. Flexible basic education is provided for comprehensive schools, and it is intended for pupils from grades 7-9. Instruction is delivered in accordance with the national lesson hour distribution and the national core curriculum, but action learning methods and study in real work environments are emphasised. At a workplace, instruction is provided by an employee who gives the pupil advice and support.

These activities are to boost the cooperation between different organisations, such as comprehensive schools, municipality departments for youth, social affairs and health care, vocational institutions, general upper-secondary schools, and youth workshops. Parents are also supported in their educational work. Flexible lower-secondary education does not only impact on young people's studies and their motivation to attend school, but also on the teachers' work and professional development, as well as the work of schools and regional municipalities.

The goal is to establish flexible basic education as part of the provision of basic education. In all, 27 municipalities from different parts of Finland have been involved in these activities during the school year 2006-2007. In the school year 2007-2008, there will be 75 JOPO groups nationwide. Each group is supported by the Ministry of Education for two years.

⁶ Numminen, U. & Ouakrim-Soivio, N. 2007. Joustavaan perusopetukseen - JOPO-toiminnan aloittaminen ja vakiinnuttaminen.(Towards flexible basic education - starting and establishing JOPO activities)