



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 25.11.2009
SEC(2009) 1598 final

COMMISSION STAFF WORKING DOCUMENT

Accompanying document to the:

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

Key competences for a changing world

***PROGRESS TOWARDS THE LISBON OBJECTIVES IN EDUCATION
AND TRAINING***

Analysis of implementation at the European and national levels

{COM(2009) 640 final}

TABLE OF CONTENTS

INTRODUCTION.....	6
PART I : EU implementation of the education and training 2010 work programme	9
1 The Open Method of Coordination in Education and Training (OMC)	10
1.1 New tool for the dissemination of peer learning results	10
1.2 Education and Training 2010 Coordination Group (ETCG), High Level Group and preparation of the new ET 2020 Strategic Framework	11
2 Progress on transversal lifelong learning policies and instruments	12
2.1 New Skills for New Jobs.....	12
2.2 European Qualifications Framework (EQF)	13
2.3 Validation of non-formal and informal learning	14
2.4 Lifelong guidance	14
2.5 Mobility.....	15
2.6 External dimension strategy	15
3 Schools	16
3.1 A European Agenda for cooperation on schools.....	16
3.2 Key competences	17
3.3 Teachers	18
3.4 Social inclusion and migration.....	19
4 Progress in implementing the Copenhagen process for vocational education and training	19
4.1 The Copenhagen policy framework: Assessing progress and preparing the future... 19	
4.2 ECVET - European credit system for VET.....	21
4.3 EQARF - Quality Assurance in VET.....	21
4.4 Teachers and Trainers in VET	22
5 Higher Education	22
5.1 Progress on higher education	22
5.2 Higher education and the Bologna Process.....	23
5.3 Quality Assurance in Higher Education.....	24
5.4 Other on-going initiatives to support the Modernisation agenda.....	24
5.5 University –Business partnerships	24

5.6	European Institute of Innovation and Technology	25
6	Progress on the Adult learning Action Plan	26
PART II: Thematic cross-country analysis		34
1	Key Competences Framework	35
1.1	The provision for key competences in national policies	35
1.2	Key Competences in the Curriculum	40
1.3	Key Competences for the disadvantaged	70
1.4	Supporting adults in developing Key Competences	78
1.5	Teacher Education.....	86
1.6	Assessment of key competences	91
1.7	Monitoring and Evaluation	95
1.8	Summary Conclusions on the implementation of Key Competences.....	99
2	transversal Lifelong Learning Issues	103
2.1	Lifelong learning strategies (LLLS).....	103
2.2	Establishment of lifelong guidance systems	105
2.3	Development of national qualification frameworks.....	107
2.4	Learning outcomes based approaches.....	108
2.5	Measures to assess and validate non-formal and informal learning	109
2.6	Conclusions on transversal lifelong learning issues.....	111
3	Vocational education and training	113
3.1	Attractiveness.....	113
3.2	Relevance to labour market needs.....	119
3.3	Conclusions on attractiveness of VET and link to labour market needs.....	123
4	higher education	124
4.1	Income Streams in Higher Education	125
4.2.	Opening up to lifelong learners.....	130
4.3.	Conclusions on income streams and the opening up of HEIs to lifelong learning ..	133
PART III: Progress at national level		136
BELGIUM.....		137
BULGARIA		142

CZECH REPUBLIC	145
DENMARK.....	149
GERMANY	153
ESTONIA.....	158
IRELAND	162
GREECE	167
SPAIN	172
FRANCE	176
ITALY.....	180
CYPRUS	184
LATVIA	188
LITHUANIA.....	192
LUXEMBOURG.....	196
HUNGARY	200
MALTA.....	204
THE NETHERLANDS	208
AUSTRIA.....	212
POLAND.....	216
PORTUGAL.....	220
ROMANIA.....	224
SLOVENIA.....	227
SLOVAKIA	231
FINLAND	235
SWEDEN	239
THE UNITED KINGDOM.....	243
CROATIA.....	247
ICELAND	251

NORWAY	255
TURKEY	259

INTRODUCTION

This Commission staff working document accompanies the Commission Communication proposing the 2010 Joint Report on progress under the Education and Training 2010 work programme (i.e. the open method of coordination in education and training contributing to the European Union's Lisbon agenda for growth and jobs).

Context

Every two years the Council and the Commission adopt a Joint Report on the implementation of the Education and Training 2010 work programme, including the field of higher education and the Copenhagen process in vocational education and training (VET). The next Joint Report will be adopted in February 2010, based on the Commission's draft. Member States and the Commission had agreed that it should focus in particular on the progress made in implementing key competences policies, following the adoption in 2006 of a Recommendation of the European Parliament and of the Council on key competences for lifelong learning¹.

This staff working document reports on the implementation of the Education and Training 2010 work programme at the European level (PART I), it contains a detailed cross-country analysis of progress (PART II) and an analysis of progress at national level (PART III).

The 2010 Joint Report should be read together with this report on 'Progress towards the Lisbon Objectives in Education and Training - Analysis of implementation at European and National Level' as well as the report on 'Progress towards the Lisbon Objectives in Education and Training - Indicators and benchmarks - 2009', which are both annexed to the Commission's draft joint report.

The present report is based on important contributions from competent authorities in the Member States on their different situations. It values European diversity and the unique opportunities which this affords, and fully respects the Member States' responsibility for their education systems.

Aims and objectives

The main aims of this document are therefore:

- To describe the progress made since 2006/7 in the implementation of selected elements of the Education and Training 2010 work programme at the national and European levels and to illustrate this progress with examples of recent developments.
- To review the state of progress in the Member States on the implementation of key competences in schools, vocational education and training (VET) and adult learning.
- To comment on the support provided by the Key competences recommendation to national key competences policies.

¹ [OJ L 394 of 18.10.2006, p. 10](#)

Status and caveats

Parts II and III of this document are based primarily on the analysis of national reports received from the participating countries in mid-2009, which were prepared following Commission guidelines. Reference is however also made to other Commission sources providing information on country progress (in particular information from Cedefop and Eurydice).

As the information provided in the 2009 national reports on specific measures within key competences, lifelong learning (LLL), vocational education (VET) and higher education (HE) is often not detailed, the examples cited in the report have been chosen to illustrate the progress being made, rather than as examples of good or best practice.

National reports were received by 31 out of the 32 participating countries (Member States, EFTA/EEA, and candidate countries; Liechtenstein did not report).

Report structure

PART I - provides an overview of the EU IMPLEMENTATION OF THE EDUCATION AND TRAINING 2010 work programme since the 2008 Joint Report.

PART II – provides a cross-country analysis which closely reflects the structure of the 2009 national reports, which themselves reflect the guidelines provided by the Commission:

Chapter 1 describes the progress relative to the KEY COMPETENCES FRAMEWORK in particular: provision, curriculum, key competences for all, supporting adults in developing key competences, teacher education, assessment, monitoring and evaluation.

Chapter 2 describes the progress relative to TRANSVERSAL LIFELONG LEARNING ISSUES in particular: lifelong learning strategies, lifelong guidance systems, national qualification frameworks, learning outcomes based approaches, and non-formal and informal learning.

Chapter 3 describes the progress relative to VOCATIONAL EDUCATION AND TRAINING in particular: attractiveness and relevance to labour market needs

Chapter 4 describes the progress relative to HIGHER EDUCATION, in particular: income streams in higher education and lifelong learning.

PART III – provides factual analyses of progress at national level (country by country).

Supporting the Lisbon Strategy through education and training

The Education and Training 2010 work programme was adopted as a joint work programme of the Council and the Commission in 2001/02 to support the Lisbon process in education and training. Over the last seven years the Education and Training 2010 work programme has, as the open method of coordination in this field, made a vital contribution towards achieving the overall objectives of growth and jobs. The European Council has on various occasions (most recently in March 2008 and 2009) emphasised that education and training/lifelong learning is a key driver of the Lisbon Strategy.

Furthermore education and training is identified as a key element throughout the renewed Social Agenda for opportunities, access and solidarity. This stresses the role of education and training in relation to children and youth; investing in people, more and better jobs and new skills; mobility; longer and healthier lives; and combating poverty and social exclusion.

The increased focus on education and training in the Lisbon context over the years led the Education Council to invite the Commission to come forward with a proposal for an updated strategic framework for European cooperation in education and training in key messages which were endorsed by the March 2008 European Council. This was based on a specific request in the 2008 Joint Report of the Council and the Commission.²

Following a comprehensive consultation process with participating countries, social partners and other stakeholders³ the Commission adopted the communication: "An updated strategic framework for European cooperation in education and training"⁴ in December 2008. This was followed up by Council Conclusions on a strategic framework for European cooperation in education and training ("ET 2020")⁵ adopted in May 2009.

The Strategic Framework introduces a few new elements in the OMC in terms of policy priorities and implementation. Four broad strategic objectives are identified for the period until 2020 as well as priority areas for 2009 – 2011. Implementation will be strengthened through more focused work on the short term priority areas, more focused peer learning, better dissemination of results, joint reports focused on a thematic area and including factual analyses of the situation in countries. This approach is also used in this staff working document, which has a thematic focus on Key Competences (PART II) and includes factual analyses of the situation in countries (PART III).

² [OJ C 861, 5.4.2008](#), p. 9.

³ The consultation process is described in details in an Impact assessment: [SEC \(2008\)3047 final](#)

⁴ [COM \(2008\) 865 final](#)

⁵ [OJ C 119 of 28.5.2009, p. 2](#)

**PART I: EU IMPLEMENTATION OF THE EDUCATION AND TRAINING 2010 WORK
PROGRAMME**

EU IMPLEMENTATION OF THE EDUCATION AND TRAINING 2010 WORK PROGRAMME

This section of the staff working paper takes stock of the progress made at EU level to date since the 2008 Joint Interim Report in achieving concrete outcomes at European level and thus provides an update of the Commission Staff Working papers from 2003⁶, 2005⁷ and 2007⁸ covering the first six years of implementation of the Education and Training 2010 work programme.

1 THE OPEN METHOD OF COORDINATION IN EDUCATION AND TRAINING (OMC)

The Education and Training 2010 work programme has involved different activities using various working methods depending on the nature of the thematic priority being addressed. The tools have involved for example clusters, peer learning activities, networks, university-business partnerships and the activities under the Copenhagen process.

1.1 New tool for the dissemination of peer learning results

Peer Learning Activities (PLAs)⁹ have been undertaken since 2005 mainly by clusters of countries sharing a common interest in a thematic priority¹⁰. The current clusters have focused on seven topics: Modernisation of higher education; Teachers and trainers; Maths, science and technology; Access and social inclusion; Key competences; ICT; and Recognition of learning outcomes. As a key tool in the OMC, peer learning is also used by the Adult learning working group and the University-Business Forum.

The work of the clusters and PLAs is intended to contribute, on the one hand, to the initiation of the policy development process at the European level (reflection, ideas) and, on the other hand, to support national policy development and implementation of agreed European objectives and principles through mutual learning and exchange of good practice.

To disseminate the results of E&T 2010 cooperation, and especially the results of peer-learning, the Commission has set up a special website: www.kslll.net which opened in 2009. On the KSLLL (the Knowledge System for Lifelong Learning) all PLAs which have taken place are listed with a short and a long summary, a list of participating countries, and background documents¹¹. The KSLLL also contains the option for countries or other relevant stakeholders to post examples of good practice directly in the compendia developed through the clusters.

⁶ Commission Staff Working paper of 11 November 2003 on 'Implementation of the Education and Training 2010 programme' (COM (2003) 685 final).

⁷ Commission Staff Working paper of 10 November 2005 on 'Implementation of the Education and Training 2010 programme' (COM (2005) 549 final).

⁸ Commission Staff Working paper of 12 November 2007 on 'Implementation of the Education and Training 2010 programme' (COM (2007) 549 final).

⁹ Peer learning is a process of cooperation at European level whereby policy makers and practitioners from one country learn, through direct contact and practical cooperation, from experiences of their counterparts elsewhere in Europe in implementing reforms in areas of shared interest and concern.

¹⁰ The word "cluster" is used to mean the regrouping of interested countries around a specific theme, corresponding to their national policy priorities, and on which they have expressed a desire to learn from other interested countries, or to share with others their successful or unsuccessful experiences.

¹¹ Throughout this chapter references to PLAs are made in terms of contributions to the work in different areas. For more specific descriptions of individual PLAs please refer to the KSLLL.

1.2 Education and Training 2010 Coordination Group (ETCG), High Level Group and preparation of the new ET 2020 Strategic Framework

The implementation and further development of the education and training OMC has been carried out in close cooperation between the Member States and the Commission.

The Education and Training 2010 Coordination Group (ETCG) has overseen the operational management and implementation of E&T 2010 in a lifelong learning perspective. Since mid 2007, the ETCG has held five meetings and discussed operational issues such as the work of the clusters, the state of lifelong learning strategies, and the biennial reporting exercise.

The High Level Group, which brings together political advisers to national ministers, has held seven meetings since mid 2007 and discussed strategic political questions relating to the European cooperation.

The High Level Group played a key role in providing Member States the opportunity to feed into the preparation of the Commission's Communication on an update of the education and training open method of coordination of December 2008¹², which led to the adoption of Council Conclusions on a Strategic framework for European cooperation in education and training (ET 2020) in May 2009¹³.

In this context, also a broad consultation of countries, social partners and stakeholders was carried out in 2008. The feedback gained on the E&T 2010 Open Method of Coordination was largely positive. The general result was that, although some progress was apparent, the overall challenges and objectives for European cooperation remained valid. Also some improvements to the working methods were recommended in order to increase their focus and effectiveness.

1.3 Monitoring and evaluating the implementation of the work programme (indicators and benchmarks)

The 2009 Report "Progress towards the Lisbon objectives in education and training—indicators and benchmarks" which accompanies the present Staff Working Paper analyses the national and European performance related particularly to the set of indicators and benchmarks which exist for the period until 2010.

In May 2009, the Education Council revised the current set of benchmarks as part of the Council conclusions on the new ET 2020 strategic framework. The revised structure includes five benchmarks: participation in early childhood education, low achievers in reading, mathematics and science, early leavers from education and training, higher education attainment and participation in lifelong learning. Moreover, the Education Council has invited the Commission to work towards concrete proposals for benchmarks in the areas of mobility and employability (for 2010) and language skills (for 2012).

The Commission is also presently engaged in development work on possible new European indicators in three competence areas. Concerning languages, a first European survey is presently being implemented covering the five most taught foreign languages (English, French, German, Italian and Spanish) and three competences (reading, writing and listening comprehension). The field survey is planned to take place in 2011 and a final report on the results of the survey will be released in 2012. Concerning learning to learn skills, a pilot survey has been carried out in 2008, testing an instrument for measuring these skills of young

¹² "An updated strategic framework for European cooperation in education and training", COM(2008) 865 final of 16.12.2008

¹³ OJ C 119/2 of 28.5.2009.

people. On the basis of the results of the pilot survey, the Commission plans to set up a Committee of national experts to plan for further development work. The Commission will report back to the Council if the European survey on learning to learn skills is to be proposed. Concerning creativity skills, the first exploratory steps have recently been taken by the Commission to plan for possible initiatives measuring the creative skills of individuals on a cross-country level and identifying key indicators on the creative capabilities of societies.

2 PROGRESS ON TRANSVERSAL LIFELONG LEARNING POLICIES AND INSTRUMENTS

Strong emphasis continues to be placed on supporting the 32 participating countries' efforts to put in place coherent and comprehensive lifelong learning strategies. This ambition was set by the Council and the Commission in the 2004 Joint Interim Report on the implementation of E&T 2010 and endorsed by the 2004 European Council.

The Commission has continued to monitor the development and implementation of such strategies. It has supported national measures aimed at raising awareness of lifelong learning strategies and of European cooperation in this field. Since 2008, specific support has also been given to transnational cooperation in the development and implementation of such strategies at the national and regional level.

The following paragraphs also offer a brief overview of the outcomes of key instruments and initiatives at European level related to improving lifelong learning opportunities, notably the New Skills for New Jobs (NSNJ) initiative, the European Qualifications Framework (EQF), lifelong guidance, the validation of non-formal and informal learning and mobility.

2.1 New Skills for New Jobs

In its conclusions of March 2008 and March 2009, the European Council stressed the importance of a better anticipation and matching of skills and jobs, in particular in times of economic crisis¹⁴. Following the mandate of the European Council and since the Communication on "New Skills for New Jobs" adopted in December 2008¹⁵, the Commission has taken steps to improve the EU's capacity to anticipate skill needs, particularly:

- Following the first assessment of future skills needs presented in the 2008 Communication, the Commission released 18 studies on skills needs in sectors (summer 2009).
- Cedefop released a forecast of skills supply (June 2009) and is working on an updated forecast of skills supply and demand with an estimate of potential imbalances up to 2020 (to be available end 2009)
- Cedefop is also examining the potential of employers' surveys as a tool for analysing skills needs.
- In cooperation with ILO, Cedefop is undertaking a study on "skills needs in green jobs" (beginning 2010).

¹⁴ Brussels European Council 13/14 March 2008, Presidency Conclusions, 7652/1/08 REV 1; Council Conclusions on New Skills for New Jobs. Anticipating and matching labour market and skills needs, 2930th Employment, social policy, health and consumer affairs Council meeting, Brussels, 9 March 2009.

¹⁵ "New Skills for New Jobs. Anticipating and Matching Skills and Jobs", COM (2008) 868 final

The Commission is also raising awareness of skills needs, and promoting the "New Skills for New Jobs" agenda among its working groups, fora and networks, to encourage Member States to disseminate and use information on future skills needs, and to develop mechanisms so that skills needs analysis is taken on board in policy and practice. The Commission also supports Member States in reforming curricula, assessment and qualifications to provide the right skills, i.e. those that are most relevant to and needed by the labour market. This is being done, for example, through promoting the learning outcomes approach linked to the implementation of the EQF and the work on transversal key competences.

Co-operation between the world of work and the world of education and training is at the heart of the "New Skills for New Jobs" initiative. The Commission is therefore encouraging innovative partnerships between all levels of education/training and business (the University-Business Forum for example).

2.2 European Qualifications Framework (EQF)

Following extensive consultations between Member States and various stakeholders at European level, the European Parliament and the Council adopted a **recommendation** on the establishment of a European Qualifications Framework for lifelong learning in April 2008¹⁶. The main objectives are to facilitate mobility and lifelong learning. To achieve this, the EQF acts as a translation device to make qualifications more readable and understandable to employers, individuals and institutions throughout Europe. It takes the form of a reference framework providing a bridge across countries and sectors, covering general education, vocational training and higher education and facilitating the validation of non-formal and informal learning.

In order to ensure coherence and transparency in the implementation of the EQF, the Commission, closely supported by Cedefop, set up the EQF Advisory Group composed of representatives of participating countries and European social partners. The Advisory Group has agreed on a set of criteria and procedures to guide the referencing of national qualifications levels to the EQF. Working groups are preparing proposals on ways to support mutual trust in the referencing process, to address sectoral developments related to the EQF and to establish EQF information resources.

Since 2006, the Commission has supported, through specific calls under the Leonardo da Vinci programme, 33 projects to test how the EQF can be effectively implemented and how the learning outcomes approach promoted by this framework can be applied. These projects address themes such as the development of national qualification frameworks (NQFs), national referencing levels and self-certification against the EQF levels, sectoral qualifications, bridging between VET and Higher Education, promoting the validation of informal and non-formal learning and the involvement of stakeholders, and the development of support materials.

The cluster on the recognition of learning outcomes has also significantly contributed to the development of national qualifications frameworks in Europe. Through peer learning activities, the cluster has explored major trends in countries and defined typologies, dynamics and the basic concepts related to NQFs. The activities have fed into the national policy development processes, supporting policy makers in better understanding the impact, opportunities and challenges of NQF development.

¹⁶ OJ C 111/1 of 6.5.2008.

The implementation of the EQF is closely coordinated with relevant policy initiatives and measures within the Copenhagen and Bologna processes, and broader developments on qualification frameworks at the international level.

2.3 Validation of non-formal and informal learning

The validation of non-formal and informal learning is increasingly seen as a key element of lifelong learning strategies and has been given priority within the Copenhagen Process, the Bologna Process and the Adult Learning Action Plan. It is closely linked to the implementation of the EQF.

Reflecting a concern as regards the quality and coherence of approaches in this rapidly evolving field of policy and practice, the cluster on the recognition of learning outcomes has systematically supported the exchange of national experiences. Its peer learning activities have strongly contributed, for example, to the *European Guidelines on the validation of informal and non-formal learning* published by Cedefop in July 2009¹⁷. The guidelines address stakeholders at national, regional, enterprise and local levels, and aim to contribute to the overall improvement of practice. They are intended as a reference for validation practices in all sub-sectors of education and training as well as in enterprises and sectors.

2.4 Lifelong guidance

A major conference on lifelong guidance (*Gérer les transitions*) was organised by the French Presidency in Lyon in September 2008. The conference confirmed that lifelong guidance is perceived as a vital field for policy actions to accompany people during many transitions they experience in today's economy and society. It underlined the importance of generalised access to quality guidance services and the need to equip people with the skills necessary to take advantage of learning opportunities.

Following up the conference, the French Presidency proposed a Resolution that was adopted by the Council in November 2008, inviting Member States to take action around four priority areas:

1. Encourage the lifelong acquisition of career management skills;
2. Facilitate access by all citizens to guidance services;
3. Develop the quality assurance of guidance provision;
4. Encourage coordination and cooperation among the various stakeholders.

The Resolution invites Member States to take advantage of the European lifelong guidance policy network (ELGPN)¹⁸. This network of Member States is supported financially by the Commission and currently coordinated by Finland. In 2008 the network focused on contributing to the Lyon conference mentioned above. Its work programme for 2009 and 2010 particularly focuses on thematic peer learning work on the four priority areas indicated in the Council Resolution of November 2008.

For the PLOTEUS portal on learning opportunities, a Commission resource to support information and guidance services,¹⁹ a second phase started in 2008 with a view to interconnecting national databases and making them available to citizens and guidance

¹⁷ Cedefop and DG EAC: *European Guidelines on the validation of informal and non-formal learning*. Luxembourg, 2009.

¹⁸ See: <http://ktl.jyu.fi/ktl/elgpn>

¹⁹ See: <http://ec.europa.eu/ploteus/>

operators through a common interface. Five national databases were involved in the first wave of development; fifteen others joined the second wave that will be achieved in 2010. Further development of Ploteus will also be linked to the development of "Match and Map" initiative as part of the follow up to New Skills for New Jobs.

2.5 Mobility

Learning mobility and its potential to contribute to European cohesion and competitiveness has recently been the subject of considerable reflection. The Council concluded in November 2008 that "every young person should have the opportunity to take part in some form of mobility, whether this be during their studies or training, in the form of a work placement, or in the context of voluntary activities."

A clear consensus exists in support of the objective of expanding mobility opportunities and extending them more broadly to young people. What is now needed is to build on this consensus and define strategies to achieve these ambitions. This is why the Commission adopted a Green Paper in July 2009²⁰ on how to promote learning mobility for young people. The Green Paper opens up the debate to stakeholders and the wider public, seeking their views on how best to boost substantially the opportunities for young people to have a mobility experience.

In 2008 the first evaluation of the Europass initiative was carried out²¹. The main conclusions were that the documents with a clear competence-based approach were the most effective and that their potential could be further exploited. In particular, the successful Europass CV tool should grow into a fully fledged CV and self-assessment service. Following a feasibility study, actual development started in summer 2009 with a view to make the service available to citizens by the end of 2010. Further synergy with the Eures job mobility portal was also pursued, as well as with the implementation of the EQF.

2.6 External dimension strategy

The European Commission implements programmes and undertakes policy dialogue which have as their aim to open up the EU's education systems (notably higher education) to the wider world. This allows European systems to participate in and benefit from the new global openness of education, in the form of increased flows of students, educationalists and of ideas.

Policy dialogue aimed at facilitating the exchange of experiences and good practices is currently underway with a wide variety of partner countries – with leading industrialised countries such as US, Canada, Australia, Japan, Korea and New Zealand; with newly emerging knowledge powers such as China, India and Brazil; and with countries in the European Neighbourhood.

Cooperation is also underway with countries in the European Neighbourhood, in particular the partner countries, assisted by the European Training Foundation for improving human capital development in the context of the EU external policies²². Policy approaches and tools discussed in the Copenhagen process provide an important reference for the modernisation of VET systems for countries in accession as well as partner countries.

²⁰ COM(2009) 329 final of 8.7.2009

²¹ Cf. Communication COM(2008)427.

²² See ETF's recast regulation(EC) No 1339/2008 (Dec 2008)

Programme support for student and academic exchange is most notably provided by the EU's flagship programme for worldwide academic cooperation, Erasmus Mundus. The Decision for the second phase of the Erasmus Mundus programme was adopted in December 2008 and entered into force at the beginning of 2009. The Erasmus Mundus II programme builds upon the success of its first phase (103 joint masters' courses and approximately 100 partnerships selected and some 10000 scholarships offered to students and academics) by aiming to become the EU reference programme for cooperation with third countries in this area. Over a period of five years (2009-2013), just over 950 million Euros will be available for European and third-country universities to set up joint programmes or collaborative partnerships, and to grant scholarships to European and third-country students for an international study experience. The first call of the new phase of the programme was launched in February 2009 and in July 2009 50 new or renewed joint masters' courses and – for the first time – 13 joint doctoral programmes were selected. Approximately 10,000 new grants will be attributed for the academic year 2009-2010.

3 SCHOOLS

3.1 A European Agenda for cooperation on schools

In 2007 the Commission undertook a public consultation on 'Schools for the 21st Century'²³ that involved all relevant stakeholders and decision makers at national, regional and local levels. The outcomes of the consultation, together with the work of the clusters and relevant research, were the basis of the Commission's Communication "Improving Competences for the 21st Century: An Agenda for European Cooperation on Schools"²⁴ published in August 2008. The proposed agenda is based on three areas of work:

- Giving all pupils the competences they need for life in our rapidly changing knowledge society;
- Commitment to provide high quality learning for every student;
- Work on improving the quality of teachers and school staff needs to continue.

The November 2008 Council Conclusions endorsed the proposed agenda and stressed the fundamental role of school education in laying the foundations for lifelong learning. In particular, the Council emphasised the two-fold challenge of the acquisition of key competences: first, more work is needed to ensure the fundamental basic skills such as literacy and numeracy as part of the key competences and, second, enhance the acquisition of transversal key competences such as learning to learn, social and civic competences that are crucial for lifelong learning and for success in the labour market.

On equity in education and training, the Council Conclusions reiterated the need to tackle early school leaving and foster social inclusion. This should be achieved by, inter alia, ensuring transitions through improved guidance and advice, high-quality opportunities by improving early identification of learning difficulties and by providing timely, personalised pedagogical approaches tailored to individual needs. The Council also recognised the key role

²³ See http://ec.europa.eu/education/school21/index_en.html

²⁴ See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0425:FIN:EN:PDF>

of Early Childhood Education and Care and called for a focus on cooperation in this area in the future.

The Council Conclusions also recognised the key role of teachers and school leaders in making schools more responsive to today's challenges. Joint work should include issues such as attractiveness of the teacher profession, the recruitment, placement, retention and mobility policies and the professional development and support of both teachers' and school leaders' professions.

3.2 Key competences

The Cluster on Key Competences has focussed on policy aspects that can help schools and teachers support the acquisition of the eight key competences by all students.

The policy examples examined by the cluster indicate that with innovative pedagogies much can be done by individual teachers through subject teaching. Peer learning concludes that support for schools has to be systematic and comprehensive. The policy examples examined by the cluster in Hungary, Greece and Austria demonstrated, first of all, the necessity of having a national lifelong learning strategy that explicitly indicates the essential role of school education as providing key competences for further learning and adult life.

Secondly, policy processes need to be both top-down and bottom-up with effective communication between all actors. The implementation of a competences-based curriculum should be supported by the use of research and evidence, new approaches to teacher's initial education and professional development, learning material and assessment and evaluation techniques.

Teachers have been identified as key to any change, and there is a growing understanding on the role of school leaders in creating the right ethos and organisation for teachers to work together.

In the field of **mathematical competence and basic competences in science and technology**, the cluster on Maths, Science and Technology (MST) has focused on the modernisation of teaching methods; enhancement of the professional profile of teachers; ensuring a better transition between secondary and higher education; promoting partnerships between schools, universities and industry; addressing the needs of special groups and improving female participation in MST studies and careers. Since December 2008, work has been carried out together with the Commission's Directorate-General for Research and as a follow-up to the Rocard report²⁵ recommendations. The Cluster has produced a Compendium of Good Practices in MST²⁶. This presents relevant initiatives in MST visited and analysed by experts through the PLA methodology in relation to national reforms and action plans in four countries: France, Norway and Portugal.

The topics addressed by three PLAs (mid-2007-2009) are closely linked to policy priorities of participating countries; they all concern large scale action plans or strategic reforms on MST at national level. The PLAs carried out so far appear to have had positive impacts at national level and a clear demand for dissemination of good practices has been reported by experts.

In the field of **digital competences**, the peer-learning cluster on ICT has worked on identifying key factors for improving the quality of ICT integration in teaching and learning

²⁵ "Science Education NOW – A Renewed Pedagogy for the Future of Europe", 2007:

See: <http://ec.europa.eu/research/science-society/rocardreport>

²⁶ See: http://ec.europa.eu/education/policies/2010/doc/compnst_en.pdf

in European education systems, the use of new technologies in education and training, its added-value for qualitative and innovative learning and its contribution to attract groups at risk of exclusion. The cluster has contributed to a fundamental change in discourse in the domain of ICT for learning: from 'accessibility' to 'embedding the use of ICT in broader educational strategies' towards 'innovative learning'.

The cluster exchanged good practices and has produced a Compendium of Good Practices. It has identified key recommendations on the implementation and integration of ICT in education and training (see forthcoming summary of "Lessons Learned by the ICT cluster") and contributed to the preparation of the Commission Staff Working Paper on the "Use of ICT to support innovation and lifelong learning for all – A report on progress"²⁷. The cluster has also contributed to the development of improved indicators for measuring ICT use and impact, including exchange with European-wide comparative studies²⁸.

Peer learning activities have been organised in Oslo, Helsinki, Luxembourg, Budapest, Birmingham, Thessaloniki and Vienna. The cluster worked closely with the respective clusters on 'Teachers and trainers', 'Key competences' and 'MST' to transfer the main recommendations from the ICT cluster to the policy agendas of these other clusters.

The ICT cluster has also had an impact on European policy-making on "Digital competence" (e-inclusion and e-skills) across Commission Directorates General (EAC, INFSO, ENTR) so that both the assessment of digital competences, as well as the importance of the role of E&T for developing these competences in partnership with industry and research, have been put on the agenda

A number of significant policy developments in the field of **communication in foreign languages** on have taken place since 2007, especially on language teaching and learning.

In September 2007, the Commission adopted a report on the implementation of the Action Plan "Promoting language learning and linguistic diversity 2004-2006" while, in September 2008, it adopted the Communication "*Multilingualism: an asset for Europe and a shared commitment*". The Communication was the outcome of a wide and intensive consultation process throughout 2007 and 2008, involving meetings of high-level Member State representatives and of distinguished intellectuals, a ministerial conference, a business conference and forum, an open stakeholder consultation as well as an inventory of Community actions in the field of multilingualism. The Communication subsequently led the EU Education Council to adopt in November 2008 a *Resolution on a European strategy for multilingualism*.

Furthermore, the Member States and the Commission have pursued cooperation on the ways and means of improving foreign language skills in the EU within the Expert Group on Languages and the European Language Inspectors' Network.

3.3 Teachers

In November 2007, the Council adopted Conclusions²⁹ which constitute a commitment to improving the quality of teacher education. This was further developed by the above Conclusions of November 2008 on school education³⁰.

²⁷ SEC(2008) 2629

²⁸ Studies on Technology's impact in primary schools" (STEPS) and on Indicators on ICT in Education (IIE)

²⁹ See: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2007:300:0006:0009:EN:PDF>

³⁰ See: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:319:0020:0022:EN:PDF>

The cluster 'Teachers and Trainers' has successfully identified key policy conditions for: promoting effective relationships between schools and teacher education institutions (TEIs), and the induction of new teachers into the profession. As part of the work, two PLAs have taken place since mid-2007; one on the relationship between teacher education institutions and schools (Denmark 2007) and one on policies of induction of new teachers (Estonia 2008).

Induction presents a significant challenge in the EU, with less than half of Member States providing coordinated support for beginning teachers. The Cluster is soon to publish a Handbook to assist Policymakers to remedy this. It has identified that the successful integration of beginning teachers into the profession requires them to receive four distinct types of support: mentoring, collaboration with peers, access to external advice and knowledge and structured self-reflection.

3.4 Social inclusion and migration

In 2007-2009, the work on social inclusion has focussed on increasing the efforts to reduce early school leaving and on migrants and education. In March 2008 the European Council urged Member States to reduce the number of early school leavers and to improve the achievement of learners from migrant or disadvantaged backgrounds.

The cluster on 'Access and Social Inclusion in Lifelong Learning' has been the main tool for increasing cooperation among Member States on these issues. Four PLAs have taken place in France, Spain, Sweden and Italy exploring programmes to support students in underachieving schools, pedagogical innovation, pre-primary education and targeting disadvantaged youth.

The Green Paper 'Migration and mobility: Challenges & opportunities for EU education systems', adopted in July 2008, highlighted the need to develop policies and measures to bridge the achievement gap between migrant-background learners and others in education systems across the EU and opened a public consultation on the subject. Around 100 responses were received, mostly from education authorities or organisations active in the field, which have been analysed by the Commission. A consultation report will be published in 2009.

4 PROGRESS IN IMPLEMENTING THE COPENHAGEN PROCESS FOR VOCATIONAL EDUCATION AND TRAINING

4.1 The Copenhagen policy framework: Assessing progress and preparing the future

Vocational education and training (VET) is crucial for Europe's aim to re-position itself in the global economy through well-qualified human capital equipped with the skills needed in the future. The Copenhagen process is part of the OMC in education and training (Education and Training 2010 and its successor ET2020). Since 2002, European VET policy has been reviewed every two years, most recently in Bordeaux in November 2008. Following the adoption of the Conclusions of the Council³¹, the ministers from the EU Member States, candidate and EEA countries, the European Social partners, and the Commission adopted a Communiqué which sets out the VET priorities for 2008-2010³². The Bordeaux Communiqué also called for a Ministerial follow-up meeting to be held in Bruges in 2010, to evaluate the

³¹ See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:018:0006:0010:EN:PDF>

³² See http://ec.europa.eu/education/lifelong-learning-policy/doc/vocational/bordeaux_en.pdf

implementation of the Copenhagen process and to reflect on its strategic direction beyond 2010. This will take place within the context of the ET2020 Strategic Framework.

The following policy priorities were set in the Council Conclusions and Bordeaux Communiqué in 2008:

- **Implementing the tools and schemes for promoting cooperation in the field of VET** – with a particular focus on: i) establishing National Qualifications Frameworks on the basis of learning outcomes, ii) the European Credit system for Vocational Education and Training, and iii) the European Quality Assurance Reference Framework.
- **Heightening the quality and attractiveness of VET systems** – by promoting the attractiveness of VET to all target groups, namely by organising skills competitions such as EuroSkills, and by promoting excellence and quality assurance mechanisms.
- **Improving the links between VET and the labour market** – by i) developing forward-planning tools focusing on jobs and skills in line with the Council Resolution on "New skills for new jobs"; ii) ensuring the involvement of the social partners; iii) improving guidance and counselling (throughout life) to ease the transition from training to work; iv) promoting adult training, in particular in the workplace with special attention to SMEs; v) developing validation and recognition of non-formal and informal learning outcomes; vi) increasing mobility; and vii) increasing the role of higher education in VET.
- **Strengthening cooperation arrangements** – by i) increasing the efficiency of mutual learning activities, ii) strengthening linkages between VET, school education, higher education and adult training, and iii) consolidating exchanges and cooperation with third countries and international organisations, such as the OECD, the Council of Europe, the ILO and UNESCO.

Cedefop's analysis and countries' self-assessment show a close alignment of national priorities and the European agenda. Although progress varies, a European VET area is emerging. As described in Cedefop's report "Towards a European era of vocational education and training"³³, the development of common European tools, principles and guidelines is central to the Copenhagen process.

The European qualifications framework (EQF) and the validation of non-formal and informal learning are a priority in almost all countries (see section 2).

Credit systems are not yet commonplace in European VET systems. Bringing the European credit system for VET (ECVET) to maturity and implementation still requires substantial work and investment. Promising results are expected from pilot projects testing this instrument.

The implementation of the European quality assurance reference framework (EQARF) will play a key role in further developing quality assurance mechanisms in Europe. Quality assurance is increasingly understood as an objective as well as a means to ensure that VET programmes are more attractive and effective, equitable and efficient and that learners, employers and education providers within a country and across borders have trust in the value of learning outcomes – a prerequisite for the common European tools and mechanisms to succeed.

³³

See http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/528/3055_en.pdf

Increasingly, European tools are part of a VET policy mix. As a result of these European initiatives, general and comprehensive reforms of the national education systems have intensified. These mainly focus on increased orientation towards learning outcomes.

4.2 ECVET - European credit system for VET

The European credit system for vocational education and training (ECVET)³⁴, which aims to allow trainees to build upon their achievements when moving within national systems or from one national VET system to another, was adopted by the Council and the European Parliament in June 2009³⁵ and is in its first phase of implementation and development. It will facilitate the accumulation, exchange and transfer of learning outcomes in any context, thus enabling citizens to pursue lifelong learning and to achieve qualifications by taking all learning contexts into account.

Following a public consultation on the ECVET, a draft Recommendation on ECVET was proposed by the Commission in April 2008. For this purpose the Commission established a technical working group composed of experts from the countries participating in E&T 2010 and the European social partners, education associations and other stakeholders. The recommendation was adopted by the Parliament in December 2008 and by the Council in May 2009. A launching conference for ECVET was organised in Prague in May 2009, under the Czech presidency. A European wide conference focused on the implementation of ECVET is planned for November 2009.

The Recommendation foresees the establishment of a European ECVET network and of a European ECVET users' group in order to develop cooperation between Member States and to ensure the overall governance of the implementation of ECVET. In 2008, 10 pilot projects and two ECVET network projects were selected to test and develop ECVET. They are financed by the Leonardo da Vinci Programme.

4.3 EQARF - Quality Assurance in VET

The Common Quality Assurance Framework for VET (CQAF)³⁶ endorsed by Council Conclusions in May 2004 has been a basis for mutual learning and the launch of several concrete initiatives, at both national and European levels.³⁷ At European level, the CQAF has supported thematic work (quality indicators, early warning systems and links with Higher Education and EQF) and peer learning activities, as part of the implementation of the biannual work programme of the European Network on Quality Assurance in VET.

Building on experience and achievements made so far through national and European practical initiatives, the Commission prepared a proposal for a Recommendation on the establishment of a European Quality Assurance Reference Framework (EQARF), as a supporting tool to help Member States to promote, and monitor continuously, the quality improvement/reform of their VET systems and quality management practices. The Recommendation was adopted by the Parliament in December 2008 and by the Council in May 2009. A launching conference was organised under the Czech EU Presidency in May 2009 (along with ECVET).

³⁴ See http://ec.europa.eu/education/lifelong-learning-policy/doc50_en.htm

³⁵ See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:155:0011:0018:EN:PDF>

³⁶ See http://ec.europa.eu/education/lifelong-learning-policy/doc1134_en.htm

³⁷ See <http://communities.trainingvillage.gr>.

The Recommendation is a common reference instrument to support Member States in promoting and monitoring quality improvement in VET systems at different levels. It will also contribute to building mutual trust in national VET systems within a genuinely borderless lifelong learning area, thus facilitating transnational mobility of learners and workers. The framework comprises a quality assurance and improvement cycle of planning, implementation, evaluation/assessment and review of VET provisions. It provides a common basis for further development of quality principles, reference criteria and indicators, as appropriate.

The Recommendation foresees the establishment of Quality Assurance National Reference Points and of a European EQARF network in order to develop the cooperation between Member States and to ensure the overall governance of the implementation of EQARF.

4.4 Teachers and Trainers in VET

Teachers and trainers in VET have been identified as a key priority in the Copenhagen Declaration, and the subsequent Communiqués. They are seen as important actors promoting the attractiveness and quality in VET and in achieving lifelong learning for all. In 2006, a sub-group of the cluster on Teachers and Trainers was established to focus specifically on VET teachers and trainers. Three peer learning activities have been organised since mid-2007 in Portugal, Slovenia and Germany on the validation of non-formal and informal learning for VET teachers and trainers, teachers as change agents for the autonomy of VET schools, and professionalization of teachers and trainers in VET.

The specific focus on VET teachers and trainers was supported by two studies which have been contracted by the Commission to analyse the situation in this rather diverse field in Europe. They have identified possible actions and measures (particularly on the qualification and recruitment of trainers, their work and working environments, on policies and practices related to the training of trainers and their effectiveness and on possible professional development pathways). Additionally 6 workshops were organised to gather information on the training and practice of VET teachers and trainers in the Member States and to consult with national stakeholders on outcomes of the studies and possible future developments. The final report will be available in autumn 2009.

In 2008 a new study was launched on the "Impact of Leonardo da Vinci teachers' and trainers' mobility projects on the VET systems". The impact will be assessed at three levels: the individual/thematic level, the institutional level and the systemic level. The results will be available by the end of 2009. Cedefop has via the TTNET network focused its work in 2008/2009 on the changing roles of VET teachers and trainers and on the feasibility of developing a common framework for VET professions.

5 HIGHER EDUCATION

5.1 Progress on higher education

The Commission aims to support Member States in their efforts to modernise higher education systems, in all areas of their activity - education, research and innovation - making them more coherent, more flexible, and more responsive to the needs of society. In May 2006,

the Commission published a Communication pointing to nine areas³⁸ where action would help deliver the modernisation agenda for universities in education, research and innovation.

The Commission has since then worked with Member States and the higher education sector to help implement the modernisation agenda through the OMC and by special initiatives (European Credit Transfer and Accumulation System, EQF, European Institute of Innovation and Technology etc.) and by supporting the initiatives of others (pilot projects, associations, networks etc.) through the Lifelong Learning Programme. The Commission also works to support this modernisation agenda through the implementation of the 7th EU Framework Programme for Research and the Competitiveness and Innovation Programme, as well as the Structural Funds and EIB loans.

The peer-learning cluster on Modernisation of Higher Education has supported the reform agenda for higher education. This Cluster looks in detail to issues related to curriculum, governance and funding reform. Based on the learning needs of participating countries, the Cluster looks at key issues and organises specific events for the exchange of good practice and reflection on experiences.

The Cluster has organised three peer learning activities (PLAs) since mid-2007 in Bulgaria, Iceland and Spain, on implementing the EQF and national qualification frameworks in Higher Education, on circling the Knowledge Triangle from the perspective of education (the added value of better connecting Higher Education to research and innovation) and on ways to increase mobility (funding models examined).

Examples of outcomes from the work of the Cluster include:

- The findings of the PLA on Knowledge Triangle have informed the preparation of a Swedish Presidency conference on the knowledge triangle, and input into the Council's reflections in this area
- Conclusions of the PLA on ways to increase mobility: the funding models examined informed the French Presidency conference on mobility and the development of the Green Paper on Mobility
- The Cluster has also developed a *Compendium of good practice in policymaking for modernising universities*. The Compendium is an information tool aimed at informing national and regional policy development and policy implementation. It is based upon good practices provided from the Member States, with evidence on results where available. The Compendium is a dynamic resource: as new examples of good practice arise, these will be added³⁹.

5.2 Higher education and the Bologna Process

The Commission stimulates Bologna initiatives at European level and participates as a full member in the Bologna Follow-up Group. Ten years on from the Bologna Declaration, the ministerial follow-up conference in April 2009 in Leuven and Louvain-la-Neuve focused on defining political orientations for the European Higher Education Area for the coming decade to 2020. The final Communiqué reflects well the objectives and expectations of the

³⁸ "Delivering on the Modernisation Agenda for Universities" Education, Research and Innovation COM(2006)208 final, of 10 May 2006

³⁹ See: <http://www.kslll.net/PoliciesAndAchievements/Default.cfm>

Commission. In particular it formulates the target that in 2020, at least 20% of graduates in the European Higher Education Area should have had a study or training period abroad.

At the previous ministerial meeting in London in 2007, it was decided to develop a strategy for the external dimension of the Bologna Process. The Commission has, for several years, strongly advocated closer cooperation with countries outside the process. It therefore welcomed the initiative taken by the hosts of the conference (Belgium, Netherlands, and Luxembourg) to organise a Bologna Policy Forum. This meeting immediately followed the Ministerial Meeting on 29 April and was attended by higher education ministers or their representatives from 15 countries around the world, including the US, Canada, Mexico, Brazil, Australia and China. The Forum provided the opportunity to discuss how worldwide cooperation in higher education can be enhanced through the Bologna Process. The final declaration highlighted the consensus that a more permanent and structured dialogue between "Bologna" and third countries would be of mutual interest and that Bologna Policy Fora should become regular events.

See also section 2 on Erasmus Mundus.

5.3 Quality Assurance in Higher Education

In September 2009, the Commission published the first triennial report assessing progress in the development of quality assurance systems in Member States and on cooperation activities at European level. This was to follow-up the 2006 joint recommendation on further European cooperation in quality assurance in higher education⁴⁰. A major breakthrough was the creation of the European Quality Assurance Register (EQAR) which was launched in 2008. The report highlights in particular the need for a more efficient quality assurance infrastructure, the implementation and possible revision of the European Standards and Guidelines in quality assurance, and a stronger European dimension in quality assurance.

5.4 Other on-going initiatives to support the Modernisation agenda

To facilitate the transparency of higher education institutions and their missions, the Commission is supporting research into the feasibility of a European Global University Ranking. This ranking would cover all three levels of study, be entirely independent, multi-dimensional, and involve universities across the whole world. The first results of the research will be available in early 2010, and testing will run through 2010 and the first half of 2011.

The Ranking project complements work being undertaken on behalf of the Commission on European University Data Collection (mapping) which will create a census of European universities, and launch a pilot data collection on a sample of research-active universities.

Building upon a successful conference held in co-operation with the European Investment Bank on the theme of student lending in January 2009, the Commission will launch a Feasibility Study on Student Lending for learning mobility in late 2009.

5.5 University –Business partnerships

University-Business Cooperation is a cornerstone in the modernisation of higher education. This has been highlighted in the Commission's Communication of 2006 and reinforced in the Resolution of the Council on modernising universities for Europe's competitiveness in a

⁴⁰

Further European cooperation in quality assurance in higher education *Recommendation of the European Parliament and of the Council* (February 2006): http://eurex.europa.eu/LexUriServ/site/en/oj/2006/l_064/l_06420060304en00600062.pdf

global knowledge economy⁴¹. The Council invited the Commission to support the Member States with regard to the modernisation agenda, including through encouraging partnerships between universities and industry/private sector.

In order to contribute to improving cooperation between higher education and industry/private sector, the Commission launched the University-Business Forum, a European level platform, providing for structured dialogue between the stakeholders, stimulating the sharing of good practice and mutual learning. The first plenary University-Business Forum took place in February 2008 followed by three thematic forums focusing on specific aspects in the context of University-Business Cooperation: continuing education and lifelong learning (Brussels, June); curriculum development and entrepreneurship (Tenerife, October) and Knowledge Transfer (Brussels, November). The 2nd plenary University-Business Forum was organised in Brussels in February 2009.

At these events, representatives from the different stakeholders met to exchange experiences and to discuss common problems and solutions. The areas addressed were governance, curriculum development, entrepreneurship, knowledge transfer, lifelong learning and mobility. Each forum formulated a number of conclusions and possible lines of action.

The Commission adopted in April 2009 the Communication: "A new partnership for the modernisation of universities: the EU Forum for University Business Dialogue". The Communication sets out what has been learned from the first year of the Forum about the challenges and barriers to University-Business Cooperation, the issues to be addressed and good practices and approaches, which could be more widely used. It makes proposals for the next steps in the Forum's work and outlines concrete follow-up actions to strengthen University-Business Cooperation.

The Conclusions of the Council, adopted on 12 May 2009, on "enhancing partnerships between education and training institutions and social partners, in particular employers, in the context of lifelong learning", invites the Commission to "further develop the University-Business Forum as a physical and virtual platform at European level for dialogue between the different stakeholders, to envisage its extension to include other levels of education and training, stakeholders from countries outside the EU and specific sectors within higher education, to disseminate the findings of the platforms and to facilitate access to and the sharing of examples of good practice".

5.6 European Institute of Innovation and Technology

The European Institute of Innovation and Technology (EIT) is a new Community body which aims to generate sustainable European growth and competitiveness in the global knowledge society via the stimulation and delivery of world-leading innovation and entrepreneurship in the higher education, research and business triangle⁴².

The appointed Governing Board, the EIT's autonomous decision-making body, kicked off its activities in September 2008. The EIT's "Knowledge and Innovation Communities" (KICs), integrating for the first time all actors involved in the "knowledge triangle" or "innovation chain" within ambitious pan-European partnerships, are the EIT's first major action at European level. The EIT will put a strong emphasis on attracting and mobilizing participants

⁴¹ COUNCIL RESOLUTION of 23 November 2007 on modernising universities for Europe's competitiveness in a global knowledge economy; 16096/1/07 REV 1

⁴² See: <http://eit.europa.eu/>

and resources from the private sector, notably industry, the full inclusion of which is one of the cornerstones of the initiative.

6 PROGRESS ON THE ADULT LEARNING ACTION PLAN

The Adult learning Action Plan ‘It is always a good time to learn’ was adopted by the Commission in September 2007⁴³. Building on the 2006 Communication on Adult Learning⁴⁴, the Action Plan defines five concrete actions which Member States should seek to implement in order to increase the participation in and the quality of adult learning and to develop efficient systems that reach all adults and involve all relevant stakeholders. The Action Plan was reinforced by the Conclusions of the Council in May 2008. The five priority actions are to:

- Analyse effects of reforms in other educational sectors on adult learning: developments in the adult learning sector must be mainstreamed into the ongoing process of modernising education and training.
- Improve the quality of provision: quality is influenced by many factors but none is more important than staffing; teaching and other support staff should be equipped with key competences to motivate and accompany adult learners; quality standards for providers are lacking.
- Increase the possibilities to achieve a qualification at least one level higher: it must be possible for everyone to take their qualification one step up or up-date their competences at the same level.
- Speed up the process of assessing and recognizing non formal and informal learning for disadvantaged groups: the assessment and validation of competences, regardless of where and how they are gained, are especially important for the low qualified.
- Improve the monitoring of the adult learning sector: there is an urgent need for a common language to overcome the misunderstandings and the lack of comparable data in the sector.

Implementing the Action Plan

To support the implementation of the Action Plan, the Commission established the Adult Learning Working Group (representatives from Member States, EFTA and EEA countries, European Associations involved in adult learning and European social partner organisations). Since January 2008, the Working Group has met on a regular basis to, on the one hand, support and guide the Commission's work, and, on the other hand, ensure implementation of the Action Plan in the respective countries. Work on the Action Plan priority areas is also supported by five focus groups, each of which consists of five experts invited by the Commission to give advice and guidance at strategic points in the development of the dedicated follow up activities.

⁴³ COM(2007) 558 final.

⁴⁴ COM(2006) 614 final

To ensure that implementation of the Action Plan and dissemination of its results so far reach the grassroots level, and to strengthen cooperation between the relevant stakeholders, four meetings were organised which group the participating countries into four regions. The meetings are also used for a wider consultation on future actions that will be needed to assure that adult learning becomes an essential element of lifelong learning strategies. A final report of the meetings, which take place in October and November 2009, will be available by the end of 2009.

In 2008-2009, Peer Learning Activities have taken place on literacy, monitoring of the sector, the "one step up approach", and the validation of non formal and informal learning with a focus on the low qualified. The results and reports, which are online⁴⁵, support mutual learning in priority areas of the Action Plan, but also feed into the body of information being accumulated on ways to build effective adult learning systems.

Key outputs in 2009

By the end of 2009, a number of outputs will be available based on studies, consultation with the Working Group, PLAs and expert meetings, etc., including the following:

A reference framework of key competences for adult learning staff

This framework will contribute to improving the quality of staff working in the sector by providing a set of criteria which can be used to assess those entering the sector, to develop curricula for initial and continuing education and training of adult learning staff and to validate competences obtained via non-formal and informal learning.

A glossary of key definitions used in the adult learning sector

This glossary should support better understanding and communication within and outside the adult learning sector. It will facilitate studies undertaken in the field of adult learning and support the comparability of core data for monitoring the sector.

An inventory of good practices focused on up-skilling adults with weak qualification levels

This inventory should serve as a tool to disseminate and promote exchange and transfer of good practices at national, regional and local level, in order to help people achieve qualifications, which in turn should help them to enter the labour market or take a more active role in society. The sense of urgency to assist those people is increased by the economic downturn and expected demographic changes.

A methodology for assessing the impact of reforms in the adult learning sector

This methodology will help Member States to analyse and assess how reforms in education and training, as well as the broader labour market, economic and social policy reforms are impacting on the adult education sector.

Next steps

The results and outcomes of all of these initiatives may be summarised in a Commission Staff Working Paper, by the end of 2010, to show where adult learning stands in Member States at

⁴⁵

The full findings of these and other PLAs can be viewed on the website Knowledge System for Lifelong Learning <http://www.ksll.net/PeerLearningActivities/Default.cfm?id=6>

the end of the three-year period covered by the Action Plan. It would provide input to a final conference, early in spring 2011, the purpose of which would be to evaluate the Action Plan, its implementation, results and achievements.

Part I Annex 1 - Active country participation in clusters and groups doing peer-learning

Country	Modernisation of Higher Education	Teachers & Trainers	Teachers & Trainers in VET	Math, science and technology	Access and social inclusion	Key competences	ICT	Recognition of learning outcomes	Working group on adult learning
AT		X	X		X	X	X	X	X
BE-fr	X				X			X	X
BE-nl	X	X				X		X	X
BG	X					X	X	X	X
CY		X		X		X	X		X
CZ	X	X			X	X		X	X
DE		X	X	X	X		X	X	X
DK	X	X		X				X	X
EE		X	X				X	X	X
EL					X	X	X	X	X
ES	X	X	X		X	X		X	
FI	X	X					X	X	X
FR				X	X		X	X	X
HR	X					X		X	X
HU	X				X	X	X	X	X
IE		X	X		X	X		X	X
IS	X	X	X	X			X	X	X
IT		X	X		X			X	X
LT		X			X				X

Country	Modernisation of Higher Education	Teachers & Trainers	Teachers & Trainers in VET	Math, science and technology	Access and social inclusion	Key competences	ICT	Recognition of learning outcomes	Working group on adult learning
LU					X		X	X	X
LV				X	X			X	X
MT	X			X			X	X	X
NL	X	X		X				X	X
NO	X	X		X			X	X	X
PL							X	X	X
PT	X	X	X	X				X	
RO	X	X	X		X			X	X
SE	X	X		X	X			X	X
SI	X	X	X				X	X	X
SK				X			X	X	X
TR		X			X		X	X	
UK				X			X (Northern Ireland)	X	X
CEEP		X			X				
ETUC	X	X				X			X
UEAPME									X
Business Europe	X								X

Part I Annex 2 - Peer Learning Activities mid-2007 - mid-2009 (reverse order)

Date	Peer Learning Cluster/ other group	Title	Venue	Country
15-06-2009	Recognition of Learning Outcomes	Peer Learning Activity on the use of learning outcomes as a bridge between VET and HE	Berlin	Germany
11-05-2009	Teachers and Trainers in Vocational Education and Training (VET)	Professionalisation of teachers and trainers in VET	Bonn	Germany
21-04-2009	Access and Social Inclusion	Measures targeted to disadvantaged youth	Naples	Italy
22-03-2009	Working group on adult learning	Peer Learning Activity on Adult Monitoring	Bratislava	Slovakia
12-02-2009	Recognition of Learning Outcomes	Peer Learning Activity on the costs and benefits of validation of non-formal and informal learning	Reykjavik	Iceland
03-12-2008	Access and Social Inclusion	Preschool education in Sweden and the connection between pre-schooling, school-age childcare and compulsory school in the light of life-long-learning	Stockholm	Sweden
30-11-2008	Information and Communication Technology (ICT)	E-Inclusion and digital competences	Vienna	Austria
10-11-2008	Key Competences	Fostering Cross-curricular Key Competences for Creativity and Innovation	Vienna	Austria
29-10-2008	Modernisation of Higher Education	Ways to increase mobility: funding models examined	Alicante	Spain
26-10-2008	Teachers and Trainers	Policies on the induction of new teachers	Talinn	Estonia
20-10-2008	Recognition of	Added value of NQFs as tools to	London	UK

Date	Peer Learning Cluster/ other group	Title	Venue	Country
	Learning outcomes	support lifelong learning		
20-10-2008	Teachers and Trainers in Vocational Education and Training (VET)	VET teachers as change agents towards the autonomy of VET schools	Bled	Slovenia
13-10-2008	Math, Science and Technology (MST)	The action plan for mathematics, the action plan for science and the promotion of scientific culture in Portugal	Vila do Conde	Portugal
08-10-2008	Information and Communication Technology (ICT)	E-skills and digital literacy and partnerships for LLL strategies	Thessaloniki	Greece
08-10-2008	Access and Social Inclusion	Schools as Learning Communities	Bilbao	Spain
25-06-2008	Modernisation of Higher Education	Circling the Knowledge Triangle from the perspective of Education: the added value in better connecting Higher Education to Research and Innovation	Reykjavik	Iceland
11-06-2008	Recognition of Learning outcomes	Development of National Qualifications Frameworks	Niepolmice	Poland
14-04-2008	Math, Science and Technology (MST)	Increased recruitment and better quality instruction in MST. A joint promotion of MST in Norway	Oslo	Norway
14-01-2008	Working group on adult learning	Peer Learning Activity on Adult Literacy	Dublin	Ireland
14-01-2008	Teachers and Trainers in Vocational Education and	Validation of non-formal and informal learning for VET teachers and trainers	Lisbon	Portugal

Date	Peer Learning Cluster/ other group	Title	Venue	Country
	Training (VET)			
09-12-2007	Key Competences	Peer Learning Activity on Key Competences for lifelong learning	Athens	Greece
12-11-2007	Access and Social Inclusion	Fight against failure at school and inequality in education	Paris	France
08-10-2007	Math, Science and Technology (MST)	Renovation in science education: an inquiry-based approach	Sèvres, Paris	France
08-10-2007	Modernisation of Higher Education	Peer Learning Activity on Implementing EQF / NQF in Higher Education	Sofia	Bulgaria
08-10-2007	Recognition of Learning outcomes	Peer learning activity on the development of National Qualifications Frameworks	Budapest	Hungary
07-10-2007	Teachers and Trainers	Relationships between Teacher Education Institutions and Schools	Copenhagen	Denmark
04-10-2007	Information and Communication Technology (ICT)	Leadership in ICT and parental involvement	Birmingham	UK
17-09-2007	Key Competences	The supporting system for curricular reform	Budapest and Veszprém	Hungary
09-07-2007	Recognition of Learning outcomes	Peer Learning activity on validation of non-formal and informal learning	Paris	France

PART II: THEMATIC CROSS-COUNTRY ANALYSIS

1 KEY COMPETENCES FRAMEWORK

The Recommendation sets out eight competences which combine knowledge, skills and attitudes appropriate to the context and which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment. Young people should develop these competences during their initial education and training, and adults should be given the opportunities to learn, maintain and update these competences in the course of lifelong learning.

The eight key competences are:

- Communication in the mother tongue;
- Communication in foreign languages;
- Mathematical competence and basic competences in science and technology;
- Digital competence;
- Learning to learn;
- Social and civic competences;
- Sense of initiative and entrepreneurship; and
- Cultural awareness and expression.

The Key competences approach combines the acquisition of relevant knowledge, the development of skills and positive attitudes towards further learning, added to creativity, critical thinking and problem solving. This emphasis together with the fact that many of the key competences are cross-curricular by their nature, presents schools, training institutions, teachers, trainers and leaders with new demands, both in their practice and in attitude.

The Recommendation invites the Commission by 2010 to review the impact of the Reference Framework within the context of the Education and Training 2010 work programme.

The current review is based on national reports completed in spring 2009. Each country responded to a questionnaire which included elements deriving from the Recommendation (the impact of the Framework on the national lifelong learning strategy and national reforms; curricula of initial education and training, provision of key competences for adults, and the disadvantaged) and other questions based on the joint work done by the Commission and Member States since the adoption of the Recommendation (the education and professional development of teachers and trainers and the use of assessment and evaluation to support the competence-based approach).

1.1 The provision for key competences in national policies

All countries now have measures in place to develop provision for Key Competences. However, these measures vary in scale, in how they relate to the existing education and training provision and in how they are conceptualised. This depends on the situation that

existed in the country prior to the adoption of the Key competences framework. Four trends can be identified:

- A. Using the Framework to reform education and training provision directly;
- B. Using it as a reference to fine-tune incremental reforms;
- C. Introducing reforms that are coherent with certain aspects of the Framework;
- D. Having put in place reforms and measures consistent with the Framework prior to its adoption.

A) Using the Framework to reform education and training provision directly

Half of the countries (AT, BG, CY, CZ, ES, FR, HR, IS, LT, LV, PL, RO, SK, SI) are introducing wide-ranging reforms which explicitly use the Framework as an organising structure to develop provision for key competences. Countries describe that their reforms are “based on” (ES, SK) or “orientated towards” (CZ, RO) or “inspired by” (FR) the Key Competences Framework. These wide ranging reforms may concern all the sectors of education and training (BG, CY, CZ, ES, HR, IS, LT, LV, PL, RO, SI, SK) as is the case in the Spanish example in the box below or only compulsory education (FR). Other examples of country reforms explicitly underpinned by the Key Competence Framework include France, Austria and Romania.

Box 1-1 – Spain - Key Competences in the Organic Law on Education

In 2006 Spain introduced a new Organic Law on Education which incorporated the Key Competences into the whole of the Spanish curriculum in primary, secondary, VET and adult education. This identifies eight competences which young people should achieve by the end of compulsory education and is based explicitly on those specified in the EU Recommendation, framed to accommodate the particular context of the Spanish education system.

Key Competences in Spain do not replace the existing curriculum: they provide an organising framework which is used to specify objectives for each area, identify relevant content and specify criteria for assessment. Different key competences can be developed through many different subjects and methods, through extra-curricular activities and even through experiencing an institutional environment which models a cooperative and democratic learning community. Assessment processes have been rolled out nationally and regionally and the whole endeavour is supported by large scale teacher development programmes.

Box 1-2 – France - Common foundation of competences (Le Socle Commun de Compétences)

The French law on school orientation (La loi d'orientation sur l'école - April 2005) declared a common foundation of competences (socle commun des compétences) which took note of the European work towards a Framework of Key Competences. The seven competences in the French 'socle de compétences' correspond closely to the European Framework and define the foundations which all young people in general or vocational education and training must acquire by the end of compulsory schooling.

The ways in which the Key Competences Framework underpins or is used in these national reforms vary. The following complementary approaches were identified:

- It is used to plan programmes/ curricula (AT, BE fr, BE nl, CZ, ES, FR HU, IS LU, LV, NL, PL, RO, SI);
- It can structure cross-curricular work (BE fr, BE nl, ES, HU, HR, NL, PL, SI);
- It provides a basis for learners' assessment in relation to some or all key competences (AT, BG, CY, CZ, ES, FR, HR, LT, LV, RO);
- It structures evaluation of education and training systems (AT, BG, CY, CZ, ES, FR, HR, IS, LT, LV, PL, RO, SK, SI).

B) Using the framework to fine-tune incremental changes

Several countries (BE fr, BE nl, EL, HU, LU, NO, PT, TR) have introduced innovations in their systems which include significant elements that are related to the Framework, even if these are not fully organised around it. Countries in this category used the Framework to clarify general priorities of reforms and / or to address particular gaps in the provision of key competences.

Box 1-3 – Belgium fr - Priority Action Plan for the Future of Wallonia (Marshall Plan for Wallonia)

The so-called Marshall Plan for Wallonia (Priority action plan for the future of Wallonia), launched in 2006, includes a series of measures designed to improve key competences in certain areas such as: linguistic competence, an e-learning action plan and range of support measures including teacher training and establishment of training structures to facilitate resources and learning in advanced technology.

These innovations build on the contributions of a series of expert working groups, which, at the end of the 1990s, formulated statements of competence for all levels and sectors which are compatible with the concepts underpinning the Key Competences Framework.

C) Country reforms that are coherent with certain aspects of the Framework

A few countries (e.g. EE, IE, MT, NL, UK) have introduced reforms which support provision of the key competences in certain areas although different terminology is used.

Box 1-4 – Netherlands - Key Competences

The key competences to be developed by pupils in primary school and the lower years of secondary school are set down in attainment targets which overlap considerably with the EU Key Competences. Since 2006 particular attention has focused on:

- continuous, cross-sectoral progression of learning;
- the implementation of reference levels, which define more precisely what a child should have learned in terms of language and arithmetic by the end of primary school;

specific work on to science and technology in the form of a major cross-curricular technology, digital competence and entrepreneurship programme involving 2,500 primary schools.

D) Country reforms which were in place prior to the adoption of the Key Competences framework but are consistent with it

Three countries (DE, DK, EE, FI, SE) have introduced reforms based on competence-based approaches prior to the adoption of the Framework. Competence-based curricula have been present in these systems for many years and are not re-defined as new measures.

Box 1-5 – Denmark - Globalisation Strategy

The Danish Government's Globalisation Strategy, based on work that started in 2005, initiated a review of the aims and objectives of all curriculum subjects in 2006. This work started before the adoption of the Key Competences Framework and is not articulated around it even though fully coherent with the Framework approach. This work is now completed and the new aims and objectives were communicated to schools in the summer of 2009.

New and more precise descriptions of objectives and expected learning outcomes for each subject - and also for cross-curricular activities - give teachers a clear and distinct picture of what the pupils are going to learn. These objectives are similar to the elements of key competences in the Framework.

1.1.2 Summary of country reforms

Table 1.1 below illustrates the trends discussed above.

Table 1.1- Reforms to Support Key Competences in Member States

Using the Key Competences Framework to reform education and training provision	Using it is a reference to fine-tune incremental reforms	Introducing reforms that are coherent with certain aspects of the framework	Having put in place reforms and measures consistent with the Key Competences Framework prior to its adoption
--	--	---	--

AT, BG, CY, CZ, ES, FR, HR, IS, LT, LV, PL, RO, SK, SI	BE fr, BE nl, EL, HU, LU, NO, PT, TR	NL, UK, IE, MT	DE, DK, FI, EE, NL, SE
--	--------------------------------------	----------------	------------------------

Table 1.1 shows that in more than three quarters of countries the Key Competences Framework has had a direct influence on formulation of national policies or measures. In those countries where the link between national reforms and the Framework is less explicit, specific innovations are clearly consistent with the Framework although usually different terminology is used and the reforms may have been inspired more explicitly by national research or developments rather than the work at European level.

The measures reported above are at different stages of implementation across the countries. For example, Slovenia and Spain have been implementing reforms for two or three years and some elements of these have already been evaluated. Scotland, Romania and Denmark are about to move into full implementation of newly developed or piloted measures. Work in Bulgaria and Portugal is at an advanced stage of planning.

1.1.3 Actors Involved in implementation of Key Competences at national level

The Recommendation highlights the need to establish close links with employment policy and social policy, cultural policy, innovation policy and other policies affecting young people and through collaboration with social partners and other stakeholders to ensure coherence of adult education and training provision for individual citizens.

However, stakeholder involvement in the design and implementation of reforms to support key competence provision is also crucial when it comes to general and vocational sector reforms. To make sure that these reforms translate into improved teaching and learning approaches it is necessary that teachers, school leaders, parents and also employers and other stakeholders, accept and promote these reforms.

Furthermore, one important feature of the Recommendation is the intention to expand the positive influence of the Framework beyond the school or training centre and also, beyond the education and training sectors. The Recommendation aspires to influence policy development and implementation of measures in wider areas including employment, youth and cultural and social policy⁴⁶. In order to achieve the cross-sectoral responses needed, the relevant actors need to be involved in the development and provision of measures at all relevant stages.

Information supplied by the country reports on the range of actors involved in the key competences is uneven. However, certain trends are identifiable:

- The involvement of ministries other than general education government departments is referred to by the majority of reports (AT, BE fr, BE nl, CY, CZ, DE, DK, EL, FI, FR, HR, HU, IE, IS, LT, LU, LV, NL, NO, PL, RO, SE, SI UK);
- The involvement of social partners, especially business and industry and to a lesser extent, trade unions, is reported by over half of the countries (AT, BE nl, CY, CZ, DE, EL, FI, FR, HR, IS, IE, LT, LV, MT, NO, PL, SE, SK, TR, UK);

⁴⁶

Recommendation of the European Parliament and of the Council on Key competences for lifelong learning.
[OJ L 394/10 of 30.12.2006](#), p. 3;

- The involvement of pedagogic institutes and education experts is mentioned by over half the countries (AT, BE nl, CY, CZ, EL, FI, FR, HR, HU, IS, LT, LU, LV, MT, NL, NO, PL, RO, SE, SI, TR, UK);
- The involvement of teachers is highlighted by half the countries (AT, BE fr, BE nl, CY, CZ, EL, FI, HR, HU, IE, IS, LT, MT, NL, NO, PL, UK);
- The involvement of school managers is less frequent and is noted by third of the countries (AT, BE nl, CY, CZ, FI, HR, HU, IE, IS, LT, MT, NL, NO, PL, SI, UK);
- The involvement of parents and pupils is only reported by some countries (CY, EL, FI, HR, MT, NO, UK).

1.1.4 Conclusions on the provision for key competences in national policies

Information from country reports shows that substantial reforms to support provision of key competences are underway in many countries. Given that in 2002 Eurydice reported on key competences as a ‘developing’ concept⁴⁷ in general education, great strides have clearly been made since then.

There is evidence of considerable involvement of wider stakeholders in relation to certain competences and to some extent in adult education. There is also substantial involvement of certain actors at general policy level: government departments, social partners, pedagogical institutes.

There is however scope to involve learners, including adult learners, school pupils and parents of younger learners more in the process. Also, the involvement of school managers needs to be stepped up. Although teachers are better represented, their involvement seems limited in at least half of the countries. Practitioner involvement at an early stage facilitates dissemination. The involvement of learners and parents strengthens the legitimacy of reforms and makes it more likely that they will be welcomed and implemented effectively.

Measures should be taken at EU level to ensure that information about successful reforms is disseminated among Member States, so that countries can benefit from the experiences of others at a more advanced stage.

1.2 Key Competences in the Curriculum

This section addresses the provision of the eight key competences set out by the Recommendation in schools and in VET in relation to curriculum content and organisation⁴⁸.

⁴⁷ Eurydice (2002) “Key Competencies: A developing concept in general compulsory education.” http://eacea.ec.europa.eu/ressources/eurydice/pdf/0_integral/032EN.pdf

⁴⁸ It is important to highlight from the outset the limitations of this analysis in relation to initial VET: in some countries the curriculum in initial VET is subject to the same reforms as general education, in others VET is organised in a very heterogeneous way which makes reporting trends very difficult. Therefore, only tentative conclusions on initial VET systems are offered.

1.2.1 *Communication Competence in the Mother Tongue*

The Recommendation defines Communication Competence in the Mother Tongue as the ability to express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing).

However, this competence also recognises the fact that Europe is a multicultural society where people's mother tongue may not correspond to the official language of instruction. A recent Eurydice study reports that *7% of pupils aged 15 say that at home they speak a language other than the language of instruction*⁴⁹. With regard to these situations the Recommendation notes that *the ability to communicate in an official language is a pre-condition for ensuring full participation of the individual in society*. The Recommendation emphasises that the key competences should support people with low skills, especially in literacy. This priority is restated in Council Conclusions⁵⁰ which stress that *concrete action is needed to improve the level of basic skills*. As reading literacy is a crucial competence which all citizens need for *education and training, work, home and leisure*⁵¹, Member States tend to put high policy priority on literacy.

Competence in Mother Tongue Communication in schools

Communication in the Mother Tongue is traditionally organised as a stand-alone subject but more recently innovative complementary measures have been put in place or are being introduced in many Member States and are at the core of this section.

Approaches to provision

Innovative teaching methods which encourage active participation and communication were reported by all countries, often supported by programmes of continuing professional development for teachers.

Cross-curricular work addresses this competence in another context: linked with other subjects or even across several schools. With regard to Communication in Mother Tongue, cross-curricular work is supported as follows:

- cross-curricular work linked with different subjects is used at different stages in the system (AT, BE fr, CZ, DK, EE, EL, FI, FR, HR, HU, LT, LU, LV, NO, PL, RO, SE, SK, SI, UK);
- cross-curricular objectives or attainment targets (BE nl, CZ, DK, NL). These are objectives which are not specific to one area of study, but are pursued through several different subjects or projects;
- cross-curricular work in out of school projects (HR). Young people carry out community work (HR) or research into topics of local community interest;

⁴⁹ Eurydice (2008) "Key Data on Teaching Languages at School in Europe", p. 9;
http://eacea.ec.europa.eu/about/eurydice/documents/KDL2008_EN.pdf

⁵⁰ Council Conclusions on a strategic framework for European cooperation in education and training. OJ C 119/2, 28.5.2009. , op. cit.

⁵¹ Ibid., Annex para 2

- cross curricular work with Mother Tongue and IT is carried out in Lithuania.

A whole-school approach means that reading and writing are woven throughout the whole curriculum and taught in context as the need arises (BE nl, ES, LT, HR, NO, SK, SI, UK). In Belgium (nl), for instance, it is considered “each teacher is also a language teacher”.

National Strategies, Programmes and Other Measures

Several countries (AT, BE fr, BE nl, CY, CZ, DE, DK, FR, IE, MT, NL, NO, PT, UK) have developed Literacy Action Plans or otherwise placed literacy provision high on the national agenda. The benefit of a national action plan is that it co-ordinates measures across the whole education and training system in all sectors, including adult, informal and non-formal education. This is important as the impact of home and parental factors on the development of language and communication is well-documented.⁵² Another tool which can also facilitate co-ordination of measures is the National Lifelong Learning Strategy, where this exists.

Box 1-6 - Portugal - Literacy Action Plan

The National Literacy Plan in preparation in Portugal sets out to provide a range of co-ordinated measures to ensure that every Portuguese person achieves a level of reading and writing that enables them to deal with the written word in every area of their life. It will be based on a series of studies which will inform the targets for each stage and the development of evaluation instruments to monitor the impact of the various measures.

A combination of strategies has been created which will support the development of competences in reading and writing, as well as encouraging the habit of reading in people's lives. Measures will include the promotion of daily reading in kindergardens and pre-school; reading in familiar contexts, in libraries and in social contexts.

Awareness-raising measures will include special programmes on TV and radio focused on reading and books; and the creation of blogs and chat rooms about reading and books aimed at people of all ages.

Co-ordination of all measures and interaction between schools will be facilitated by a web-site giving access to a wide range of materials aimed at educators.

National Programmes and initiatives to support the literacy dimension of the communication competence have been developed and are being implemented in many countries (BE fr, CY, DE, FR, IE, MT, NO, PT, UK).

Box 1-7 – UK (England) - Functional Skills

Functional Skills are practical skills in English and in ICT and Mathematics that allow individuals to work confidently, independently and effectively in life. The pilot programme includes qualifications standards and a support programme for schools and centres, plus training for practitioners. Over 2,000 centres including schools, colleges, training centres and further education colleges have taken part in the pilot since 2007.

⁵² NESSE (2009) “Early Childhood Education and Care: Key Lessons from Research and Policy Makers”; <http://www.nesse.fr/nesse/activities/reports/eccec-report-pdf>

A public consultation took place in spring 2009 to validate the standards for these skills which the Qualifications and Curriculum Authority (England and Wales), developed in consultation with employers, teachers, subject associations and awarding bodies.

Creative use of communication in the mother tongue

Over half of the countries (BG, CY, CZ, EE, EL, ES, HU, HR, IE, LT, LV, MT, NO, NL, PL, SE, SI, UK) made some reference to the creative use of communication in the mother tongue, and the potential of different communication strategies to foster personal and social development, critical thinking and multicultural awareness. For the most part, these were referred to in the context of the innovative teaching, including cross-curricular work linking different subjects, or multi-disciplinary projects referred to above.

Other specific measures and methods referred to include:

Creative Use of Libraries: which was identified by some countries (CZ, EL, ES, IE, SI) as having the potential to foster critical thinking and cultural awareness, as well as communication.

Drama and role play activities were mentioned by three countries (CZ, MT, UK). The Drama Unit project in Malta shows how creative communication activities can foster many competences.

Box 1-8 – Malta – Theatre in Education

The Drama Unit in Malta provides Theatre in Education projects for all secondary school students which are organised to cater for particular age groups and explore a wide range of themes. Some are social and personal, such as bullying; others enrich particular areas of the syllabus. Maltese and foreign authors are invited to the schools and their visits are often followed up by work with drama teachers. Students are encouraged to participate directly in drama activities, which help them to gain confidence, think, listen, work individually and in groups.

Fostering bilingualism and multilingualism within borders

In some countries the boundary between mother tongue and foreign (or second) language is not clear. These may be countries with more than one official national language (e.g. BE, LU, MT, IE, SI), regional/national languages (ES, UK) but also countries with strong minority languages (EE, LT, LV, RO, SK).

Measures to support multilingualism were reported by six countries (AT, DK, FI, EE, LV, SE). The example from Slovenia shows how language development can promote intercultural understanding, as well as language skills.

Box 1-9 – Slovenia – Language development

The CROMO project is part of the European Language portfolio which provides a vehicle for language development and also for intercultural understanding amongst the different groups who speak different mother tongues, and have different cultural backgrounds within the same national borders. The module aims to promote respect for diversity both nationally and across borders. This project therefore addresses aspects of the transversal competence of Social and Civic awareness, in addition to promoting language skills.

Supporting the Integration of Immigrant children

Two thirds of the countries (AT, BE fr, BG, CZ, DE, DK, EE, EL, ES, FI, FR, HR, IE, LU, LV, NL, NO, PT, RO, SE, SI, UK) report having put in place special measures to support language development for children and young people whose mother tongue is not the language of instruction.

- Language support in schools is reported as being provided in several formats: through special programmes, through integrated classroom activity supported by specially trained teachers or classroom assistants, through the provision of separate classes in learning support or by a combination of these methods. One or more of these approaches were referred to by a large number of countries (BG, DE, DK, EE, EL, ES, FI, FR, HR, IE, LV, NL, NO).
- Research into policy or pedagogy for immigrants is being carried out in five countries (DK, IE, EE, EL, SI);
- Special Task Forces or Action Plans were referred to by a few countries (DE, DK and EE).

Other measures designed to support the development of Communication Competence in the Mother Tongue include:

- Early intervention: Many countries (BE nl, DK, EL FI, BG, NO) have introduced an obligatory pre-school year for all children. Denmark, Sweden and the UK have identified attainment objectives for the pre-school stage which all children are expected to work towards.
- Identification of minimum levels of attainment at different stages in primary and secondary levels is a trend observed in some countries (AT, BE fr, DE, DK, FR, MT, NO, NL).

Competence in Mother Tongue Communication in VET

All countries report that Communication in the Mother Tongue is a feature of the VET provision even though little detail is given on how this is tackled and whether differences exist compared with general education.

Some county reports state explicitly that measures to foster mother tongue communication are aimed at all sectors and levels of their education and training systems, including VET (AT, CY, DE, FR, HR, NO, PL, RO, SK, SI). This contributes to equality of access and opportunity, especially for young people in VET and adult learners who did not gain those

competences in compulsory education. A strong emphasis on the basic levels of communication competence in VET was reported by a few (CZ, DK, FR, UK).

The extent to which the Communication in the Mother Tongue is covered by VET curricula may depend on the qualifications requirements and may not be the same from one qualification to another. This was mentioned by a few countries (BE fr, HU, NL), and the Netherlands noted that as from the school year 2010-2011 Dutch language instruction will become compulsory in all VET qualifications. The Hungarian report noted that there is still some resistance from certain actors in the VET sector to include this, and other key competences, in VET curricula, on the grounds that the provision of key competences should take place in compulsory general education before young people enter VET.

1.2.1 Conclusions on Communication in Mother Tongue

Overall there is very substantial coverage of the competence to communicate in the Mother Tongue throughout initial education and training curricula. It is still often tackled in a traditional way as a single subject. However, many countries are developing more innovative approaches to address the failures of traditional mother tongue teaching approaches to equip pupils with basic literacy skills.

In some places, strong emphasis is placed on co-ordinating literacy measures to ensure that they are mutually reinforcing throughout the system, which is a strategy that should be given more attention. Such coordination may be accomplished through the development of plans or strategies such as National Literacy Action Plans which cover all sectors and levels, including adult and non-formal education.

Innovations at school level, such as cross-curricular work, need to be supported by the immediate working and learning environment. Significant factors include: timetabling, facilities to support team teaching and resources for out-of-school activities. This also requires training for teachers, and also for managers to support appropriate organisational strategies.

Developing communication competence through a wide variety of interactive methods has been used to good effect in some countries to promote integration and mutual understanding. The personal and social dimensions of the communication competence should receive as much attention as the functional and practical aspects, as they are essential for personal fulfilment and social cohesion in a rapidly-changing world.

An emerging approach is the whole-organisation or cooperative approach to literacy development, where all teachers of all subjects work on the language of their own subject area, as it arises. This has many potential benefits and could be explored further by countries where this is not yet a feature of the system. Good practice from those countries where this has taken place should be more widely disseminated.

1.2.2 Communication Competence in Foreign Languages

It has long been acknowledged that linguistic diversity is essential to making Europe *the most competitive and knowledge-based economy in the world*. Recent Council Conclusions call for young people to learn *at least two languages in addition to the mother tongue* to contribute to

the goal of promoting *democracy, citizenship, intercultural dialogue and personal development*.⁵³ Furthermore, increased mobility, migration and immigration have all led to the *steadily increasing recognition of the necessity for multilingualism in order that member states, and their citizens, may contribute to, and benefit from, integration*.⁵⁴

Foreign language competence is therefore crucial to promote economic competitiveness and for personal and social well-being and cohesion.

As noted earlier in the context of Mother Tongue competences, in some countries the boundary between mother tongue and foreign (or second) language is not clear. In addition, many countries have significant populations with migrant backgrounds.

Communication in Foreign Languages in Schools

Findings from the country reports confirm that foreign language learning is a compulsory element in all national systems. Findings from a recent study from Eurydice complements the information from the country reports⁵⁵:

- Foreign language learning begins from the first year of primary school or earlier in a few countries (AT, DE, ES, IT, LU, MT, NO, PL, PT).
- Foreign language learning begins later in primary school in many countries (BE fr, BE nl, BG, CY, CZ, DK, DE, EE, EL, ES, FI, FR, HR, HU, IS, LT, LV, NL, RO, SE, SI, SK, UK).
- Additional languages are offered at later stages in many countries (BE nl, BG, CY, CZ, DK, DE, EE, EL, ES, FR, IS, IE, LV, LT, LU, HU, MT, NL, NO, PL, PT, RO, SE, SI, SK).
- Three foreign languages are offered by the end of compulsory education in some types of schools in some countries (AT, BE nl, DE, IS, LU, NL, PL, RO, SI).
- Four foreign languages are offered in Luxembourg.

In the vast majority of countries, the study of foreign languages is compulsory from primary level onwards. Only in Ireland and UK (Scotland) is the study of a foreign language not compulsory, although in Scotland it must be offered. Country reports also indicate that in some systems, the range and number of languages which pupils can follow is being or increased (CZ, HR, LT, PL) and attempts are made to encourage pupils to choose other than the most widely spoken languages (FI, UK).

The picture emerging from the country reports confirms the observation from Eurydice that earlier learning of a foreign language as a compulsory subject has become a clearly visible trend in the course of the last decades.⁵⁶

⁵³ Council Conclusions on preparing young people for the 21st Century: an agenda for European cooperation in schools, p. 3; [OJ C 319/20 of 13.12.2008](#)

⁵⁴ “CLIL/EMILE (2002) “The European Dimension: Actions, Trends and Foresight Potential,” p. 9 http://ec.europa.eu/education/languages/pdf/doc491_en.pdf

⁵⁵ Country Reports and Eurydice Key Data on Teaching Languages at School in Europe (2008), op. cit., pp. 28-29

⁵⁶ Ibid., p. 27

Approaches to provision

Single subject remains the main approach to teaching foreign languages even though innovative approaches, discussed below, are becoming more widespread.

Cross curricular work

- General connections are made between foreign languages and ICT (HR, HU, LT, NL).
- Languages are linked with the arts and music (BG, MT).

Systemic Measures to Support Foreign Language Competence

Different systemic measures which are currently being developed or are already in place in many countries including national strategies (ES, LT, SI, PT).

Box 1-10 - Lithuania and Spain – Strategies to support language learning

The planned **Lithuanian** Strategy for Teaching Foreign Languages will set priorities for language teaching and provide measures for the successful development of linguistic competences. Based on the European Union's multilingualism policy it will include the introduction of innovative methods of language teaching, especially integrating the teaching of a foreign language with the use of ICT

Several initiatives are in place in **Spain** under PALE, a programme designed to support the teaching and learning of foreign languages in Spain. Measures include training teachers specialised in foreign languages and those in charge of teaching contents in a foreign language CLIL, increasing the number of language assistants and reducing foreign language class sizes.

Use of European Projects and Instruments

European initiatives support work on Foreign Language competences in half of the countries (AT, BE nl, CY, CZ, DK, EE, EL, HR, IS, MT, PT, RO, SK, SI). The main instruments mentioned are listed below:

- **Content and Language Integrated Learning Project (CLIL)** is a cross-curricular initiative which supports the teaching of non-language subjects through a foreign language. Only a few country reports referred to current involvement in such learning provision (AT, BE nl, LU) but CLIL project documentation indicates that with a very few exceptions (DK, EL, IS) this approach is in operation in all countries, even if only with a minority of pupils⁵⁷.
- The **European Language Portfolio (ELP)** is a tool which learners use to record and reflect on their language learning and cultural experiences and acts as a 'language passport' which the holder can use to complement existing certificates. A few countries (AT, CY, DE, HR, LT, NL, SI) referred to the use of the ELP.

⁵⁷

Eurydice Key Data on Teaching Languages at School in Europe (2008), op. cit., pp.42 - 43

- The **Common European Framework of Reference for Languages** can be used for planning, assessing and evaluating language competence in an internationally comparable way. A number of countries (AT, CZ, DE, EE, FR, LT, MT, NL, PL, RO, SI, SK) reported using it.
- Participation in **European projects** to develop language learning, especially under the Lifelong Learning Programme, was noted by several countries (AT, CY, HR, LT, SI) as enriching the quality of language teaching in schools and the development of innovative teaching methods.

Communication in Foreign Languages in VET

Half of the countries (BE nl, BG, CZ, DE, ES, FI, HR, IS, LT, LV, NL, NO, PL PT, SE, SK, SI) report that foreign languages are part of the VET curriculum. However, it was not always clear whether compulsory or optional. On the basis of the information supplied, a few trends can provisionally be identified:

- At least one foreign language is a *compulsory* part of the VET curriculum at some stage in some countries (AT, BE nl, CY, CZ, EE, FI, HR, LT, LV, NL, PL, SE, SK). In Spain agreement has been reached with the Autonomous Communities who have committed themselves to guaranteeing that higher level VET students acquire language competences in at least one foreign language.
- Foreign languages are included in VET programmes where these are deemed to be appropriate to the qualification for example in areas such as Hospitality or Tourism (HU, IE, ES, SI) or focus on the terminology of a certain field (SK).

1.2.2.1 Conclusions on Communication in foreign languages

Provision to develop communication in foreign languages in general education is expanding. However, the choice of languages being offered is an issue. The English-speaking Member States make less provision for this competence than others, although measures are planned to increase foreign language learning in those countries

There is little information in the country reports about provision in VET. Often the language offered is conditional on the type of qualification being followed; or the coverage may be more limited than in the general education system (e.g. focusing on the terminology of the field). Considering the potential of foreign language learning to promote personal, social and cultural competence as well as the technical skills involved in language proficiency, it is important to ensure that languages are widely available to young people in VET as well as in the general education system.

Many of the measures reported in support of the foreign language competence also promote several of the other key competences such as cultural awareness and can foster social and personal development. They also demonstrate the potential of language learning as a vehicle to promote intercultural understanding.

1.2.3 Mathematical Competence and Basic Competence in Science and Technology

This Competence encompasses two related areas which are often integrated in practice but are usually addressed as separate subjects or areas of learning in school and VET. The

Recommendation defines mathematical competence as *the ability to develop and apply mathematical thinking in order to solve a range of problems in everyday life*⁵⁸. This includes the technical skills of numeracy and also understanding of mathematical concepts and mathematical thinking. Competence in science is defined as *the ability and willingness to use the body of knowledge and methodology employed to explain the natural world, in order to identify questions and to draw evidence-based conclusions*⁵⁹.

Both of these inter-related areas include significant dimensions of knowledge and skill which are essential *for adult life and which form the basis for further learning and working life*. However, there is also a strong focus on the importance of attitude which implies a disposition to *look for reasons and to assess their validity*. Thus, even at the most basic levels, a degree of critical thinking and active engagement with a problem-solving process is required. Similarly, attitudinal dimensions are critical for competence in science and technology. These include curiosity, concern for safety and ethical issues.

The Council Conclusions of November 2008 highlight the priority of ensuring that all young people acquire basic skills, including numeracy, in order to develop their potential.⁶⁰ Similarly, Council Conclusions of 2007 *recognise the critical role played by science and technology in the development of knowledge-based economies*⁶¹ and call on Member States to increase the qualified human resources in the field, including redressing the gender balance.

Mathematical Competence in Schools

Developing mathematical competence is a compulsory component of the primary and lower secondary curriculum in all countries. Early provision for mathematical competence, where children are familiarised with fundamental concepts and processes at the pre-school level, is promoted in a few countries: DE, DK, BE fr, FI, NO, PL, UK. Clearly, early preparation for mathematical competence depends on the extent of early childhood education in the Member State.

Approaches to Provision

The country reports show that the most widespread approach to addressing mathematical competence in schools is the stand-alone subject.

In addition to this subject-centred approach, just under half of the countries report other ways of developing mathematical competence which transcend individual subject boundaries. These include:

- Cross-curricular work in the context of one or several other (often technical) subjects, which is a strategy used in less than half countries (BE fr, BE nl, CY, CZ, EL, FI, HR, HU, LT, NL, NO, SE, SI).

⁵⁸ OJ L 394/10, 30.12.2006, Annex, op. cit.

⁵⁹ Ibid.

⁶⁰ OJ C 319/20, op. cit., p. 3

⁶¹ Council Conclusions on the future of science and technology in Europe, 22 and 23 November 2007
http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/intm/97234.pdf

- Mathematics across the curriculum, which involves weaving mathematics into most or all subjects of the curriculum. This strategy is implemented in some countries (EE, HR, HU, LT, NO, SI).

Such approaches are significant from a teaching perspective, because aspects of mathematics (e.g. problem solving, logics), like those of literacy, arise in many areas of the school curriculum. Failure to master these mathematical dimensions can present a barrier to learning of subjects that are not directly concerned with mathematics.

Some countries (CZ, DE, DK, ES, IE, MT, LV, LU, NL, PL, PT, RO, SE, SI, UK) make reference to the importance of including a problem-solving dimension in promoting mathematical competence. This places strong emphasis not only on computational skills but also on maths as a set of tools for application in the real world which engages learners' critical capacities rather than rote learning.

One innovation which illustrates some of these priorities is the pilot Project Maths in Ireland.

Box 1-11 – Ireland - Project Maths

A major reform of maths was initiated in September 2008 in secondary schools in Ireland. Project Maths aims to provide a bridging framework from the primary into secondary school and to promote greater maths literacy across the school population. It focuses on context and applications and problem-solving in the context of “real mathematics education”, to include a greater ICT dimension

Project Maths began with 24 pilot schools. It will be phased in over a 3 year period in a rolling programme, covering different areas of maths in each phase. Building on the experience in the project schools, the reforms will begin in all second-level schools in 2010, preceded by a comprehensive programme of professional development for teachers.

Systemic Measures to Support Mathematical Competence

Many countries have introduced measures to support the development of mathematical competence which involve systemic changes.

Development or revision of standards to define levels of competence in maths at different stages is a feature of about one third of the countries' reforms (AT, DE, DK, FR, BE fr, BE nl, MT, NL, LU, PL, SE). Denmark has recently drawn up standards to guide preparatory maths activity in pre-school.

In general, these standards are used to guide teaching and learning and provide feedback for pupils and parents on progress. However, sometimes they are also used to support **national testing** of the whole school population in certain age groups, or a sample population.

Special programmes for young people who need extra help to work with mathematical competence are provided by most countries. **A Maths Action Plan** has been launched in Portugal to support schools in defining and implementing their own strategies to ensure quality of maths provision.

Extra-curricular Activity

Only a few countries (AT, DE, FI, HR, MT, SI) referred explicitly to developing mathematical competence through extra-curricular work. These include Mathematics integrated with Communication, Science, Technology and also the transversal competences of Learning to Learn and Social and Civic competence.

Box 1-12 – Austria - Youth Innovativ and Generation Innovation Projects

Youth Innovativ is a major national competition for schools and vocational education centres where young people design and research multi-disciplinary projects in the areas of Business, Design, Engineering, ICT and climate change. Often these are supported by local businesses. As well as working on the technological or scientific task, young people also develop creativity, social skills, and a capacity for entrepreneurship.

Generation Innovation is a major project which promotes learning in science and technology right through the school system, from kindergarten onwards. Young people of all ages research topics at a level suitable for their stage, in ways that encourage innovation and a playful discovery of the world of technology and science in their chosen topics.

One of the major aims of Generation Innovation is to increase the participation of young women in science and technology research and work.

Science and Technology in Schools

Provision of science in the general education system is similar to that described for maths: it is a core subject in all countries which is provided in a range of contexts starting in the primary school. Most countries' reports group science and technology together.

The 2008 Rocard report⁶² into science education in Europe stressed the importance of science education both for Europe's future economic and technological development, and for *equipping every citizen with the skills needed to live and work in the knowledge society by giving them the opportunity to develop critical thinking and scientific reasoning that will enable them to make well informed choices*. The same study found that *the origins of the declining interest among young people for science studies are found largely in the way science is taught in primary and secondary schools*⁶³. This requires putting pedagogy and teaching methods high on the agenda in the development of this competence. Other factors found to contribute to this area were large-scale interventions which can reach a critical mass of learners; promoting teachers' professional development and motivation; and facilitating co-operation with external actors.⁶⁴

⁶² European Commission (2007) "Science Education Now: A Renewed Pedagogy for the Future of Europe" Report from the High Level Group on Science Education chaired by Michel Rocard (The "Rocard" Report), p. 6.
http://ec.europa.eu/research/science-society/document_library/pdf_06/report-rocard-on-science-education_en.pdf

⁶³ Ibid., p. 5

⁶⁴ Ibid., p. 11

Approaches to Provision

- **Cross curricular themes or projects** are a feature of science work in some countries (BE fr, CY, DE, FI, HR, HU, LT, NL, MT, NO, PT, SE, SK, SI).
- **Extra-curricular work** is a major source of promotion and provision of competence in science and technology in a few countries (AT, DE, FI, MT, SI)

Box 1-13 - Belgium nl - Technical Literacy at School in the 21st Century

In 2008 the Flemish Community of Belgium concluded the development phase of a major project, “Technical Literacy at School in the 21st Century.” This strategy is supported by the Ministries of Education and Training and the Ministry of Economy, Science and Innovation. One measure was the creation of a general framework defining the main dimensions and components of technology, based on extensive research and consultation, which sets outcomes for learners in primary and secondary schools.

The development stage is now complete and the strategy is moving into the implementation phase during which 20 pilot schools will develop good practice by applying the technological concepts, processes and systems defined in the framework.

Cross-curricular and extra-curricular work, reported by just under half of the countries listed above, has the potential to support experiential and discovery-based learning.

The conscious use of inquiry as a pedagogical strategy, often known as ‘inquiry-based science education’ or IBSE, is defined as the intentional process of diagnosing problems, critiquing experiments, and distinguishing alternatives, planning investigations, researching conjectures, searching for information, constructing models, debating with peers, and forming coherent arguments⁶⁵. The use of inquiry-based science education, or methods which are consistent with this definition, was referred to explicitly by only one country: Malta.

Box 1-14 – Malta - Inquiry-based science education

Inquiry-based science education is an important part of the curriculum in Malta. The process starts with in-service education for primary and secondary teachers using inquiry-based methods and investigative approaches to the teaching of science. Similar training is also provided for student teachers specialising in science. Partnership with external actors is another important feature of the strategy. Out-of-school activities include: the development of a Science Week, the production of a science TV series, the publication of booklets and a range of hands-on science activities created in conjunction with a wide range of actors. Partners in these activities include the university, Heritage Malta, Local Councils, Playmobil Funpark.

There is a strong link to the learning outcomes on the revised science syllabus which has been specially designed to promote competence.

⁶⁵

Defined by Linn, Davis & Bell (2004), quoted by European Commission (2007) “Science Education Now: A Renewed Pedagogy for the Future of Europe” Report from the High Level Group on Science Education (The “Rocard” Report), op. cit., p. 9

Methodologies which promote active learning and therefore share some of the features of IBSE were referred to by five countries (AT, EE, IE, PL and SI).

The ‘AHHAA Science Centre’ in Estonia introduces science and technology to all societal groups. There is a strong emphasis on active, “hands-on” learning supported by travelling exhibitions and other supplementary educational activities and resources including a planetarium, pilot school laboratory programmes, creation of study materials and a science theatre.

External Actors are involved in the provision of science education in some countries where there are projects, often national competitions, to promote and recognise achievement in science (AT, DE, EE, IE, MT, SI).

Systemic Measures to Support Scientific Competence

Interventions at the systemic level impact on the educational experience of learners and teachers on a large scale. A relatively small number of countries reported that such measures are now in place:

- **Action Plans** or **National Science and Technology Strategies** are in place in a few countries (BE fr, BE nl, DE, IE, SE). In Sweden, a Science Delegation is currently investigating science education and will report in 2010.
- **Large-scale national development initiatives** to promote maths, science and technology in schools have been launched (DE, IE, LV, MT, SI, SE).
- Sweden is currently developing **compulsory national tests** for physics, chemistry and biology, in addition to a major programme of teacher professional development.
- Germany has defined **educational standards** for science;
- Slovenia is working on the language and terminology of science and math across the curriculum as part of its major reforms.

Teacher development in relation to science education can be promoted through continuing professional development, and also through networking within and between schools:

- **Professional development programmes** for teachers have been launched to improve the teaching of maths, science and technology (CY, DE, LV, MT, SE).
- **Teacher Education of Science in Slovenia** is being reformed, with the objective of developing new methods to raise competences in science and make it more popular. The project is based on a partnership between teacher education faculties and a consortium of schools.
- **Teachers’ networks** to promote good practice in science are referred to by only a few countries (AT, EE, MT, SI).
- **Partnership projects** linking schools with external actors including members of the local community, business, parents, higher education institutes and others were reported by only a few countries (AT, DE, HR, MT, SI).

- **Encouraging girls and young women** to study science was identified as a priority in only a few countries (AT, DE, PT, SE).

Mathematical Competence and Basic Competence in Science and Technology in VET

Once again, information on VET provision is patchy in the national reports. Maths is reported as being part of the VET curriculum in over half of the countries (AT, BG, CZ, EE, EL, FI, FR, HR, HU, LT, LV, NL, PL, PT, RO, SK, SI, UK). Some countries report that maths is either compulsory in VET (BG, CY, FI, FR, SE) or depends on the qualification (IE, NL, HU, ES).

Some countries stress the integration of maths throughout the VET curriculum (EL, ES, NO, PT), especially at the higher levels (ES), and two countries report a practical, technical focus for maths in VET (AT, SK). Three countries mention the promotion of participation of young women in maths and science-related activities in VET (AT, DE, SE).

1.2.3.1 Conclusions on Mathematical Competence and Basic Competence in Science and Technology

Overall, mathematical competence remains a very strong element of general education curricula. The position of mathematical competence in vocational education varies: some countries make similar provision to that in general education whereas a few tailor provision more closely to the relevant vocational qualification.

Some of the country reports highlight the promotion of problem-solving, critical thinking and, to a much lesser extent, inquiry-based learning in mathematics and science. There is evidence of some variety in approaches to provision of these competences through cross-curricular and real-life projects, as well as extra-curricular activities. However, it is not clear that these activities necessarily develop science competence as purposefully as systematic inquiry-based science education. More work is needed to foreground this as a major pedagogic strategy in the future. This is especially important, given that research evidence shows very positive results for all ages, at all levels of ability for this approach.⁶⁶ Integration of mathematical competence into other areas of activity is a recurring theme emerging from many of the country reports, although this approach is at an advanced stage in only a few countries. This has implications for the competence of teachers and trainers, and needs to be supported by suitable teacher education and training.

Achieving a gender balance did not emerge as a major priority in country reports, although this was an important dimension of the last reporting cycle. In the current reports, a small number of countries referred to projects to support the development of competence in science and technology for young women. However, according to the most recent analysis from PISA, the gender gap is more significant in maths.

The information provided in country reports suggest that there is a great deal of scope for development in the teaching of science and its orientating methodologies along the lines of the Inquiry-based science education strategies which have been proven to promote competence and make science popular amongst a wide target group of all ages and abilities.

⁶⁶

European Commission (2007) "Science Education Now: A Renewed Pedagogy for the Future of Europe" op. cit., page 14.

There is also room for greater co-operation with external partners, along the lines of that which already exists for Civic and Social and Entrepreneurship competences, in order to provide real-life contexts for scientific inquiry.

1.2.4 Digital Competence

The European Council in 2000 identified ICT as a core component of the knowledge society and vital for the future of education and training systems. Since then, the necessity to update *what are considered as essential competences for the knowledge society to ensure that everyone has access to information and communications technology*⁶⁷ has been repeatedly restated. The Key Competences Recommendation identifies digital competence as one of the Key Competences for lifelong learning, *to ensure that all citizens are equipped to make critical use of the new technologies in their personal and social lives, as well as in the workplace.*⁶⁸

The Recommendation stresses not only the basic skills required to use new technologies, but stresses *the confident and critical use of Information Society Technology (IST) for work, leisure and communication*. This goes far beyond the capacity to manipulate the technology, and puts awareness of *the legal and ethical principles involved in the use of IST*, and critical reflection on the *validity and reliability of information available* through the internet, at the centre of this competence.

One of the key issues in relation to Digital Competence concerns access. Council Conclusions on e-skills⁶⁹ identify Fostering Employability and Social Inclusion as one of the major action lines to be pursued in the e-skills agenda. Yet the opportunities provided by *the information society also create new divides.*⁷⁰ Research confirms the increased use of the internet in all countries since 2005, but also that there are great disparities between different socio-economic groups and *evidence that people in disadvantaged groups use the internet less intensively than other groups.*⁷¹ There are still 40% of people who do not use the internet at all, and a much lower rate of use amongst those with low education.⁷² This includes young people: 50% of young people aged 15 – 21 with low basic skills have never used the internet.⁷³ Reasons for not having the internet at home include affordability and, significantly, lack of skills.⁷⁴ For many young people, school will be their only opportunity to develop this key competence.

Digital Competence in Schools and VET

Digital competence features in the school curriculum in all countries. For the most part, this encompasses the use of digital media as well as IST. Specific action plans or policy strategies are in place in AT, BE fr, BE nl, LT. Significant investment in terms of funding and resources was reported by most countries.

⁶⁷ Report from the European Commission (2001) "The Concrete Future Objectives of Education" COM(2001) 59 final, p. 8, http://ec.europa.eu/education/policies/2010/doc/concrete-future-objectives_en.pdf

⁶⁸ Recommendation on Key Competences for Lifelong Learning, op. cit.

⁶⁹ Integrated Competitiveness Council Conclusions of 23 November 2007, 2832nd Council meeting http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/intm/97225.pdf

⁷⁰ Commission Staff Working Document (2008) "Digital Literacy Report: A Review for the i2010 e-inclusion initiative" p. 4, http://ec.europa.eu/information_society/eeurope/i2010/docs/digital_literacy/digital_literacy_review.pdf

⁷¹ Ibid., p. 15

⁷² Ibid.

⁷³ Studies on Technology's impact in primary schools (STEPS)

⁷⁴ Ibid.

Digital Competence is reported to be part of the primary school curriculum in just over a quarter of countries (BE nl, CZ, HR, IE, LT, LV, MT, NL, PL, UK). Preparatory groundwork for digital competence is introduced at the pre-primary stage in Cyprus and Norway.

In a number of countries this competence is taught as a separate subject (BE fr, BG, CY, CZ, DE, FR, EL, FI, HR, LU, LV, PL, PT, RO), while in others it is integrated across subjects (AT, BE nl, BG, CZ, DE, EE, FI, HU, LT, MT, NL, NO, SI, SK). In Norway this competence is seen as a basic skill which is woven throughout the curriculum, along with literacy and numeracy.

The extent to which the ‘**confident and critical use of ICT**’ is fostered is unclear from the country reports. Some countries (DE, ES, FR, IE SE, SI, SK) do refer explicitly to the ‘critical and reflective’ use of ICT but in general this aspect was not stressed. Ethical and legal considerations arising from the use of ICT and digital media are highlighted only by Latvia.

Less detail was supplied about the extent to which Digital Competence is addressed in **vocational settings** but some countries indicated that their practice was similar or identical to that in the general system (HR, PL). In Estonia and Slovenia, for instance, digital competence is woven into the curriculum of all vocational programmes. Other countries (CZ, DE, IE, LU, PT, SK) accord this competence a prominent position in the VET curriculum and some include modules at different levels (ES). In other countries (HU) digital competence is included where this is related directly to the vocational programme.

Approaches to Provision

The country reports confirm the trend⁷⁵ that Digital Competence is used to enhance personalisation of learning, collaborative learning and other transversal key competences.

ICT is used to enrich learning through cross-curricular themes across subjects (AT, CZ, BE fr, HR, LT, MT, NL, SI) or for collaborative learning and interaction (AT, PT). Digital technology can also promote individualised work and differentiate the pace of the learning experience for individual pupils (AT, PT).

Box 1-15 – Luxembourg - A whole-school approach to Digital Competence

A national education portal (<http://www.myschool.lu>) has been created in Luxembourg with the aim integrating ICT into education at national level, and using it to support all administration and teaching functions. Several major developments have taken place during 2008: teachers can develop interactive exercises and self-correcting tasks and tests which can be made available to their students.

Research highlights a strong digital advantage which many young people have over their parents and also their teachers. However, **working with parents to promote the use of ICT** was referred to by only a few countries (CY, EL). Greece has introduced an “E-parents” initiative aimed at supporting parents’ involvement in the development of key competences with their children. Cyprus has introduced a Learning Platform which includes, among other things, e-mail and calendar facilities connecting pupils, teachers and parents.

⁷⁵ Ibid

Similarly, while IT competence is very often gained outside formal educational settings, country reports did not refer to **the impact of informal learning**. This suggests that this is an area for further action, for example, by using extra-curricular activities as a vehicle to promote digital competences outside formal learning situations.

Teacher training

Given the rapid changes in ICT and also identification of new issues (e.g. the ethical issues involved in using world-wide web, the environmental impact of online technologies) the development of digital competence needs to be supported by initial teacher education and continuing professional development. Many countries refer to programmes designed to up-skill teachers (AT, CY, EE, IE, FI, HU, MT, PL, PT, RO, SE, SI).

Box 1-16 – Estonia - Portal to support teachers in development of digital competences

Estonia has developed a portal to prepare new teachers and support practising teachers in the development of digital competence⁷⁶ focusing on the development of teacher competences described in the professional standards for initial education, induction year, and in-service education. Currently, the most active users of the portal are students studying to be teachers and beginning teachers in their induction year.

1.2.4.1 Conclusions on Digital Competence

Lack of home access has been identified as one of the barriers to digital competence: in 2007, 57% of the population were still not on-line at home. What happens in the school is therefore crucial in ensuring that all young people acquire the skills and attitudes of digital competence they need in *their personal and social lives, as well as in the workplace*.

There is evidence of a great deal of activity in Member States in stepping up provision for Digital Competence. This has included curriculum reform, extra funding and resources, new programmes, the creation of virtual learning environments, the use of ICT in communication, administration and management.

More work is needed to promote a whole-organisation approach to the introduction of ICT in methods and the administration of teaching. Support for teachers in the form of initial and continuing training needs to be stepped up. As effective integration of ICT into subjects across the curriculum depends on the commitment, support and understanding of school managers. Professional development and support for school managers is therefore essential.

The digital divide between many young people and adults - their teachers and parents – was not raised in the country reports. Research highlights a strong digital advantage which many young people have over their parents and also, their teachers. However, technical proficiency is not always supported by critical reflection on the use of ICT.

There is some evidence of the use of ICT to promote transversal skills, interaction and critical reflection but this emphasis needs to be strengthened. Overall, certain important content areas and learning opportunities have received little attention in the country reports, including

⁷⁶

Within the framework of the European Union Structural Fund's project "Teachers' Professional Development with the Support of Educational Technology" see: <http://www.htk.tlu.ee/opah>

‘confident and critical use’ of ICT; ethical and legal considerations arising from the use of ICT; and informal learning situations.

1.2.5 *Learning to Learn*

The Recommendation defines this competence as the ability to pursue and persist in learning, to organise one’s own learning, including through effective management of time and information, both individually and in groups. It also stresses that much of the knowledge-base required in Learning to Learn is related to awareness of the self: one’s learning processes and needs, identifying available opportunities and the ability to overcome obstacles in order to learn successfully⁷⁷. Also required are personal attitudes and dispositions such as motivation and confidence all resting on the basic skills of literacy and numeracy.

Learning to Learn in Schools and VET

This competence is given a high priority in the country reports.

Learning to Learn is embedded in learning experiences throughout the curriculum, especially in relation to general education, in two thirds of the countries (AT, BE fr, BG, CY, CZ, DK, DE, IE, EE, ES, FI, FR, HR, HU, LT, LV, MT, NL, NO, PL, PT, RO, SE, SK). A few countries (CZ, NO, NL, HR, PL, SI) reported that this competence is also incorporated into the VET curriculum.

Approaches to Provision

Learning to Learn is a process oriented competence that is typically transversal to all educational and training activities. However some cognitive aspects of learning to learn (such as learning strategies and methods) may be addressed through specific learning content. Such modules were mentioned in only three reports (ES, IE, LT) and in both cases this concerned support for learners working on literacy or numeracy at a basic level in VET.

Though most countries give little information on how this competence is integrated into the curriculum these approaches have been mentioned:

- **Learning objectives** for Learning to Learn are being developed in a few countries (BE nl, EE, EL, LT, PL, SE) as part of a cross-curricular framework.
- **A framework** in Personal Learning and Thinking Skills is used in England and Wales to support Learning to Learn.
- **Programmes and Modules** in aspects of Learning to Learn exist out in a few countries (BE nl, CZ, ES, HR, IE).
- **Portfolio building** is used at primary level in Luxembourg at different levels of complexity. In primary schools, children complete a task, reflect on it in their portfolio and thus develop self esteem and motivation. Portfolios are used in other countries, (AT, DE, IE, PT, SE, UK), sometimes contributing to the process of assessment.

⁷⁷

Recommendation on Key Competences for lifelong learning, op. cit.

- **Assessment processes** such as self and peer-assessment and project work are used to promote reflection on learning in several countries.

An example of a project which supports several of these process described is the Key skills Project in Ireland.

Box 1-17 – Ireland - The Key Skills Project

The Irish Key Skills Project is designed to support teaching and learning across the curriculum in the upper secondary schools and also to promote success in school and full participation in society including family life, the world of work and lifelong learning.

The Key Skills are: Information Processing, Critical and Creative Thinking, Communicating, Working with Others, Being Personally Effective. Each element is broken down into essential elements and learning outcomes. These skills are being included in all subjects in upper secondary schools as part of an ongoing syllabus reform.

A network of eighteen schools was founded in 2006. Practising teachers write units, develop sample learning activities and try out the materials and tools. Critical reflection is an important feature of the project, for both teachers and learners. Much of the support material is designed to support this and self-assessment is an important tool in fostering these competences.

Other countries (AT, DE, MT, RO) have identified the importance of teacher development, and of ensuring that work on Learning to Learn is theoretically robust:

- **Teacher Development** in Austria is being piloted to support practising teachers in methodologies including: team teaching, lesson plans for open learning, individualisation and giving feedback. A few countries refer to the professional development of teachers (DE, MT, RO).
- **Research** into Learning to Learn known as “The Inclusion of Key Qualifications in Learning to Learn in Educational Programmes” is being conducted in Slovenia by the National Institute for VET.

Although the embedding of Learning to Learn in the curriculum requires significant work, most countries do not describe in detail the ways in which Learning to Learn is embedded in particular subjects or in the overall curriculum. However, there are some descriptions of practical measures which are not specifically subject-related and which support the embedding of this competence throughout all learning:

- **Personal Learning Plans/ Individual Development Plans/ Individual Learner Plans:** are used in some form in a few countries (CY, DK, SE, SI, UK-Scotland). The Plan is used to record the learning goals, programme content, specific objectives and progress of an individual learner. This plan then becomes a type of contract between the learner and the school or VET provider which can be used to track and analyse progress.
- **Three-way discussions** with teachers, parents and the learner in Cyprus and Scotland which use the Personal Learning Plan as a structure and focus.

- **A School Library Network** is used in Greece to support curiosity and further interest in learning in both general education and VET.

A Peer Learning Activity organised by the Key Competences Cluster group in 2007 concluded that, as all of the key competences are interdependent with 'Learning to Learn', a school succeeding in delivering the Learning to Learn competence will also have a greater likelihood of other competences being effectively learned. The importance of a positive learning environment where there is a shared understanding amongst management, teachers and learners about how and why learning takes place was stressed.⁷⁸

1.2.5.1 Conclusions on Learning to Learn

One theme emerging from the country reports is that Learning to Learn needs to be embedded not only in all subjects, but *in all aspects of the learning environment*. Measures include: personal learning plans, portfolio-building and the use of teaching and assessment strategies which foster deep learning. These measures all require good communication, teamwork, democratic schooling management, and supportive mechanisms for pupil assessment and school self-evaluation.

Notwithstanding the strong process orientation of Learning to Learn, some of the measures referred to above to involve addressing cognitive dimensions. These include knowing the rules and strategies of learning and how to make use of them⁷⁹. What is not clear from most of the country reports which locate Learning to Learn as embedded in subjects and other activities, is whether 'embedded' means that knowledge of learning strategies and processes is explicitly taught in context, or if it is assumed to be 'caught', directly or indirectly.

1.2.6 Social and Civic Competence

Social and Civic Competence describes the personal, interpersonal and intercultural knowledge, skills and attitudes that equip individuals to participate in an effective and constructive way in social and working life, and particularly in increasingly diverse societies⁸⁰.

This competence has two complementary aspects:

- in terms of the processes involved in positive social cultural and intercultural communication encompassing the ability to communicate constructively...to show tolerance, express and understand different viewpoints, to negotiate;
- as a body of knowledge *of the concepts of democracy, justice, equality, citizenship and civil rights*, including those how those are implemented in the European Union.

Both of these dimensions are present in the curricula of Member States although they are contextualised in different ways.

Social and Civic Competence in Schools and in VET

⁷⁸ European Commission (2007), Synthesis report. Cluster 'Key competences – Curriculum Reform'. http://www.kslll.net/Documents/PLA_Key%20Competences%20for%20LLL_Jan.%2007.pdf

⁷⁹ Progress towards the Lisbon objectives in education and training. SEC (2008) 2293, p168

⁸⁰ Recommendation on Key Competences for Lifelong Learning, op. cit., Annex, p. 3

Through a Dedicated Subject

In a few countries (AT, ES, IE, LT, LU, SI, UK-England) this area is addressed, at least in part, through subjects on the curriculum such as:

- **Personal, Social, Health and Economic (PSHE)** education and Citizenship education are compulsory subjects in schools in England, as is Moral Education in Lithuania, and Moral and Social Education in Luxembourg.
- **Citizenship modules** were reported by Spain, Poland, Ireland and Lithuania, but a Eurydice⁸¹ study showed that these are also delivered in other countries (AT, CZ, IT, NO, RO, SI, SK) at different stages of compulsory education. The same study shows that in some countries these are delivered as a separate compulsory subject at different stages of compulsory education but also integrated into the rest of the curriculum in some countries (BG, CY, CZ, DK, FR, EE, EL, LT, LU, LV, PL, PT, SE).

The traditional subjects give a lot of scope to teach about the structures of democratic societies. They can also support the process aspect of this competence through the use of methodologies which promote interaction, critical reflection and participation.

Through Related Subjects

- **History, geography, philosophy, communication, social science** are used in (AT, BE fr, BG, DE, FI, MT, NO) address the content, skills, attitudes and processes required for effective development of this competence.
- **Information Technology** as a vehicle to encourage interaction, problem-solving and critical reflection is promoted in Austria and Lithuania as already noted in relation to Digital Competence. These processes are mentioned in the Recommendation as supportive of democratic participation.
- **The Philosophy for Children** project in Luxembourg explores issues related to social and civic competence with children in primary schools.

Woven throughout the Curriculum

- **Integrating social and civic competence** into some or all subjects is a strategy used by many countries (UK Scotland and Wales, NL, BE nl, CZ, DE, FR, ES, HR, MT, NO, PL, PT, RO, SK). They view this area as a cross-cutting competence which is embedded throughout the whole curriculum and addressed as relevant issues arise.
- **A combination of these approaches** to provision is used in two countries (HR SI). The lower secondary curriculum in Slovenia includes a subject called 'civic and patriotic education' but the issues it covers are also addressed in a cross-curricular way and in subjects such as history, both at that level and at earlier stages in the education system.

⁸¹

Eurydice (2005), Citizenship education at school in Europe, Figure 2.1
http://eacea.ec.europa.eu/ressources/eurydice/pdf/0_integral/055EN.pdf

In the Learning Environment

- **Direct Participation** in school structures brings the processes of social and civic competence directly into young people's lives. This approach is implemented in Estonia, Finland, Poland and Spain. One view of promoting civic and social competence recommends promoting democratic values and practices by putting these into action, both in the teaching process and especially in the ethos and operation of the immediate institutional environment (AT, CZ, EE, ES, FI, MT). By consciously modelling civic and social competences in real life, school managers and teachers can give pupils the opportunity to gain first-hand, personal experience of the knowledge, skills and the attitudes involved in democratic participation.

Box 1-18 – Finland - Citizen Participation Programme

Part of the Citizen Participation Policy Programme⁸² in Finland involves the creation of Students' Associations whose role is to promote cooperation among students, channel their influence and participation in matters relating to them and generally to promote active citizenship. Student associations are now part of the Basic Education Act in Finland, which means that education providers have to set these up for individual schools or networks of schools, or otherwise organise opportunities for students to be heard on common issues of the school. Student associations arrange national and regional training, assist in the planning and evaluation of activities at school level and engage with local actors.

Through Special Measures

Several countries have evolved different ways of supporting the development of Civic and Social competence in ways which are suitable for the context of their own national systems:

- **Textbooks and teaching materials** promote participatory methods and convey relevant content in AT, CZ, EL, HU, IE, MT, SI.
- **A dedicated framework** has been developed in BE nl which outlines cross-curricular competences and personal development in relation to others and the ability to participate in a multicultural, democratic society
- **Quality statements** to define the area of social and civic competence have been developed in the Netherlands.
- **At national level**, a special committee has been set up by the Ministry of Education in Luxembourg to explore citizenship education.

Through Outreach Teaching Methodology

- **The Extended Project:** This is most frequently-mentioned method. It can be carried out within the context of a traditional subject, in the context of two or more subjects as a cross-curricular project or in the wider context of the world outside the school. Projects at all of these levels are referred to by several countries (AT, DK, ES, FI, HR, IE, MT, NL, NO,

⁸²

www.om.fi/en/Etusivu/Ajankohtaista/Arkistoidut/sisallot/Kansalaisvaikuttamisenpolitiikkaohjelma

PT). They report that the process of deciding on a topic for study, planning and implementing it, reporting findings and reflecting on their success, can provide the opportunity to develop most or all of the transversal competences. In Norway young people undertake outreach work in the community which promotes this competence.

Box 1-19 – Croatia - National Curriculum for Human Rights and Democratic Citizenship Education

In Croatia the National Curriculum for Human Rights and Democratic Citizenship Education sets out themes for all levels of general and vocational education which promote all of the Key Competences, with a particular focus on democratic citizenship. Cross-curricular and extra-curricular activities engage with real-life problem-solving in the community, such as access to public buildings for people with disabilities and many others. Each project includes interdisciplinary skills such as: reading, discussion, writing, analysing graphs, problem solving in small groups, cooperative learning techniques, role play, studying the laws and Constitution of the Republic of Croatia, writing official letters and applications. The students systematically study the problem, document it and draw up a plan for solving it. Parents and people from the local community are involved in the realisation of the project.

Through Assessment

- **Interdisciplinary projects for assessment:** A small number of countries (AT, DK, RO) refer to innovative methods of assessment which promote learners' capacity for interaction and critical engagement with the world. These are based on interdisciplinary projects. In three cases (AT, DK, RO) these are required as part of the final assessment for national qualifications. This is one example of how the 'backwash' effect from assessment can have a positive impact on teaching and learning.

In VET

Not all respondents gave details of the extent to which this competence is addressed in VET but most of those who did mentioned a similar range of delivery mechanisms as those found in the general system: dedicated subjects, embedded in other subject areas, or delivered through project work and other similar methodologies.

Based on the limited information available in the reports, it appears that Civic and Social competence does receive attention in the VET sector although, as for general education, it is not possible to say how far this extends. Some refer to embedding the content into the subject or craft content, although there is no way of knowing how far this translates into what is actually taught, or how.

1.2.6.1 Conclusions

Provision for this competence is gathering momentum and is being promoted through a variety of approaches, sometimes supported by frameworks, statements of objectives and assessment processes. These may address to a large degree the *knowledge dimension* and to some degree, the *attitudinal and process aspect* of this competence. The more traditional approach of a single subject is being complemented with cognitive approaches and methods.

However, the surest way of providing this competence for all young people is to *embed it in the methodology used for all subjects*, and not only those which explicitly address civic and social issues as a body of knowledge. If teaching in general and VET education and training models the principles of democratic participation, then all young people will have access to this competence, whether it is included on their official timetable or not. A similar effect can be achieved by ensuring that the learning environment includes structures such as students' associations (ie real-life participation).

1.2.7 Sense of Initiative and Entrepreneurship

In common with the other transversal Key Competences, this competence is strongly process-orientated: the Recommendation refers to *an individual's ability to turn ideas into action and the ability to plan and manage projects in order to achieve objectives* which may be social as well as commercial.

This competence is also underpinned by a varied body of knowledge which is open to a range of interpretation: understanding of the working of the economy, as well as the specific demands and opportunities of employers. The attitudinal dimension refers to the ethics of business and the potential of enterprises *to be a force for good, for example through fair trade or through social enterprise*.

Personal and interpersonal skills are a further important aspect of this competence, including the ability to lead and delegate, manage resources, analyse, communicate, de-brief, evaluate and record, effective representation and negotiation, and the ability to work both as an individual and collaboratively in teams, as well as the ability to communicate, cooperate and coordinate with partners in networks, clusters etc..

Initiative and Entrepreneurship in Schools and VET

Initiative and Entrepreneurship appears on the curriculum of primary and secondary schools and in VET in a variety of different ways. Some aspects, such as initiative and innovation, are addressed through teaching methods and activities such as mini-companies and work in the community. Others emphasise a body of knowledge, such as knowledge of the financial system or economics.

Through a Dedicated Subject

- Certain subjects such as Citizenship (FI, CZ, IE, RO, SK), Entrepreneurship (UK - Wales), Economy (LT) and parts of stand-alone modules (CY, EE, EL, PT) cater for this competence.
- Secondary school attainment targets in entrepreneurship or related areas define part of this competence in the French Speaking Community of Belgium where it is addressed through various projects.
- Preparation for entrepreneurship at primary school is part of the curriculum in a few countries (CZ, FI, LV, NL, NO).

Embedded in themes or across the curriculum

- Themes such as ‘The Individual and the World of Work’ (CZ, IE, RO, SK) or programmes such as Personal Social and Health Education (UK – England) provide a vehicle for addressing some aspects of this competence. This strategy is found also in France, Denmark, Estonia and Sweden.
- Cross curricular work in Entrepreneurship is carried out in schools in some countries (AT, BE fr, HR, FR, DE, MT, RO) to promote aspects of this competence, sometimes through community projects (DE, DK, HR, IE, PT) and volunteer community work (FI). Hungary includes this competence under the Cultural domain.
- The ethos of the school was referred to by Spain and Sweden as being an important vehicle for sense of initiative and entrepreneurship.
- Mini enterprises are widely used as a multi-disciplinary strategy in general education and in VET, in some countries (CZ, DE, EL, HR, HU, IE, LU, HU, PL, PT, UK).

The specific ways of promoting Initiative and Entrepreneurship in VET

- Qualification guidelines include different elements of this competence in some countries (FI, HU, LT, NL, NO, PL, SI, SK). In Hungary aspects of entrepreneurship are included in different qualifications. Special activities such as Enterprise Week (CY) and other extra-curricular activities foster entrepreneurship in a few other countries (AT, EL, ES, IE, PT, RO, SK, UK).
- Specific modules are included in apprenticeships or other vocational qualifications in some countries (AT, BE fr, ES, IE, FI, HU, RO);
- A methodology which promotes interaction and discovery is stressed as an important vehicle for developing initiative in AT, DK, ES, PT, RO, SE.

Countries report that partnership between schools, VET and business and enterprise are a very important strategy in the promotion of this competence (AT, CZ, DE, FI, LU, PT, RO, SE, SK, UK).

Box 1-20 – Germany - Mini-Enterprises

In Germany students operate mini-companies which are educational projects with limited sales and profits. These are based on real business models. Student employees of companies plan, produce and sell products or provide services. Student companies thus serve to promote responsibility, teamwork and individual initiative of students and provide practical and action-oriented knowledge about the economy and economic contexts.

Box 1-21 – Netherlands – Entrepreneurship Education

The Ministry of Economic Affairs and the Ministry of Education, Culture and Science have set up a programme on entrepreneurship and education. One of the key elements of this programme is to invest in entrepreneurship and entrepreneurial skills from a very young age. Primary and secondary schools can play a vital role in developing these skills.

The entrepreneurship and education grants scheme was launched in 2007 and provides seed money for the Entrepreneurship and Education Partnerships: encouraging projects from primary school through to vocational training

In November 2008 the Dutch government launched a new programme covering the 2008-2012 period. One of the key features of this programme is to professionalise entrepreneurship education by investing in networks between schools and companies, from primary school right through to vocational training, and opening an additional four to six entrepreneurship centres in the higher education sector.

National level strategies and programmes are being implemented in some countries (BE nl, CZ, DE, FI, LU, MT, PL, SE, SK, UK - Wales).

1.2.7.1 Conclusions Sense of Initiative and Entrepreneurship

Substantial progress has been made in most countries in recent years in promoting the entrepreneurial dimension of this competence. Much of this work has been underpinned or driven by national action plans and strategies, which is a positive development in the promotion of all of the key competences.

This competence provides many opportunities for engaging in partnership with organisations and enterprises outside the education and training system.

The dedicated subject approach addresses a body of knowledge most relevant to the national context, and this has allowed different concepts of the competence to emerge. However, knowledge must be accompanied by the appropriate contextual dimensions. These can be supplied either through integrated or cross-curricular work, or through creating links with outside partners such as local businesses.

Creating such links ensures that the body of knowledge covered is applied in a meaningful context. It also allows for cross-fertilization between the world of business and the world of education and training.

It is not clear to what extent the personal and social dimensions of this competence are addressed; or whether the creative and innovative aspects receive as much attention as the entrepreneurial dimensions. In common with Social and Civic competence, there is substantial scope to promote those aspects of entrepreneurship, for instance by the use of participatory teaching methods across the whole curriculum.

1.2.8 Cultural Awareness and Expression

According to the Recommendation "*Appreciation of the importance of the creative expression of ideas, experiences and emotions in a range of media*" is one dimension of this competence but there are many others, in addition to the familiar and traditional view of culture as *including music, performing arts, literature, and the visual arts*.

Other dimensions address the societal level, particularly in fostering *respect for diversity of cultural expression*.⁸³ Council Conclusions of May 2008 stress the importance of *acquisition*

⁸³ Recommendation on Key Competences for Lifelong Learning, op. cit.

by all citizens of the key competences most relevant to intercultural competences and most likely to foster an appreciation of cultural diversity as a core value, such as linguistic, social and civic competences and cultural awareness and expression.

This competence is therefore concerned both with *promoting the creativity and cultural appreciation of people as individuals, but also as members of society*. It harnesses awareness of one's own culture to promote understanding and tolerance of others', in a society of increasing diversity.

The Council Conclusions also address particularly the issue of access and call for the promotion of everyone's active participation in cultural life and access to culture and heritage in all their diversity, with particular attention to people who have fewer opportunities for access⁸⁴. Education and training systems have a significant role to play in reducing barriers to access to cultural opportunities arising from different kinds of disadvantage.

A further dimension of cultural awareness and expression concerns the arts and culture as process, that is, as a methodology. From this perspective, the methods of the arts have the potential to be used as a vehicle to promote individuals' personal and social development⁸⁵ in the context of any subject or educational activity.

Cultural Awareness and Expression in Schools and in VET

Arts and cultural education⁸⁶ forms a part of the school curriculum addressed in a variety of different ways, including as a stand-alone subject, through projects and themes and in outreach activities which take young people out of the school and into the gallery, museum or concert hall. This is the most familiar and traditional view of cultural awareness.

Through the Subject-Centred Curriculum

- Subjects provided as part of cultural education include: music (AT, BG, DE, DK, CY, CZ, HU, IE, LU, MT, NL, PL, PT, SE, SK, SI); visual arts (AT, BE, nl, BG, CY, CZ, DE, DK, ES, HU, IE, LU, MT, PL, PT, RO, SE, SK, SI); and literature, in all countries, usually as part of mother tongue teaching.
- Foreign languages provide a vehicle for the study of the culture of different countries in Bulgaria and Malta.
- Civics provides a context for cultural education in England; physical education provides a context in Finland.

Through Cross-Curricular Themes

- A thematic, multi-disciplinary approach forms part of the provision for cultural awareness in AT, CZ, DE, ES, FR, HR, HU, LT, MT.

⁸⁴ Council conclusions of 22 May 2008 on Intercultural Competences, [OJ C 141/14 of 13.06.2008](#)

⁸⁵ Bramford, Anne: The WOW factor. Global Research Compendium on the impact of arts in education. Waxham Verlag GmbH (2006).

⁸⁶ For a detailed overview of arts and cultural education, see Eurydice: Arts and cultural education at school in Europe.

- Outreach Activities such as visits to theatres, galleries and concerts are specifically mentioned by: AT, CZ, DE, LT, LU, MT, PL, SK.
- Active partnerships with cultural institutions were mentioned by Austria and Luxembourg. Austria has a long-standing and extensive statutory framework to support links between the education system and arts institutions. Schools in Luxembourg have links with cultural institutions, especially the Philharmonic Orchestra.

Box 1-22 – Austria - Dialogue Events

These are multi-disciplinary projects which provide a creative experience for teachers, pupils and artists by supporting work in schools under several categories of art and culture: architecture, fine arts, film/video, music, new media, dance and theatre and interdisciplinary work. Teachers in state schools can apply for funding to collaborate with practising artists on projects which vary in length from two lessons up to several months. Dialogue Events link artistic experience with everyday life in ways which develop participants' cultural and artistic skills. They also aim to foster young people's creativity, personal and social competence by using participatory and action-oriented methods that facilitate collaboration between artists, teachers and pupils.

Cultural Awareness and Expression in VET

- Croatia offers the same experience of the arts and culture to young people in VET as in the general education system. In some countries (IE, NL, SK, PT, UK) the type and extent of provision depends on the qualification being followed. In others (BE fr, BE nl, CZ, PL, PT) provision is embedded in the curriculum. But countries do not specify what provision is made within VET for this competence.
- Very few countries report using the processes of the arts as a vehicle to promote personal and social development, or intercultural understanding. This was mentioned only by Luxembourg, Malta and Slovakia.

1.2.8.1 Conclusions Cultural Awareness and Expression

Although culture and the arts are catered for in all countries through the traditional subject curriculum, according to the country reports, this competence does not appear to be a significant strategic priority for Member States as a whole.

The potential of the arts to provide a methodology for work in other areas of the curriculum, and in personal and social development, could be better exploited in many countries. This has implications for initial and continuing teacher education, which could incorporate methods borrowed from the arts into the methodology of all subjects. In this way, cultural awareness and expression will be more readily accessible to young people in all sectors and situations.

There were significant gaps in the information supplied in the country reports regarding provision in VET. However, the information supplied indicates that this area is not very strongly provided for in the vocational sector, especially where VET takes place outside school.

1.2.9 Some general conclusions concerning integration of the key competences in curricula

The shift towards competence

There has been a general shift in European countries to a competence-based approach, to which the European Framework has made an important contribution. Several countries (AT, BE nl, CZ, DE, FR, MT, NO, PL, SI, UK) are already supporting the development of certain key competences by expressing them as reference levels. These describe goals towards which learners should aspire, or a minimum level of attainment they should reach at specified stages. In others, such levels are in the process of being developed (DK). Some of these attainment targets or reference levels address areas of activity which are similar to or overlap with aspects of the key competences, especially Communication and Mathematics and in a few cases, address cross curricular themes (BE nl, CY, FI, SI).

Support for literacy

All countries have specific measures to address Communication in the Mother Tongue, particularly literacy, as a policy priority. Specific provision for migrants is widespread in this regard.

Cross-curricular work in all competences

Cross-curricular work is emerging as a teaching strategy in support of all of the competences. This is a welcome development because all of the competences are a combination of *knowledge skills and attitudes appropriate to the context*, hence the importance of providing a variety of contexts. However, this requires team-work, planning and staff training and development, as well as the support of the school manager. More needs to be done to make cross-curricular work a regular strategy in all subjects and activities.

Integration and the whole-organisation approach of certain competences throughout the curriculum

A whole school approach is emerging as a strategy in some countries. This applies especially to embedding literacy and numeracy across the curriculum and school activities. School leadership, staff training and other support structures such as teamwork and timetabling are essential for success.

The importance of early intervention

Early intervention in key areas such as literacy and numeracy emerges as a key strategy in many countries. Early learning of foreign languages and digital competence is also mentioned, but less frequently.

Extra-curricular activities

Extra-curricular activities are a vehicle for developing all of the key competences and could be exploited more. Only sometimes do national reports refer to these specifically as opportunities for learning. Informal learning has great potential, especially in areas such as digital competence.

Key competences provision in VET

How key competences are catered for in VET is not always clear but it seems that main focus is on mother tongue and maths, though often with a sectoral or technical orientation. Entrepreneurship also seems to be securely embedded in VET curricula. However, foreign languages, social and civic competence and cultural awareness receive less attention.

Contributing factors

Several important contributing factors have emerged from country reports, to differing degrees, as supporting effective provision of the key competences:

- action or strategy planning as part of overall National Lifelong Learning Strategies for a coherent approach across the different sectors, in order to offer equity of access to key competences;
- standards by which to assess the progress and development of the key competences;
- awareness-raising and professional development opportunities for teachers and school managers;
- staff development and working conditions that allow for integration and cross-curricular work e.g. team teaching;
- a school/organisational ethos that is participatory and democratic.

1.3 Key Competences for the disadvantaged

The Recommendation on Key Competences invites Member States to ensure that "appropriate provision is made for those young people who due to educational disadvantage caused by personal, social, cultural or economic circumstances need particular support to fulfil their educational potential."

The analysis set out below provides an overview of the types of measures implemented to support systems, schools and teachers to enhance the provision of key competences for disadvantaged target groups. Countries report a variety of measures that either addresses **all** young people by creating a coherent framework for all target groups, or measures specifically focused on certain disadvantaged target groups.

1.3.1 Legislative measures for key competences for all

The majority of Member States have over time created legislative frameworks targeting particular groups (AT, BE fr, BG, CZ, DE, DK, EE, ES, FI, HR, HU, IE, LV, LT, LU, MT, NL, NO, PL, RO, SK, SI, SE, UK). These are further described below. A few countries (BE fr, DK, FR, IS, NO) also report a trend towards a single overarching legislative framework for both mainstream learners and specific target groups:

Box 1-23 - Belgium fr - towards a system offering a comprehensive support to Key Competences

The first piece of legislation aiming to foster the acquisition of basic skills by all was adopted in 1997 ('Missions' decree) in the French speaking Community of Belgium. It particularly focused on making statutory a common weekly teaching grid in all schools in order to support the development of literacy and numeracy skills during the first years of compulsory education and the acquisition of transversal competences during all compulsory education. This legislation was complemented by another (adopted in 2008) that specifically targets pupils experiencing difficulties at the end of primary education.

A new unified system will replace these two legislative frameworks from 2010-2011. It will apply to all types of schools and put specific emphasis on disadvantaged learners. While based on existing measures, its main focus will be on introducing additional ones (e.g. supply of additional teachers and professionals – educators, guidance staff, etc.).

Another common approach is the introduction of **rights-based legislation** (DK, ES, HU, HR, NL, NO, SE, UK). Such legislation makes the acquisition of key competences a right for all. This places an obligation on education and training providers and/or teachers to put appropriate teaching and learning strategies in place.

1.3.2 Measures supporting targeted action

The measures developed by Member States to address the needs of SEN students include action plans and programmes; guidelines and individual learning plans; funding measures and communication strategies.

Action plans

Action plans and guidelines to accompany legislative measures are reported by many countries (AT, BE fr, CZ, DK, ES, IE, LV, LT, LU, PL, PT, SE, UK). Several focus on specific target groups (AT, BE fr, DK, IE, PL, PT, SI (for Roma), UK). In Spain, for instance a range of measures are in place:

Box 1-24 - Spain – Action Plans to support the development of KC by young people

Spain has put in place a Programme for Reinforcement, Guidance and Support (PROA) which is aimed at students who, due to a disadvantaged family or social background and/or limited education resources, have fewer possibilities of achieving full development of their basic competences.

The plan focuses on:

- training teachers on issues such as diagnosis and evaluation or modifications to curricula aimed at more clearly incorporating acquisition of competences;
- specific programmes aimed at improving school performance of students with the greatest difficulties;
- programmes aimed at preventing early school leaving and promoting the re-integration of drop-outs.

Individual learning plans

The use of individual learning/development plans is increasing. They enable learning to be personalised and adapted to different learning needs and strategies.

Some countries use individual learning plans systematically for all learners (FI, HU, NO, SE, SI); others certain target groups (BE fr, CZ, DE, DK, EE, LV, PT). Such plans consist of agreements between teachers and pupils and may involve increased use of individual assessments, as in the case of Sweden.

Box 1-25 - Sweden – Individual development plan in compulsory education

The Swedish Government has amended the provisions relating to individual development plans in compulsory education. As from the autumn term of 2008, the development plans also include written assessments of each pupil's knowledge development. The development plan shall also document agreements between the teacher, the pupil and his or her parents or guardians.

Additional funding

Most countries (AT, BE fr, BG, CY, CZ, DK, EE, EL, ES, FI, HR, HU, IE, IS, LV, LT, PT, NL, RO, SE, SK, UK) report using **additional funding** to support provision of key competences for mainstream learners as well as specific target groups. These measures generally put the emphasis on issues such as teacher education, school infrastructure or learning materials (new adopted materials (AT, BE fr, CY, CZ, EL, HU, IS, LT, SK)), teaching methods (BE fr, BG, CY, CZ, PT, RO) or distribution of free textbooks (AT, BG, EL, HR, RO).

Additional funding to support disadvantaged young people is reported in only a few countries though (BE fr, EE, HU, NL). These countries report that they allocate additional funding to schools characterised by large amounts of pupils with disabilities or disadvantaged socio-economical backgrounds. As in the case of the Netherlands (see text box below), funding measures also generally stress the need to involve close cooperation between the different educational actors.

Box 1-26 – The Netherlands – Compensatory policy funding

A compensatory policy aimed to prevent and reduce disadvantage has been set up at central government level in the Netherlands. It targets young people enrolled in pre-primary, primary and secondary education and has an annual budget of around 487 million euro. Funds are allocated to primary schools on the basis of a weighting system (i.e. schools can get additional funding on the basis of the educational levels of pupils' parents) and to secondary school on the basis of the *Learning Plus and Newcomers Funding Scheme* (i.e. extra funding allocated to schools coping with pupils with migrant background). Cooperation between local authorities, school institutions and other institutions is seen as a determining factor and thus is strongly encouraged through the design of the scheme.

Communication measures

Attracting young people to education and training beyond the compulsory schooling age or retaining them in schools, especially those prone to dropping out altogether or joining the labour market prematurely, is also a challenge for key competence provision. A few countries

report on broad communication measures (AT, EL, ES, FR, HR, LT, NO, SK, UK). These take the form of e.g. nationwide campaigns, websites, and dissemination of good practices. Their aim is to reach out to the target groups via new interactive media and explain the purpose of legislation, strategies and action plans "in their own language".

Box 1-27 – Croatia – The ‘Secondary school for all’ campaign

The ‘Secondary school for all’ campaign was launched following the implementation of the National Programme of Measures for the Implementation of Compulsory Education in 2007. Its aim is to raise public awareness of the advantages of increasing the number of young persons in secondary education and creating the preconditions for their better social inclusion and lifelong learning. A priority measure is to improve the working conditions of teachers.

1.3.3 Measures targeting specific groups

Countries identify a certain number of target groups that are given particular emphasis in their policies and measures. The most common such target groups that countries have identified are young people with special educational needs (SEN); young people with literacy needs and potential early school leavers.

Support for young people with SEN

Measures to support the development of key competences by **young people with SEN** constitute an important goal in many countries. This trend was clearly reported in more than half of the countries (AT, CY, CZ, DE, DK, EE, FI, FR, HR, IE, IS, LV, LT, NL, NO, PL, PT, SE, SI, SK, UK England⁸⁷). The measures identified can be grouped as follows:

Structural measures involving inclusive or combined settings

In most reports, little information is provided on whether the measures involve special schools or classes, or interventions to help children in the context of the regular classes. Four countries (EE, FI, LV and DK) however make this more explicit. While a strong emphasis is put on inclusive settings in the Estonian and Latvian reports, the Danish report stresses that special education can be organised in a variety of ways. Most Danish young people with SEN generally remain in a mainstream school class but may also be taught in a special class (either within a mainstream school or within a special school) or combine both.

Box 1-28 - Latvia – Measures to support young people with SEN in schools

Aside from benefitting from specialist guidance (speech therapists, psychologists, etc.) schools in Latvia can also implement the following measures:

- remedial teaching (additional classes for up to 6 students with motivational difficulties, motor or mixed developmental difficulties, students with visual and hearing disabilities);
- individual study programmes for students in one or more subjects with an agreement on either reduced or heightened requirements for study content or learning results as compared to the school’s curriculum, exceptions in study organisation, etc.;

⁸⁷

Information found in the reports refer to young people with disabilities (i.e. who have clear organic reasons for their difficulties in education) and/or difficulties (i.e. with emotional and behavioural difficulties of specific difficulties in learning). This typology reflecting the categories A and B set by OECD to define pupils with SEN.

- 'opportunity classes' for students with learning difficulties in basic and upper secondary schools studying according to the national curriculum for (up to 16 students per class);
- extra help or consultations from subject teachers outside school hours;
- after-school groups, with activities, pedagogical guidance for homework, study assistance, opportunities for hobbies, etc.

Curricular measures / individual learning plans, assistance and information

Curricular adaptations are reported by a few countries (AT, DK, EE, IS (effective from 2010) and LV). They may consist of adjusted curricula (AT, DK, EE, IS, LV), guidelines for the implementation of quality standards for inclusive education (AT), or guidelines for the implementation of individual support plans (AT, EE and LV). These are often accompanied, as in Estonia, by annual assessment discussions between the teacher, student and parent, where progress, learning conditions and future challenges are agreed.

Raising the number of specialist assistants aimed to help ensure a quality process of integration at school is reported by three countries (EE, LT, LV).

An example of a website dedicated to SEN provision was provided by the United Kingdom (England):

Box 1-29 - UK (England) – approaches to support competence development of learners with difficulties

The Learning and Skills Improvement Service has developed an on-line toolkit supporting 'Learners to succeed'. It also launched a project named 'Getting a life' that will spread good practice from a number of local projects aimed at improving progression of young people with learning difficulties and/or disabilities learners into employment.

Measures targeting young people with literacy needs

Making sure that appropriate teaching **time** for reading and mastering the language of the country is foreseen in curricula for early childhood education and primary education was particularly stressed by some countries (DK, BE fr, ES, FI, FR, HU, LT, NL, NO, SI) as a measure to prevent literacy difficulties or to address them in early stages.

Action **plans** and **extra funding** to foster literacy skills were also reported by few countries (BE nl, FR, ES, NL). These countries stressed that supporting the development of literacy skills was considered, by law, as their core priority.

As previously highlighted, teaching materials and complementary electronic resources support effective teaching and learning. The Spanish Ministry of Education has approved significant budget allocations to improve school libraries but also made several electronic resources available.

The implementation of specific measures addressed to **bilingual young people** has also to be stressed by some countries (AT, CZ, DE, DK, ES, FI, LV, LU, NO, PT, UK). Such measures mostly address **young migrants** (AT, CZ, DE, DK, ES, FI, IE, LV, LU, NO, PT, UK) or

young people from **minority groups** (IE, LV, NO) who do not generally master the language of the host country (DK, FI, LV, LU, NO, UK).

Box 1-30 - Denmark – Measures to support bilingual children in acquisition of the national language

The municipalities are obliged to offer language stimulation training to bilingual children living in Denmark from the age of 3 who are in need of such training in order to develop their competences in the language of instruction. Bilingual children, who do not attend a day-care centre, receive 15 hours of language stimulation activities per week.

The Folkeskole Act also gives municipalities the possibility to refer bilingual pupils with a need for language support that is deemed ‘not insignificant’ to a school other than the district school to which they belong, if a better pedagogical offer is available at another school.

The Ministries of Education and of Refugee, Immigrant and Integration Affairs have in cooperation established a ‘Task Force for Bilingual Pupils’, the aim of which is to advise municipalities on effective ways of improving the education outcomes of bilingual pupils.

Measures targeting (potential) early school leavers

The importance of this issue is highlighted by the European benchmark on early school leavers⁸⁸ and several Council conclusions⁸⁹.

Issues relating to early school leaving are high on the policy agenda of many countries (BE fr, BG, DE, EE, ES, FI, FR, HR, LT, LV, LU, NL, PL, PT, UK). A few report that their measures mainly consist of flexible scheduling (BG, PT) or individualised learning plans (DK, LU), increased guidance and the involvement of other stakeholders such as employers’ representatives.

More specifically, two main kinds of measures can be distinguished. They consist of retaining and/or bringing school leavers back to educational systems, and preventing potential drop-outs at an early stage.

- Preventing young people at risk from dropping out (BE fr, FI, SE, LU, LV, PT) is tackled through individualised forms of support such as tutoring (BE fr, FI) or setting up ad hoc classes for low achievers (LU, LV, SE). An example of flexible arrangements in Finland is outlined below:

⁸⁸ By 2010 an EU average of no more than 10% early school leavers should be achieved.

⁸⁹ See for instance November 2006 Council, 12677/06 EDUC 167

Box 1-31 – Finland – Flexible education to prevent early drop-outs

The flexible basic education programme, initiated in 2006, has already brought significant results in preventing drop-out. It seeks to support young people at the end of compulsory education, and help them to apply for further education and training. Early intervention, active ways of learning, individualised approaches combining schools and authentic work, and the involvement of parents are the key features of the project at school level. However, it also focuses on teachers' competences in meeting young people's needs and their collaboration skills, and makes local authorities responsible for efficient coordination between services such as youth, health and social services. The programme is now being mainstreamed.

- Ways to retain and bring young people back to education involve promoting the concept of Second Chance Education (LU, LT, LV, MT) or increasing flexible educational provision both in general education and VET (BG, LU, MT, PT). The UK reports extending the length of compulsory schooling thus retaining young people longer in education and training.

Box 1-32 – Luxembourg – A set of measures to address early school leaving

Luxembourg is putting in place a coherent set of measures to address early school leaving, including:

- support measures by the Local Youth Action network which proposes individualised support and guidance in order to motivate them to re-integrate general education or VET;
- to ensure that those who repeat a class, which is often the first step to dropping out, improve their results (which is in most cases not the case if they remain in the same type of class), certain schools put in place specific classes with individualised support (95% of these students reach the objective set at the beginning of the school year);
- A Law on second chance schools which will put in place a specific type of provision for early school leavers in order to bring them up to the level of key competences required in order to integrate general or technical education and training.

1.3.4 Conclusions on Key Competences for the Disadvantaged

While countries have developed specific legislation, action plans and measures to address different target groups, some countries go further and create **a single coherent framework** for both mainstream learners and specific target groups, notably through the introduction of rights based legislation.

Funding is crucial to make sure these measures and action plans translate into results. Though countries report specific funding for certain target groups, clear information on whether the amounts are increasing or decreasing was not given

There is a trend towards **individual learning plans** accompanied by guidance to make sure that disadvantaged young people or those with difficulties receive adequate and coherent support for their learning. In most cases, these primarily target young people with literacy needs (including migrants) and those with special education needs (SEN).

More generally, a coherent picture on policies effectively tackling educational disadvantage would require information on the role of early childhood education and care (ECEC).⁹⁰ Some countries already included this topic in their reports as a priority (CY, DK, FR, FI, HU, IS, LV, NL).

The few examples concerning reforms in VET (BE fr, CZ, EL, IT, DK, LT, LU, NL, SK, PT) could provide a basis for mutual learning in this area.

Similarly, effective measures targeting unemployed young people were not fully present in reports, and this would be another specific area where countries could learn from each others' practice.

1.4 Supporting adults in developing Key Competences

The need to support the **adult population** in developing and updating the key competences throughout their lives is clearly emphasised in both the Recommendation on Key Competences for Lifelong Learning⁹¹ and the Council Conclusions on the Action Plan on Adult Learning, *It is always a good time to learn*⁹² which invites Member States to *address the problem of the persistently high number of early school leavers by offering a second chance to those who enter adult age without a qualification, focusing on areas of particular concern, such as basic literacy and numeracy, IT skills and language learning*.

Ongoing societal changes (e.g. globalisation, demographical changes, but also different family composition, role of women, increasing technological developments requiring new work practices, unemployment, etc.) increase the risk that those without qualifications or with only low qualifications may, more than ever, become excluded from society and the labour market.

The development and implementation of coherent and efficient policies for the adult learning sector implies overcoming challenges related to: the complexity of the structure of the sector^{93 94} that comprises different forms of learning, types of providers (public and private) and diverse target groups⁹⁵, and involves a large number of funding and decision-making institutions (e.g. national, regional and local authorities, education, training and employment sectors).

It should be noted that countries, in their reports, include a wide variety of actions at very different levels of detail, making the information sometimes difficult to compare. Furthermore countries often report about measures concerning the adult sector in general and the specific link to key competences is not always made.

⁹⁰ Whereas 'pre-primary education has the highest rates of return of the whole lifelong learning continuum, especially for the most disadvantaged' as stressed in the Commission Communication on "Efficiency and equity in European education and training systems", [COM\(2006\) 481 final](#)

⁹¹ Recommendation on Key Competences for Lifelong Learning, op. cit.

⁹² Council Conclusions of 22 May 2008 on adult learning, [OJ C 140/10 of 6.6.2008](#)

⁹³ Adult learning is officially understood as all forms of formal as well as non-formal and informal learning undertaken by adults after having left initial education and training, however far this process may have gone (e.g. including tertiary education). See [COM \(2006\) 614](#) "Adult learning - It is never too late to learn"

⁹⁴ The adult learning sector touches all the other educational sectors. So it is important to analyse the effects of developments in other educational areas and their interaction with the development of adult learning. This sector also interrelates with other policies (employment, culture, health, etc.).

⁹⁵ The level of development, participation, funding of adult learning may greatly vary across countries

Main types of progress achieved

Countries are currently at very different levels of development regarding participation in adult learning participation as well as policies on the quality, financing and the development of the sector. However what characterises the sector across the whole Europe is not only its diversity, but also the lack of participation especially among those who most need it (low qualified, drop outs, disadvantaged, etc.). Supporting the development of key competences by all adults clearly means making an optimal use of this diversity of providers and settings. To achieve this, interrelated policies, governance and delivery measures are needed as stressed in the Action Plan on Adult learning.

Legislative measures targeting the development of key competences in Adult learning

Measures to ensure the development of key competences for all adults are included in legislation as reported in the majority of countries (AT, BE fr, BE nl, BG, DE, DK, EL, HR, IE, IS, IT, LV, LT, LU, PT, NO, PL, RO, SE). Amongst them, a trend towards amending legislation to contribute the implementation of key competences observed in a few countries (CZ, EE, FR, IT, HU, IS, PL, PT).

Several countries' legislation targets coherence between the adult learning sector and the other sectors of education and training in a lifelong learning perspective (CZ, DE, DK, EL, ES, FI, HR, IS, LV, LT, RO, SE, UK). This is illustrated by the Icelandic approach (see Box below) which refers to bridging the formal system and learning acquired in other contexts (for example on the job).

Box 1-33 – Iceland – Adult learning in the context of a comprehensive approach to LLL

The Icelandic education system has been undergoing a radical change through new legislation for all levels of formal education which took effect in 2006-2008. A Bill on Adult Education which is currently under preparation will complete the overall policy thus establishing a comprehensive approach to Lifelong Learning. The new Bill will include provisions for building bridges between the system for validation of non-formal and informal learning and the formal school system. This system is already being piloted and it focuses particularly on reaching out to people who are on the labour market but who have left the education and training system without qualifications. The goal is to bring them back to VET, recognising what they have learnt in the work place and enhancing their skills in order to achieve a qualification.

Legislation focusing on specific target groups of adults (e.g. people with low or no qualifications, with disabilities, migrants, women, older people, etc.) exists in all countries. Legislation is sometimes complemented by action plans focusing on e.g. illiterate people, immigrants, and older people (BE nl, BG, HU, LT, NL, NO, PL, PT).

Legislation covering the whole adult population is reported in only a few countries (BE fr, BE nl, LT, NL, NO, RO, SE, UK). All of the latter also provide for a statutory right to adult

education. Legislation which in addition also covers both formal and non-formal learning is mentioned in a few countries (EE, IS, FI, LV, SK)⁹⁶.

Supporting/setting up structures at national/regional level

National councils or agencies for adult learning exist in the majority of countries (BE fr, BE nl, BG, CY, CZ, DE, EL, ES, FR, HU, HR, IE, IS, LT, LU, MT, NL, PL, PT, RO, SI, SE). As regulatory bodies, they help formulate priorities for the policy agenda and curricula.

Nine countries (BE nl, CY, DE, EL, ES, IS, MT, NL, SK) have reported the existence of regional councils and/or networks/centres that help embed adult learning in the regional context associating learning communities, cities and regions.

Box 1-34 – Netherlands – Comprehensive approach to adult learning

The Interdepartmental Project Unit for Learning and Working (PLW) in the Netherlands was set up in 2005 to boost adult learning in combination with work, focusing on programmes combining work and study that lead to a qualification and better opportunities on the job market. A tool to recognise, assess and validate competences is also being used in this context. The key element of the PLW approach is the development of regional partnerships (government, schools and the business community) to build a sustainable infrastructure for lifelong learning in the region. The parties to these partnerships recognise that it is in their own interest to work together to ensure that the regional working population develops competences to meet the needs of the regional labour market. There are currently 45 such partnerships.

Box 1-35– Belgium nl – Establishment of lifelong learning regional centres

The new decree on adult education of June 2007 redefined and emphasized the mission of the Centres of Basic Education in the Flemish Community of Belgium. From September 2008 there are 13 such regional Centres focusing activities on adults who need basic training in order to fully participate in society or follow further training. These centres provide a broad and varied range of basic education programmes, in which the key competences are integrated: mother tongue, mathematics, social orientation, ICT, introduction in foreign languages (French, English) and participant counselling activities.

Funding measures

While some countries report increasing funding in adult education (AT, BE fr, BE nl, CZ, DE, EE, IE, IT, LV and UK), two countries (IS and HU) refer to budget cuts. Funding and/or financial incentives were reported in many countries (BE fr, BE nl, EL, ES, FI, HR, IE, LT, LU, NL, NO, PL, SE, SI, UK). These measures can take different forms e.g. involving vouchers (FI), training grants/free tuition fees for courses of basic education (BE nl, EE, LV, NO, PL, and UK), tax credits (NL). Only two countries (IE and SE) mentioned increased funding for adult learning in reaction to the ongoing economic crisis.

⁹⁶

Complementary information was found in the report ‘The State and Development of Adult Learning and Education in Europe, North America and Israel - Regional Synthesis Report UNESCO Institute for Lifelong Learning, 2009. This stated that legislation integrating all aspects of adult learning, formal and non-formal, has been enacted in a small number of countries, for example, in Denmark, Finland, Netherlands, Romania and Sweden.

Delivery-related measures in the context of lifelong learning

One of the biggest barriers to adults wishing to develop their key competences is information gaps⁹⁷ and lack of efficient communication to reach those who are the most at risk of social exclusion (in particular low qualified people) and being un-employed. The importance of adequate guidance in motivating adults to learn and retaining them in learning was underlined in several EU peer learning events on the Adult Learning Action Plan.

Measures to strengthen **guidance services** were reported by several countries (AT, CZ, EE, DE, IS, LT, LV, LU, NO, PL, SE, SK, UK). However the level of information provided does not permit a comparative and comprehensive overview. The recent UNESCO Institute for Lifelong Learning regional synthesis report⁹⁸ provides complementary examples of such measures. It also stresses that many EU countries 'are endeavouring to address the critical lack of comprehensive adult guidance systems'.

Other types of measures reported that focus on the delivery of adult learning are: on-line training (AT, BE nl, EL, ES, FI, NL, RO); widening adults' access to higher education (BE fr, EL, ES, HR, IE, LT, RO, SK); distribution of free text books (NL); media campaigns (CZ, EL, HU, NL); new measures supporting the recognition of non-formal and informal learning (IS, LU, NO), which, as reported by the Adult Learning Working Group, is a growing factor in adult learning provision (BE fr, BE nl, BG, CY, CZ, DE, DK, EE, EL, ES, FI; FR, HU, IE, IS, IT, LI, LT, LU, MT, NL, NO, RO, SE, SI, UK)

1.4.2 Measures targeting specific adult groups

Countries' reports focus on a number of different target groups in order to equip them with the necessary level of key competences to participate in the labour market and society, and for personal development. These targets are:

- Adults with low skills/unemployed (all countries);
- Migrants and bilingual adults (AT, BG, CY, CZ, DK, DE, EL, ES, EE, FI⁹⁹, FR, IT, LU, MT, NL, NO, SE, UK);
- Ethnic minorities (BG, CZ, EL, HR);
- Adults with special needs/disabilities (AT, CY, CZ, HR, IS, IT, LV, LT, PL, PT, SE);
- Elderly people (AT, CY, CZ, EE, HR, IT, PL, SE, SI, SK);
- Offenders in custody (CY, FR, IT, LV, PL, PT, UK).

Also people at risk at redundancy (PL, UK), young adults (PL, FR), women (HR); and war veterans (HR) were mentioned.

⁹⁷ Ibid.

⁹⁸ Ibid.

⁹⁹ Concerns migrants only

Measures to support the development of Key Competences by adults with low basic skills/unemployed

The development and mastering of **literacy** in particular is at the core of actions implemented in all the countries that report on this target group (see above). Literacy skills are essential not only for the workplace, but also to develop self esteem and give people a voice and a critical engagement in a democratic society.

Measures to support the development of Key Competences by migrant/bilingual adults

Measures primarily focus on:

- actions to promote the development of the official language, including compulsory language courses for immigrants in most countries (AT, BG, CZ, DK, EL, EE, FR, LU, MT, NO, SE, UK);
- skills to integrate in the new society (AT, BG, EL, ES, LU, NO) as well as vocational skills (DK, SE)

Integration of language learning with learning of other competences, such as literacy mathematical skills, digital competence, etc. is reported by Austria and Greece. Other countries (BG, DK, DE) integrate language learning for immigrants with learning of vocational skills or combining working and learning.

Box 1-36 – Denmark and Austria: Integration of language learning and acquisition of other competences

In **Denmark** immigrants and refugees not having adequate Danish language skills to participate in regular adult vocational training courses may join programmes specifically developed for this target group. These programmes combine Danish language courses with introductory short training courses and a work placement.

In **Austria** integration courses for immigrants combine language teaching with acquisition of the other key competences (literacy, digital competence, maths, social and civic competence, etc.) In addition these programmes combine learning with methods to assess, validate and recognise immigrants' prior learning.

Measures to support the development of Key Competences by adults from ethnic minorities

Measures for adults from minority groups (particularly the Roma) were reported in the Bulgarian and Greek reports. The example set out below depicts the provision of new curricula aimed to foster literacy skills by Roma adult population.

Box 1-37 - Bulgaria - Curricula for Literacy and Qualifications of Roma

New curricula for adult education were in 2008 developed and approved by the Minister of Education and Science in Bulgaria amending the National Programme for Literacy and Qualifications of Roma. After reaching the desired learning outcomes the learners have the right to take an examination certifying completion of initial education and allowing access to lower secondary education or to attend vocational training. The emphasis is put on the acquisition of key competences.

Similarly, the implementation of an educational programme addressed to Roma -as well as other adults from minority and immigrant groups, see text box 1-37- was reported in Greece. As in Bulgaria, its main focus is on supporting the development of literacy by these adults. In terms of target group, the emphasis is however specifically put on parents as the example set out below further details.

Box 1-38 - Greece – Educational Programme Instruction and Counselling Support to families of socially vulnerable groups

The Programme aims to contribute to the creation of a supportive family environment that will assist the student, reduce school failure and drop-outs and finally help confront the danger of social marginalization and exclusion of socially vulnerable groups. The acquisition of basic language skills helps improve the economic and social conditions of the parents themselves and, therefore, of the entire family. The educational programme has been implemented in Centres for Adult Education (KEE) and Schools for Parents across the country

Measures to support the development of Key Competences by adults with SEN

Measures supporting the development of Key Competences by adults with special educational needs (SEN) were reported in around a third of countries (AT, CY, CZ, HR, IS, IT, LV, LT, PL, PT, SE). Though a few of them explicitly indicate that these measures are part of their lifelong learning strategies (IS) and/or embedded in recent legislation (PT and SE), information on the ways they are implemented and their main outcomes was scarce.

Box 1-39 – Sweden – Right to basic education for adults with SEN embedded in legislation

As from 2007, the Government has introduced into the Education Act the right to basic adult education for those with learning difficulties (*särvux*).

Measures to support the development of Key Competences by older adults

Supporting the acquisition of Key Competences by older adults is crucial to strengthen their employability and/or the quality of their personal lives. Such measures were identified in less than a third of the countries (AT, CY, CZ, EE, HR, IT, PL, SE, SI, SK). However, four stressed that such measures were at the core of national programmes or strategies (CZ, EE, SE, SI).

Box 1-40– Czech Republic – National Programme for the Preparation of Aging

Special measures are devoted to older people (especially those of prior- retirement age) within the framework of the National Programme of the Preparation for Aging for the years 2008 to 2012. Emphasis is put on key competences from the perspective of adapting older people's skills to both strengthen their employability their quality of life.

Among the key competences, emphasis is generally put on supporting the development of foreign language (EE, SI), ICT (SE) and “inter-generational co-existence and intercultural competences” (SI).

Box 1-41 – Estonia and Slovenia – Range of Key Competences addressed in ongoing measures

In Estonia, special emphasis is placed on older people for whom the purpose of their foreign language training is the better comprehension of information and participation in the everyday media space, politics, cultural live and organisations

In Slovenia, educational programmes addressed to older adults (65 years old or over) involve language learning, social studies and the preservation of cultural heritage, healthy living and environment protection, and inter-generational co-existence and intercultural competences

Measures to support the development of Key Competences by offenders in custody

Measures to develop key competences by offenders in custody were reported in a few countries (CY, FR, IT, LV, PT and UK - England). Two country reports (LV and UK - England) provided more explicit information highlighting the provision of a new core curriculum for offenders (UK - England) or the possibility to acquire key competences at different levels of education of education - ranging from general education to higher education – (LV).

1.4.3 National data available on participation of adults and adult priority groups' participation

The quality and efficiency of the adult learning sector can only be if there if a feedback loop on what works and what does not. Monitoring and evaluation measures require accurate data on participation and progress achieved, which is currently very scarce and often not comparable, mainly due to the lack of clear definitions and the fragmented character of the sector. In the UK, use of the "unique learner number" allows the achievement of individuals to be tracked and has great potential for longitudinal tracking of learner achievement fine-tuning policy.

Evidence from the country reports shows that data collection on adult learning is undertaken in all countries. The information collected however focuses on basic data such as overall numbers of participants in most countries (AT, BE fr, BE nl, BG, CY, CZ, DE, EE, EL, ES, FR, HR, IE, IS, IT, LV, LT, LU, MT, NL, NO, PT, RO, SI, SK, SE, UK - England). This means that evidence relating to e.g. particular target groups, participation rates by type of settings/programmes, etc. is rarely available. Wherever more detailed indicators (e.g. providing a distribution by age, gender, area of learning) exist (as reported in BE nl, ES, IE, IT, LT, NL, NO, SE, SI, UK), data are often not be comparable.

Measures aimed to implement new tools and/or methodology (consisting e.g. new databases for specific programmes, extranet, etc.) for a more systematic and reliable data collection are reported in only a few countries (FR, HR, NO). The analysis of the reports however makes clear that few countries have implemented any consistent data management system so far.

1.4.4 Collaboration with representatives of other policy areas, partners and stakeholders in designing provision for adults

As stressed in the Council Conclusions of May 2008 on adult learning¹⁰⁰, ‘the cross-sectoral nature, diversity, complexity and richness of adult learning impose the need for an integrated approach involving all stakeholders, including those at local and regional level, the social partners and NGOs’.

The information provided in the country reports firstly highlights that policy and provision are underpinned by partnership arrangements (involving several government Ministries, regional authorities/councils and social partners) largely taking the form of ad hoc councils (e.g. called sectoral or advisory councils) in the majority of countries. Such arrangements notably allow the involvement of social partners.

Those stakeholders mentioned include comprise educational providers, employers’/employees’ representatives, Chambers of Commerce, experts and NGOs (although a major actor this latter is however only reported in eight countries – AT, BG, EL, HU, LT, NO, PL, SE). A few countries (e.g. BE, DK, EE) report that the involvement, rights and duties of stakeholders are formally stated in legislation.

Another finding that emerges from the country reports is that policy responsibility for adult learning is fragmented in many countries, with multiple ministries having responsibility for different aspects. This is particularly reported in nine countries (BE fr, BE nl, ES, HR, LT, LV, NL, NO, SI). The case of Latvia where nine Ministries (led by the Ministry of Education and Science)¹⁰¹, along with other stakeholders, collaborate in the development of strategies and action plans is particularly noticeable in this respect. While this share of governance is very beneficial to ensure that adult learning responds to the needs of the different economic sectors (as represented by the different ministries) it requires strong cooperation and coordination, in order for the policies to remain coherent.

The transfer of responsibilities for adult learning from the central level to regions, municipalities or other local level authorities was also reported in some countries (CZ, DK, DE, FI, FR, HU, IS, PL, SE, NO).

1.4.5 Conclusions supporting adults in developing Key Competences

Development of measures to support provision of Key Competences for adults can be observed at all levels: adoption of new and revised legislation and strategies, improved delivery and governance of the sector as well as specific funding measures.

¹⁰⁰ Council conclusions on adult learning, op. cit.

¹⁰¹ Ministries of Education and Science, Economy, Agriculture, Welfare, Health, Culture, Interior, Defence, Regional Development and local governments.

This trend is strong for low qualified/unemployed adults and, to a lesser extent, immigrants. Raising their basic levels of Key Competences is emphasised in many countries and measures have a specific focus on literacy, numeracy or language learning. Though other target groups (e.g. adults with SEN, elderly people, etc.) are referred to in the legislation of many countries, information from the reports does not allow providing of a comparable picture of these measures in terms of delivery and funding.

A second chance to attain lower or upper secondary level qualifications is also widely provided. With regard to immigrants, social and civic competence is sometimes included, thus highlighting the importance of key competences in fostering social inclusion and intercultural integration, and not merely the technical skills of communication.

However measures to further develop Communication and numeracy skills do not receive attention nor does the provision of competences such as (MST) Mathematics and Scientific Competence for adults appear to be a priority.

The way countries report on adult competences shows strong links with broader policy measures such as lifelong learning strategies and guidance, validation of non-formal and informal learning, National Qualifications Frameworks, etc.

Furthermore, the vocational aspect of adult learning policies is evident from many reports but how this embraces the key competences remains unclear. Often in work-based learning professional skill development is combined with the learning of key competences, including literacy and numeracy, as part of vocationally oriented courses.

Further efforts seem to be needed to provide or upgrade key competences for older people, adults with disabilities/SEN and employed people, in particular on the background of the current economic downturn).

1.5 Teacher Education

Stepping up provision for key competences makes many new demands on the teachers, trainers and leaders who are most directly involved in carrying them out. The Recommendation on Key Competences highlights the *need for appropriate infrastructure for continuing education and training of adults, including teachers and trainers*.¹⁰² Therefore, these demands are also opportunities to address the initial and continuing professional development for teachers and trainers in the context of lifelong learning.

In the Conclusions of the Council on Improving the Quality of Teacher Education¹⁰³, Member States agreed to *Promote during initial teacher education, early career support and through continuous professional development the acquisition of competences which will enable teachers to teach transversal competences such as those outlined in the Recommendation on key competences....* They also agreed to ensure that teachers *are encouraged and supported throughout their careers to review their learning needs and to acquire new knowledge, skills*

¹⁰² Recommendation on key competences (2006) op. cit., p. 2

¹⁰³ Council Conclusions of 15 November 2007 on improving the quality of teacher education, [OJ C 300/6 of 12.12.2007](#)

The purpose of this section is to explore the extent to which countries report that teachers and trainers in general education and VET are supported by suitable initial and continuing education in their work ensuring that young people and adults develop the Key Competences.

1.5.1 Initial Teacher Education, General Education

- **National definitions of the competences** required of teachers underpin teacher education in almost half of the countries (AT, BE nl, DE, DK, EE, FR, HU, IE, IS, LT, LU, LV, NL, PL, PT, RO, SE, SI, UK).
- **National (or regional) initial teacher training programmes** exist in BE fr, DE, DK, EE, ES, FI, HU, IE, LV, NL, PL, PT, RO, SI, UK) and address some of the areas of professional competence required for the development of the Key Competences and the competences outlined in the Council Conclusions on Improving the Quality of Teacher Education¹⁰⁴.
- **A Competence-based approach to initial teacher education** was reported as being a long-standing feature of the existing systems in six countries (CZ, DK, EL, LU, PL, UK); and will be introduced shortly in a small number of countries (BE nl and BE fr).
- **Reforms in teacher education** have already been introduced to accompany and support the introduction of key competences into the education system (ES, HU, RO, SI). Other reforms are consistent with specific elements of the key competences (AT, BE fr, BE nl, BG, CY, DK, EE, EL, HR, FI, MT, PL, PT, UK). These include teaching competences in cross-curricular work (BE nl, EE, EL, PT, RO), in promoting literacy across the curriculum (NO, UK), work on transversal competences or other individual subject areas (AT, HR, PT, RO), and teaching and assessment methods of different kinds (BG, EL, UK) including the use of ICT (CY, EL, IE, PR, RO).
- **Reforms in initial teacher education** are either currently underway or planned for the near future in a further sixteen countries (AT, BE nl, BG, CY, CZ, DE, FR, HR, IE, IS, LT, LU, NO, PT, RO, SE).

1.5.2 Initial Training of Teachers and Trainers in VET

There is a wide variety of practitioner roles in the sector (VET teachers in secondary, vocational or technical schools; in-company VET trainers, etc). It is not always clear which of these roles is referred to in responses from the country reports.

- **Reforms to the initial education of VET teachers are already underway**¹⁰⁵ (AT, FI, HU, IS, RO, SK, UK) or planned (BE fr, DE, DK, EL, HR, LT, PL, TR) in less than half of the countries represented. Some of these changes are large scale and wide-ranging (HR, RO, TR) whereas others involve incorporating specific measures such as entrepreneurship (LT), or specialist functions such as support for job improvement (FI).

¹⁰⁴ Council Conclusions of 21 November 2008, op. cit.

¹⁰⁵ There is a wide variety of practitioner roles in the sector (VET teachers in secondary, vocational or technical schools; in-company VET trainers, etc). It is not always clear which of these roles is referred to in responses from the country reports.

However, in countries where the training requirements for VET teachers and trainers are different from those of general education teachers, little information is provided on how they are equipped to ensure that the reforms concerning Key Competences at national level are translated into the teaching and learning approaches in VET.

Box 1-42 – Slovenia - Partnership of Faculties and Schools: Supporting Key Competences

Key competences are being developed in Slovenia through general educational subjects and in vocational modules, through the curriculum as a whole and in some integrated key qualifications.

To support these reforms, Slovenia has embarked on a major national programme of initial education for VET teachers and trainers. The “Partnership of Faculties and Schools” programme uses networks of schools to create links between practising teachers who act as mentors to future teachers. Supported by the tertiary institution, programmes, tools and support materials were drawn up for new teachers and the teacher-mentors, underpinned by a set of competences for all of the roles which were identified by the actors themselves.

In this way, the induction of new teachers, and the continuing professional development of practising teachers are co-ordinated and mutually supportive.

1.5.3 Continuing education for teachers in, general education

- Seven countries (CZ, ES, LU, NO, SE, SI, SK) refer to **continuing education programmes** or events for practising teachers which are specially tailored to equip teachers to re-orientate their work towards the Key Competences.
- This may include **specific events** such as periodic seminars, workshops and conferences on particular areas such as individual subjects (AT, CZ, DE IE nl, HR, PT, SI) or transversal competences (AT, CZ, DE, FI, IE, LT, MT, NO, SI) or cross-curricular work (HR) provide an introduction to elements of key competence.

However, specific events and even long-term programmes are only the first step in professional development. It is essential that CPD should not only develop method and techniques, but also support teachers in becoming reflective practitioners. To accomplish this, the learning from professional development programmes or events must be consolidated by follow-up strategies which allow teachers to discuss their experiences of putting into practice new ways of working in their school community.

The TALIS study¹⁰⁶ reports a very wide variation in teacher participation in CPD across countries. Non-attendance is attributed to obstacles such as lack of suitable programmes and conflict with work schedules. Yet the study identified positive effects associated with participation in continuing professional development, including increased use of more varied and versatile teaching methods, co-operation with colleagues and greater job satisfaction. This highlights the need to address teachers' attitudes, beliefs and practices as a whole¹⁰⁷ and the

¹⁰⁶ OECD (June, 2009) “Executive Summary, Creating Effective Teaching and Learning Environments: First Results from Talis,” OECD publishing, p. 10

¹⁰⁷ Ibid., p. 6

potential of individualised approaches to teacher in-service education to complement traditional interventions.

Box 1-43 – Croatia - Teacher Councils

In Croatia, a new competence-based draft National Curriculum Framework includes all the key competences recommended by the European Framework on Key Competences for Lifelong Learning.

This is supported by a major programme of CPD for teachers, which includes subject and cross-curricular methodology. The programme is supported by a national network of Teacher Councils. Skilled teachers are identified to take on the roles of co-ordinator of professional learning and mentor. A significant function of the Teacher Council is talent-spotting – identifying teachers who are already innovators. These potential change agents and motivators are then positioned in situations which maximise their influence.

In addition to CPD programmes and events other tools are used:

- **Mentoring of teachers** after completion of their training is a feature of initial teacher education in several countries (AT, BE nl, CY, EE, HR, PT, UK). This ensures that learning is consolidated with a more experienced peer.
- **Networking of teachers and schools** to share good practice and facilitate mutual learning is reported in five countries (AT, CZ, DE, HU, HR, IE) and is planned in the UK.

Box 1-44 – Hungary - Supporting Key Competences

In Hungary, the largest development promoting the key competences approach has been the public education development package. The ‘package’ is a complex instrument which, along with teaching tools, also includes tools used for education process design, organisation and evaluation. The materials were developed in consultation with practising teachers.

A large-scale teacher training programme is now being rolled out as part of the central continuing education system, supported by basic teacher training modules provided by institutions of Higher education.

An aspect of teacher education which was not probed for the national reports is the pedagogical culture of the institutions where initial teacher education takes place. This refers to the range of methodology and organisational strategies used to prepare entrants to the profession, and whether these model the methods and practices which teachers will use in order to promote key competences in their pupils.

1.5.4 Continuing professional education for school managers

Research shows that successful school leaders improve teaching and learning and influence pupil outcomes indirectly and powerfully through their influence on staff motivation, commitment and teaching practices¹⁰⁸. They are a key group in promoting the development of key competences. However, there is little evidence of CPD on this topic for school

¹⁰⁸

Day, Christopher, et al, DCSF RR108, 2009, ‘The impact of school leadership on pupil outcomes’; www.dcsf.gov.uk/research

principals/managers. One country provides training for heads and deputy heads, along with teachers, to implement a literacy support programme (CY). Only five others (DE, HR, LT, SI, UK) report that they offer school leaders such opportunities.

Box 1-45 – UK (England) - Programmes for development of skills by further education leaders

In England, where specific training programmes and a National College for School Leaders already exists, a programme for principals in the Further Education sector supports leaders in up-grading their skills through systematic programmes, of which one leads to a qualification. This will soon be a compulsory requirement for managers in the sector.

Plans for introducing such training in about a quarter of these countries suggest that recognition of the importance of supporting and engaging the leaders in the system, especially in the context of significant innovation, is gradually increasing.

One of the key functions managers or principals will be required to carry out, or oversee, is the monitoring and evaluation of all training and development opportunities which staff undertake. Ensuring that all young people achieve the key competences depends to a large extent on the effectiveness and impact of training and development opportunities for teachers.

1.5.5 Conclusions on Teacher Education

The key competences approach places new demands upon teachers. Some countries are addressing them through their curricula for initial teacher education. However, the group with most direct influence on the promotion of key competences are practicing teachers yet only one fifth of the countries specify the key competences approach as an objective of their continuing professional development policies. Therefore, taking further steps to ensure that this large group fully embraces the concept and practical implications of key competences must be a high priority.

To monitor and evaluate all teacher education and training measures systematically is a crucial step in ensuring that teachers are properly equipped to meet the demands which these innovations make on them. As most countries are still in the early stages of consolidating their teacher education provision in support of key competences, this is a suitable time to incorporate appropriate evaluation methods and tools into the new or reformed programmes.

Countries reported very little on the extent to which they use for example mentoring, support for teacher networking and other individualised approaches to ensure the upskilling of teachers. This may indicate a need for such strategies to be added to the more traditional programmes and seminars to ensure effective dissemination of the innovations required to support the implementation of the key competences approach.

Improvements in the preparation of educators in the VET sector are gathering momentum in some places, but there is still a long way to go to ensure that VET teachers and trainers in Europe are thoroughly prepared to support the development of the key competences.

Finally, if education practitioners are expected to mentor new teachers, either formally or informally, then it is crucial that they keep pace with innovations being promoted through initial teacher education and that initial and continuing education be complementary and structured into a coherent, mutually-supportive process, especially including professional

support for education managers. This approach is not yet a feature of teacher and trainer development in Member States.

1.6 Assessment of key competences

The aim of the Recommendation is to support Member States' work in ensuring that by the end of initial education and training young people have developed the key competences to a level that equips them for adult life and which forms a basis for further learning¹⁰⁹. This implies the need for strategies to assess the progress and achievements of young people in the key competences. This section examines issues arising from the country reports that include: the range of purposes for which assessment of key competences is carried out; the variety of methodologies used and their impact or potential impact; and the standards which define the level that equips young people for adult life.

Some of the country reports, in particular those of Sweden and Slovenia highlight the importance of assessment for the implementation of key competences.

1.6.1 *Assessing Key Competences: purposes and methods*

A recent study from Eurydice on the use of National Testing in European Education Systems¹¹⁰ provides a useful summary of the main purposes which assessment of key competences can serve. Assessment of learners' progress may be designed to: sum up learners' achievement at the end of a programme. This is known as '*summative*' assessment. It may also provide information for system-level accountability. Assessment can be designed to help the learning process of individual pupils by identifying specific learning needs and adapting teaching accordingly, which is known as '*formative*' assessment. These different purposes are not mutually exclusive: often, assessment processes are assumed to fulfil several different functions.¹¹¹

1.6.2 *Development of Key Competences through summative assessment*

Summative assessment of key competences is most often carried out in relation to those competences which are closest to the regular subject curriculum. All countries carry out summative assessment of the Communication, Mathematics, Foreign Language, and Digital Competence is sometimes assessed as a separate subject (IE, RO). **Standardised tests of Mother Tongue and Mathematical competence** are periodically carried out with some or all of the school population in all countries except the Czech Republic. External national tests (DE, DK, IE, PL, PT, RO, UK) as well as schools' internal assessment (AT, FI, IE, PL, PT, RO) remain important tools for development in many countries.

Interdisciplinary projects as part of the final Diploma are in use in Austria, Denmark and Germany. Students select a research topic, design the method, implement and record the research and present it. This yields information about their understanding of the content area being researched. It also provides them with the opportunity to demonstrate imagination,

¹⁰⁹ Recommendation on key competences (2006) op. cit., page 2.

¹¹⁰ Eurydice (2009): "National Testing of Pupils in Europe: Objectives, Organisation and Use of Results, pp. 15 – 16.

¹¹¹ However, Eurydice among others point out that the use of the same process for multiple purposes can be problematic, Eurydice (2009), op. cit.,

creativity, problem-solving, initiative and perseverance in a way which is objectively observable and amenable to recording through descriptive mechanisms.

Two countries (CY, DK) have designed methods where **interactive computer-based tasks** are individualised and adjust to the on-going performance of the learner. Three countries (AT, CY, PT) report experimenting with web-based tasks.

1.6.3 Development of Key Competences through formative assessment

The recent Eurydice study notes that formative assessments help the learning process by clarifying the specific learning needs of pupils and identifying appropriate individual follow-up and adapted teaching.¹¹² However, that study and also the country reports show that interpretations of what is meant by ‘formative assessment’ can vary. These differences centre mainly on differences in the sources of information on which judgements are based:

Information supplied by learners’ performance on summative tests, including standardised tests, is often used (AT, CY, DE, DK, ES, FR, HU, IE, LT, NO, PT, SI) to feed back into the teaching and learning process. In this sense, the assessment is ‘formative’. For instance, the Functional Literacy project in Cyprus tests all pupils in the country at the end of primary schooling, and is currently piloting tests for children aged 8 and 15. It also acts as a diagnostic tool to identify children who are likely to need extra support in literacy and mathematics. The Diagnosis Evaluation (Evaluación de Diagnóstico) in Spain and The National Assessment of Basic Competence in Hungary are also designed to feed back into teaching and learning

However, there is another interpretation of formative assessment which is more closely aligned with *the teaching and learning process*:

Information supplied by interactive, process-oriented activities during teaching and learning can be used to structure immediate feedback between teacher and learner. Some countries (AT, EL, DK HU, IE, LT, UK) make explicit efforts to strengthen the connection between teaching, learning and assessment using a wide range of methods which are summarised below.

Assessment for Learning initiatives which are supported by a major input of staff training, resources and system-level support are available for example in England and Scotland. These major national projects provide significant resources to support teachers in the form of centralised guidelines, banks of assessment materials, templates and rubrics to structure recording; training in how to use these and in how to design formative assessment processes at local level.

The box below presents the general principles underpinning one major ‘Assessment for Learning’ initiative in England.

¹¹² Eurydice (2009), op. cit., p. 15.

Box 1-46 – UK England - Principles of assessment for learning

The 10 Principles of Assessment for learning:

- should be part of effective planning of teaching and learning
- should focus on how students learn
- should be recognised as central to classroom practice
- should be regarded as a key professional skill for teachers
- should be sensitive and constructive because any assessment has an emotional impact
- should take account of the importance of learner motivation
- should promote commitment to learning goals and a shared understanding of the criteria by which they are assessed
- should receive constructive guidance about how to improve
- develops learners' capacity for self-assessment so that they can become reflective and self-managing
- should recognise the full range of achievements of all learners

Although other countries did not report on such substantial systemic support for assessment for learning in the form of national projects, some of the individual methods of assessment for learning are being used in most countries:

- **Self-assessment** engages learners in active and critical reflection on their own work. It can take the form of one-to-one or group discussion, marking own work, completing specially-designed questionnaires or be supported by ICT. It is usually carried out in conjunction with the teacher or trainer. Several countries (AT, CZ, DK, EE, IE) report using this approach.
- **Peer assessment** was mentioned by AT, CY, CZ, DK, EE, IE, LT, UK. The processes are similar to self-assessment, but the focus is on learners' providing a critique of the work of their peers.
- **Performance Tasks** are activities which may occur naturally in a learning situation, or may be specially structured to allow the learner to demonstrate competence in particular areas. Such tasks are closely-aligned with methods and activities carried out on a day-to-day basis but when used for assessment purposes, are observed and monitored in a structured way by the teacher or trainer (AT, CY, HU, IE, RO).
- **Portfolio Building** is an approach to teaching which can also be used for assessment. Learners gather samples of work over a period of time which provide evidence of their progress and achievements in specified aspects of competence. A process of reflection is needed to support learners in deciding which pieces of work demonstrate which competences (AT, CZ, DE, IE, LU, UK).
- **Project work**, especially interdisciplinary projects which cross subject boundaries and connect school with life outside the school, are used for learning and assessment purposes in AT, CZ, DE, DK, ES, HR, HU, IE, RO, SI, UK.
- **Recording tools** used to capture learners' progress and achievements can be tailored to match performance tasks, peer- or self-assessment. Some countries (CZ, HU, IE) are using

specially-designed templates or rubrics to do this, or facilitating practitioners in developing their own to use at school level.

- **A Personal Learning Plan** is a process of communication between learner, teacher and sometimes parents, whose outcomes are recorded in a specific plan. This is specially designed to record the main aims which the learner hopes to achieve, and the targets, methods and indicators by which they will be accomplished. The document itself (sometimes called Individual Learner Plan, Personal Education Plan or other) is only a record of the deeper process of reflection and communication with the learner. Several countries (DK, SI, UK) are starting to use this approach to plan learning. An important dimension of the Personal Learning Plan is the agreement about how the learners' progress and achievement toward their goals will be monitored and assessed. Their progress and outcomes are then recorded on the Plan.
- **School level assessment plans** (CZ, LT, SI UK-Scotland) are drawn up at local level by the practitioners who will implement the assessment processes. The Plan ensures that all aspects of competence are assessed, to ensure that learners are making progress and that the methods and resources are having the intended impact. This mechanism also supports the development of a whole-school approach to fostering key competences, as it ensures that all levels of the system in which the teaching and assessment takes place is adjusted to facilitate the processes.
- **Professional development programmes or workshops** have been conducted in some of these methods in some countries (AT, DE, IE, PT, RO). However, not many have reported wide-scale continuing professional education for teachers in the use of such methods to support different kinds of assessment in different subject areas.

1.6.4 Conclusions on Assessment of Key Competences

Although assessment of certain key competences – communication in the mother tongue and in foreign languages, mathematics and digital competence – is already catered for within the traditional assessment regime in all countries, there is a danger in assuming that all of the dimensions of competence are thereby addressed. Attitudes, motivation and dispositions are central to the application of competence and traditional methods of assessment do not adequately capture these capacities. This is true also in relation to the transversal competences.

More work is needed to support countries in using a wide range of assessment processes which capture all the important dimensions of competence. Developing a wide range of assessment methods for a range of purposes is one of the main tasks ahead for most countries in the immediate future.

However, some progress has already been made. Most countries are working with at least some of the methods associated with 'assessment for learning'. The work of those countries which have longstanding experience of this approach can provide a resource and should be disseminated.

The use of instruments such as national tests and standardised tests for formative purposes, to feed back into the process of teaching and learning, is quite widespread according to the country reports. It would be useful to explore the potential of assessment methods designed

primarily for formative purposes – the methods of ‘assessment for learning’ – to contribute to a summative purpose. Several examples of this are present in the country reports but more work is needed to clarify how these related processes can be linked.

The use of ICT for assessment purposes has been reported in several countries and this technology clearly has great potential in creating interactive processes and simulated scenarios. It is nevertheless important to note that not all ICT assessments are innovative and not all assess competence effectively. Some are essentially traditional multiple choice tests which do not go beyond the limitations associated with such modes. Another caveat is the potential impact of using ICT on access, as for learners who are unskilled in the use of ICT such methods could hinder rather than help their performance. The use of ICT for assessment of key competences provides many useful tools which may enhance assessment processes but should be explored further and more critically.

In addition, assessment of key competences needs to be supported more by the systems in the immediate school environment, in the form of personal learning plans for individuals and school assessment plans for the institutions, or other planning mechanisms which perform the same function. This is particularly important when competences such as literacy and numeracy are integrated across the curriculum, or when cross-curricular work promotes several competences within the same activity.

1.7 Monitoring and Evaluation

Since *effective long-term policies must be based on solid evidence*¹¹³, monitoring and evaluation mechanisms are at the core of successful policy development and implementation. Such mechanisms consist of *channels for producing and accessing relevant research, statistical infrastructure capable of collecting the necessary data, and mechanisms to assess progress as policies are implemented*¹¹⁴.

The analysis set out below firstly offers an overview of the main types of means implemented at national and/or regional/local level to monitor/evaluate the education and training systems in relation to Key Competences. It then highlights the ways the outcomes of monitoring/evaluation processes are used.

1.7.2 Mechanisms in place to monitor and evaluate education and training systems in relation to Key Competences

Complementary to assessment processes, nationwide monitoring and evaluation processes exist in all countries, though not explicitly linked to key competences in every case.

Though widespread, it has however to be noticed that these mechanisms focus mainly on compulsory education or education up to the upper-secondary leaving examination. Adult learning is for instance scarcely covered.

The ways in which monitoring / evaluation activities are undertaken rely, in practice, on various mechanisms that compile and help analyse information at system level. Countries generally refer to several complementary mechanisms:

¹¹³ COM(2006) 481 final, op. cit.

¹¹⁴ Ibid.

- The results of national assessment (AT, BE nl, BG, CZ, CY, DE, EE, FI, HR, HU, IE, LV, LT, LU, NL, NO, PT, RO, SK, SI).
- The results of school self evaluation (AT, CZ, DK, FI, LT, LV, PL, SE).
- The results of external examinations (BE fr, BE nl, BG, CY, CZ, DK, DE, FI, FR, EE, EL, ES, FR, HR (from 2010-2011), HU, IE, LU, NL, PL, SE, SI, UK).
- Specially prepared performance indicators (EE, FI, FR, NO, UK).
- The definition of competence thresholds or final requirements (e.g. BE fr, FR, LU).
- International evaluations, including PIRLS, TIMSS, PISA, etc. (all countries use at least some of them).
- A dedicated authority - e.g. a council set up to monitor a reform, inspectorate – (BE nl, CZ, DK, EE, IE, FI, LT, LV, NL, PL, SE, SI, UK (Scotland, Wales)).

National assessment programmes/national tests for system-level monitoring

National assessment programmes consist of nationally coordinated approaches to measure and monitor student achievement against national and international standards. They include tests (generally focused on several key competences) aiming to provide valuable information about student achievement in a number of areas of the curriculum. Such mechanisms were explicitly reported in a few country reports (AT, BE nl, BG, CY, DE, FI, HR, HU, NO, SI). For example in the Flemish Community of Belgium a National Assessment Program (NAP) has been installed that provides valid and reliable output data at system level. A scientific research team developed tests (in Dutch, mathematics, biology, gathering and processing information and modern foreign languages) for a representative sample of schools and students. Knowledge, skills and competences (core curriculum) are tested at the end of an educational cycle.

Other forms of national assessments (not specifically embedded in national assessment programmes) relate to **national testing** of given key competences. National testing is a standardised means of validating learners' achievements against set performance indicators, as reported in several countries (AT, BE nl, BG, EE, HU, IS LV, LT, LU, NL, RO).

National assessments can also take the form of **centralised examinations** (as reported in HR and RO, SI). Hungary tests reading comprehension and mathematics in a standardized fashion in the context of the national assessment of basic competences. Assessment is mandatory and takes place simultaneously in three grades involving all students.

In all cases, evaluation mechanisms are complemented with the results of **international evaluations**, PISA, PIRLS and TIMSS in particular. A few countries (EE, LV, NL) state explicitly that these outcomes are an important source for assessing the performance of their system comparative to others.

Reports from countries with education and training systems characterised by a strong level of autonomy at municipalities/school level refer to **decentralised monitoring and evaluation systems**. The results of school self-evaluation and involvement of municipal bodies in monitoring activities were explicitly stated in a few countries (DK, FI, LT, LV and SE).

Box 1-47 – Denmark - Municipal councils’ responsibility for the Folkeskole and the State’s monitoring

The 2006 amendment of the Folkeskole Act made more explicit the municipal councils’ responsibility for the Folkeskole and State monitoring. It entails two mandatory tools (quality reports and action plans) the municipalities are to use when monitoring the Folkeskole. The quality report is designed to ensure systematic documentation and cooperation between local politicians, municipal councils and schools on the evaluation and quality development of primary and lower secondary education. If the quality report shows that the academic level in a school is generally unsatisfactory, the municipal council must draw up an action plan for improving the level at the particular school.

The results of **external evaluation** constitute another widespread monitoring or evaluation mechanism (BE nl, BE fr, BG, CY, CZ, DK, DE, FI, FR, EE, EL, ES, IE, FR, HR (from 2010-2011), HU, LU, NL, PT, SE, SI, UK). The Estonian example set out below supplies evidence of this trend, stressing the complementary importance of different tools.

Box 1-48 – Estonia - External evaluation system

The external evaluation system in Estonia includes criterion-based internal evaluation and governmental supervision of the educational institutions, placement tests at the end of the first and second stage of study in basic school, final basic school exams with uniform questions, and state examinations at the upper secondary school level, international comparative surveys, and training permits. The purpose of evaluating learning results is to support the development of the national curriculum and teacher training, and to target better the provision of education. Another objective is to evaluate the learning results specified in the national curriculum for basic and upper secondary schools to be achieved at the end of each stage of study.

National targets/specific performance indicators

Amongst other tools, the definition of Key Competences-related indicators (either of performance or referring to competence thresholds) at national level was also reported in a few countries (BE fr, EE, FI, FR, LU, NO, UK). In general, most of them focus on language (mother tongue and foreign language), mathematics and ICT competences.

Box 1-49 – France - Use of indicators

Once a year, the Ministry of Education provides the national Parliament with the number of pupils that, in the framework of the ‘*socle de compétences*’, effectively master Key Competences at certain stages of education. Indicators on the performance of pupils enrolled in the last year of lower secondary on mother tongue and mathematics have been available since 2007.

Dedicated authority

The important role of national inspectorates has been reported in seven countries (BE nl, CZ, IE, NL, PL, SE, UK Scotland and Wales). In all cases, those are set up to assure the quality of education provided and to promote improvement and innovation in the education and training systems. Sweden, which traditionally had a decentralised approach to quality assurance, has also recently established such a body, the National School Inspectorate.

Box 1-50 – UK (Scotland) - Inspectorate of Education

In Scotland, HM Inspectorate of Education (HMIE) inspects and reports on the quality of education in pre-school centres, primary schools, secondary schools, special schools, community learning and development services, colleges, and residential educational provision. New Quality Indicators for use in both internal self evaluation by schools and local authorities and external evaluation by HMIE were published in January 2008. They include indicators on learners' experiences; meeting learning needs; and developing people and partnerships.

1.7.3 Ways to use the outcomes of monitoring/evaluation processes

Though very little specific information is reported, national reports refer to the way the outcomes of monitoring and evaluation are used for improving the overall quality and transparency of the education and training systems; modifying/discontinuing existing programmes/actions; raising awareness of emerging policy issues with stakeholders.

These outcomes are usually compiled in annual reports submitted to the central level and used by all educational stakeholders for policy-making. As reported by a few countries (EE, DE, FI, NL), these outcomes may be translated into indicators to provide e.g. comparative trends and provide solid evidence to policy-makers. In Finland, the National Board also carries out longitudinal monitoring, utilising findings of previous evaluations. Evaluations produce: *basic indicators*, which describe pupils' and students' knowledge, skills and attitudes in the content areas of the curriculum; *contextual indicators*, which describe how pupils' and students' knowledge and skills relate to demographic, social, economic and educational factors; and *trend indicators*, which describe changes in the basic and contextual indicators.

Box 1-51 – Latvia - Use of international evidence to feed into policy-making

The results of the international studies are used for the improvement of the subject curriculum, in teachers' further education and in the process of developing new normative acts that regulate the content of education. The results of the International Reading Literacy Study - PIRLS 2006, revealed problems in the development of basic skills in mother tongue and learning to learn. Work addressing all actors (parents, teachers, librarians) has begun with the aim of improving basic skills. The results of the international TIMSS study of 2007 "Mathematics and Science in Primary School" confirm positive results of this approach.

1.7.4 Conclusions on Monitoring and Evaluation

Monitoring/evaluation processes can strengthen and sustain the development of Key Competences at national and system level. The country reports show that this necessity is clearly perceived in nearly all countries.

Countries typically combine several mechanisms including use of internal and external evaluation. However, as with assessment (see section 0), the extent to which the monitoring and indicator systems take into account all the dimensions of Key Competences, not only the knowledge aspect, remains an issue.

Further efforts are also needed in the field of adult learning (where monitoring processes are scarce). Systematic evaluation of the outcomes of the VET system is not mentioned in any national report.

1.8 Summary Conclusions on the implementation of Key Competences

General

There is a clear trend across the EU towards competence-based teaching and learning, to which the European Framework of Key Competences has contributed considerably, either as a main focus of policy reform, or as one of a range of factors influencing such reform.

This implies a shift from viewing education as the transmission of a static body of knowledge, to a more dynamic approach combining knowledge, skills and attitudes in each subject area. It also means a widespread commitment to developing transversal competences, notably learning to learn, social and civic competence and initiative and entrepreneurship, alongside the more “traditional” competences, e.g. mother tongue, maths, science and technology. Whole-school teaching of traditional competences, embedding these in other subjects, is gaining ground in the EU.

Implementing these reforms involves a wide range of actions: not only reviewing the curriculum, but also teacher education and teacher competences, school organisation to allow for more individualized learning, team teaching and partnerships with actors outside school, and increasing cross-curricular work, and introducing new methods of assessment. While curricular change is widely under way in most of the EU, it is not yet clear how systematically the other elements are being addressed in order to achieve real change in schools.

Some countries’ curricular reforms are very fundamental, representing a root-and-branch recasting of the content and approach to teaching and learning. Often such reforms include a strong cross-curricular element, even for competences which are traditionally conceived as separate subjects such as Mother tongue.

According to the national reports, most policy attention relating to key competences is focused on schools. Provision for adults is patchier, although some countries are taking important initiatives to address key competences in a true lifelong learning perspective. These deserve to be analysed and to provide material for policy development in other countries.

The reports provide limited information on key competences in vocational education and training (VET). To some extent, this may reflect the fact that VET has traditionally focused more on competences than general education. However, it seems clear that the full range of key competences, as defined in the European Framework, are less systematically addressed by most countries’ VET systems than they are by their school systems.

By competence

Mother tongue competence. This competence receives intensive attention in all countries. Often this takes the form of single-subject teaching, focusing in particular on literacy. Explicit national literacy strategies or projects are widespread, often involving all levels in the education system so as to reinforce literacy skills beyond primary education and to reverse failure to acquire them at an earlier stage. Migrant inflows have led to more specialist provision for teaching the mother tongue as a second language, including to adults. While the

single-subject approach predominates, there are many examples of the Mother tongue competence being taught in a cross-curricular way across other subjects in schools and in VET.

Foreign language competence. Generally, the volume of foreign language learning in education and training is expanding (though not in English-speaking countries), and language learning increasingly starts at primary school. In non-English-speaking countries there is often an issue about the range of languages learned and the dominance of English. There is little information about foreign language provision in VET. Many of the measures reported for the foreign language competence also promote several of the other key competences such as cultural awareness and can foster social and personal development.

Maths, science and technology. Mathematical competence remains a very strong element of general education curricula. The position of mathematical competence in vocational education varies: some countries make similar provision to that in general education whereas a few tailor provision more closely to the relevant vocational qualification.

Some of the country reports highlight the promotion of problem-solving, critical thinking and, to a much lesser extent, inquiry-based learning in mathematics and science. This has implications for the competence of teachers and trainers, and needs to be supported by suitable teacher education and training. There is also room for greater co-operation with external partners, along the lines of that which already exists for Civic and Social and Entrepreneurship competences, in order to provide real-life contexts for scientific inquiry.

Digital competence is a particular teaching challenge because (a) many students learn outside school through home and social use of ICT, often to a higher level than their teachers in some respects, and (b) lack of home access (57% of the EU population not online at home in 2007) presents a major barrier to many others. What happens in the school is therefore crucial in ensuring that all young people acquire the skills and attitudes of digital competence they need in their personal and social lives, as well as in the workplace.

There is a great deal of activity in countries to expand provision for Digital Competence. This has included curriculum reform, extra funding and resources, new programmes, the creation of virtual learning environments such as eTwinning, and the use of ICT in communication, administration and management.

Certain important aspects of this competence have received much less attention, including 'confident and critical use' of ICT; ethical and legal considerations arising from the use of ICT; and informal learning situations. As ICT use becomes more pervasive these are increasingly important issues.

Learning to learn. Countries are devoting significant attention to this competence. Learning to learn is being embedded not only in all subjects, but in all aspects of the learning environment. It goes along with a more individualized approach to learning. Measures include: personal learning plans, portfolio-building and the use of teaching and assessment strategies which foster deep learning. These all require good communication, teamwork, democratic schooling management, and supportive mechanisms for pupil assessment and school self-evaluation. Alongside these process aspects, the cognitive dimensions are also being addressed. These include knowing the rules and strategies of learning and how to make use of them.

Social and civic competence. Provision for this competence is gathering momentum. Countries' approaches mainly address its knowledge dimension and somewhat its attitudinal and process aspects. An effective approach to this competence is to embed it in the methodology used for all subjects, and not only those which explicitly address civic and social issues as a body of knowledge, and to embody it in "real-life" structures such as students' associations.

Initiative and entrepreneurship. Most promote the entrepreneurial dimension of this competence, often underpinned by national action plans and strategies. Many use this competence to develop partnerships with organisations and enterprises outside the education and training system (e.g. mini-companies). The individual creative and innovative aspects of this competence receive less attention.

Cultural awareness and expression. Although part of the traditional subject curriculum in schools (art, music), this competence does not appear to be a significant strategic priority for most countries. The potential of culture to provide a methodology for work in other areas of the curriculum, and in personal and social development, could be better exploited.

Key competences for all

Many national reports describe priority disadvantaged groups who receive specific support to acquire key competences: e.g. learners with special educational needs, those at a socio-economic disadvantage, those with literacy needs (including migrants), and those at risk of dropping out. As a result of the financial crisis, the unemployed increasingly feature as a target group.

Commonly, provision is based on targeted funding, legislation, action plans and measures to address different target groups. Some countries go further and create a single framework for both mainstream learners and specific target groups, notably through the introduction of rights-based legislation.

There is a clear trend towards individual learning plans accompanied by guidance. These primarily target young people with literacy needs (including migrants) and those with special education needs (SEN).

Several countries stress the importance of early childhood education and care to tackle sources of disadvantage at their roots.

Key competences for adults

The development of measures to support key competences for adults is widespread and includes new and revised legislation and strategies, improved delivery and governance of the sector, and specific funding measures.

Many policies target low qualified and/or unemployed adults and immigrants, and focus on raising basic levels of competence, notably literacy, numeracy or language learning. "Second-chance" institutions for gaining secondary school qualifications are common in this context. Information on provision for other target groups (e.g. adults with SEN, elderly people, etc.) is less extensive.

There are links with broader policy measures such as lifelong learning strategies and guidance, validation of non-formal and informal learning, National Qualifications Frameworks.

Teachers

The key competences approach places new demands upon teachers. Some countries are revising their curricula for initial teacher education accordingly. However only one fifth of the countries mention the key competences approach in relation to continuing professional development for serving teachers, the group with the biggest influence. Moreover, countries reported little use of, for example, mentoring, support for teacher networking and other individualised approaches for upskilling teachers.

Improvements in the preparation of VET teachers are gathering momentum in some countries, but there is still a long way to go to ensure that VET teachers and trainers in Europe are thoroughly prepared to support the development of the key competences.

Training and professional support for education managers is not widely reported, but will be crucial to delivering the organizational changes at institution level implied by the key competences.

Developing new assessment methodologies through initial and continuing teacher education, including the impact of ICT on testing techniques, is becoming a high priority in many countries.

Assessment and monitoring

Assessment of key competences poses a formidable challenge, because many competences do not fall neatly into traditional subject divisions, and all of them contain, alongside essential knowledge, the dimensions of skills and attitude which are much more difficult to assess. There is a widespread move towards more formative assessment approaches, normally as a complement to summative testing (such as final examinations). However, high-stakes summative testing seems to remain the dominant mode in most countries, with a strong emphasis on knowledge and recall. There are some key innovations in a number of countries including experimentation with complementary methodologies such as peer assessment, portfolios, project-based assessment.

In the linked area of qualifications, assessment has traditionally been based on summative examinations. However, there are significant developments in several countries, often articulated around a National Qualifications Framework, to open up to a range of approaches to the accreditation of prior learning, based on demonstrated learning outcomes irrespective where these have been gained. This accelerating trend has important potential for the assessment and certification of the range of key competences.

An increasing number of countries are putting in place monitoring systems to gauge the effectiveness of systems in delivering some or all of the key competences.

2 TRANSVERSAL LIFELONG LEARNING ISSUES

Making lifelong learning a reality has been a priority of European cooperation in education and training for the past years and will continue to be a key objective also under the updated strategic framework for European Cooperation until 2020.

In this respect, the development of lifelong learning strategies (LLLS), coherent lifelong guidance policies, national qualification frameworks (NQFs) linked to the EQF, a stronger focus on learning outcomes, and instruments for the validation of non-formal and informal learning are considered cornerstone policies as they aim at strengthening coordination and permeability across the sectors and mutually interconnecting all forms of learning.

2.1 Lifelong learning strategies (LLLS)

Member States agreed to develop and implement coherent and comprehensive LLL strategies by 2006.¹¹⁵ The 2006 and 2008 Joint Reports noted that the vast majority of countries have progressed – at differing stages - in adapting their education and training systems to the LLL approach. However, coherence and comprehensiveness as well as concrete implementation of LLL policies remained for the majority of them a challenge.

National reports of 2009 largely confirm these findings: Among the countries, who have reported on progress regarding their LLL-policies the following approaches can be observed:

- **A single strategy document** which is broadly comprehensive and coherent has been adopted and is currently being implemented (CZ, DK, EE, FI, LT, SI, UK- Scotland); This LLLS document is of high relevance for policy making, covers all levels of education and is based on analysis, accompanied by specific objectives, embedded in legislative regulations with an associated budget, supported by a roadmap having performance targets and support by stakeholders. Austria is currently at an advanced stage in developing such a strategy.
- **A LLL- document** has been adopted which shows a strong focus on a specific target group or a specific sector rather than covering the full spectrum of LLL (LT, LV, SK), which provides primarily an analytical framework (DE) or where the relevance of the strategy across sectors needs to be improved (HU).
- **A set of policies** /sectoral strategies covering all key areas of LLL, have been adopted under the guiding principle of LLL and are currently being implemented, though not having been underpinned by a single LLL strategy document (BE nl, ES, FR, IE, IS, LU, NL, NO, PT, SE, UK-England).

Poland and Romania reported that they are still in the process of developing a single strategy document.

Much of the emphasis of LLLSs is in relation to the establishment of connections and pathways between different types of education programmes – e.g. VET and general

¹¹⁵

The commitment to establish LLLS is based on the June 2000 European Council in Portugal, the 2002 Council resolution on lifelong learning ([OJ C 163/1, 9.7.2002](#)) and the 2004 Joint Report. The importance of LLL strategies and investment in human capital was re-emphasised in the Employment Guidelines for the period 2008-2010.

education-, or formal, non-formal and informal learning. In terms of the effects generated, national reports outlined that the strategies:

- have provided an analytical framework triggering subsequent national initiatives (DE, EE),
- enhanced monitoring mechanisms, as new monitoring systems are developed with the aim to track progress in the implementation of the strategy (BG, CY, EE, HU, SK)
- contributed to strengthening the links of education and training with local and labour market needs (LV, SK).

In terms of challenges, the following points are worth underlining:

- Very little information is provided on adequate budget allocation for effective implementation and only a few countries report that their LLL-strategies are in the process of resulting/have recently resulted in the approval of detailed implementation plans (CZ, LV, SK).
- A feature of many strategies is their relatively short-term nature, mostly having a planning-horizon of 3 to 5 years and limiting its span to a single legislative period.
- On the whole there is little documentation in terms of the evidence base used in the development of the strategies, how progress will be measured (only two countries - EE and LV - included information on their strategies' impact with reference to predefined indicators in relation to participation in adult education and training) and their impact on national policy making across sectors.

Box 2-1 – Slovak Republic - National Programme for Learning Regions

The National Programme for Learning Regions was approved on the Ministry level. It ensures the effective interconnection of lifelong learning with the needs of the local and regional labour markets. The active participation of educational institutions on the regional level, employers and self-government in implementing the strategy for lifelong learning and lifelong guidance is a prerequisite for this cooperation.

A learning region is an area in which the responsible officials cooperate and learn to jointly solve local or regional issues in partnership cooperation. It pertains to the creation and support of the origin of local or regional networks of various institutions oriented on the solution of common problems. The conviction that a joint course of action in solving issues is more effective than isolated activities of individual subjects is the basic prequalification for the creation of local and regional partnerships.

Box 2-2 – Czech Republic - Implementation of the national lifelong learning strategy

The *Czech Republic* approved its Strategy of Lifelong Learning document in 2007, based on a thorough analysis of the condition of the different parts of the national education and training system and their interconnections, for the period running until 2015. The strategy has so far proved to be a fundamental document for other cross-curriculum and sectoral policies in education and training. Its main benefits have so far been the achievement of a greater interconnection of partial education and training aspects previously mentioned in individual documents into a coherent concept of lifelong learning and its strong effects as a catalyst to stimulate the efforts of stakeholders in the implementation of lifelong learning. In 2009 an implementation plan has been approved that translated the general objectives of the strategy into a set of comprehensive specific measures that need to be implemented, including a framework timetable, and that details individual ministries' competences in relation to the measures to be implemented.

2.2 Establishment of lifelong guidance systems

The 2004 Council Resolution on Guidance through life called for high-quality guidance oriented to citizens' lifelong and life-wide learning and the improvement of guidance structures.¹¹⁶ In 2008, the Council adopted a new "Resolution on better integrating guidance into lifelong learning strategies"¹¹⁷ to provide further impetus to the achievement of three key aims: fairer access, quality improvement of guidance services and establishment of partnerships between existing forms of guidance provision.

Regarding **fair access** to guidance, the 2009 national reports and recent CEDEFOP research¹¹⁸ show that

- substantial progress has been achieved in the improvement, modernisation and expansion of guidance for employed and unemployed adults regardless of their age and residency status (AT, BE, BG, CY, DE, EL, FR, HU, IS, IE, LT, LV, MT, ES and UK). This is important on the background that the 2008 Joint report¹¹⁹ had noted that greater progress in terms of guidance for adults was required.
- guidance is increasingly offered through a wider range of delivery modes including the development of adult local/regional guidance networks (AT, DK, BE fr, BE nl, BG, CZ, FI, HU, IS, NL, NO, SI, ES, SE) and websites (DK, NL, SK, BE fr, BE nl, CZ, FI, EE, ES, FR, IE, HU, LT, SI, UK¹²⁰).

Countries also reported increased guidance measures to enhance the attractiveness of VET, including:

¹¹⁶ In addition, the Maastricht, Helsinki and Bordeaux Communiqués, the 2007 Council Resolution on New Skills for New Jobs ([OJ C 290 of 4.12.2007](#)) and the 2008 Council Conclusions on Adult Learning ([OJ C 140, 6.6.2008](#)) all highlighted the importance of facilitating access to guidance.

¹¹⁷ [OJ C 319 of 13.12.2008](#);

¹¹⁸ CEDEFOP (2009)¹, "Continuity, consolidation and change. Towards a European era of vocational education and training", http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/528/3055_en.pdf

¹¹⁹ [OJ C 86/1, 5.4.2008](#)

¹²⁰ CEDEFOP (2009)¹, op. cit.

- organisation of guidance events, competitions and fairs, including Euroskills, for young people in primary and secondary school (BE fr, CZ, ES, LV, FR, MT, NL, RO, SK, TR),
- increases in the number of offices providing VET guidance (BE fr, EL);
- production of VET guidance materials for specific sectors (LV, PL, RO).

Box 2-3 – Latvia - Adaptation weeks for first year students

In *Latvia*, in order to facilitate the process of adaptation of young people to VET institutions and overcome the difficulties caused by the change of study environment, adaptation weeks were introduced in the 2007/2008 academic year for new first year students. During these weeks adaptation tests are carried out in order to determine the strengths and weaknesses of the new students. The results of these tests are used in the design of an individual programme to accelerate and facilitate students' adaptation to the new programme. During the adaptation week students also learn to establish an adequate framework for relations with the people around them, tools are provided for them to start developing their personal learning style, reflect on their motivations and learn about the chosen profession.

In terms of the most prominent issues to increase lifelong guidance **quality** in practice, countries' reports and recent CEDEFOP research¹²¹ note progress on:

- the professionalisation and training of counsellors (AT, DE, EE, NO, PL, SI)
- quality assurance procedures (AT, DE, IE, UK); and
- continuous evaluation of processes and structures (AT, SK).

A third crucial issue is coordination and leadership to promote **cooperative approaches and partnership** in guidance provision across all ages and groups, for example by establishing forums, networks and other structures¹²². A few national reports (AT, EL, SK) reported further progress in the integration of guidance systems. In addition, a range of initiatives related to coordination and leadership were described:

- gradual integration of guidance provision taking the holistic needs of people as their starting point (DK, EE, ES, UK);
- establishment of cooperation and coordination mechanisms at the regional and national level (AT);
- further legal clarification of the responsibilities of different stakeholders – e.g. employment services, universities - in relation to study and career guidance arrangements, in particular for people with overseas qualifications (SE).

In terms of challenges, it is important to note that while coordinating mechanisms across guidance sectors and levels of provision have been established in most European countries,

¹²¹ Cedefop (2008) "Establishing and developing national lifelong guidance policy forums. A manual for policy-makers and stakeholders", http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/508/5188_en.pdf

¹²² Council Resolution of 28 May 2004 on strengthening policies, systems and practices in the field of guidance throughout life in Europe ([Doc. 9286/04](#))

many of them are still informal or work in progress¹²³. Two reports (FR, SK) explicitly highlighted shortcomings in the area of leadership and coordination, mentioning that the national fragmentation of information structures about VET makes their use by citizens difficult.

Moreover, compared to the last reporting 2007, few reports referred to developments in the provision of guidance to disadvantaged groups. Only three reports (CZ, DK, LV) made reference to mentoring within schools, targeted at students at risk of dropping out.

2.3 Development of national qualification frameworks

National Qualifications Frameworks (NQFs) provide a structure supporting the transparency, coherence and consistency of qualifications in a lifelong learning perspective. This should result in clearer arrangements to make access to and transfer between qualifications more flexible, enable comparisons of qualifications and establish quality standards for them, thus finally improving the quality of learning provision¹²⁴. The 2008 Recommendation on the establishment of a European Qualifications Framework for Lifelong Learning¹²⁵ invited countries to relate their national qualifications systems or frameworks to the EQF by 2010 and to develop national qualifications frameworks, where appropriate.

In many countries this triggered or strengthened the development of an NQF based on learning outcomes. While a NQF is already in force only in a few countries (IE, FR, MT, UK), the development of an overarching NQF enjoys a high priority on the education policy agenda in virtually all countries. Countries report on:

- having established, even if not yet fully implemented a NQF (BE nl) .
- the development of a proposal for an NQF by expert working groups and consultations with a range of stakeholders (such as educational institutions, municipalities, individual employers and social partners) prior to the submission of the final proposal for approval (AT, DE, DK, EE, ES, FI, HR, HU, IT, LT, PL, SE)

Box 2-4 – Belgium nl - the approval of the NQF

In *Belgium nl*, following two years of consultation with stakeholders and the analysis of pilot projects the Decree on the Flemish qualification framework (“Vlaamse kwalificatiestructuur”) was endorsed by the Flemish Government in February 2009 and adopted by the Flemish Parliament in April 2009. The NQF based on eight levels and the descriptors of the Framework are compatible with the descriptors of the EQF. The NQF will become the basis for the recognition of diplomas and certificates awarded by the different national competent bodies.

Most countries are following an integrated approach that will result in an overarching NQF for lifelong learning covering all the different education and training sectors. National reports and other sources however also show that some countries have developed NQFs for certain

¹²³ Cedefop (2008); op. cit.

¹²⁴ OECD (2007) "Qualifications Systems: Bridges to Lifelong Learning"

¹²⁵ Recommendation of the European Parliament and the Council of 23 April 2008 on the establishment of a European Qualifications Framework for Lifelong Learning, [OJ C 111/1 of 6.5.08](#)

levels of their education and training system, concentrating on HE (BG, DK, ES, IS, NO, RO, SE, TR) and/ or VET (RO)¹²⁶. It will be important to ensure that those countries that have qualifications frameworks for certain educational sectors or levels establish bridges between them to achieve a coherent overarching framework which promotes flexible learning pathways across levels and sectors.

The development of NQFs is in most countries a parallel process to linking national qualifications levels to the EQF. Almost all countries envisage to relate their national qualifications systems or NQFs to the EQF by 2010 or 2011:

- National Coordination Points (NCPs) in charge of coordinating the referencing of national qualifications levels with the EQF are already designated in 17 countries (BG, CZ, EE, EL, ES, FI, FR, IE, IS, IT, HR, LV, MT, PT, SI, UK, TR). 6 more countries plan to designate them by 2010 (AT, BE, IS, LT, NO, SE).¹²⁷
- Ireland and Malta already completed the process of referencing their NQFs to the EQF in summer 2009.
- 24 other countries envisage to complete the referencing of their national qualifications system or framework to the EQF by 2010 (AT, BE fr, BE nl, DK, EE, FR, FI, HR, IS, IT, LU, NL, PT, TR, UK) or by 2011 (CZ, DE, EL, ES, LV, NO, PL, SI, SK, SE).

Box 2-5 – Ireland - Referencing to the EQF

Ireland has completed the process of referencing the Irish NFQ to the European Qualifications Framework. This referencing was assisted by a National Steering Committee, composed by representatives of key education and training stakeholders as well as international experts of qualifications systems and frameworks, which oversaw the referencing process. A detailed technical comparison of the NQF descriptors with the EQF descriptors was also undertaken. The final referencing report was agreed among the national quality assurance bodies for education and training in June 2009.

2.4 Learning outcomes based approaches

The development of learning outcomes based qualifications and learning approaches¹²⁸ is on the political agenda of the majority of countries (AT, BE fr, BE nl, CZ, DE, DK, EE, EL, FI, HR, HU, IE, IT, LV, NO, PL, PT, SE, SK, TR, UK).

A number of national reports made explicit mention of initiatives taken to establish a learning outcomes based approach (BE nl, CZ, EE, ES, IS, IT, HU, LU, IE, NO, PL, PT, SI), often linking this to the development of NQFs (BE nl, IE) or the creation of national registries of vocational qualifications (ES, FR, HU, PT). Some countries reported a sequential stage in the implementation of learning outcome approaches starting for instance in the area of secondary education (LU) or VET (SI, NO), while planning to later extend it to other levels and types of education.

¹²⁶ CEDEFOP (2009)¹, op .cit.; Eurydice (2009) HE in Europe 2009: Developments in the Bologna process. Luxembourg, Office for Official Publications of the European Communities.

¹²⁷ This is called for in the EQF Recommendation, op. cit.

¹²⁸ A learning outcomes approach supports the transparency of qualifications by indicating what the learner should know, understand and is able to do by the end of a learning process.

In a number of European countries the national curricula describe educational targets by using learning outcomes (AT, CZ, FR, IT, PL, PT, SE and UK examples are described in recent research¹²⁹). However, the drive to redefine qualifications and curricula using learning outcomes has been most clearly seen in VET, especially referring to learning outcomes with particular professional and labour market orientation. Recent national developments include:

- the development of VET qualifications and job profiles based on learning outcomes and standards (AT, BG, CZ, EL, HU, IT, PL, RO);
- revising national legislation and other regulations on VET programmes/ qualifications implying a learning outcomes approach (DK, EE, HR, IS);
- introducing competence-based curricula (AT, BE nl, CZ, EE, DE, LT, LU, MT, PL, PT, SI, SK, TR); and
- introducing learning outcomes to guide assessment of student practice, replacing more traditional notions (FI, HU, IE, NO, RO)¹³⁰.

On the other hand, the shift to learning outcomes approaches still represents a challenge in higher education.¹³¹ Concerning general education, the use of the key competences concept is likely to continue to contribute towards greater usage of outcome-based approaches also in this area. A few reports refer to guidance documents being produced for schools in order to support formulation of learning outcomes based study programmes (CZ, EE, IS, LV).

To sum up, many countries are making good progress towards the adoption of learning outcomes approaches. However, this work will remain on the agenda as most countries are still in an early stage of implementation and very often countries and institutions do not yet have sufficient practical experience in the use of learning outcomes for the definition of standards, the description of curricula and the organisation of assessment.¹³²

2.5 Measures to assess and validate non-formal and informal learning

The lifelong learning paradigm suggests that learning should be identified, assessed and its results recognised regardless of the context in which they have been acquired, i.e. including for the learning taking place outside formal programmes in education and training institutions. The recent emphasis on learning outcomes supports such an approach. Common European Principles for the identification and validation of non-formal and informal learning were agreed in 2004¹³³ and are used as a partial basis for validation systems in IE, IS, NL, NO.

The validation of non-formal and informal learning is receiving attention in almost all countries, however, countries are starting from different stages of development: While the most progressed countries already pursue a systematic approach across all education and training sectors (BE fr, BE nl, DK, EE, FI, FR, IE, NL, NO, PT, RO, SI, ES, UK), a second

¹²⁹ CEDEFOP (2009)², The shift to learning outcomes: Policies and practices in Europe. Luxembourg, Office for Official Publications of the European Communities. Pp. 22-23.

¹³⁰ CEDEFOP (2009)¹, op. cit.

¹³¹ Eurydice (2009) HE in Europe 2009: Developments in the Bologna process. Luxembourg, Office for Official Publications of the European Communities.

¹³² CEDEFOP (2009)¹, op. cit.

¹³³ http://ec.europa.eu/education/policies/2010/doc/validation2004_en.pdf

group of countries is currently implementing validation instruments and pilot projects in specific contexts and preparing a national approach (AT, CZ, DE, IS, IT, HU, LT, LU, MT, PL, SE). For the third group validation is still a rather new concept, sporadic validation activities can be identified (BG, CY, EL, HR, LV, SK, TR).¹³⁴

However, national reports 2009 show that activities towards better validation are undertaken by countries from all of the three groups. Around half of the reports mention developments in this area over the last two years, which include:

- approval of new legislation/ guidelines or the setting up of pilot projects and testing of new procedures (BG, BE nl, CZ, DK, EE, ES, IT, LU, LV, MT, PL, RO, SI);
- the establishment of new agencies (BE nl, DK, EE, LT, SE), such as the Danish National Centre for Knowledge and Information on Prior Learning and the BE nl Quality Agency (which coordinates quality assurance for all education, training and validation systems), created in 2008 and 2009 respectively
- expansion of delivery structures (BE fr, PT); in Portugal, the "New Opportunities Initiative" and its emphasis on validation opportunities for the low qualified contributed an increase of the network of centres for the recognition, validation and certification of non formal and informal learning from less than 100 in 2006 to almost 500 in 2008.
- information campaigns to dissemination validation opportunities, using public employment services (BE fr) and development of websites with information on validation procedures and tools for self-evaluation (BE nl, DK);

Box 2-6 – Spain - Validation of professional competences

Spain is in the final stages of approval of new legislation to establish a procedure and requirements for the evaluation and accreditation of professional competences acquired through work experience or non-formal training. Competences thus acquired could be validated for VET modules or full qualifications (VET diplomas or professional certificates). The system will operate through national/regional calls prioritising specific sectors; social partners could also request calls to meet the needs of specific economic sectors. It is expected that 80,000 people – mainly with low qualification levels – would benefit from the system in its first three years. The legislation outlines a substantial role for guidance during the validation process and underlines the importance of training of assessors as well as counsellors.

An important area of attention in the last two years has been the use of validation to open up access to higher education (see also Chapter 3). This has been done by:

- validation of prior learning granting access to HE programmes and/or the recognition of credits leading to a shorter duration of studies (in BE nl, EE, SE);
- creating new agencies to develop validation processes in this sector (EE, LT, SE); for example in Lithuania, the Centre for Quality Assessment in HE has been created with the objective of developing processes for the assessment and recognition of HE qualifications.

¹³⁴ CEDEFOP (2009)¹, op. cit.

With validation systems increasingly in place, the coming years will reveal the extent to which systems are used and where new strategies need to be developed to ensure trust from different stakeholders and attract potential users. In most countries further efforts are required to set up fully developed and comprehensive validation systems. Four countries mentioned future plans for capacity building (HR, HU, LV, SK) and in those in which validation is decentralised (IT, NO for example) there is a need to address regional imbalances.

2.6 Conclusions on transversal lifelong learning issues

The lifelong learning paradigm has gained greater importance in most countries: All countries are developing policies that contribute to the realisation of LLL as reflected in the development of strategies as well as instruments for the promotion of flexible learning pathways and transition between different parts of the systems.

Most of the countries reported that they are also working on the **setting up and/or implementation of LLL strategies**. Many countries have an agreed and published strategy. However, these can be considered comprehensive and coherent only in a relatively small number of cases. Countries without a published LLL strategy are at diverse stages of development, ranging from countries with lifelong learning policies and key measures in all relevant areas, to those where the education sectors are undergoing partial reforms that seem not to be driven by explicit conceptions of lifelong learning.

A challenge remains the effective implementation of lifelong learning strategies and policies. There is little evidence in the national reports that LLL strategies are broadly supported by targeted funding mechanisms. Adequate and efficient budget allocation is key to the effectiveness of reforms as well as their relevance across other sectors of national policy making such as employment or youth. Moreover the chosen time frames of strategies seem often rather short given the complexity and long-term development perspectives of the education and training sector. Based on broad consensus between stakeholders across all relevant sectors LLLS should provide a long-ranging vision of development and be subject to regular updating. Implementation plans should be guided by concrete targets and a clear division of responsibilities between actors whereas strong monitoring mechanisms to assess progress and impact of new policies need to be more often established.

Significant measures have been taken over the last two years in many countries regarding the development of stronger **guidance systems** for employed and unemployed adults and to some extent VET. Progress has also continued in relation to the diversification of delivery modes, while development has been slower in relation to the coordination of different guidance systems beyond informal arrangements. The reports provided less evidence in relation to the provision of guidance for disadvantaged groups.

Significant development work regarding the **establishment of national qualification frameworks** has continued in most countries and many countries expect to adopt their NQFs during the next two years. Almost all countries reported actions to link their qualifications systems or frameworks to the EQF, although national coordination points have not yet been established in all countries. It will be important to continue strong coordination between the ongoing work in the higher education sector and the overarching qualification frameworks for lifelong learning.

Going along with this, a majority of the countries are working on a stronger use of **a learning outcomes approach**. Progress has been uneven across education areas and so far seems to have been most widespread in VET. There seems to be a need for further guidance, staff support programmes and changes in teacher training programmes to increase capacity and know-how at the time of implementation.

Validation of non-formal and informal learning continues to be an area of great interest and several countries approved new legislation or developed better delivery structures in this area. Further progress is nevertheless required in those countries where there are no established validation systems or where they encounter problems of acceptance among certain key stakeholders. In those countries where validation systems exist, they need to be further promoted in order to make them fully used by its target groups. The recently published European guidelines for validating non-formal and informal learning should support this process (see part I on EU implementation of the work programme).

3 VOCATIONAL EDUCATION AND TRAINING

Increasing the attractiveness, quality and relevance of VET are key priorities in the Copenhagen process¹³⁵. This has been more recently reflected in the 2008 Bordeaux Communiqué¹³⁶ where – building on the conclusions in Maastricht¹³⁷ and Helsinki¹³⁸ – heightening the quality and attractiveness of VET and improving the links between VET and the labour market were underlined as two of the four priority areas for future action.

The first section of this chapter presents a synthesis of approaches highlighted by the countries focused on modularisation, the establishment of pathways between VET and HE and quality improvement to increase VET attractiveness. The second section of the chapter describes curricular reform, greater use of partnerships between VET and employers and work-based training (including apprenticeships) as key instruments to increase the labour market relevance of VET.

3.1 Attractiveness

Demographic changes and rising skills requirements make it crucial that VET becomes an attractive option for young people and adults alike¹³⁹. The following section describes the responses of countries mentioned in national reports to tackle this challenge. Apart from the areas analysed below, guidance and validation of non-formal and informal learning - covered in the chapter on transversal lifelong learning issues – play also an important role in increasing the attractiveness of VET.

3.1.1 Modularisation

Modularisation is seen to enable learners to achieve qualifications progressively, to increase the flexibility of the vocational offer, to facilitate passing from one programme to another and, on occasions, to facilitate accumulation towards full or part-qualifications thus making VET more attractive to young people and those in the labour market. National reports that covered modularisation in VET (AT, BE nl, HU, EE, EL, ES, LU, IT, LV, PL, PT, SI, TR) reported that it is being used as an instrument to make VET more attractive, mainly by:

- allowing students who do not complete a VET programme to be awarded a partial qualification.
- facilitating the transfer between general education and VET; and
- providing schools with the flexibility to take into account the specific needs of learners and regional/local economic needs.

¹³⁵ Conclusions of the Council on the future priorities for enhanced European cooperation on Vocational Education and Training. Council document 14474/06 of 30 October 2006.

¹³⁶ 'The Bordeaux Communiqué on enhanced cooperation in vocational education and training' (26 November 2008). http://ec.europa.eu/education/lifelong-learning-policy/doc/bordeaux_en.pdf

¹³⁷ 'Maastricht communiqué on the future priorities of enhanced European cooperation in vocational education and training' (14 December 2004). http://ec.europa.eu/education/lifelong-learning-policy/doc/vocational/maastricht_en.pdf

¹³⁸ 'Helsinki communiqué on enhanced European cooperation in vocational education and training' (5 December 2006). http://ec.europa.eu/education/lifelong-learning-policy/doc/vocational/helsinki_en.pdf

¹³⁹ CEDEFOP (2009) Future Skill Supply in Europe. Medium-term forecast up to 2020: synthesis report. Luxembourg, Office for Official Publications of the European Communities.

Countries reported to be at different stages in the modularisation of their VET offer:

- a minority of countries reported to have **recently modularised** much or parts of their VET provision (BE nl, HU, LU). Luxembourg is putting in place a competence-based approach to VET organized in the form of units, which are subdivided into modules, with the aim to facilitate that people who interrupt their studies resume training at the place where they had abandoned them, which is seen in the country as a centre-piece for realising lifelong learning;
- other countries (AT, PL, PT, UK) reported to be **expanding the modularised offer** within VET provision (PT has done this in relation to continuing VET, whereas the UK has adopted a more encompassing approach requiring all VET qualifications to be unitised; in AT new modular apprenticeship programmes are being created—see below);
- four countries (AT, HU, IT, LV) reported to be **reorganising their existing VET programmes** towards further modularisation coupled with reductions in the duration of VET programmes or the establishment of part-qualifications. In Italy pathways of three years of training, aimed at achieving a qualification equivalent to ISCED level 3, have been broken-down (2 +1, 1 +2) facilitating the transition to the second or third year for those who come from traditional academic educational pathways. In Latvia a strategy to increase the attractiveness of VET aims to reorganise present four year secondary VET programmes into three year programmes and introduce a modular system for these VET programmes.; and
- two countries reported to be currently **considering further modularisation** (CZ, SI).

Box 3-8 Austria - Modularisation of apprenticeships

The *Austrian* 2006 BAG (*Berufsausbildungsgesetz*) amendment created the legal basis for a possible modularisation of the apprenticeship system to make it more flexible, improve compliance with sectoral requirements, increase the number of training enterprises and interlink initial with continuing vocational training. The Austrian approach to modularisation consists of main and special modules. The qualifications comply with the special methods of production and services in the particular sector. Respective choices persist during a maximum training period of up to four years.

Whilst modularisation has been an important area of activity to make VET more attractive to learners, recent research from CEDEFOP has highlighted the need to investigate further its real contributions to achieve this objective.¹⁴⁰ In this respect, it should be noted that no country offered details on the effectiveness of modularisation measures in their reports.

3.1.2 Pathways between VET and HE

The Maastricht Communiqué called for increased permeability within education and training systems, which requires that the HE and VET systems approach each other to support lifelong learning. The Bordeaux Communiqué and the 2008 Joint Report mention explicitly that further progress is required in reducing the obstacles to progression between VET and further

¹⁴⁰

Lasonen, J. and Gordon, J. (2008) 'Improving the attractiveness and image of VET' in CEDEFOP (ed.) *Modernising Vocational Education and Training*. Volume 3. CEDEFOP, Office for Official Publications of the European Communities.

or higher education. These pathways have often taken the form of introducing an equivalence for HE access between VET programmes and general programmes (CY, FR, IS) and, in particular in those countries where there are HE entrance examinations for either general or – less frequently- vocational HE, the introduction of bridging courses which provide individuals who have completed upper secondary VET with the foundation to enter HE (NO). Access to HE (and in some cases waiving of part of HE courses/ achievement of a full HE qualification) can also be achieved through the validation of non-formal and informal learning (FR).

In some countries the progression from VET into HE is already well-established (AT, BE nl, CY, CZ, FR, IE, IS, IT, NL, NO, SE, UK), whereas other countries are working on the adaptation of the national qualifications system to facilitate access, transfer and accreditation or the establishment of bridging programmes to provide access to HE. Almost half of the 2009 reports (AT, CY, DE, EL, ES, HU, LT, LU, HR, IS, IT, NO, SE) referred to the development of pathways between VET and higher education as a tool to increase VET attractiveness through measures such as:

- introducing new educational offers, including new programmes resulting from collaboration between VET and HE institutions (DE, LU, LT, SE);
- bringing vocational and general education closer together by introducing VET programmes with greater emphasis on generic skills as well as new vocational HE programmes to reduce dead ends (CY, DE, EL, NO);
- making VET and general upper secondary education equivalent for HE entry (EL, IS) or offering double-certification (RO);
- establishing additional periods of study to acquire a professional degree that allows access to technical courses in HE (IT, NO);
- establishing quotas for VET graduates access into HE (ES, HU); and
- providing access to HE based on professional experience (AT, HR).

Box 3-9 – Greece - EPAL schools

The new EPAL secondary schools (*Epagelmatika Lykeia*) - which combine general and vocational education - enable its graduates to take part in the national examinations for entry to all higher education institutions under the same conditions as General Lyceum graduates. This is for the first time that such an option is available for VET students in Greece. A new law introduced in 2009 provides an additional pathway for EPAL graduates to enter higher education institutions through a quota of places reserved for EPAL graduates set each year by the Ministry. There is evidence that these new schools have sparked a renewed interest in VET: in their second year of operation new entrants to the EPAL increased by 14% compared to the previous year.

Box 3-3 – Italy Non academic post-secondary training

Regional administrations in Italy have set up 126 'training poles' to provide higher technical education and training as an alternative to university studies. This initiative puts a strong emphasis on meeting national and in particular local economic needs, and on basing training provision on agreement between different stakeholders. It is based on a 2004 agreement between the Italian Ministries of Education, Labour and Economic Development, and the Regions – including the association of upper secondary schools and training centres, public and/or private research centres, enterprises and/or category associations and universities. A 2008 decree specifies that both Higher technical education and training (IFTS) and training offered by Higher Technical Institutes (ITS) are planned on the basis of training needs that have been identified in a number of sectors regarded as crucial for the development of the national and local economy. Local planning and provision of the higher training system must be the result of joint action with the provincial authorities and be supported by an agreement with the social partners. Courses combine academic study and practical training.

Whereas pathways from secondary to tertiary VET are frequent (i.e. giving access to certain specific technical HE programmes), access to general tertiary education is more complex. Routes into HE from apprenticeships are less well developed (cf. section on apprenticeships below in this chapter), as is the recognition of VET partial qualifications for entrance to or as part of HE studies. However, stimulating the take-up of these pathways will increasingly require addressing attitudinal, practical situational as well as institutional barriers (e.g. in terms of formal HE access requirements).

National reports provide little information on access to HE through the validation of non-formal and informal learning. The Bologna stocktaking exercise¹⁴¹ has recently outlined that this has been an area in which little progress has been achieved since 2007(see, however, chapter 4.3.2). Validation is still better developed in the non-university HE sector and when used, it aims to improve the social dimension of HE, by attracting under-represented groups. In any case, it seems that the awareness of validation procedures is low. Full implementation of validation within HE would probably require a change of culture in many HE institutions, the development of NQFs and more widely accepted credit transfer linked with learning outcomes.

Member States would now need to focus on encouraging the use of existing pathways and ensuring that these are genuinely open by dealing with problems of failure to progress. Also offering effective guidance to assist individuals to make the right decisions now that greater choice is available to them seems to continue to be a challenge, as supported by recent research¹⁴².

3.1.3 *Quality and investment in VET*

The Council conclusions in Barcelona in 2002¹⁴³, the 2006 Commission Communication on adult learning¹⁴⁴, and the Bordeaux Communiqué have firmly reiterated quality as a main

¹⁴¹ Rauhvarhers, A., Deane, C. And Pauwels, W. (2009) Bologna Process Stocktaking Report. http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/Stocktaking_report_2009_FINAL.pdf

¹⁴² ECOTEC (2008) Beyond the Maastricht Communiqué: developments in the opening up of VET pathways and the role of VET in labour market integrations. Final report to the European Commission.

¹⁴³ Presidency conclusions, Barcelona, 15-16 March 2002 (SN 100/1/02, §43)

priority in VET. Excellence and increase in quality in VET are sought by EU countries through a diversity of mechanisms such as quality assurance (QA), quality assessment, greater investment in VET improving teacher training¹⁴⁵, and participation in international skills competitions.

Assuring quality in VET is a priority for most EU countries¹⁴⁶. The establishment of a **European network for quality assurance in VET (ENQA-VET)** with national quality assurance reference points in many countries and the growing attention to teachers and trainers tie in with this increasing focus on quality issues, which are crucial if VET is to be an attractive option for young people and adults. Drawing on the principles underlying the Common Quality Assurance Framework for VET (CQAF) that had been endorsed by the Education Council in May 2004¹⁴⁷, the adoption in 2009 of a recommendation of the European Parliament and the Council on the establishment of a European quality assurance reference framework in vocational education and training (EQARF)¹⁴⁸ makes an important contribution to the development of the quality assurance in VET at European, national, regional and local level. Increasing decentralization of VET intensifies the need for QA systems.

The 2008 Joint report highlighted that some countries (AT, DE, DK, FI, IE, SE, NO) already had established comprehensive quality assurance systems while others (BG, CZ, ES, FR, LU, MT, SI) were still in the development phase, but judged overall progress in this area satisfactory. In their 2009 reports countries described a variety of measures that are in place to enhance quality applicable either at VET system and/or VET provider levels:

- governmental external QA bodies (DK, NL, NO, PL, SE, UK); thus in Denmark all VET schools establish a concrete action plan for improving the completion rates in the different courses. The plan is evaluated by the Ministry of Education;
- external quality assessments of VET systems (BE fr, CY) and VET graduates (EE, PL)
- institutional self-assessments (AT, EE, ES, IT, LT, SE); thus in Austria the QIBB (Quality Initiative in VET) – which includes a ‘common frame of reference for QA in VET’- aims to ensure the quality of vocational schools and their continuing development; regardless its voluntary nature, 75% of schools make use of the framework; and
- voluntary links of its VET institutions with foreign examining bodies (MT).
- introduction of performance based awards at VET providers level (AT has established a ‘quality bonus’ for companies conditional on good performance of their apprenticeships in their training; HU introduced in Quality Prizes for VET institutions with highest placement rate of graduates on the labour market).

¹⁴⁴ COM (2006) 614 final.

¹⁴⁵ CEDEFOP (2009)¹ op. cit.

¹⁴⁶ CEDEFOP (2009)¹ op. cit.

¹⁴⁷ 9599/04 EDUC 117 SOC 252 du 18 Mai 2004

¹⁴⁸ Recommendation of the EP and the Council on the establishment of a European Quality Assurance Reference Framework for vocational education and training 2008/0069 (COD) LEX 1033 18 June 2009

Several reports mentioned participation in **international skills competitions** such as EuroSkills (AT, DK, EE, HU, LT, LV, NL, SK) and WorldSkills (ES, EE, HU, NL) as initiatives that help to increase the attractiveness of VET. These countries also reported using such competitions to benchmark the quality of their VET provision against that of other countries.

Changes in the **training of teachers and trainers** have significant impacts on the quality of VET provision. The report from the Peer Learning Activities on the professionalization of teachers and trainers in VET provides a comprehensive overview of initiatives in the field¹⁴⁹. The national reports underlined following developments at national level:

- the upgrading of their entry qualifications or their continuous professional development (DK, MT, NO) Denmark, Malta and Norway reported efforts to upgrade the qualifications and the competences of staff;
- the improvement of teaching quality through the adoption of new educational standards and teacher training (AT);
- enhancement of the possibilities for the professional development of VET teachers in relevant companies (HR).

Regarding investments in VET, 12 countries (BE fr, BE nl, BG, EE, EL, ES, IT, LT, LV, HU, MT, SE) reported to have devoted targeted investments to establish well-equipped training centres. This enhances the attractiveness of VET as trainees can operate with up to date equipment, acquiring skills of direct relevance in the labour market.

Countries also reported on the use of financial support and incentives to individuals (BL fr, BL nl, CY, EE, HU, LV, PL):

- guaranteeing the right to education for all and free training for job seekers and workers (BE fr, where job seekers also receive training insurance, reimbursement of travel and child care and nursery school, amongst other support measures);
- ad-hoc free provision available in some sectors or for some target groups (EE reported increased participation in in-service training following investment in the provision of a range of new free VET courses; CY as part of the actions taken to deal with the current economic crisis, has increased funding to temporarily give unemployed people over 25 more greater educationally related financial support during 2009 and 2010, subsidising up to 80% of the course costs);
- provision of scholarships in areas with skills shortages in BE nl and HU, students enrolled in courses where demand for labour exceeded supply, receive a monthly allowance; and
- provision of scholarships based on good performance (LV is supporting talented young people providing scholarships to support students who achieve good academic results in VET institutions that implement accredited engineering and technology, architecture and construction VET programmes).

¹⁴⁹ European Commission (2009) Summary report from the Peer Learning Activity on the professionalization of teachers and trainers in vocational education and training, <http://www.ksill.net/PeerLearningClusters/ClusterDetails.cfm?id=11>

Quality and investment in VET are essential to make VET attractive. Countries are employing structural measures to improve quality combined with changes in quality assurance practices, teacher training, greater investment in infrastructure and individual support to VET students and increasing the profile of VET through international skills competitions.

3.2 Relevance to labour market needs

The Bordeaux Communiqué and the Council Resolution on New Skills for New Jobs underline the importance of increasing the relevance of education and training provision for meeting labour market needs. Curricular reform, increasing partnerships between VET providers and employers and enhancing the role of work-based learning including apprenticeships are the main strategies countries reported in order to enhance the labour market relevance of VET. These measures complement other initiatives already reviewed in this report, such as guidance and validation of non-formal and informal learning. An important aspect to note given recent political emphasis in this area is that skills forecasting has an important role in informing the diverse changes outlined below to make VET more relevant to labour market needs. As analysed in the Commission Staff Working Document accompanying the Communication on New Skills for New Jobs¹⁵⁰, most Member States are already using or developing **tools for skills forecasting**. However, these initiatives vary significantly in scope and methodology and need to be brought together into an orchestrated effort in order to strengthen the EU capacity for anticipation and forecasting of skills needs.

Few countries (BG, CY, CZ, EE, FR, HU, IE, IT, LT, PL, RO, SE) reported to have established new mechanism or having already established mechanisms to meet this end, through:

- the work of regional development and training committees or observatories (CZ, HU, FR, IT, PL, RO); in Italy a decree has established that each regional administration should draw up local plans to be reviewed every three years with the objective of adapting VET provision to the needs of the productive sector;
- employer surveys (BG, CY); as such Bulgaria undertook a national representative survey of the needs of employer in relation to their workforce and prepared medium term forecasts for the demand of labour for the period 2008-2010;
- sectoral observatories (FR); each sector should establish an observatory with the main objective to enable formulation of sectoral education and training policies based on qualitative and quantitative anticipation mechanisms;
- the use of administrative data on changes in employment structures (EE, LT) and career tracking systems (HU).

3.2.1 Qualification/ curricular reform

The 2008 Joint report¹⁵¹ mentioned curricular reform as a fundamental tool to improve the labour market relevance of VET, together with the move towards learning outcomes (covered

¹⁵⁰ European Commission (2008) Commission Staff Working Document accompanying the Communication on New Skills for New Jobs. http://ec.europa.eu/education/lifelong-learning-policy/doc/com868_en.pdf

¹⁵¹ 2008 Joint Council/ Commission Report on the implementation of the Education & Training 2010 work programme: 'Delivering lifelong learning for knowledge, creativity and innovation'.

in the chapter on transversal lifelong learning issues). **Engagement of employers** is often accompanied by greater degree of decentralisation to enable VET institutions to meet local labour market needs. Thus, the main trends in the country reports in relation to curricular reform are:

- updating the qualification standards and/or curricula (BG, BE nl, CZ, DE, DK, EL, EE, IS, IT, LT, LU, MT, NL, NO, PL, PT, RO, SE, SK, UK). This has been with the aims of better matching with labour market needs, (strengthening the emphasis on competences), and extending the vocational offer.
- increasing the role of the productive sector in the redefinition/ evaluation of standards/curricula in VET (BG, BE nl, CZ, DE, EE, EI, IS, IT, LT, MT, NL, PL, PT, RO, SK, UK). In the Czech Republic and Slovakia, according to national guidelines for VET curricula, schools are designing part of their own VET programmes in line with regional labour market needs. In Iceland, new legislation gives VET lower secondary schools the opportunity to introduce VET courses in cooperation with upper secondary schools or with local firms for students 14-16 years old; and
- examples of a more active role of the State in the development of new VET provision. In Denmark the Ministry of Education is initiating new education programmes covering occupations or trades not covered by the programmes initiated by the trade boards.

Box 3-4 – Romania - Social partner involvement

In *Romania*, the relevant social partners are involved in both developing and validating the professional qualifications offered by the VET system and in the strategic planning of the education and training offer. At sectoral, regional, local levels there are consultative bodies such as: sectoral committees, regional consortiums, local committees for the development of the social partnership, the administration councils of the schools. The VET curricula are developed with the consultation of all the above mentioned structures and after investigating the needs of training on the labour market at regional and local levels.

3.2.2 Partnerships with employers

The 2002 Council Resolution on lifelong learning and most recently the Bordeaux Communiqué invited Member States to promote partnerships and cooperation between education and training establishments and the social partners to increase the relevance of VET¹⁵². A range of European countries, particularly those with established apprenticeship systems, (AT, DK, DE, FI, FR, IE, LU, NL, NO) have a longstanding tradition of cooperation with enterprises. Countries with less established partnerships with employers were those that more frequently reported new partnership initiatives, as described below. Almost two thirds of the reports mentioned increased partnerships with employers (AT, BG, BE fr, BE nl, CZ, DE, EE, EL, FR, HR, HU, IS, IT, LT, LU, LV, MT, NL, PL, PT, RO, UK), often geared towards curricular discussion (see above). National reports also included other strategies to stimulate partnership work:

- establishing new structures for dialogue between employers, public authorities and educational institutions (AT, BG, BE fr, BE nl, DE, EE, HR, HU, LU, LV, PT, RO, UK);

¹⁵²

Council Resolution of 27 June 2002 on lifelong learning. 2002/C 163/01. OJ, 9.7.2002.

- the creation (CZ) or consolidation (UK) of sector skills councils to represent employers on training issues; in the UK sector skills councils are run and owned by employers but draw on the expertise of trade unions, professional bodies and other stakeholders to build intelligence on skills needs and influence planning and funding of VET across the UK;
- expanding social partner functions on VET issues (EE, HU, IS, LT, PL, PT, UK) in a particular area such as the planning of the training offer or, more deeply, in the governance of the VET system;
- providing new financial incentives for employers who collaborate in the provision of training (BE fr) or ensuring new agreements for placements for young people (AT);
- developing cooperation with Chambers of Crafts and Trades in order to involve small and medium sized crafts businesses in apprenticeships (HR);
- engaging employers more actively in the training of VET teachers (BE nl, BG, CZ);
- making employer co-financing a requirement for schools to take part in some of the national programmes that provide funds for VET (BG);
- creation of a label “lycee des metiers” (FR) which recognises partnership between VET providers, local authorities and employers as well as a use of a quality charter. The goal is to have 800 VET schools within the scheme by 2010.

Box 3-5 – Estonia - Partnership in the planning of VET offer

In *Estonia* one of the objectives of the national “Development Plan Vocational Education for 2005–2008” was to further develop cooperation with social partners (employers’ and employees’ umbrella organisations and professional associations). Significant progress has been made since in ensuring that the content and organisation of vocational education better conforms to the needs of the labour market. Thus the planning of state-commissioned training places (SCTP) for vocational educational institutions has been aligned with developments in the economy and employment trends (Labour Market Board).

On the whole this is an area in which progress has been achieved over the last decade in most EU countries as illustrated by the many different ways of involving employers in curricula, recruitment, financing etc.¹⁵³

3.2.3 Apprenticeships and work based training

The Bordeaux Communiqué invited Member States to promote learning at the workplace¹⁵⁴. Many countries see apprenticeships and work based training as a suitable way to ensure that VET is relevant to labour market needs, reduce the drop-out rates of students at risk and increase educational achievement in EU countries. National reports show developments

¹⁵³ See also: ECOTEC (2008) Beyond the Maastricht Communiqué: developments in the opening up of VET pathways and the role of VET in labour market integrations. Final report to the European Commission.

¹⁵⁴ Council Resolution on lifelong learning, op. cit.

occurring in apprenticeships and work based learning over a third of the countries (AT, CY, CZ, DE, FR, IE, IT, LT, LV, NO, PT, SE, UK):

- Cyprus and Sweden (where apprentices will become eligible for access to HE and a national apprenticeship committee has been created) are particularly significant cases as these countries reported pilots in relation to the establishment of new apprenticeship programmes;
- expansion number and types of apprenticeship places available in the public and/ or private sector (UK, NO); thus Norway is studying how to increase the number of apprenticeships and considering the introduction of an entitlement to an apprenticeship contract;
- expansion of the opportunities and guidance to combine school and work situations through stages/ internships (BE nl, BG, LU, NL) and enterprise tutoring (IT);
- subsidies are being provided to firms whose apprentices upon good performance (AT) or for the training of workers in workplace settings (BE fr, UK);
- allowing lower-secondary students to test work-based upper-secondary programmes, should they choose to continue their education with a VET programme after finishing lower-secondary education (IS, NO); and
- waiving of the initial components of apprenticeships has become possible upon evidence of satisfactory professional experience, to attract more people (AT).

Box 3-6 – Italy - School-work alternance

In *Italy* the Ministry of Education has expanded school-work alternance possibilities through a new methodological system for undertaking training at secondary school level, including the use of simulation centres (one or more schools in each region) and virtual companies linked to a tutoring enterprise. The method is based on alternating school and working periods, systematically linking classroom training with practical experience so that students have the opportunity to understand processes and techniques employed in leading companies.

Box 3-7 – Belgium nl - Certified Workplace Learning

In *Belgium nl*, to stimulate innovation without imposing rapid changes in the education policy rules for the entire education sector, the policy chooses to support the so called “proeftuinen” (experimental pilot projects). These are temporary projects organized by (groups of) schools on the following topics: to develop certified workplace learning in a systematic and structural way; to optimize and expand internship for trainees, teachers and trainers. Some of the projects can be used for the design of evaluation tools that assess skills acquired within the classroom, during internships or periods of workplace learning.

Several countries are considering or taking action to create or increase their apprenticeship offer. Few countries made specific reference to the stimulation of quality apprenticeships, retention of apprentices and work based training in SMEs – a group of employers that find it

more difficult than large employers to invest in and retain the apprentices they take on¹⁵⁵. For reaping the full advantages of such kinds of training it would be advisable to pay further attention to those mechanisms aimed at promoting quality apprenticeships especially in the SME sector. More broadly, apprenticeship offer is sensitive to the economic climate¹⁵⁶, and may need to be stimulated more strongly in the current economic conditions.

3.3 Conclusions on attractiveness of VET and link to labour market needs

The chapter presents the different approaches taken at national level to address key priorities of the Copenhagen process, namely the attractiveness and labour market relevance of the diverse and complex VET systems which exist throughout Europe.

To promote the attractiveness of VET, the main tools mentioned in the national reports are modularisation, pathways to higher education (HE), and excellence and quality.

Modularisation is seen by countries to be an important way of making VET provision more flexible and responsive to the specific needs of learners and businesses. Better access to HE is also reported by a number of countries as a way of increasing attractiveness to good trainees and students (e.g. through new or improved pathways). However, the improvement of access through the validation of non-formal and informal learning may remain a challenge in most countries. And it is not yet clear to what extent the initiatives or tools mentioned have been used by institutions and trainees and, therefore, to what extent they have had an impact.

On the issue of quality assurance, national reports mention a number of tools being used for the implementation of quality assurance systems with focus on the professionalization of VET teachers and trainers. Investment in up-to-date equipment, targeted financial incentives for individuals and the participation of countries in international skills competitions were also cited as means to increase the excellence and attractiveness of VET.

Clear developments have been reported by a range of countries to enhance the relevance of their VET provision to labour market needs. Partnerships with social partners have a long tradition in those countries with established apprenticeship or dual systems, but such structures are now also becoming more frequent in the countries without that tradition. This is particularly the case for the financing and planning of VET provision in accordance with employers' needs. The continuing decentralisation of VET has allowed providers to use curricular reform to adapt the VET provision to local labour market needs. There is some evidence that employers are being involved more systematically in the update and redefinition of curricula and qualification standards. Apprenticeships and work-based training schemes are seen as an efficient tool to ensure labour market relevance and, therefore, new apprenticeship schemes are increasingly being established in the countries with no work-based training tradition. The continuation of these steps to make the systems and practice more relevant will be crucial if VET provision is to respond effectively to the challenges of evolving skills needs as set out in the New Skills for New Jobs initiative.

¹⁵⁵ Culpepper, P. (2007) 'Small States and skills specificity: Austria, Switzerland and inter-employer cleavages in skills specificity' *Comparative Political Studies*, vol.40 (6), pp. 611-637.

¹⁵⁶ Steedman, H. (2005) 'Apprenticeships in Europe: Fading or Flourishing?' CEP Discussion paper 710. London School of Economics.

4 HIGHER EDUCATION

Modernisation of Europe's higher education institutions, involving their interlinked roles of education, research and innovation, has been acknowledged not only as a core condition for the success of the broader Lisbon Strategy for growth and jobs, but as part of the wider move towards an increasingly global and knowledge-based economy.

The Commission Communication on 'Delivering the Modernisation Agenda for universities: education, research and innovation'¹⁵⁷ sets out three broad areas for reform:

- i) **Curricula** appropriate to the needs of society and the economy, including a increased focus upon competence based learning, more flexible learning paths, better recognition, and improved opportunities for mobility.
- ii) **Governance**: enhanced university autonomy, strategic partnerships, including with enterprises, and improved quality assurance
- iii) **Funding** diversified sources of university income better linked to performance, promoting equity, access and efficiency, including the possible role of tuition fees supported by grants and loans.

Furthermore, the Council Resolution of November 2007 on modernising universities¹⁵⁸ made explicit

The need for universities to have sufficient autonomy, better governance and accountability in their structures to face new societal needs and to enable them to increase and diversify their sources of public and private funding in order to reduce the funding gap with the European Union's main competitors;

and emphasised

The importance of increasing lifelong learning opportunities, widening higher education access to non-traditional and adult learners and developing the lifelong learning dimension of universities;

This chapter examines the evidence from countries set out in their national reports on progress made in:

- i) plans and measures to diversify the income streams of Higher Education Institutions; and
- ii) plans and incentives to encourage Higher Education Institutions to open up to lifelong learners.

¹⁵⁷

[COM\(2006\) 208 final](#)

¹⁵⁸

Report from the Commission to the Council on the Council Resolution of 23 November 2007 on Modernising Universities for Europe's competitiveness in a global knowledge economy, [COM\(2008\) 680 final](#)

4.1 Income Streams in Higher Education

Total investment in higher education was about 1.3% of GDP in 2006. Public investment accounts for approximately 87% of the total amount spent on tertiary education institutions in Europe; and of this amount the vast majority is in the form of direct public spending¹⁵⁹. Clearly, whilst public support remains the primary source of Higher Education (HE) funding, a trend can be observed both in an increase in private funding and expansion of competitive funding from both public and private sources, as countries pursue strategies aimed to diversify the funding base of their higher education institutions.¹⁶⁰

Three main sources of diversified funding sources are prevalent: Tuition Fees; Research and Service Contracts (secured through competitive programmes or privately contracted research and related services from industry); and Fund raising (such as support from foundations, trusts, charities, individuals and corporate donors).

In their national reports, countries highlight tuition fees as the main form of diversified resources (BE-nl, EE, EL, LV, LT, NO, MT, SK, SL, UK). The levels of such fees, the cycles and programmes, and the student profiles, to which they apply varies significantly between countries. It should be noted, that many countries, including those that do not have (widespread) tuition fees, do implement registration, examination and administration fees, which in some cases may be substantial.

A small number of countries describe an additional need to attract a diverse supply of public funding streams (DE, ES, HU, IT, SL, UK) and most have recently undergone or are in the process of introducing legislation, which grants universities increased financial autonomy.

In addition to the sources of diversified funding, countries include information on approaches to the allocation of public funds, such as an increased use of performance contracts, and the use of matched funding to make public funds ‘go further’.

Several countries cite the importance of striking a balance between core funding – and the stability which this can provide, with competitively-based funding to encourage HE providers to be proactive in diversification, both in their income streams and in their missions and profiles/target groups (BE-nl, CY, EE, ES, PL). Increasingly, multi-annual (usually 3 or 4 years) funding agreements are in place with annual reviews, in particular for variable/performance-related funding allocations.

4.1.1. *The changing levels of public funding in response to economic downturn*

In the context of the economic and financial crisis, the EU’s Economic Recovery Plan¹⁶¹ stresses that Member States should maintain investment in education: crucial both to short-term recovery and as a driver of longer-term prosperity.

¹⁵⁹ Bearing directly the current and capital expenses of educational institutions, contrasted with indirect expenditure in the form of transfers to private households (scholarships and loans) and firms (public subsidies for educational activities)

¹⁶⁰ The 2009 annual report of the Commission on progress towards the Lisbon objectives in education and training gives a detailed presentation and analysis of HE investment

¹⁶¹ [COM \(2008\) 800 final](#)

Broadly, national reports provide little information on the impact of the crisis on tertiary spending, although some do specifically highlight that they are making available increased resources for HE in order to tackle economic challenges (DK, ES, HR). Others (EE, IE, IT, IS, UK) highlight the allocation of resources for initiatives targeted specifically at people who lose their jobs or who are under threat of redundancy as a result of the economic downturn.

Box 4-1 – UK (England) - Economic Challenge Investment Fund

The Economic Challenge Investment Fund (ECIF) was announced in January 2009 to enable higher education to respond rapidly to the needs of employers and individuals during the economic downturn. The fund consists of £25 million provided by the Higher Education Funding Council for England (HEFCE) with matched funding from institutions and will enable universities and colleges to provide tailored training, development and professional support to vulnerable groups facing the risk of redundancy.

Box 4-2 – Ireland - response to economic downturn

In April 2009, the Irish Minister for Education and Science announced that over 5,400 additional places were being made available for unemployed people on higher education courses.

In June, 2009, the Minister announced that a further 1,000 additional post-graduate places would be made available to assist unemployed graduates in undertaking part-time postgraduate diplomas or conversion programmes. The scope to further develop these initiatives and to identify other appropriate responses which higher education institutions can make to support the upskilling of unemployed people is being examined by a Higher Education Labour Market Response Group.

Whilst most countries provide no information on plans for overall levels of public expenditure on HE, it is clear that in some countries funding decreases have already been implemented or are foreseen (EE, HU, IT, LT, PL), and others have scaled back plans to increase funding (AT) or have implemented caps on existing spending levels (UK).

Germany is an example of increased investment in education and research.

Box 4-3 – Germany – Additional investment in HE

In Germany an additional 18 billion Euro investment in education and research by 2019 has been announced in June 2009. As part of this, the federal government and the Länder will each invest 3,7 billion Euro until 2015 for 275 000 additional study places.

4.1.2. Public funds: Financial Autonomy of Higher Education Institutions

The Council Resolution on modernising universities for Europe's competitiveness in a global knowledge economy¹⁶² invited Member States to provide HE institutions with *the autonomy to develop their full potential and take the necessary measures to modernise higher education institutions by granting them autonomy and greater accountability.*

¹⁶² <http://register.consilium.europa.eu/pdf/en/07/st16/st16096-re01.en07.pdf>

The Commission had further stressed that universities should be *funded more for what they do than what they are, focusing resources on relevant outputs rather than on inputs and by adapting funding to the diversity of institutional profiles* and that Higher Education Institutions *should take greater responsibility for their own long-term financial sustainability*.¹⁶³

A lack of autonomy can be a major inhibitor in the identification and achievement of the mix of funding which will support a modernised Higher Education system¹⁶⁴ and there is clear and positive correlation between increased autonomy and HEI performance.

In their country reports, many countries provide information on recent legislative changes or future plans to increase the financial autonomy of individual institutions (EE, EL, FI, FR, HR, IE, IT, LU, LV, NO, PT, SK, UK). Most now enable institutions to attract funds from a variety of sources and empower HEIs to take a more strategic role in managing the public funds conferred to them and in seeking new funding, eg. through the management of their own estates, the commercialisation of research/IPR and other for profit activity such as services to business (BE-nl, CY, EE, EL FI, HU, IE, IS, LT, MT, NO, PT, SL, NL, SE, SK).

Box 4-4 – Finland - New Universities Act and financial autonomy of HEIs

The Finland Universities Act 2009 allows for universities to become independent corporations under public law or foundations under private law. This has put them outside of the government budgeting system, but still allows institutions to receive an annual budget from national funds, which will be maintained at the current level, to execute the tasks assigned to them. The intention is to increase the financial autonomy of institutions and diversify the funding base. Universities can acquire external funding, direct investments for strategic areas of important research, and may acquire shares and other property, and pursue in business ventures.

Whilst many countries outline legislative and other changes in their country reports to increase the financial autonomy and accountability of Higher Education Institutions (HEI), few provide detail on how institutions are being equipped to take strategic financing decisions and the incentives put in place for them to do so. For example, through increased use of full (actual) costing and the ability to cross-subsidise provision.

4.1.3. Public funds: The use of performance contracts to allocate funding

Performance indicators have a growing influence in the allocation of public funds; however, country reports demonstrate limited examples of their use. The most widespread indicators are those linked to student attainment and improved quality of provision (AT, BE nl, BE fr, CZ, DE, DK, ES, HU, PT), and widening the participation amongst non-traditional learners (BE nl, HR).

¹⁶³

[COM \(2006\) 208](#)

¹⁶⁴

Report on the Council Resolution on Modernising Universities, op. dict.

Box 4-5 – Belgium nl – Student achievement

In teaching, in Flanders, performance agreements cover an incentive for the institutions to support student achievement and progression and to improve academic success (in terms of completing credits and gaining a qualification), especially the achievement and success of students from more vulnerable backgrounds (low cultural capital). The targets include an increase of participation of students from lower socio-economic backgrounds, of students from ethnic minorities, of students with a disability but also an increase in the number of graduates from those target groups. Attracting second chance students could also be one of the actions funded under those agreements.

4.1.4. Public funds: Matched funding, top-up funds, and tax relief mechanisms for diversification

The 2007 Council Resolution issued a particular invitation to Member States to make use of the **Structural Funds** to help modernise Higher Education. Several countries report on how they are using structural funds and national co-financing (matched funding) to support infrastructure and staffing costs to participate in wider activities (CY, EL, PL, SK, SI).

The mechanism of matched funding is also used to encourage institutions to generate funding through **voluntary donations** and to seek investment from private organisations (NO, UK).

Box 4-6 Norway - Donation Reinforcement initiative

In Norway, higher education institutions can benefit from the Donation Reinforcement Initiative, which was adopted by the Norwegian Parliament in June 2005 and became effective in the 2006 budget.

Under the initiative, for donations of at least 3 million NOK, the government will match donations with an extra 25%. The Research Council of Norway manages and allocates the matching of funds. To qualify, donations must be for long-term basic research, and cannot fund efforts directly benefiting a donor's business. Donations from business and private individuals were eligible from 2006, and donations from charities were eligible from 2007. Institutions eligible for donations and reinforcements are universities, university colleges that award doctorates, the Norwegian Academy of Science and Letters, and the Research Council of Norway.

Investments and donations from the private sector are also encouraged through **tax relief mechanisms**. Evidence from the European Commission (Eurydice) highlights that approximately half of countries have recently implemented or will soon implement tax incentives related to partnerships between HEIs and the private sector.¹⁶⁵

Several of the country reports show how Governments are encouraging HEIs to seek **investments and donations** that will be eligible for tax relief (AT, CY, EL, FI, LU, NO, PL, PT, SE, SI). Policy incentives include tax relief for donations, for both institutions, and donors (PL, SE), for capital investment (EL), or and with respect to gifts or endowments/legacies (SI).

¹⁶⁵

Higher education governance in Europe, policies, structures, funding and academic staff (Eurydice) 2008

Competitive processes for the allocation of national funds available for research are increasingly a feature in most countries. In addition, recent years have seen a growing awareness of, and emphasis upon, attracting funds from international sources, such as EU research framework programmes (AT, BE fr, BE nl, CY, DK, ES, FR HU, MT, NO, PT, SI, UK).

4.1.5. Private funds: The changing use of tuition fees

The Commission Communication on efficiency and equity¹⁶⁶ called upon Member States to create appropriate conditions and incentives to generate higher investment from public and private sources, including, where appropriate, through tuition fees combined with accompanying financial measures for the disadvantaged.

Country reports demonstrate variation between countries that permit public HEIs to levy tuition fees (AT, BE, DE depending on Lander, EE, ES, FI, HU, IS, IT, LV, LT, MT, NL, NO, PT, SK, SI, UK) and those that do not permit the charging of tuition fees (CY, DK, IE, NO). For private universities, tuition fees are the main source of income; however, in some countries private universities are eligible for some degree of state funding and this is mentioned specifically by IS and NO. There is also variation in trends regarding the levels of tuition fees: while some countries are considering the introduction or increase of tuition fees (CZ, DE to introduce tuition fees in additional Lander, EL, SE, MT), others are removing or reducing them (AT, BE nl, NL). In addition, there are other charges to students which constitute private income to HEIs, for example, through service charges (IE) or registration and examination fees, (FR, IS, SI), which in some cases may exceed the tuition fee levels in countries where tuition charges are modest.

Differences also exist with regard to the students to whom tuition fees apply: for example, only to postgraduate students (CY, EL, MT, SI) or part-time students (IE, MT, SI).

HU is perhaps unusual in seeing a reduction in revenues from tuition fees as a result of a fall in the number of self-financing students, brought about by demographic change and a proportional increase in the numbers of students choosing VET (with state-funded places).

Attracting students from outside the EU/EEA is increasingly an important source of private funding for HEIs in several countries and is highlighted specifically by FI, MT, SE, and SK.

4.1.6. Investments from industry/private sector

Incentives for partnerships and investments in research are more common than partnerships in education. These include business incubators or joint business ventures, joint research initiatives or investments, or funding for research and development services (BE fr, BE nl, CY, CZ, EL, FI, HU, IS, NO, PT, SK, SI, LT).

In particular, commercialisation of research is an increasing source of private revenue, and is highlighted specifically in several country reports (BE fr, EL, HU, IS, LT, LU, MT, NO, SK, SI), with some countries setting up institutional architecture to facilitate such co-operation for example through Technology Transfer Liaison Offices (EL), and the Poles de Compétitivité (BE fr).

¹⁶⁶ COM(2006) 481 final

Box 4-7 – Greece - identifying synergies between research and industry

In Greece the HELP-FORWARD Network (PRAXI) serves as a relay centre mediating between research and industry and facilitating identification of economic synergies. The Network operates as a distinct entity, under the auspices of the Hellenic federation of enterprises (SEV), the Federation of Industries of Northern Greece (FING), and the Foundation for Research and Technology – Hellas (FFORTH). The Network collaborates with most regional chambers and associations of Commerce and Industry, as well as with regional government offices, assuring a balanced and cost-effective coverage of the entire country. Special emphasis is placed on the hard-to-reach and often disadvantaged regions. The HELP-FORWARD network maintains close links with most Universities and Research Centres, as well as Technology Parks, Sectoral RTD companies, and venture capital and development banks, additional to the regional administrations.

4.2. Opening up to lifelong learners

Increasing lifelong learning opportunities in Higher Education focuses especially on **widening access for non-traditional learners** (inc. students from deprived socioeconomic backgrounds, people with disabilities and older learners) as well as **promoting continuing education and professional development** for adults in employment.

The majority of countries address both dimensions in their national reports. However, in general, there is a greater focus on widening access for people from disadvantaged backgrounds, which is cited by almost all countries as a priority.

4.2.1. Policies and strategies for promoting inclusion of non-traditional learners

Overarching policies and strategies for lifelong learning are emerging or already embedded in a number of European countries (see chapter 2). Several countries specify the social dimension to widening access to higher education in their policies and strategies including targets to increase participation of students from lower socioeconomic groups, and to broaden overall access to higher education (AT, BE nl, CZ, DK, FI, IE, IT, LT, PT). Some countries highlight specific financial incentives for widening participation amongst non-traditional learners (AT, BE nl, CY, CZ, DE, DK, EE, FI, NO, PL).

Fewer countries address the workforce in their policies and strategies (BE nl, EL, FI, IS, IT, LT, NL, NO), and where mentioned by countries in their reports, this primarily concerns general continuing education and training rather than up-skilling (for new careers for example). However, in direct response to the current economic situation, four countries (IE, IS, IT, UK) have put in place specific responses to try to (re)engage the recently unemployed or those under threat of redundancy with HE learning opportunities (see also section 4.2.1).

4.2.2. The recognition of prior learning (formal, non-formal and informal)

Recognition of prior learning (RPL) (see also chapter 3.2.2) can be key in opening access to higher education for those who have not followed ‘traditional’ academic routes or those who would wish to return to studies later in life. A central component of lifelong learning strategies, RPL allows for formal consideration of achievements gained ‘outside the classroom’ and for the translation of previous qualifications to enable learners to progress to higher levels. Several countries highlight how RPL strategies are supporting access to higher

education for those without the formal academic entry requirements, including for mature students with workplace or professional experience (BE nl, CZ, DE, DK, ES, FI, FR, IE, IT, LT, LU, LV, PT, SK, SI).

France has one of the most developed systems of recognition of prior learning in the VAE (Validation des Acquis de l'Expérience) under which HE degrees have actually been awarded.

Box 4-8 – France – A long tradition of recognition of prior learning

The French system for the recognition of prior learning VAE is increasingly successful also in the area of higher education. The number of validations that have been successfully delivered in higher education has increased from 3705 in 2006 to 4200 in 2007. The fact that more than half of these (2154) concerned the award of full higher education degrees is a sign of greater acceptance by the higher education institutions of the principle of validating professional and personal experience, and of an improved quality of the validation procedures themselves. Substantial increases in successful VAE procedures in some HEI are also a result of local partnerships concluded with both the regions and business. More recently, there has been an upsurge in applications from those sectors most affected by the economic downturn (banking, insurance and the housing sector)

Recognition of prior learning is in the main, carried out at the institutional level, sometimes supported by national guidelines (DE, DK, EE, FR, NO, IT, LT) and also through quotas for students who do not meet traditional recruitment criteria for HE (DK, NO).

The ultimate success of the recognition and accreditation of prior learning, may well depend upon the willingness of institutions to cooperate on mutual systems of cross-recognition, and the inclusion of their practices within quality assurance procedures. This cross recognition is seen less frequently but is highlighted by LT, DK, FI, FR, NL UK.

4.2.3. A flexible delivery of courses

The preserve of higher education programmes based around a full-time academic year is diminishing. Higher education is waking up to the call of potential students who wish to learn at times and in ways that are convenient to them, and to balance studies with other responsibilities. New information and communication technologies are also changing radically the way that learning takes place, both inside and outside the classroom/lecture theatre.

In their national reports, countries provide numerous examples of modes of flexible course delivery (BE nl, CY, DK, FR, LV, MT, PT, RO, SE, SI) including evening or weekend format courses, distance learning, online material for self-directed learning, and alternative assessment methods:

- **Distance learning** is one of the most common forms of flexible learning and the role of open universities is specifically highlighted by several countries as important in attracting new types of learners (AT, CY, CZ, EE, EL, FI, NL, PL, UK).
- Off-campus, **flexible learning centres and networks** are also cited for their role in attracting students who might otherwise be too intimidated to cross the threshold of an HE institution (AT, EL, ES, HR, NO, NL, IT).

- **Shorter and modular qualifications** can also facilitate new learners or ‘returners’ to education, with students getting a taste of higher education and progressing as appropriate and convenient for them, including as building blocks towards a full degree.

In this context, a growing use of short cycles and foundation degrees can be noted (DK, FR, PT, SI, UK). For information on permeability between VET and HE see Chapter 3.

Box 4-9 – UK – Foundation degrees linked to work or economic demands

In the UK, Foundation Degrees provide a means to promote lifelong learning in higher education. The courses are flexible, work-focussed, and demand-led, often provided in collaboration with employers or where regional demand is clear. Foundation Degrees, courses lasting one or two years, are often a stepping stone for students to progress to completing a full 1st cycle degree. The more flexible entry requirements meant that this approach also provides for improved access to higher education for non-traditional learners.

Whilst modular approaches and short-cycle qualifications are by no means new, these are still a relatively rare phenomenon in many countries. In addition to changes in course planning, they require much broader change at the institutional and national/regional levels, to bring about a transformation in the mindset of educators and to ensure that funding mechanisms support flexible delivery, rather than inhibiting it. In their reports, some countries highlight initiatives to target teachers and trainers, providing support and retraining to adapt and develop their teaching methods (DK, EE, EL, FR, LT, LV, MT, PL, PT).

4.2.4. The developing partnerships between institutions and other stakeholders

The national reports reveal wide commitment to stakeholder engagement in opening up HE institutions to non-traditional learners, sometimes as part of an overall lifelong learning policy or strategy. However, there is much less clarity, on how this is implemented, and particular on levels of commitment to engaging stakeholders in partnerships which is mentioned in a selection of country reports (CZ, DK, EL, FI, IE, IS, LV, LT, MT, UK). One of the more common approaches to stakeholder engagement in lifelong learning lies in the **involvement of businesses in curriculum development** (EL, LV, LT, MT, NL, PL, PT, UK).¹⁶⁷

Box 4-10 – Malta – myPotential

The “myPotential” programme is public-private partnership between the Maltese Government and ICT training providers offered training courses leading to low and high-end ICT certificates. The initiative is supported by major financial institutions and is aimed at the employed, and the unemployed and full-time students. Tax credits are also offered to enterprises generating posts for ICT certificate holders.

There is very little information on HE partnerships with regional and local government, with non governmental organisations/voluntary sector or with further education providers and institutions in the country reports, although there are some good examples of how strategies to

¹⁶⁷

Whilst few country reports provide details on this aspect, further examples can be found in the Commission Communication of 2 April 2009 "A new partnership for the modernisation of universities: the EU Forum for University Business Dialogue", [COM\(2009\) 158 final](#)

connect higher vocational schools with higher education institutions, including the creation of common study programmes (BE-nl, CZ).

4.2.5. *Incentives and other support for non-traditional learners in HE*

In order to widen participation (both to underrepresented groups and for continued professional development) support and incentives to attract and retain new entrants to HE should be put in place. Whilst clear evidence of strategies to attract underrepresented groups to higher education can be found, examples of how mechanisms to support and retain these students are less developed.

As highlighted above in the section on the diversification of income, several countries stimulate take up of higher education studies by non-traditional learners through the use of performance-based contracts and target setting for the recruitment and attainment of underrepresented groups. And many make reference to the importance of recognition of prior learning and the availability of flexible pathways (including permeability with VET). But also the following incentives were mentioned:

- **financial incentives** for students, primarily in the form of grants and loans (BE fr, CY, CZ, DK, EE, FI, PT, SI, UK), including incentives targeted to particular underrepresented groups identified by their national/regional strategies, for example, financial support specifically targeted to older adults (CZ, EE, MT).
- **specific incentives for employees** was mentioned by a few countries (BE nl, FI, UK), although country reports do acknowledge a need to target this group (CZ, DK, FI, HR, NL, SI), and incentives for part-time students seem notably absent.
- **increasing aspiration and tackling cultural barriers** are key to attracting and retaining lifelong learners, particularly those from non-traditional or disadvantaged groups. However, country reports provide little insight into non-financial support mechanisms pursued to engage with non-traditional learners, although some countries do make reference to the need to include advice, mentoring and help for students to adjust to new environments and increase retention rates (EL, IE).

Box 4-11 – Cyprus – Means testing for financing non traditional learners

In Cyprus, the Council of Ministers has approved a package of student welfare measures, based on socioeconomic criteria. The package includes measures such as the increase in the funding of the Cyprus State Scholarship Foundation, financial support of public and private universities as well as of public schools of tertiary education for providing cheap accommodation to students, the provision of financial support for transportation purposes and meals and the subsidies for the purchase of academic textbooks and personal computers.

4.3. Conclusions on income streams and the opening up of HEIs to lifelong learning

The evidence provided in the country reports regarding the **diversification of funding** streams demonstrates a great variety of approaches, in respect of both public and private funds.

There is a clear move towards increased use of performance-based contracts in the allocation of public funding, both for the distribution of core funding and in awarding competitive funding.

Several countries also stress the need to provide sufficient security for HEIs when planning study volumes, for example through the preparation and agreement of multi-annual budgets with an approach which favours proactivity in strategic priority setting.

As regards diversification to private funds, tuition fees are the most established source of private revenue; even in those countries with no background of tuition fees. For EU/EEA students these are becoming an almost universal feature for third country nationals and in many countries for the second cycle irrespective of student origin.

Whilst at the national (or regional) level, governments can put in place strategies to encourage and support the diversification of income streams for universities – such as increasing autonomy and by removing barriers to co-operation with industry - ultimately diversification will depend to a great extent on the institutions themselves.

There is a growing realisation of the importance of **opening up HEIs to lifelong learners**, not least faced with demographic realities, which augur a reduction in the traditional cohorts of students to HE. Increasingly, countries are developing and putting in place lifelong learning strategies which aim to encourage more people to think of higher education as relevant to them, to enable higher education institutions to be more inclusive and more proactive in their recruitment.

To date, most efforts have concentrated upon attracting underrepresented groups into HE, in particular those from lower socio-economic backgrounds. Strategies to promote the role of higher education in continuing professional development, or for personal development amongst those already in the labour market, are less developed (this also applies to schools, VET, and general upper secondary education within the broader LLL continuum). With respect to both groups, there is little evidence of strategies for retention.

Whilst the primary actors in facilitating access of non-traditional learners are undoubtedly the HEI themselves, countries must be minded of the importance of strategic frameworks to support LLL in all its forms, particularly in respect of funding mechanisms, which can be a powerful driver (or act as an inhibitor) to LLL; one such example is support for part-time studies, where funding barriers both from an institutional and a student perspective are often cited.

In many countries national policies and strategies have yet to fully be integrated into the institutional approaches to widening participation. Despite significant progress in recent years, inflexibility of curricula and limited options for alternative attendance modes, dissuade many potential atypical students from participation in higher education.

Specific tools to facilitate access to HEIs, such as the effective use of validation and recognition of formal, non-formal and informal learning can be pivotal in attracting more people into higher education. However, the responsibility for such recognition generally lies with institutions themselves and as such, implementation varies significantly.

Although more partnerships are emerging, particularly with business, there remains a need to improve the types of mechanisms which will help Higher Education Institutions to understand

the specific requirements of the new types of learners. Furthermore, examples of engagement with other stakeholders relevant to LLL such as community organisations are lacking.

Perhaps the most important barrier to widening access to higher education for disadvantaged groups and employed learners remains aspiration. Clearly, such cultural issues have deeper roots and require sustained efforts to overcome, it is regrettable therefore that country reports do not outline approaches and initiatives to increase aspiration amongst those groups for whom LLL is far from a reality.

PART III: PROGRESS AT NATIONAL LEVEL

BELGIUM

		Belgium		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		99.1%	99.7% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	19.0%	19.4% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	17.3% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	17.0% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		13.8%	12.0% b,	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		81.7%	82.2%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	42.8% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	25.0%	27.2% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		35.2%	42.9%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		8.6% ⁰⁴	6.8%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		6.0% ⁰¹	6.0% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

Source: Eurostat (UOE, LFS) and OECD (PISA)

⁰¹ = 2001, ⁰³ = 2003, ⁰⁴ = 2004, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Belgium performs above the EU average in the four school related areas: *Participation in early childhood education, Low achievers in reading, mathematics and science, Early leavers from education and training and Upper secondary completion rate. As regards the share of low achievers in reading, mathematics and science the Flemish Community performs,*

however, better than the implicit 2010 EU target level. However, from a good starting position in 2000 Belgium progressed less than the EU average.

One area in which Belgium has made more progress is in increasing the number of *MST graduates*, for which the growth rate has been above the EU average. The share of female MST graduates increased too but is still below EU average. At the same time the share of the population with higher education attainment increased further from an already high level in 2000 and is now nearly 12 percentage points above the EU average.

As concerns *Adult participation in lifelong learning*, Belgium is one of the few countries where participation rates declined significantly in the last years. As a result of this in Belgium adult lifelong learning participation rate is today significantly below EU average.

Public investment in education as a % of GDP has not changed in Belgium since 2000, whereas in the EU as a whole it has slightly increased. However in Belgium it exceeds the EU average by about 1 percent of GDP.

Belgium already performs above the 2010 EU benchmark in the increase of *MST graduates* and above the 2020 EU benchmarks on *Participation in early childhood education* and *Higher education attainment*. The Flemish Community of Belgium in addition performs already above the 2020 benchmark in the share of low achievers in reading.

1. Policies for development of the key competences

The concept of key competences has been a central feature of Belgian (nl and fr communities) education and training systems since many years.

The basic and transversal competences are included in the BE nl core curriculum which defines the compulsory minimum objectives (learning outcomes) with regard to knowledge, insight, skills and attitudes by type of pupils that must be addressed by all schools. A major revision of the core curriculum to update the key competences took place in 2006.

A competence based approach was introduced in the BE fr in 1997 with the decree 'Missions'. The national framework curriculum was adopted end 1990 and progressively implemented. It describes the basic competences, knowledge, skills to be acquired during the compulsory education for all pupils by the end of secondary education.

Curricular reforms

Since 2006 a major revision of the BE nl core curriculum has been made for general and VET education. It covers at least the elementary and first cycle of secondary education and concerns all basic competences, except mathematics to be revised later. For compulsory education, content objectives are the same as for general and technical education while they are different for professional education. Transversal competencies are mandatory even if not taken into account for summative assessment. Three transversal competences are defined: digital competences, learning to learn and the interpersonal, intercultural, social competences and civic competence. While differently organized, there is a substantial overlap with the European key competences. Entrepreneurship is often realised through projects.

The BE fr national framework curriculum provides a broad generic description of the basic competences to be acquired, in particular in mother tongue, foreign languages, mathematic, sciences, initiation to technology and to art. The framework is common for general, technical

and professional education up to the end of the first cycle of secondary education. Transversal competences are referred to as 'transversal themes' embedded in the description of basic competences. There are no specific summative assessments for those competences.

1.2. Targeted provision of key competences

The BE nl public authorities intervene mainly via funding to support actions implemented by educational networks. The new 2008 Decree on financing compulsory education is resulting in additional resources being directed to schools with socio-economically disadvantaged pupils. The authorities are developing non mandatory guidelines for new or revised learning outcomes.

As concerns adult education, the 2005 Strategic Literacy Plan (2005-2011) includes an objective of differentiation of actions according to different (risk) target groups (long-term unemployed, senior citizens, the underprivileged). Since the 2007 decree on adult education, the Centres for basic education have focused more on basic education for adults. There are no tuition fees for basic education courses to ensure accessibility.

The BE fr public authorities intervene mainly via allocation of additional teachers and educational staff for compulsory education, additional funding taking into account the socio-economic background of pupils and changes in the education and training system to reinforce the acquisition of basic competences and to combat disadvantage. Additional measures have been taken in Brussels where the rate of early school leaving is particularly high and the rate secondary completion quite low. But, in spite of this effort, the very important needs in vocational training for the unskilled and/or illiterate adults remain unmet.

The offer for adult education provided by the BE fr community has been increased amongst for those with low levels of education, job-seekers and adults who have not completed secondary education. Additional training was also provided by the BE fr community and subsidised by the regions mainly in view of fighting illiteracy and improving linguistic skills and digital literacy.

1.3. Teacher training and approaches to assessment

In 2006 the BE nl decree on teacher education redefined the learning outcomes of teacher education curricula to ensure that teachers are equipped to implement a competence-based approach. Those learning outcomes are described as basic competences: the knowledge, skills and attitudes that a graduate teacher needs to have acquired. The competences are related to their responsibility towards the learner, the school/educational community and society. Continuous training of teachers is not mandatory but strongly encouraged and supported.

Since 2002, the BE fr teacher education curricula for school teachers up to middle secondary includes 13 competences. They aim to ensure that teachers are equipped to implement a competence based approach and to take responsibility towards the school and parents. Continuous training is mandatory for teachers.

A major change in assessment methodology has been introduced. Since 2009, pupils have to take an external summative assessment at the end of the primary education to obtain the required certification to move to secondary education. A similar approach will be tested in 2010-11, at the end of the first and of the third cycle of the secondary education.

1.4. Evaluation of outcomes

Evaluation of key competencies at BE nl system level is based on the results of the National Assessment Program (NAP), and the PISA surveys; the systematic exploitation of research and evaluation of projects, and the audits of schools by the inspectorate. The NAP provides reliable data based on non mandatory surveys. Twice a year, a survey is made and focuses on a specific subject for pupils at different levels. The surveys are part of an assessment quality cycle.

Evaluation of basic competencies at BE fr system level is based on the results of external summative assessments, on non mandatory assessments and on external surveys such as PISA. One annual non mandatory external assessment is made on a specific subject for pupils at different levels. Since 2002, a consistent system of statistical indicators on the education and training system of the BE fr community and on its relative performance has been set up and results are published on a regular basis.

2. Development and implementation of LLL strategies

BE nl has designed a comprehensive LLL strategy (2004-2009) with systematic implementation and targeted allocation of financial resources. Meeting the challenges of efficiency and equity and ensuring the relationship between education and training and the labour market is central to this strategy. The development of a Flemish qualification framework has become well advanced since 2008. A learning outcomes approach is used for the recognition of formal, non-formal and informal learning in view of using the Flemish qualification framework as a common support for the recognition of all types of learning.

Since 2004, synergy and coordination between the 3 responsible authorities for E&T has been reinforced in order to define a BE fr LLL strategy. In order to provide access to LLL for all adults, recent measures have focused on strengthening the role of the education for social inclusion (EPS) for delivering official degrees, on initiating in 2007 the first steps to a BE fr qualification framework and on developing the recognition of non formal and formal learning.

3. Attractiveness and relevance of Vocational Education and Training

In Belgium VET has a broad definition and covers different types of education from technical to apprenticeship "in alternative schemes". An effort has been made improve access for VET students to better infrastructure and up to date equipment and technology.

BE nl has introduced many initiatives to improve the attractiveness of VET, such as investments in infrastructure, subsidy for VET-students who study for "critical jobs", changes to the procedure for submitting study programmes in order to adapt VET programmes better to socio-economic and technological developments.

BE fr has taken many initiatives, such as actions to upgrade the image and change attitudes towards VET training in particular for shortage jobs, and the creation of a new service in order to identify in collaboration with representatives of employers, sectors and public employment services the VET programmes which need to be revised. Those actions to change the image and attitudes already modified the training offers.

4. Modernisation of Higher Education

In Belgium, a larger degree of autonomy has been progressively granted to universities and higher education institutions. Low tuition fees are considered important in order to make higher education accessible. Higher education institutions are mainly publicly funded.

The 2008 Law on Funding provides a new model of funding for higher education institutions in BE nl, establishing a shift from mainly input funding to a combination of input funding with output funding. Universities are encouraged to find other sources of funding in particular via collaboration with enterprises. Further reflection is ongoing on the challenges of the long term sustainability of this model. This model rewards higher education institutions which develop provisions for lifelong learning and includes measures to widen participation.

In BE fr, the basic operating budget is composed of fixed and variable parts according to the number of students enrolled. Additional public funding is granted taking into account a wide range of parameters related to input, quality, the number of student grants, etc. Universities are diversifying their income streams through private initiatives mainly in the field of doctoral, post-doctoral and research. The 2007 decree supported lifelong learning by providing additional funding for continuous training programmes.

BULGARIA

		Bulgaria		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		73.4%	79.8% ⁰⁷	85.6%	90.7% ⁰⁷		95%
Low achievers (15 year-olds; PISA study results)	Reading	40.3%	51.1% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	53.3% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	42.6% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		20.5% ⁰¹	14.8%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		75.2%	83.7% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	14.6% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	45.6%	39.3% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		19.5%	27.1%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		1.3% ⁰³	1.4%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education, % of GDP		3.97%	4.24% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰¹ = 2001, ⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

In school related areas Bulgaria's performance is mixed. In two school related areas: *Early leavers from education and training* and *Upper secondary attainment* Bulgaria performs slightly better than the EU average as a consequence of rapid progress in these fields. On *Participation in early childhood education*, while there has been progress since 2000, the

participation rate is below the EU average. On *Low achievers* the situation has however deteriorated since 2000 and more than half the pupils are now low achievers.

It should be noticed that the share of females among *Graduates in maths, science, and technology*, while on the decrease, is still third highest in Europe.

As concerns *Adults' participation in lifelong learning*, Bulgaria has the lowest level of performance in Europe and there has hardly been any progress since 2000.

Investment in education as a % of GDP has increased over the period; Bulgaria is still below the EU average performance but the gap has decreased.

1. Policies for development of the key competences

Policies focused on key competences came to the fore in 2008 following the adoption of the national lifelong learning strategy and the renewed employment strategy. 2008 was selected as a year of the key competences and this contributed to further raising awareness. Substantial focus has been put on key competences such as ICT and foreign languages.

In 2009 a renewed education framework has been approved. The new Law for School and Pre-school Education Development was tabled in early 2009 but did not stand in Parliament. A new Law proposal has been announced by the new government in September 2009. Major new elements to be introduced will be an extended focus on transversal skills such as ICT, and foreign language in the 8th grade after the completion of primary schooling.

1.1. Curricular reforms

Transversal competences such as ICT, entrepreneurship and cultural expression are seen as important educational objectives which have to be taken into account within all specific subjects/curricula. Transversal key competences are currently integrated in other subjects. For instance, social and civic competence is provided by subjects such as Philosophy, History, Geography etc. Cultural awareness and expression is provided by subjects such as Music, Arts, Languages.

1.2. Targeted provision of key competences

The disadvantaged in need of special support are addressed by a national programme providing for extra-training of children with problems in assimilating educational content. Further measures include incentivizing teachers to work with disadvantaged students taking into account their personal abilities and interests. The high training needs for teachers in ICT reflects partly the high turnover of ICT trained teacher staff related to incentives outside the school system.

1.3. Teacher training and approaches to assessment

Among the main priority areas in teachers' qualifications is in-service training in the fields of ICT and foreign languages as well as training and acquisition of transversal competences such as social and civic competences, initiative taking and entrepreneurship, cultural awareness and expression. Incentives have been created to reward excellent teachers through differentiated payment schemes measuring for instance skills in ICT, teamwork, or working with disadvantaged children.

1.4. Evaluation of outcomes

Bulgaria's results in PIRLS, TIMSS and PISA have triggered a reconsideration of the existing strategies and tools for external assessment, leading to more stress on practical knowledge and skills related to the labour market. Annual evaluation of the outcomes of the education and training process is the aim of the introduction of tests in the Bulgarian schools which started in the 2007/2008 school year. State matriculation examinations (Matura) are also part of the evaluation of outcomes.

2. Development and implementation of LLL strategies.

With a view to raise the low level of adult participation in education and training, the national LLL strategy was adopted in late 2008. Regarding the Bulgarian NQF, first steps including comparing the national qualifications levels and the EQF as well as developing a plan for further actions related to sectoral qualifications frameworks have been undertaken.

A pilot of a system for validation of competences acquired by non-formal and informal learning has been developed and is being tested for three professions. Good practices on validation of non-formal and informal learning from other EU member states have been published on official websites in order to raise awareness on the subject.

3. Attractiveness and relevance of Vocational Education and Training

VET development in 2008 was aimed at improving the link to the labour market. Efforts to increase the attractiveness of VET have focused mainly on improving the relevance of vocational training acquired in secondary schools (for instance by organising national championships) and improving relations with social partners and their participation in the vocational education process.

Examples for increasing the attractiveness of VET programmes include incentivizing professional training for the unemployed with guaranteed work placements (funded by the Employment Agency) and using EU funds for training e.g. "Leonardo da Vinci" and the ESF. Communication measures such as national competitions are targeted at enhancing the attractiveness of VET. Further efforts include electronic publishing of curricula and the establishment of career centers in educational institutions.

4. Modernisation of Higher Education

The main source of funding for higher education institutions is the government. Some diversification is provided for by the tuition fees paid by students. The opening up of universities to business is done for example through both career centers and High Tech Business Incubators. The opening up towards lifelong learners includes strengthening the dialogue with national employers' organizations, promoting and improving distance learning, and expanding policies for access to education. Modernization measures include subsidizing actually enrolled students (and not the number of vacancies) as well as increasing the number of student places. Expected results include creating more competition among higher education institutions and reducing the pressure for the establishment of new higher education institutions.

CZECH REPUBLIC

		Czech Republic		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		90.0%	92.6% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	17.5%	24.8% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	19.2% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	15.5% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		5.7% ⁰²	5.6% ^b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		91.2%	91.6%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	96.0% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	27.0%	29.3% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		13.7%	15.4%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		5.1% ⁰³	7.8%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		3.97%	4.61% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰² = 2002, ⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels"

The Czech Republic performs better than the EU average in three school related areas: *Participation in early childhood education*, *Low achievers in mathematics and science* and *Early leavers from education and training*. In the latter area and in the field of *Upper secondary attainment*, performance is notably higher. As for *Low achievers in reading* there was a sharp increase in the percentage since 2000 and the Czech Republic in 2006 in this indicator performed slightly worse than the EU average.

The Czech Republic has made significant progress in the area of *MST graduates*, in which the growth rate has been well above the EU average, while the share of female graduates, even if improved, has not reached the EU level. In the area of *Higher education attainment* there has been a slight progress, but the Czech Republic is far below the EU average and in 2008 had the lowest share of 30-34 years old with tertiary attainment in EU.

As concerns *Adult participation in lifelong learning*, progress has been faster than the EU average, but Czech performance is still below the EU average on this benchmark indicator.

Public investment in education, as a % of GDP, has increased since 2000 more steeply than in the EU as a whole; the Czech Republic is still below the EU average performance but the gap has decreased.

The Czech Republic already performs above the EU 2010 benchmarks in *Early leavers from education and training*, *Upper secondary attainment* and the increase in *MST graduates*.

1. Policies for development of the key competences

Requirements for the development of key competences are explicitly formulated in the recent strategic and curricular documents, e.g. the Long Term Plan of Education and the Education System (2007) and the Education Act (2005). This Education Act introduced framework education programmes (FEP) for all types and stages of initial education (including vocational training) and the concept of key competences is defined in the common part of the FEPs. Requirements for the development of all key competences, referred to as "functional literacy" ("funkční gramotnost" in Czech), are also laid down in the main strategic document for lifelong learning, i.e. the Strategy of Lifelong Learning in the Czech Republic (2007).

1.1. Curricular reforms

The general curricular reform was launched in 2004 when two important documents were approved: the Education Act and the Framework Educational Programme for Basic Education (FEP). On the basis of FEP schools are developing their own educational programmes that should enable them to implement their own ideas and better react to the needs of pupils/employers/regions. Progressive implementation: Instruction according to school educational programme started in the 2007/08 school year in the first year of primary, respectively lower secondary education. Since 2007 FEPs for upper secondary education (general and vocational) are being developed (planned finalisation September 2009). The reform will continue by implementation of the FEPs at all types of upper secondary schools. The ESF is used for developing national and systemic projects to support schools in creation of their school curricula and for implementation of the curricular reform into the practice of schools. The reform is accompanied by in-service training of teachers.

The educational content in the FEP is not divided into subjects but educational areas: Each FEP also includes cross-curricular topics aimed at developing key competences as described in the European Framework.

1.2. Targeted provision of key competences

Special target groups for the provision of key competences are the unemployed, people with low qualifications, people threatened by poverty, minority groups, people threatened with losing their jobs, social groups threatened with social exclusion, and older people (pre-retirement age). A legislative framework has been created to encourage the participation of these target groups in lifelong learning. ESF funds are used to support the lifelong learning of Czech citizens and the systemic project "Support of Citizens' Individual Education" systemic project which consists in providing individuals with vouchers for training in three areas: language competence, ICT and entrepreneurial skills is under preparation

Sectoral/stakeholder dialogue is conducted at inter-ministry level, especially between MEYS and the Ministry of Labour and Social Affairs. The MEYS also cooperates with other social partners (e.g. sector councils).

1.3. Teacher training and approaches to assessment

The teaching profession's quality standard, which should be completed in a binding form (i.e. also as legislation) within two years, will clarify how the concept of the profession should change (in respect to the teacher's role and key competences) and how teachers should be educated to master the requirements connected with a substantial change in goals, content and methods of teaching. Significant number of in-service training courses aims to help teachers to introduce the curricular reform in schools (mainly preparation of school education programmes on the basis of FEP).

Czech primary and secondary schools still prefer summative assessment. However, the trend to use assessment to motivate pupils and encourage their activity has been growing. Materials with methodological recommendations on formative assessment of key competences in secondary vocational schools were developed within ESF funded Pilot S systemic project.

1.4. Evaluation of outcomes

Currently, mainly international comparative surveys: e.g. PISA, RLS, TIMSS, CivEd, Sites, PIRLS, are used to assess the key competences in initial education. The results are used in the preparation of conceptual materials, e.g. Long Term Plan of Education and the Development of the Education System in the Czech Republic and the Strategy of Lifelong Learning.

2. Development and implementation of LLL strategies.

The Lifelong Learning Strategy of the Czech Republic was adopted in July 2007. Different partners have been involved and supported the strategy, including social partners and the civic sector. The implementation plan was approved by the government in January 2009. The Act on Verification and Recognition of Qualifications no. 176/2006 (2006) is a basis for the system of the validation and recognition of qualifications, and all relevant skills and knowledge can be recognized no matter where/how they were obtained (school, training or self-learning). National Qualification Framework, which provides a description of qualification requirements for the labour market, is being implemented through an ESF funded project - UNIV 3 - in all regions of the Czech Republic. Standards for vocational and general secondary education are being finalised.

3. Attractiveness and relevance of Vocational Education and Training

The attractiveness of VET programmes is supported through improved counselling services in schools and career counselling in general (accompanied by e.g. an ESF funded systemic project which resulted in a comprehensive information system) on nation-wide offers of initial and further vocational education and training. There have also been several media campaigns that gave information about job opportunities in technical occupations.

Employers' involvement in recent years has resulted in increased interest in vocational training.

4. Modernisation of Higher Education

The White Paper on higher education reform was discussed during 2008, and in 2009 the Government of the Czech Republic took cognizance of it. The reform aims to facilitate access to university education for students from disadvantaged families via low-interest loans and to allow for more private funding of tertiary education. It also aims to support cooperation between the universities and regions and employers/companies for adapting the study programmes to the needs of regions and for better providing practical experience for the students. The project *Reform of the Tertiary Education* was launched in 2009 which builds on the White Paper. By the end of 2009 the analytical works and discussions on the main goals of the reform will follow. Preparations of a new law on tertiary education and financial support for students will be launched in February 2010, while the complete proposal of the both acts should be finished in 2011.

The Implementation Plan of the Strategy of Lifelong Learning aims to strengthen the development of bachelor study programmes focused on practice, to develop alternatives to day classes in order to enable studies for adults in work and with families, to enhance quality, permeability and cooperation of higher education with employers and to support multi-resource financing of the tertiary education sector.

DENMARK

		Denmark		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		95.7%	92.7% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	17.9%	16.0% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	13.6% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	18.4% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		11.7%	11.5% ^b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		72.0	71.0% ^b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	20.0% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	28.5%	36.0% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		32.1%	46.3%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		24.2% ⁰³	30.2%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		8.29%	7.98% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁶ = 2006, ⁰⁷ =2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Denmark performs above the EU average in three school related areas: *Participation in early childhood education*, *Low achievers* and *Early leavers from education and training*. The *Upper secondary completion rate*, however, has stagnated in Denmark since 2000, and is below the EU average. Since 2000 it succeeded in decreasing the share of low achievers in reading to 16%.

Adult participation in lifelong learning is among the highest in the EU and more than three times as high as the EU average. It has increased significantly since 2000.

On *Higher education attainment* Denmark has among the highest shares in the EU and progress since 2000 has been strong. Furthermore, the share of female *MST graduates* is above the EU average and the gender balance has improved markedly. The growth in *graduates in MST* since 2000 is below the average in the EU.

Concerning *investment in education*, Denmark has the highest public spending on education in the EU. While declining, Denmark continues to allocate around 8% of GDP to education.

Denmark performs above the 2010 EU benchmark levels on: *Low achievers in reading*, *MST graduates* and *Adult participation in lifelong learning*; and above the 2020 EU benchmark levels on *Low achievers in mathematics*, *Higher education attainment* and *Adult participation in lifelong learning*.

1. Policies for development of the key competences

The Danish approach to the provision of education has traditionally been competence-based. However, the pendulum has recently swung towards the strengthening of basic skills as results (see above) as regards PISA and upper secondary completion rates are below expectations.

1.1. Curricular reforms

The objective is that pupils in the primary and lower secondary school system should be top performing within four core subject areas: reading, mathematics, science and English. The policy is followed through with precisely defined objectives for all subjects and threshold objectives for key subjects at certain grade levels. Cross curricular competences such as digital, learning to learn, and social and civic competences as well as cultural awareness and expression are part of the overall objective of education and not specifically taught subjects.

1.2. Targeted provision of key competences

When pupils' educational needs cannot be fulfilled within differentiated teaching and classes, special education (or special educational support) is given. To promote the educational outcomes of bilingual children, who perform at a level substantially lower than native Danish pupils, a range of support is available.

Participation in adult education is among the highest in Europe. Specific initiatives have been taken to promote the participation of low skilled adults. Figures from 2008 indicate an increase in the participation of low skilled adults in basic skills courses (reading and mathematics) and in vocational training courses.

1.3. Teacher training and approaches to assessment

The approach to initial teacher education as well as in-service teacher education has traditionally been competence-based. The most recent reform of 2007 stressed the importance of mastering formative assessment techniques. Other elements were an explicit focus on classroom management, teacher-parent collaboration and enhanced focus on pedagogical and didactic competences.

1.4. Evaluation of outcomes

The Council for Evaluation and Quality Development of Primary and Lower Secondary Education was set up by the Minister of Education in September 2006. The Council's tasks are to monitor and evaluate: Academic and professional standards, Pedagogical developments, Pupils' learning outcomes, negative social heritage, Integrating of pupils with a non-Danish ethnic background. Each year, the Council submits a report to the Minister of Education with proposed initiatives to improve the quality of education in the "Folkeskole". This report feeds into the policy debate and point to important areas in school development.

In 2006, The "Folketing" introduced 10 mandatory national tests from 2nd to 8th form in the following subjects (Danish/reading literacy, English, mathematics and science (biology, geography and physics/chemistry). The tests, which are adaptive and computer-based, are expected to become effective as of 2010.

Furthermore, Denmark participates in international outcome based surveys such as PISA and TIMSS.

2. Development and implementation of LLL strategies.

Several initiatives have been taken in view of implementing the coherent strategy for lifelong learning, which was adopted in 2006. A working group has finished the drafting of a final proposal for a Danish qualification framework (2009) in response to the need for increased transparency of qualifications at national and European level.

It is the goal of the government to strengthen the recognition of non-formal and informal learning to contribute to furthering adult participation in adult and in-service training and improve adults' opportunities on the labour market. In 2007, legislation on increased recognition of actual competences in adult vocational education and training came into force. Easily accessible tools that can be used by the individuals (and companies) to identify and to document non formal and informal competences have been made available on the internet.

3. Attractiveness and relevance of Vocational Education and Training

A wide range of initiatives have been taken with the objective of increasing the attractiveness of VET and to reduce dropout. These include efforts to upgrade the qualifications and competences of staff, provisions of more practical training placements in companies and the public section, and allowing for shorter and more practical phases for students with a practical orientation. In relation to increasing the relevance of VET for the labour market, trade committees produce a development statement of the fields covered by the committee and respective fields of VET. Moreover, central analytical capacity has been strengthened to improve forecasting in relation to new innovative areas for VET.

4. Modernisation of Higher Education

The public financing of higher education is among the highest in Europe and all students at higher education institutions are entitled to substantial student grants and loans to ensure equal access. While tuition fees are not charged for students, universities do receive income through several streams including adults in the continuing education system. Research funding is also partly competitive.

In 2007, the Government increased its support for participation in lifelong learning through increased state grants to adults in the continuing education system. Moreover, recognition of prior learning opens up universities, university colleges and academies for individuals who do not fulfil the formal admission criteria.

GERMANY

		Germany		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		82.6%	94.5% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	22.6%	20.0% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	19.9% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	15.4% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		14.6%	11.8%	17.6%	14.9%	10 %	10%
Upper secondary completion rate (age 20-24)		74.7%	74.1% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	39.7% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	21.6%	29.8% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Population with higher education attainment (age 30-34)		25.7%	27.7%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		6.0% ⁰³	7.9%	8.5% ⁰³	9.5%	12.5 %	15%

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Germany performs above the EU average in three school related areas: *Participation in early childhood education*, *Low achievers in reading, mathematics and science* and *Early leavers from education and training*.

One additional area in which Germany has made considerable progress is in increasing the number of *MST graduates*, for which the growth rate has been above the EU average. In relation to the population with *higher education attainment* it should be noted that Germany has a well developed dual system in vocational education and training and that, in that regard, the German figures for higher education attainment are not fully comparable with those of other Member States.

As concerns *Adult participation in lifelong learning*, Germany has also made progress, but still performs below the EU average on the benchmark indicator, which measures the frequency of participation (with a reference period of four weeks). Results from the European Adult Education Survey (with a reference period of one year) however imply that the annual participation rate is above EU average.

Germany performs above the 2010 EU benchmark level on *MST graduates* and close to the 2020 EU benchmark level on participation in *early childhood education*.

1. Policies for development of the key competences

A key development is the increasing policy shift towards an outputs approach across the entire education system (for example visible through the establishment of an increasing number of education standards or the development of a national qualifications framework). A joint *Bund-Länder* initiative ("Qualifizierungsinitiative") adopted in Oct. 2008 includes a comprehensive set of objectives and measures targeting learning during the entire lifecycle. The objective is to allow all people to access and to proceed through education and training and thus to raise the general competence level of the population. The measures address all areas of lifelong learning, e.g. improved early childhood education, better support for language acquisition, more training opportunities, better academic education and further education.

1.1. Curricular reforms

Education standards in mathematics, the German language and the first foreign language were adopted by the 'The Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* (*Kultusministerkonferenz*, KMK) in 2004. These standards provide the basis for the *Länders'* curricula and assessment regulations and develop the intentions of education objectives by defining the competences pupils should have acquired by a certain stage of their education pathway.

Transversal competences such as learning to learn, citizenship, ICT, entrepreneurship and cultural expression are overarching educational objectives and are therefore taken into account within in the curricula of different subjects. In relation to intercultural education, the KMK and NGOs representing people with a migrant background adopted a joint declaration in Dec. 2007, which supports giving interculturalism more attention both within and outside schools.

1.2. Targeted provision of key competences

In the "Qualifizierungsinitiative", the federal government and the *Länder* have set national targets for the reduction of the number of early school leavers and of young people without initial vocational training, to increase the share of students starting higher education and to increase the participation of the active workforce in continuing education and training from 43 to 50 % by 2015 (based on the Adult Education Survey). To promote equal education opportunities for all, it is planned to better coordinate early childhood and school education and to provide targeted support for the acquisition of the German language at pre-primary level.

Further education includes measures targeted at specific groups. These include integration courses for migrants, provision targeted at specific age groups (e.g. ICT courses for senior

citizens), or learning opportunities specifically addressing women/men, families, illiterate, unemployed or low-qualified etc. persons. The federal government supports initiatives addressed at groups with a particular potential, for example to support academics to (re)enter the labour market.

1.3. Teacher training and approaches to assessment

Standards for teacher training (adopted by the KMK in 2004) provide guidelines concerning the competences teachers need to succeed in their everyday professional life. The KMK and teacher unions adopted in 2006 a joint declaration which stressed the need for a systematic supply of continuing teacher training. Accordingly, continuing training for teachers should be further developed in particular with regard to addressing heterogeneity, learning needs diagnosis and targeted support to pupils.

1.4. Evaluation of outcomes

Germany has in recent years participated in important international comparative surveys and will continue to do so in the future, in particular in PISA, PIRLS, TIMSS, PIAAC. Additionally, the joint reporting taking place every 2 years is a central element for assessing the quality of the education and training system. This was introduced in 2006 as part of an overall monitoring strategy in education and training which allows systematic monitoring of the education and training system and its outcomes, which in turn is a precondition for quality development at all levels. Compliance with the agreed quality standards will in the future be assessed both within the *Länder* and across them.

2. Development and implementation of LLL strategies.

At their 'qualifications summit' in Oct. 2008, the heads of the federal and *Länder* governments agreed the 'qualifications initiative for Germany' ("*Qualifizierungsinitiative*") which includes a comprehensive set of objectives and measures covering all education and training areas. This included an agreement on support to education and training activities addressing the entire lifecycle. The federal and *Länder* level set the target to increase the share of GDP spent for education and research to 10% by 2015. A first interim implementation report was presented in 2009.

A lifelong learning strategy was agreed by the federal and *Länder* level in 2004, which was further developed through a 2008 federal government decision 'Concept for learning along the life cycle' ("*Konzeption Lernen im Lebenslauf*").

A draft national qualifications framework for lifelong learning (DQR) was published in spring 2009 for discussion. The DQR provides a comprehensive matrix covering all education and training sectors, which will significantly increase orientation within the German education and training system. The proposal is currently undergoing a testing phase in which experts are examining its practical implementation by referencing qualifications to the levels of the draft DQR. It is planned to include non-formal and informal learning at a later stage.

Although Germany does not have a comprehensive system for the validation of non-formal and informal learning, many specific instruments are tailored to the needs of different sectors and target groups.

3. Attractiveness and relevance of Vocational Education and Training

The dual VET system (combining company and school-based learning) provides training for more than 60% of the age cohort. To increase the provision of apprenticeships, the federal government has in 2007 extended the national pact on apprenticeships (*Ausbildungspakt*) concluded with employers in 2004 for a further 3 years. The pact contributed to improving the provision of apprenticeships and resulted in the targets it had itself set being exceeded. The federal government established a round table on innovation in vocational education and training (*Innovationskreis berufliche Bildung*) in 2006 which came forward with recommendations for actions aimed at adapting education and training policy to new demographic, economic, technological and international developments and challenges. The federal government has implemented these reform guidelines in cooperation with other actors responsible for VET through a number of operational measures and programmes. Key recommendations also fed into the 2008 'qualifications initiative' agreed between the federal and *Länder* levels.

Lower secondary education graduates have been offered more and more courses, which combine a vocational qualification with the right to access higher education. The *Länder* have thus improved pathways between vocational education and higher education. In 2009 they have also made a decisive step towards more open education pathways through facilitating access to higher education for VET graduates: graduates holding higher level VET qualifications (*Meister, Techniker, Fachwirte*) will in the future have general access to higher education, while VET graduates holding a qualification based on an at least two-year long traineeship, and with at least three years of professional experience, have the right to access higher education in their respective areas of experience. It is planned to include these innovations in the *Länder* legislation by 2010.

The federal government introduced at the end of 2008 scholarships providing additional financial incentives to highly-talented women and men with professional experience to start higher education. They address in particular those who have gained their right to access higher education through initial or continuing VET or professional experience. Following great demand, the federal government increased the available funds in 2009. The federal government and the *Länder* have, in the context of the 'qualifications initiative', significantly increased in 2009 the financial incentives for further training aimed at professional advancement (*Meister-BAföG*) and also provided financial incentives to invest in one's own education and continuing training (*Bildungsprämie*). The federal government's set of measures also includes the initiative 'Recognition of vocational competences for higher education courses' (ANKOM), which contains simplified and transparent procedures for the recognition of VET qualifications for higher education studies. The federal government and most of the *Länder* make use European funds to develop innovative measures in initial and continuing VET in pilot projects.

4. Modernisation of Higher Education

Based on the Bologna process reforms, 75 % of all study courses lead to Bachelor or Master qualifications. The "*Qualifizierungsinitiative*" includes the target to raise the share of young people entering a higher education programme to 40 % of a particular age cohort by 2015. An additional 18 billion Euro investment in education and research by 2019 has been announced. As part of this, the federal state and the *Länder* will invest approx. 5.3 billion Euro until 2015 in 275 000 additional study places.

The main source of funding for HE institutions is still the government. Detailed steering through the *Länder* authorities is increasingly replaced by autonomous action by the higher

education institutions themselves. Mechanisms of performance-related funding are increasingly used . 6 out of 16 *Länder* have introduced tuition fees and the share from third-party funds has been growing in recent years.

Continuing academic education is part of the key tasks of higher education institutions, alongside research and teaching. In all *Länder* higher education institutions can themselves use the funds acquired through the provision of continuing education and training. Cooperation of universities with external partners is also possible and appropriate in order to make use of synergies. Intensive guidance provision, preparatory and bridging courses, study courses close to professional practice or aimed at working students, flexible organisational solutions, such as part-time, distance or combined learning, are all measures by which higher education institutions can adapt to the learning needs of students with various prior qualifications, as well as to their specific situations in life, and create new learning pathways in higher education supporting lifelong learning.

ESTONIA

		Estonia		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		87.0%	93.6% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	-	13.6% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	12.1% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	7.7% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		15.1%	14.0%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		79.0%	82.2%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	79.8% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	35.7%	38.7% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		30.8%	34.1%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		6.7% ⁰³	9.8%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		6.10%	4.80% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³= 2003, ⁰⁶= 2006, ⁰⁷=2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Estonia performs above the EU average in all the school related areas: *Participation in early childhood education*, *Low achievers* and *Early leavers from education and training*, and the *Upper secondary attainment*. Estonia is among the best performing Member States in reading,

mathematics and science literacy, and has a small share of *Low achievers* in all these areas. Estonia did not participate in the PISA survey in 2000, hence it is not possible to measure progress.

The *Adult participation in lifelong learning* has increased since 2000 and is at the same level as the EU average.

On *Higher education attainment* Estonia has increased its share to more than a third of the population aged 30-34. The growth in *graduates in MST* since 2000 is almost 80% and more than twice as high as the EU average figure. Furthermore, the share of female *MST graduates* is above the EU average and the gender balance is improving.

Estonia has a lower level of *Investment in education* than the average of all EU countries, and the public spending in education as % of GDP has decreased compared to the level in 2000.

Estonia performs above the 2010 EU benchmark levels on *MST graduates*; and above the 2020 EU benchmark levels on *Low achievers in reading, mathematics and science*.

1. Policies for development of the key competences

National policies guided by the framework of Development Plans under the area of the Ministry of Education and Research, include Development Plans for all levels of the Estonian formal education system. They are oriented to competences and stress the achievement of key competences by target groups as objectives.

New policy initiatives (such as updating the national curricula for basic and general secondary education and the adult education development plan for example), and measures (such as the use of EU Structural Funds in 2007-2013) directly refer to the key competences of the EU.

1.1. Curricular reforms

In the current (2002) Basic School and Gymnasium national curriculum, basic skills are specified as compulsory subject competences (languages), domain competences (maths) or cross-curricular themes (IT). The basic skills that should be achieved by the end of every stage of the study are described in the national curriculum. In the draft version of the new national curriculum, the same approach is taken. In the VET curricula, basic skills are generally taught as compulsory and/or as part of specialist subjects.

In the draft version of the new national curriculum, the transversal key competences are referred to as general competences. Depending on the speciality, the acquisition of transversal competences in VET curricula is integrated into the general and/or specialist subjects.

1.2. Targeted provision of key competences

Several flexible learning possibilities, such as individual study programmes and a simplified curriculum, have been created in legislation for students with specific education needs in compulsory education. Schools have the opportunity to provide free of charge support, such as textbooks, health and study counselling, meal and transport to school.

Persons who have not completed basic or secondary education can study free of charge in adult gymnasiums in order to achieve key competences for further study. The key competences for adults are the focus of the Human Resource Development Plan (ESF 2007-

2013). Several extensive adult training programmes were designed to enhance the employability of adults, including individuals with lower levels of education, those whose native language is not Estonian, the unemployed, and older people.

1.3. Teacher training and approaches to assessment

A teacher professional skills profile includes planning and management, shaping the learning environment, supervising the learning process, motivating student, cooperation, communication, self-analysis, analysis and assessment of the students' development. It is specified in the teacher training development plan and in teachers' professional standards. This also applies to VET teachers. Students' learning results are summarily evaluated in basic school on both a quarterly and yearly basis, and by course and stage of study at the upper secondary level.

The competence-oriented approach based on professional standards is in the implementation phase in initial teacher training at universities.

1.4. Evaluation of outcomes

A formal evaluation system of learning results of students is in place, consisting in general education of placement tests at the end of stages of study, exams with uniform questions at the end of basic school and state examinations at the end of upper secondary school. The evaluation procedure is specified in the curriculum.

Higher education institutions, including teacher education, are currently in the process of introducing an output-oriented assessment system. In addition, indicators based on different data sets (national and/or international surveys' results) and self-evaluation methods can be used for the evaluation of key competences. Estonia has participated in TIMSS 2003, PISA2006, TALIS 2008 and is participating in the current PIAAC comparative evaluations.

2. Development and implementation of LLL strategies.

A set of relevant strategies covering different sectors of education is implemented under a common coordination framework with harmonised goals and principles of lifelong learning ("Smart and active people 2010-2013"). Transition to the competence-based curricula, validation of prior learning and work experience along with the National Qualification System are currently in the process of implementation in HE institutions. Steps are being taken to ensure the skills young people acquire outside formal education are taken into account by general and VET schools.

The adjustment of the NQF into the 8-level system (which corresponds to the EQF) will be completed by the year 2013.

3. Attractiveness and relevance of Vocational Education and Training

Based on vocational standards, 44 national curricula have been developed in close cooperation with the social partners. In 2008-2013 the NQF will be updated and the national curricula for VET will become explicitly competence-based.

Several programmes have supported the modernisation of the VET system, such as the use of innovative learning methods (e-learning) and improvements to the infrastructure. Within the

context of VET, efforts have been made to raise general levels of awareness of VET and its benefits.

Cooperation with social partners has been extensive (through the development of national curricula and the NQF for example). Due to State support programmes there is a considerable increase in the number of CVET courses and adult/in-service learners in VET institutions.

4. Modernisation of Higher Education

With regards to HE curricular development, the transition to output-based curricula together with adjustment of ECTS has been set out in the Standard of HE and will take place starting from 1 September 2009. The ESF programme PRIMUS (2008-2015) for HE institutions is designed to improve the quality of HE, to introduce a new quality assurance concept (based on principles of self-improvement) and to support curricular development (in 19 HE institutions).

The broad financial autonomy and limited State financial support for HE institutions have created incentives to offer a wide range of paid services. Adult education and training, consultations, research and development supplement the budgets of HE institutions. At the larger public universities paid placements and in-service training of adult students comprise up to 1/3 of the budget. The ratio of students aged 30 and over in placement training is a stable 20% at Estonian HE institutions.

IRELAND

		Ireland		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		-	-	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	11.0%	12.1% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	16.4% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	15.5% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		14.6% ⁰²	11.3% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		82.6%	87.7%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	-3.6% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	37.9%	31.3% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		27.5%	46.1%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		5.9% ⁰³	7.1%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		4.28%	4.86% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰²= 2002, ⁰³= 2003, ⁰⁵= 2005, ⁰⁶= 2006, ⁰⁷=2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Ireland performs clearly above the EU average in three school related areas: *Low achievers in reading, mathematics and science, Early leavers from education and training* and the *Upper secondary completion rate*. In the latter two areas Ireland also made good progress since 2000. As regards low achievers in reading there was no progress since 2000, but Ireland is still among the best performers in the EU.

Available statistics show a relatively low rate of *Participation in early childhood education* in Ireland. However, there is no official provision at ISCED level 0. Many children attend some form of ISCED level 0 education, but for the most part data are missing. One area in which Ireland has made no progress is in increasing the number of *MST graduates*. Ireland did not improve the gender balance in MST graduates; on the contrary the share of female graduates has fallen significantly since 2000.

At the same time the share of the population with higher education attainment has improved at the fastest pace in the EU, and is now among the highest in Europe.

As concerns *Adult participation in lifelong learning*, Ireland has made progress too, although from a low level, but is still performing below EU average.

Public investment in education as a % of GDP has increased significantly in Ireland since 2000 within a context of strong economic growth during the period (2000-2006), implying a strong growth of spending in absolute terms.

As regards higher education attainment and low achievers in *reading literacy* Ireland performs above the EU benchmarks for 2020, Ireland performs above the 2010 EU benchmark in the area of *Upper secondary attainment*.

1. Policies for development of the key competences

The Departments of Education and Science (D/ES) and Enterprise Trade and Employment (D/ETE) and the National Council for Curriculum Assessment (NCCA) have kept abreast of developments in the key competency cluster, and the continued evolution of provision has been informed by this process. The NCCA is constantly reviewing programmes and curricula. Examples of developments affecting the provision of key competences since 2006 are the standardised testing of English and Maths at two stages of the primary cycle (2007), and the launch of project maths, an initiative to promote greater Leaving Certificate Maths literacy across second-level 2008..

1.1. Curricular reforms

A professional development programme designed to introduce the new Primary School Curriculum to all teachers was completed in 2008. The curriculum places key emphasis on literacy and numeracy, personal fulfilment, and on responding to changing needs in a number of areas: science and technology, including a basic understanding of scientific principles and methods, social, personal and health education, citizenship and the use of ICT to enhance learning. Also fostered is the development of core communication skills, motivation for learning to learn and the ability and values to make ethical judgements.

There is ongoing review of curricula in both the lower and upper cycles of secondary education, which includes a mix of academic and vocational options. NCCA is working on curricular reforms to ensure that senior cycle subjects are designed to include: communications, information processing, critical and creative thinking, working with others, and being personally effective. The result will be to embed these key competences in all senior cycle subjects.

1.2. Targeted provision of key competences

All schools have access to Learning Support provision to address the competence needs of children with learning difficulties, their early identification and remediation. Guidelines for teachers, professional development programmes, additional resources and range of educational programmes are in place to address special educational needs, Travellers, newcomers to Ireland, and children and young people from disadvantaged communities. DEIS (Delivering Equality of Opportunity in Schools), a national action plan for educational inclusion, is being phased in over the period 2006-2010.

The fruits of a major expansion of opportunities in adult and further education (expenditure increased between 2002 and 2008 by 60%) are evidenced in 2008 in LLL participation results. Adult literacy provision was extended from 5,000 in 1997 to over 49,000 in 2008. The National Skills Strategy, 2007, recommends that literacy and numeracy should be embedded in all publicly funded programmes, and sets out an economic imperative for the upskilling of workers with low or no qualifications. Early school leavers are targeted, as are the employed, unemployed and older people, through second chance provision.

1.3. Teacher education and approaches to assessment

The Teaching Council was established in 2006 to regulate the profession, and to promote the professional development of teachers. Recognising the changing role of teachers and their importance as reflective, continuous learners, it is redefining the content of teacher education programmes with an emphasis on a learning-outcomes approach and all existing programmes will be reviewed and accredited, starting in the second semester of 2009.

1.4. Evaluation of outcomes

At primary level, there are no formal examinations, but assessment is an integral part of the work of the class teacher. Guidelines on assessment for teachers were published by the NCCA in 2007 and issued to all teachers and provide a range of approaches for both formative and summative assessment. Standardised testing in English reading and Mathematics is implemented for all pupils at two stages in the primary cycle. Schools report to parents on their children's progress each year through a meeting and an annual report card. Standardised reporting templates for reporting to parents have also been developed by the NCCA for primary schools.

At secondary level, summative and formative assessment takes place in schools through the ongoing work of the class teacher, and end of term/year school exams. There are national examinations externally set and marked by the State Examinations Commission at the end of junior cycle (after 3 years lower second level provision) and at the end of senior cycle (on completion of upper second level education at the end of 5 or 6 years second level provision)

Exam results are published annually by the State Examinations Commission, by subject, gender and grade. The Chief Examiner's Reports highlight strengths, weaknesses and recommendations in the subjects concerned. These and the outcomes of evaluations conducted by the inspectorate (Whole School Evaluation, subject inspections, and a number of in-depth thematic evaluations), are taken into account in ongoing curriculum reform. NCCA is working with a network of 20 schools on Assessment for Learning to promote new understanding of how students learn and how assessment can guide student progress.

Ireland takes part in international comparative evaluations such as PISA.

2. Development and implementation of LLL strategies.

The promotion of lifelong learning is a governing principle of education and training policy in Ireland. Lifelong learning policy is developed in collaboration between the D/ES and D/ETE, in consultation with a wide range of stakeholders. Reports such as The White Paper on Adult Education, the Task Force on Lifelong Learning and the National Skills Strategy all provide for a continuum from early childhood through to adulthood, with an extensive range of adult learning programmes taking place in the further and higher education and training sectors. An updated lifelong learning strategy is currently being finalised.

The National Qualifications Framework (NQF) is a 10-level framework providing for all awards in the State, from basic education and literacy to post-doctoral level across the education and training sectors. It is an important step in meeting the needs of a lifelong learning community with more diverse learners who have different learning needs. A key element of the NQF is to improve access (entry) to education and training, transfer within and between education and training and progression within and between education and training, leaving no dead ends.

The NQF is supporting validation of formal, non-formal and informal learning, based on the achievement of learning outcomes. The framework includes provision for recognition of prior learning. In Ireland full awards can be gained by RPL, although these are the exception; the greatest use of recognition of prior learning is for student entry to programmes or for the purpose of gaining credits or exemptions.

Ireland completed the mapping of its NQF to EQF in June 2009. It is anticipated that the next stage of introducing a reference to the EQF in all new Certificate and Diploma Supplements should be completed by 2012.

3. Attractiveness and relevance of Vocational Education and Training

VET's attractiveness is not questioned and the NQF provides for all awards across the education and training sectors. An Expert Group on Future Skills Needs (EGFSN) acts as the central national resource on skills and labour supply for the enterprise sector and on overall strategy for enterprise training in Ireland. Its reports assist in VET policy formulation and reform. To cope with the impact of the economic crisis 7,000 extra education and training places are being created for the unemployed, many in post-secondary training and apprenticeship courses.

Government policy, as articulated in the National Development Plan 2007-2013, is to implement the 2007 report of the EGFSN- *Towards a National Skills Strategy*. This Strategy sets out clear long-term objectives in developing Ireland's human capital through up-skilling, training and education for the period to 2020. VET programmes are fully integrated in the seamless ten-level National Framework of Qualifications.

4. Modernisation of Higher Education

In February 2009, the Minister for Education and Science launched a process to develop a new National Strategy for Higher Education for the next twenty years. The process is being led by a high level Steering Group comprising national and international expertise. The

National Skills Strategy vision is for 45% of the labour force to have post-upper secondary qualifications by 2020.

Ireland recognises that it must examine ways of expanding the non-exchequer sources of income of institutions so that they have the resources to compete on an international level going into the future. A review of the options relating to the introduction of a form of student contribution is currently being finalised, drawing on international experience.

The National Access Office, within the Higher Education Authority (HEA), facilitates educational access and opportunity for groups who are under-represented in higher education. It published a new National Plan for Equity of Access to Higher Education 2008-2013 which foresees development of a broader range of entry routes, a significant expansion of part-time/flexible courses and that mature students will comprise at least 20% of total full-time entrants by 2013. From 2004-05 to 2006-07, there was a 29% increase in the number of mature students.

GREECE

		Greece		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		69.3%	68.2% ⁰⁷	85.6%	90.7% ⁰⁷		95%
Low achievers (15 year-olds; PISA study results)	Reading	24.4%	27.7% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	32.3% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	24.0 % ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		18.2%	14.8% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		79.2%	82.1%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	-	-	33.6% ⁰⁷	+15 %	-
	Share of females	-	44.2% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		25.4%	25.6%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		2.6% ⁰³	2.9%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		3.39%	4.0% ⁰⁵	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

In school related areas Greece's performance is mixed. In two areas: *Early leavers from education and training* and *Upper secondary attainment*, Greece performs slightly better than the EU average. While on early school leavers there has been some progress since 2000,

Greece's performance on *Low achievers* and on *Participation in early childhood education* is below the EU average and appears to deteriorate or stagnate.

One area in which Greece has made progress is in increasing the number of *MST graduates*. The share of females in this field is clearly above the EU average. However, the share with *High education attainment* appears to have stagnated and was below the EU average in 2008.

As regards *Adult participation in lifelong learning*, Greece has a very low performance which has only slightly increased since 2000.

Greece performs above the 2010 EU benchmark level as regards the increase in the number of *MST graduates*.

1. Policies for development of the key competences

The Greek education system is very centralised. There is a gradual but slow shift to a less teacher/single book/exam-centred, more flexible system with some emphasis on the development of key competences. In compulsory education, this shift includes initiatives to modernise curricula and textbooks, increase the use of ICTs and reform special needs provision. This transition is far from complete. While dialogue involving political parties and social partners started recently, low level of public investment in education and training, continual changes in policy and the heavy politicisation of/lack of political consensus on education are among the factors that have slowed down reform. More and better ECEC provision, better quality and equity of provision, more attractiveness and relevance of VET, and an upper-secondary system that is decoupled from university-entry exams, are some key challenges.

1.1. Curricular reforms

New textbooks and learning material are being produced, with emphasis on the development of key competencies and a cross-curricular approach to knowledge. Pre-primary education is now compulsory at the age of 5. Mother tongue is the focal point of the national curriculum in primary schooling. ICT competence features in the curriculum as a separate subject. The study of foreign languages is compulsory from primary level onwards (with specialist teachers also in primary) but teaching a foreign language as a separate subject remains the main approach. Second foreign language provision is being piloted in the last two years of primary. In secondary, preparatory language classes (EL) are provided to non-Greek students. In addition to compulsory EN, an option between FR, DE or IT is available as a second foreign language, compulsory in lower-secondary and optional in upper-secondary. Secondary VET students can choose between EN, FR and DE. Where adopted, the "Flexible Zone" curricular component and the implementation of school projects also reflect the gradual shift to a more cross-curricular approach. Also, the new types of secondary VET schools after 2006 provide a broader and more balanced curriculum.

1.2. Targeted provision of key competences

There is a range of additional school types for early school leavers and for students who started to work after finishing compulsory education (such as second chance schools and evening schools). There are also "intercultural" schools that cater for the children of the Muslim minority and for Roma children. EL as a Second Language is available to working immigrants and has become a prerequisite for obtaining residence licence. There is a

programme for instruction and counselling support to families (adults) of Roma, Muslims, Repatriates and Immigrants. Special education is compulsory since 2008. Provision for pupils with special needs includes education in special classes or schools (separate) as well as in mainstream settings. The Vocational Training Centres offer vocationally oriented services to unemployed adults with a secondary or post-secondary VET qualification and to vulnerable social groups.

There is a need to provide more and better learning opportunities to adults, including the so-called "non-traditional" learners and to those most vulnerable and severely affected by inequalities and economic swings. The Second Chance Schools target young adults without lower-secondary qualifications and emphasise the acquisition of key competences and social skills. The 58 *Centres for Adult Education* are open to all adult citizens. The 58 *Schools for Parents* cover topics that include parental guidance, family-school relations, and health education. The *Centre for Distance Adult LLL* provides a distance learning programme. The Prefectural Committees for Adult Education are part of the local government and implement training programmes with a wide range of topics. Some targeted adult education programmes aim to develop digital competences of adult learners. The Hellenic Open University offers open and distance courses leading to a bachelor or master's degree. Significant professional development opportunities are available to public administration and local government employees in the context of the on-going efforts to modernise public administration.

1.3. Teacher training and approaches to assessment

The work of the Organisation for Teacher Training (OEPEK) complements the work of the Pedagogical Institute (PI) in the provision of in-service training of teachers and of regional induction training for newly-appointed staff. In alignment with the new textbooks and learning material it has produced, the PI's training courses aim to enhance the perspectives of the new teachers and encourage them to adopt a cross-curricular, competence-building approach. However, practitioners report problems in the use and quality of the new books. The new curricula promote student assessment that is more learner-centered, criterion-referenced, combines formative and summative means, and avoids general comparisons with other learners. Student assessment guidelines and procedures are set centrally by the Ministry. In addition, for each subject, the relevant textbook provided by the Ministry is accompanied by a teachers' manual that includes assessment issues.

1.4. Evaluation of outcomes

Assessment for learning is the main approach to pupils' evaluation. The fact that the Pedagogical Institute is the body responsible for curriculum development but also for evaluating its effectiveness in primary and secondary has raised questions of objectivity. Also, an increasing number of voices in recent years argue that there is a need to foster a culture of evaluation in all types and levels of compulsory education in order to develop effective long-term policies and create policies based on solid evidence. The recently-established Quality Assurance Agency aims to monitor quality in tertiary education and there are plans to promote quality assessment in compulsory levels.

Greece takes part in international comparative student evaluations such as PISA.

2. Development and implementation of LLL strategies.

The 2005 Law on the "Systematisation of Lifelong Learning" is now enacted and the basis for the establishment of a LLL network. Policy action aims at setting up a comprehensive institutional and practical platform systemising existing education and VET framework, the latter being a pillar of the Greek LLL approach. LLL is largely equated with adult education. The provision of LLL services is expanding and the coordination of the various actors has improved, in particular visible through the increased activation of the National LLL Committee as a key player for LLL policies. Additionally, tertiary education institutions are establishing and expanding LLL institutes. However, supportive scientific and administrative structures still need to be put in place, as well as guidance and counselling services to provide information on LLL opportunities and careers.

While a Committee has been appointed to look into the issue, there is no system for the validation of non-formal and informal learning. Some progress is reported in the validation of an increasing number of job profiles and in the (initial) steps to set up a NQF aligned with the EQF. The establishment of Lifelong Learning Institutes in tertiary education institutions and in social partner structures has rendered LLL more accessible.

3. Attractiveness and relevance of Vocational Education and Training

Increasing the quality, attractiveness and labour-market relevance of VET in Greece is a big challenge. VET has been declining with 30% fewer students in the last 6 years and a large number of early leavers from VET. There is broad recognition of the need to develop clear and diverse pathways through vocational education to higher education, to further learning and to employment, to remove dead ends and to improve the quality, attractiveness and relevance of VET. The new types of secondary VET schools (EPAL and EPAS) show a shift away from job-specific to a broader and more balanced curriculum with some emphasis on the development of key competences. EPAL graduates are now able to participate in university-entry exams to tertiary education at an equal footing with students from general secondary. EPAS curricula currently focus on 41 occupational specialisations that are on high demand. Some mobility between secondary general and vocational tracks is now possible. Also, a quota of places reserved for EPAL students in certain tertiary education schools is believed to increase the appeal of secondary VET. There are some improvements in infrastructure planned, learning resources and facilities, teacher training and accreditation, school-based and local government-based guidance and employment liaison offices, and some efforts to increase public awareness of VET opportunities and its enhanced status. There is progress in the clarification of the occupational rights of TEI graduates.

4. Modernisation of Higher Education

Reform of HE is in progress since 2006. It has been heavily contested and politicised but contestation is gradually giving way to debate. Greek universities and research remain underfunded. New legislation aims to raise investment in research to 1.5% from the current 0.7% of GDP, encourages synergies between universities, public research organisations and enterprises and supports the creation of spin-off companies. Greece has a very high unemployment of young graduates. While direct public funding is the main source of income for HE and research, 2007 legislation facilitates synergies with the private and industrial sectors and has enabled the diversification of income streams. Also, the public funding of universities is now linked to the compulsory submission of 4-year academic and budgetary

plans. Tertiary education institutions are subject to internal and external evaluation by the Quality Assurance Agency.

SPAIN

		Spain		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		100.0%	98.1% ⁰⁷	85.6%	90.7% ⁰⁷		95%
Low achievers (15 year-olds; PISA study results)	Reading	16.3%	25.7% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	24.7% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	19.6% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		29.1%	31.9% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		66.0%	60.0%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	12.4% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	31.5%	29.9% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		29.2%	39.8%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		10.5 % ⁰⁵	10.4%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		4.28%	4.28% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

In school related areas, Spain performs above the EU average on participation in *Early childhood education*. However, Spain performs below the EU average in the remaining three: *Low achievers*, *Early leavers from education and training*, and *Upper secondary attainment* and its performance in the period 2000-2008 has deteriorated.

Spain has made strong progress in increasing the number of *MST graduates*. Moreover, Spain has a high share of *Higher education attainment* and has performed significantly above the EU average throughout the period.

As concerns *Investment in education* as a percentage of GDP, Spain performs below EU average levels and levels have not increased since 2000. Nevertheless, since Spanish GDP increased more rapidly than the EU average, investment in education has grown in absolute terms.

Spain performs above the 2020 benchmark levels on: *Participation in early childhood education*.

1. Policies for development of the key competences

The European framework of key competences has been adapted to the Spanish educational system and integrated into the curricula. The key competences have been defined as follows: 1) linguistic communication; 2) mathematical competence; 3) knowledge of and interaction with the physical world; 4) information processing and digital competence; 5) social and citizenship competence; 6) cultural and artistic competence; 7) learning to learn; 8) autonomy and personal initiative.

1.1. Curricular reforms

The competence-based approach has led to significant changes in the curricula for languages, which until 2006 were largely focused on linguistics. The current approach puts more weight in enabling pupils to use languages for a variety of purposes. In the area of mathematics, capacities such as reasoning or informed decision taking are being given more weight, as well as a push to improve didactics.

Both in primary and secondary education, the curriculum for each subject details how it is expected to contribute to the development of the key competences, including the transversal ones. ICT (digital competence) has been the subject of special attention. A special emphasis has also been put on reading, which is understood as essential for developing all the key competences, and therefore has to be dealt with within all subject areas.

1.2. Targeted provision of key competences

Several measures have been put in place to reduce early school leaving in Spain, such as the PROA plan (Programme for Reinforcement, Guidance and Support), which supports the development of key competences in pupils at risk of dropping out. The new PCPI (Programmes for Initial Vocational Qualification) also foresees both an initial VET qualification and reinforcing the key competences, with a view to enabling pupils to pursue their educational careers afterwards.

Early school leavers, those without basic qualifications, immigrants and Roma are among the target groups of adult education. Adult education centres take an initial individual assessment of needs as the departure point of personalised learning pathways that often combine basic

skills (e.g. literacy) with professionalization courses and non-formal learning. They may also lead towards (re)entering formal education through targeted admission tests.

1.3. Teacher training and approaches to assessment

Initial teacher education comprises instruction on the key competences and their didactics. From 2009, a two-year Master's degree will be introduced as a prerequisite for graduates wishing to teach at secondary schools, also with a view to raising their abilities in the key competences. In-service training is playing a role in familiarising existing teachers with the competence-based approach.

Changes in the assessment methods are being introduced gradually, based on the description of the contribution of each of the subject areas to the acquisition of the key competences.

1.4. Evaluation of outcomes

Evaluation is set out as an integral activity of the education system by the Education Law. Two main types of evaluations are conducted: censal (covering all schools) and sample. While the former vary across regions and are more curriculum-based, the latter are national-level evaluations and are based on the key competences, starting with four of them in 2009.

PISA results show that there remains potential for improving overall basic skills.

2. Development and implementation of LLL strategies.

The 2006 Education Act and the 2007 framework law on higher education constitute policy frameworks covering all the different levels and modalities of the education system. Work on the NQF is on-going and it is foreseen that it will enter into force in 2011. A Royal Decree on the validation of professional competences acquired through work or non-formal learning is also foreseen for July 2009.

This validation procedure will be implemented by the autonomous regions, and it has been conceived as part of an integrated guidance process, so that individuals will not only be able to have their competences recognised, but will also have them assessed and will be helped to understand the different options to complement them. Validation will be conducted on an evidence basis (e.g. portfolios). Social partners have been closely involved in this process.

3. Attractiveness and relevance of Vocational Education and Training

Increasing the numbers of VET graduates remains one of the key challenges of the Spanish education system, in the light of comparisons with other countries and of other contextual indicators, such as early school leaving, and in spite of the fact that VET graduates perform significantly well in the labour market.

A "roadmap" for a new VET model was presented in 2008. It is foreseen to better integrate initial VET with training for workers in employment, so as to provide a better quality and more labour market relevant offer. A series of other changes are introduced to increase the attractiveness of VET, e.g. a flexible, modular and adaptable offer; the obligation to spend training periods in enterprises; or increasing the availability of scholarships for studying VET.

4. Modernisation of Higher Education

The Strategy *Universidad 2015*, adopted by the Government in 2009, foresees four lines of action in order to modernise Higher Education: 1) the 'missions' of HE (teaching, research and transfer of knowledge and responsibility); 2) people (teachers and researchers, students and other staff); 3) capacity strengthening (governance, finance, etc.); and 4) built environment .

Funding issues are largely in the hands of the regions. While the policy on low tuition fees remains unchanged and scholarships increase, universities are being stimulated to diversify their sources of income for missions other than teaching. Spanish universities have been traditionally active LLL providers, and a working group is currently reflecting on how to strengthen this role. Adaptation to the European Higher Education Area remains a key priority for the immediate future.

FRANCE

		France		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		100%	100% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	15.2%	21.7% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	22.3% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	21.2% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		13.3%	11.8% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		81.6%	83.4% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	7.4% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	30.8%	28.1% ⁰⁷	30.7%	31.9% ⁰⁷	amélioration de l'accès des femmes	-
Higher education attainment (age 30-34)		27.4%	41.3%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		7.1% ⁰³	7.3%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		6.03%	5.58% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

France performs above the EU average in *Participation in early childhood education*, *Low achievers in mathematics and science*, *Early leavers from education and training* and *Upper secondary completion rate*. *Participation in early childhood education* is reaching 100% and the share of *early school leavers* and *upper secondary attainment* are close to the EU benchmarks.

However, as regards *low achievers in reading*, the performance of France has deteriorated significantly since 2000.

France did not progress further during the period in increasing the number of tertiary *MST graduates*. The share of female MST graduates has fallen since 2000 and is now below EU average.

On the other hand France has made good progress in increasing the share of 30-34 year olds *with higher education attainment* and today performs 10 percentage points above EU average.

As concerns *adult participation in lifelong learning*, France has made little progress in recent years and is now performing clearly below the EU average.

In the area of Investment in education as a % of GDP the performance of France has fallen since 2000 (if economic growth is taken into account it has, however, still grown in absolute terms), but is still above EU average.

France performs above the 2020 EU benchmarks in two areas: *Participation in early childhood education* and *Higher education attainment*.

1. Policies for development of the key competences

France develops policy to strengthen the acquisition of the key competences. This policy is coherent with the European Framework for Key Competences and has various measures, designed for very young pupils (primary education), young people in colleges or undergoing initial vocational training (first cycle of the secondary), or the adults.

1.1. Curricular reforms

The French authorities integrated the key competences into the educational and training system from 2005-2006. The law of 24 April 2005 introduced the "common competence base" which defined seven key competences. They in principle adopt the definitions of the key competences from the European Framework on Key Competences. These initiatives are reflected in the curricula of primary, secondary and vocational education, for example with the introduction of the teaching of foreign language as from the second year of primary school. Moreover, adapted and individualised teaching approaches are used to develop confidence and the image of oneself, critical skills, and communication with others.

In the field of adult learning, many initiatives were taken, such as the "key competences" programme established in January 2008, which enabled an increasing adaptability of the training offer, provided by the state.

1.2. Targeted provision of key competences

The target groups, identified as those requiring special training or education provisions in order to allow them to acquire the key competences, are mainly illiterate persons (3.1 million individuals), persons with low education level (ISCED level 0 to 3), prisoners and immigrants. For these groups specific training activities are carried out.

Young people with the disadvantaged background can receive teaching support and specific measures which aim to open their access to the community programmes and thus improve their geographical mobility.

1.3. Teacher training and approaches to assessment

The content requirements of the initial and continuing training of the teachers since 2007 referred to the key competences such as they appear in the common base of the key competences. In addition, a vocational training "key competences and the common base – how to assess the competences of the scholarship" is envisaged. As regards the training of the teachers of adults, there are no national level regulations, the training centres have the responsibility for this kind of training.

The formative assessment is regarded as a crucial aspect of providing the key competences for young people in initial education. It forms integral part in the course of education and training, from the primary level till the end of the secondary, and is organised in various ways (tests, evaluation protocol in mathematics, portfolio, individual competence booklet, etc). Another initiative of the French authorities is the integration of a competence booklet in the general booklet (primary school) and the individual school file (in the college). The summative assessment of the competences is attached to the diploma or certificate (B2i, CFG). Concerning the assessment of the linguistic competencies, at the level of the "Diplôme National du Brevet" DNB (Patent), France introduced the obligatory validation of the level A2 of the Common European Framework of reference for languages (CERF).

1.4. Evaluation of outcomes

The evaluation of the key competences forms is included as part of the indicators of performance of the education system and is also taken into account for the definition of specific provisions with the attention to those which are underperforming.

France takes part in the international surveys of pupils' achievements, for example PISA and PIRLS, and the European surveys on language skills.

2. Development and implementation of LLL strategies

France undertook reforms in mid-2000s which aimed to make lifelong learning a reality. These policies affected all the segments of education and training (primary, secondary, professional, continuous training and higher education) and are implemented by multi-annual plans of modernisation and adaptation of education and training and its organisation.

In addition France established institutions to foster the implementation of the lifelong learning strategies. The National Commission of Professional Certification (CNCP), created in 2002 manages the national commission for professional qualification (RNCP). It is in charge of referring the French national qualification framework to the EQF. The national council of the lifelong vocational training was established by the Law of 4 May 2004, it is the forum of co-operation for the state and the economic and social partners on legislation, the regulation, the financing and the regional policies in the fields of training and apprenticeship, thus contributing to the development of the lifelong learning strategy.

In 2002, France set up an efficient system of validation of non formal and informal learning "Validation of acquired experience" (VAE). It enables all the adults to obtain certification which approves their professional and personal experience. The number of recipients is increasing, passing from 22,652 in 2005 to 25,956 in 2006 and to 30,000 in 2007.

In addition, the individual right to training (DIF), established in 2004 makes it possible for each employee to benefit from an annual 20-hour minimum of training.

3. Attractiveness and relevance of Vocational Education and Training

France develops a policy to increase the attractiveness of VET according to four main principles: improvement of information and guidance of young people and adults; assessment of the professional way (reduction of the duration of training leading to the professional baccalaureate, development of the professional college, establishment of pathways between the various education and training segments, etc); strengthening of the links between VET programmes, qualifications and the needs of the labour market, democratisation of access to European mobility. Improvement of the relevance of the VET programmes is also implemented by setting up and developing forecasting of the labour market needs, the surveys of the labour market and supply of qualifications.

4. Modernisation of Higher Education

The modernisation of higher education in France accelerated in recent years. Today, it rests mainly on three strategic main principles: greater autonomy of the HE institutions and their opening to lifelong training, development of vocational and professional training and vocational inclusion of the students.

The law on "freedom and responsibility of the universities" (August 2007) guaranteed greater autonomy to the universities in the management of their budget. Now universities can diversify their sources of financing and thus open to private funds (patronage, foundations). It enables the HE institutions to approach the economic world, and improve their governance.

The validation of informal learning (2002), the governmental plan of development for apprenticeship (2005), the development of supply of continuous training and certification contribute opening of the universities to vocational and lifelong learning.

Lastly, the creation of "assistance office for the students' professional inclusion", shows that the universities take active measures to improve the vocational integration of the students.

ITALY

		Italy		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		100%	99.3% ⁰⁷	85.6%	90.7% ⁰⁷		95%
Low achievers (15 year-olds; PISA study results)	Reading	18.9%	26.4% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics		32.8% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science		25.3% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		25.1%	19.7%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		69.4%	76.5%	76.5%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	112,5% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	36.6%	37.0% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		11.6%	19.2%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		6.3% ⁰⁴	6.3%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		4.55%	4.73% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁴ = 2004, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

In school related areas, Italy is among EU's highest performers on *Participation in early childhood education*. On *Early leavers from education and training* and *Upper secondary completion rates*, even though Italy performs below EU average levels, the trend between 2000 and 2008 shows a significant improvement.

Italy's performance on *Low achievers* is below the EU average and performance has deteriorated.

It is notable that Italy has had a very strong growth in *MST graduates*. Nevertheless, Italy has significantly lower *Higher education attainment* than the EU average. Moreover, *Adult participation in lifelong learning* is lower in Italy than the EU average and performance is not increasing.

Italy performs above the 2010 EU benchmark level as regards the increase in the number of *MST graduates*.

1. Policies for development of the key competences

In 2006 a law on new compulsory education was adopted, based on the 2006 European Recommendation on key competences and contains four pillars: languages (with informatics), mathematics, scientific-technologic, historical-social. Learning outcomes have been presented in terms of competence, knowledge and skills. A Working Group has been created to put the NQF in line with the EQF, adopting a competence-based approach and following non-academic higher training (IFTS - Istruzione e Formazione Tecnica Superiore) best practices.

1.1. Curricular reforms

In the 2006 law on new compulsory education, learning outcomes have been defined according to the above four pillars and the Key Competences Recommendation . They do not correspond exactly with the curriculum disciplines, as they were specified and developed in a 2007 decree. In June 2009, a Reform of "Licei" (senior high schools) completely transformed and reduced courses in upper secondary education (from 400 courses to 6 main "Licei") in order to support more autonomous schools, a stronger link education-labour market-University and a more rational list of courses.

The curriculum disciplines have been correlated to the EU key competences. They are the following: learning to learn, planning, communicating, partnership, acting autonomously and responsibly, problem solving, connections identifying, information keeping promoting personality and positive social relationships. Mother tongue, foreign languages, maths science and technology, digital competence and social and civic competences are included in the national curriculum and form the compulsory education disciplines. With the new laws mentioned above they are present also in terms of cultural axes. Cultural awareness and expression key competence is included in the language pillar. Learning to learn concerns also VET, and the Initiative taking and entrepreneurship competence does not appear in general or VET curriculum.

1.2. Targeted provision of key competences

Compulsory education has been widened and now spans almost 10 years. Access to the labour market is possible from age 16; the entire cycle of secondary education ends at 18. From 16 to 18, new pedagogical approaches have been included to make learning more attractive, e.g. workplace activities or the alternation of school and job, starting from 15. In VET, to guarantee basic competence to all young people leaving upper secondary general education, a review of continuous training is in development.

To support social re-integration, a LLL promotion for Italian adults and migrant adults has been set up through the Permanent Territorial Centres and evening courses. The training is based on the key competences.

Most of initiatives targeted at adults concern VET, and particularly continuous training activities for employed persons. These activities are managed and funded both by public authorities, both by trade unions and private companies; the latter are financed by funds collectively managed by social partners (Fondi Paritetici Interprofessionali). In the frame of national measures against the current crisis, these funds cover inter alia training to improve transversal, linguistic, entrepreneurship and digital key competences as the foundation for economic recovery.

1.3. Teacher training and approaches to assessment

There is also a special teacher training project (*Sistema Permanente di Formazione on line - SPF on line*), where teachers on the general education (national level) and VET (regional level) work together, cooperate and promote best practises, to implement the achievement of key competencies and transversal vocational knowledge. The SPF is an e-learning project.

1.4. Evaluation of outcomes

There is common agreement that the evaluation is a central issue. Two strands are followed: evaluation of process and evaluation of outcomes. As for the latter, the National Institute for Evaluation (Invalsi) carries out periodic surveys on pupils' achievements. In line with the EQARF methodology, a test to evaluate competencies of vocational training students has been carried out. It should lead to a standardized tool for evaluation of regional VET courses. Results will increase the knowledge of policy makers when redefining VET programmes.

Italy participates in PISA, PIRLS, TIMSS international comparative student assessments, and in PIAAC 2008-2013 Programme.

2. Development and implementation of LLL strategies.

Italian action in the field of lifelong learning is in line with European strategies. It includes initiatives to recognize competences acquired outside formal education and training and the enhancement of learning opportunities for all citizens. National bodies (Ministries and social representatives) cooperate with local authorities (mainly Regions).

A Working Group for defining the NQF has been set up, in order to agree on the conceptual framework and methodology. By 2011, all qualifications and certifications will be included in the EQF. Another initiative is the "Libretto formativo del cittadino" (citizen's training record) that has been tested in several regions. It should be part of a more general process of definition of national procedures for validation and recognition of competences acquired through non-formal and informal learning activities, which do not yet exist.

3. Attractiveness and relevance of Vocational Education and Training

Actions aiming to increase VET attractiveness include widening of the range of available courses, including initial training and non-academic higher training paths; increasing the link with the local labour market and the skills demanded by enterprises; and designing an additional year for initial VET programmes that allow enrolment to ISCED level 4 courses. A permanent national monitoring system, devoted to the analysis of occupational and training

needs, informs stakeholders about characteristics and evolution of local systems in order to define labour policies, to develop training initiatives and to manage human resources.

4. Modernisation of Higher Education

Since 1993, the Higher education system has undergone a deep process of change. The first step has been financial autonomy for universities. Subsequently, Italy set up the Bachelor/Master system, following the Bologna process. It led to the enrolment of a number of adults who had previously dropped out from higher education, often after a working experience.

The main source of public funding is the "Fondo Finanziamento ordinario" (FFO). In the period 2000-2006, it passed from covering 61.5% of the total budget of public universities to 57.2%. At the same time, fees paid by students and private funds have increased substantially (the latter from 11.7% to 15.7%).

Higher education became more attractive for adults thanks to the introduction of 3-year courses (bachelor) and to the possibility to have previous competences - acquired on the job or through non-formal and informal education – recognized by the academic system and counted as credits.

CYPRUS

		Cyprus		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		64.7%	84.7% ⁰⁷	85.6%	90.7% ⁰⁷		95%
Low achievers (15 year-olds; PISA study results)	Reading	-	-	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	-	-	24.0% ⁰⁶	-	15%
	Science	-	-	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		18.5%	13.7% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		79.0%	85.1%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	63.4% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	31.0%	31.5% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		31.1%	47.1%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		7.9% ⁰³	8.5 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		5.35%	7.02% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Cyprus performs above the EU average in three school related areas: *Participation in early childhood education*, *Early leavers from education and training* and *Upper secondary attainment*, and its performance has improved significantly during the period 2000-2008.

Investment in education has grown significantly in Cyprus during the period 2000-2006, and in the EU Cyprus invests the third highest share of its GDP in education. It is also notable that among EU countries, Cyprus had the second highest private spending on educational institutions, at more than 1% of GDP.

Cyprus is the EU Member State with the highest share of population with *Higher education attainment*. Moreover, there is a strong growth in the number of MST graduates. Interestingly, however, these developments are not accompanied by a higher than average *Adult participation rate in lifelong learning*.

Cyprus performs above the 2010 EU benchmark levels on: *Participation in early childhood education*, *Upper secondary attainment*, and *MST graduates*; and even above the 2020 EU benchmark levels on *Higher education attainment*.

1. Policies for development of the key competences

Cyprus is transforming its education system by inserting the European key competences at all educational levels in its Life Long Learning Strategy. There are initiatives in the field of ICT learning, teaching entrepreneurship and learning to learn. One point that Cyprus continues to focus on is the teaching of Greek to migrants with other mother-tongues – this is becoming the focus of more efforts at all levels with new educational approaches and should cover all schools within three years.

1.1. Curricular reforms

A new curriculum is being prepared for the academic year 2009-10 and will be pilot tested before being implemented nationally. It focuses strongly on all eight key competences. There is an enrichment of the science curriculum with greater ICT and new efforts to teach Greek to migrant children. ICT access is being expanded in schools and grants given to those at lower secondary level to buy computers in order to promote greater digital competences.

Entrepreneurship, learning to learn and social and cultural awareness are being actively promoted within the curriculum.

1.2. Targeted provision of key competences

Zones of Educational Priority have been set up to encourage civic values and intercultural tolerance and aid migrants learn Greek. They also provide special opportunities for pupils with diverse backgrounds. Special Greek classes are now given to migrant children at primary level. There are special schools to help talented students in their speciality such as music and sports schools and all-day schools. ZEPs also aim to link in families too and create greater social cohesion, and reduce the rate of school drop-outs.

Lifelong learning guidance has been set up for disadvantaged groups provided mainly by the adult education centres. There are special efforts for migrants, asylum seekers, political refugees, the disabled, those with learning difficulties, diaspora Greeks with lower levels of Greek, and particularly important in the Cypriot context: Greek for Turkish Cypriots, Turkish classes for Greek Cypriots respectively. There are also special programmes for prisoners to help assure their social re-integration.

Adult Education Centres and State Institutes of further education have been set up to provide non-formal continuous adult education to all Cypriot citizens aged 15+ aiming at the

enhancement of the quality of adult education provision, the improvement of knowledge and skills acquisition for adults leaving school without any basic qualifications and the provision of lifelong learning opportunities for adults from various socio-cultural backgrounds. ICT is a special focus of adult learning as are facilities for those with special needs. Given the political context of Cyprus, special efforts are also made in promoting intercultural competences and skills for improving inter-communal relations.

1.3. Teacher training and approaches to assessment

The Cyprus Pedagogical Institute is upgrading initial teacher training and in-service teacher training through the Educational Reform Programme. New strategies have been devised based on identifying training needs and upgrading teacher skills. There is also a focus on improving the inter-cultural skills of teachers and trainers. Distance learning portals have also been created for teachers and efforts made to improve ICT skills. There is a new way of testing Greek and mathematics at 8, 11 and 15.

1.4. Evaluation of outcomes

Specific provisions for the evaluation of the outcomes and competences of the education system will accompany the revised curricula. The Centre for Educational Research and Evaluation will play a significant role in the analysis of evaluation results and the formulation of evidence-based education policy.

2. Development and implementation of LLL strategies.

A strategy for life-long learning was approved in November 2007, including measures for early school leavers, migrants, women wishing to access the labour market and those that have been long-term unemployed. The establishment of new institutions of higher education have been a particularly important corollary to this process as they provide courses for people on the labour market as well as tertiary students.

The new universities will play an important role in increasing life-long learning both in providing extra places for students in Cyprus and also for providing LLL to people on the labour market. The new Apprentice System, when up and running in 2010, will also help to train younger people that have dropped out of the school system early and provide them with better basic skills to access the labour market earlier. A NQF is being set-up in Cyprus too – although the report does not include any plan for validation of non-formal and informal learning once the formal education system has been integrated into the NQF.

3. Attractiveness and relevance of Vocational Education and Training

A recent external evaluation study commissioned by the Ministry of Education and Culture shows that Cyprus will decentralise VET and the taught content and increase cooperation with industry and the number of apprenticeships. The new apprenticeship system is being set-up in order to move ahead in this direction. It will focus too on the provision of the eight key competences and should be ready for academic year 2010-2011. Increasing participation in VET at secondary level remains a major challenge.

The Cyprus Productivity Centre is conducting surveys to examine the reasons why VET is currently not such an attractive option to young people and to propose solutions. They will also try to better identify the training needs of the labour market at enterprise level. VET secondary level graduates can now also participate in the Pan-Cypriot tests to enter university,

and this has the potential of enhancing the attractiveness of VET. There is also an initiative to bring general secondary and VET qualifications in line so that both can access the same jobs.

4. Modernisation of Higher Education

New universities and new study programmes have been available in Cyprus from 2007 which have been an important step in modernising higher education. There are also courses for those on the labour market to upgrade their skills, and new facilities for continuous adult learning with evening and weekend courses. The School of Modern Greek has an initiative to help to teach Greek to migrants so that they can better integrate into the labour market. Some universities have created autonomous departments dedicated to the establishment of LLL for all citizens at university.

Cyprus is diversifying its sources of funding from fees for post-graduates and from private universities and participation in the EU's education and research programmes. A Science and Technology park may also be established to allow universities to differentiate further their financial resources, e.g. from private companies that will establish themselves there.

LATVIA

		Latvia		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		65.4%	88.2% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	30.1%	21.2% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics		20.7% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	17.4% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		16.9% ⁰²	15.5%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		76.5%	80.0% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	21,2% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	31.4%	32.7% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		18.6%	27.0%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		7.8 % ⁰³	6.8 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		5.64%	5.07% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰²=2002, ⁰³= 2003, ⁰⁶= 2006, ⁰⁷=2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Latvia performs above the EU average in two of the school related areas: *Low achievers* and *Upper secondary attainment*. Latvia did not participate in the PISA survey in 2000, hence it is not possible to measure progress.

Adult participation in lifelong learning has decreased since 2000 and is now further behind the EU average figure in this field.

On *Higher education attainment* Latvia has increased the share with over 8 percentage points since 2000, but is behind the average in the EU. The growth in *graduates in MST* since 2000 is less than half of the EU average figure. The share of female *MST graduates* is just above the EU average and the gender balance has improved during recent years.

Latvia has a higher level of *Investment in education* than the average of all EU countries, although it has decreased compared to the level in 2000.

1. Policies for development of the key competences

Acquisition of key competences is included in the “Basic Guidelines of LLL Policy for 2007–2013”, the “Programme for 2008-2010 for Implementation of the Guidelines of LLL Policy” and in “Education Development Guidelines for 2007 - 2013”.

The eight key competences are taken up in the State Standards of basic, general secondary and vocational education and the underlying subject standards and further embedded into the curricula and assessment procedures. Implementation is largely carried out through activities funded by EU structural funds. Recently structural reforms addressing efficiency and effectiveness are being undertaken, including improving the teacher per student ratio, reducing the number of schools and teaching staff.

1.1. Curricular reforms

A comprehensive reform started in 2005/2006 using ESF funding. Basic skills education is embedded in the Basic education standard (2006). Curricula of 17 subjects have been changed, moving from acquiring information to acquiring skills. Acquiring the basic skills is assessed at the centralised school-leaving examinations, among others in Latvian language and literature, mathematics, foreign language. Students acquire at least two foreign languages during basic education and can add a third foreign language in the secondary education.

The transversal key competences concept is embedded into both the subject standards and the model curricula of individual subjects covering transversal competences such as learning to learn, communication skills, initiative, understanding of entrepreneurship and others. Teacher further training curricula have been adjusted to take on board transversal skills.

1.2. Targeted provision of key competences

Pedagogical correction programmes for students with learning difficulties and behavioural problems and social correction programmes for juvenile criminals have been developed and implemented. Issues concerning inclusive education are part of teacher further training courses focusing not only on the subject content and methodology, but also helping to improve minority and bilingual education programmes and special education approaches.

Targeted approaches to adult groups: for are as follows: for the unemployed and jobseekers - raising competitiveness, gaining basic skills; business start-ups - training on entrepreneurship, preparing business plans; for people with poor Latvian language skills – language training; for adults without basic or secondary education attainment – evening schools; for prisoners – general education or VET inside prisons or distance learning. Financial support and local accessibility are the challenges.

1.3. Teacher training and approaches to assessment

Initial teacher training curricula are designed to provide competences listed in the teachers' professional standards. Further training: 36 hours every 3 years is mandatory, typically including the developments in the subject and its teaching/ assessment, using ICT but also teaching in minority schools, working with students from disadvantaged groups etc. Assessment is moving towards assessing competences - starting with languages, maths and sciences - as well as centralised exams in all subjects.

1.4. Evaluation of outcomes

The two main ways of summarising evaluation of key competences are a) centralised examinations (assessment methodology is oriented towards evaluation of competences), b) results of international comparative studies, which provide information about the results of acquisition of different basic skills. Results of analysis are used to adjust curricula and set priorities for of teacher further education.

Latvia participates in international comparative student evaluations such as PISA, PIRLS, TIMSS and other.

2. Development and implementation of LLL strategies.

The “Basic Guidelines of LLL Policy for 2007–2013” and the “Programme for 2008-2010 for Implementation of the Guidelines of LLL Policy”

emphasize adult learning according to interests, abilities and regional needs and its implementation increased participation in LLL.

Current implementation measures address the efficiency of adult education and incentives to participate in education and training.

The process of validation of non-formal and informal learning in Latvia is not yet implemented by offering the product to the end-user.

Work towards National Qualification Framework corresponding to EQF is ongoing. A draft Higher Education Law has passed first reading in parliament. It provides legal background for the NQF, a learning outcomes-based approach, recognition of prior learning. Compatibility of HE qualifications to EQF has been established, consultations are going on regarding EQF levels 1-4. Prior learning methodology has been worked out in a ESF project, but it is not yet embedded in legislation. New Vocational Education Law project is designed in order to conform to the necessity to provide more flexible, adequate to the labour market needs learning outcomes as well as it states the corresponding to EQF levels at the national level.

3. Attractiveness and relevance of Vocational Education and Training

Due to the recession VET is also undergoing a structural reform, reducing the number of institutions/ programmes. The traditionally low prestige of VET in the society is a challenge. Employers participate in the development of professional standards, and qualification examinations, provide places for educational practice, yet the relevance of VET to the labour market is often questioned. A number of measures to improve VET with ESF support are

either running or envisaged. One of the activities seen as important for attracting students to VET is improved financial support.

The main measures implemented are: new study programmes of VET teacher training and career consultancy, establishing VET Regional Councils to ensure relevance of the VET offer to the needs of regions as well as co-operation in providing work placements, curriculum development, etc. Other measures: adaptation tests/individual approach to 1st-year VET students, professional mastery contests for VET students. Development of a sectoral qualification structure based on research of economic sectors has started.

4. Modernisation of Higher Education

EU funds have been used to modernise of programmes in engineering/ natural sciences, further support for doctoral studies and HE infrastructure is programmed. Reform of HE introducing a qualifications framework, outcomes-based curricula, recognition of prior learning is stipulated in the Draft Law on HE. Challenges: slow legislative process, and major HE budget cuts due to recession.

HEIs are free to use different income streams: state funding for studies (ca. 25% of students) body, tuition fees (ca 75% students), research funding, EU funding: research grants and structural funds, contract research and services. Most of HEIs open up to LLL - they have established adult education departments offering: further education to those with HE diplomas, courses for adult learners, or acquiring modules of the existing study programmes; some HEIs successfully compete in the tenders, organized by public employment services to provide training for the unemployed.

LITHUANIA

		Lithuania		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		60.6%	76.6% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	-	25.7% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	23.0% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	20.3% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		16.5%	7.4% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		78.9%	89.1% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	36.3% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	35.9%	32.5% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		42.6%	39.9%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		5.9% ⁰⁴	4.9 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		5.90%	4.84% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁴ = 2004, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Lithuania performs above the EU average in the two school related areas *Early leavers from education and training* and *Upper secondary completion rate*, where Lithuania has made strong progress since 2000. Lithuania also shows strong progress in the field of *Participation in early childhood education* although further progress is needed to reach the EU average

level. Concerning low achievers performance is very close to the EU average, but measuring progress is not possible since Lithuania did not participate in PISA in 2000.

One area in which Lithuania has made more progress than the EU average is in increasing the number of *MST graduates*, and the share of females is still higher than the EU level, even if it has decreased since 2000. During the same period the share of the population with higher education attainment has decreased slightly but from a relatively high level.

As concerns *Adult participation in lifelong learning*, Lithuania has made no progress and still performs below the EU average on the benchmark indicator.

Public investment in education as a % of GDP has decreased since 2000 and is slightly below the EU as a whole where it had slightly increased; therefore the gap between Lithuania and the EU average performance has grown.

Lithuania performs above the 2010 EU benchmark level on *Upper secondary completion rate*, *increase in MST graduates* and above the 2020 EU benchmark level on *Early leavers from education and training*.

1. Policies for development of the key competences

Lithuania has been working on modernising many areas of its education system, mainly higher education and VET in order to raise the quality and efficiency of these systems. The discussion on general education, based on the concept of key competences, started in 2003, and the renewed national curriculum was developed.

1.1. Curricular reforms

Lithuania has introduced the key competences into the Updated General Curriculum Framework for Primary and Basic (Lower Secondary) Education. Its introduction will be gradual and starts in the 2009-2010 academic year. The new curriculum integrates all the key competences, including the transversal ones.

The introduction of transversal competencies is supported by cross-curriculum programmes (Learning to Learn, Communication, Sustainable Development, Health and Life Skills, Cultural Awareness) which integrate different subjects, non-formal education activities and school community events.

1.2. Targeted provision of key competences

Disadvantaged groups, such as SEN students, are taught according to the same curriculum, however, the teaching and learning methods are adapted, and the teachers receive special training. To provide the “second chance” to acquire secondary education for early school leavers, the legislative basis is being improved. In 2007, the documents governing flexible forms of learning (the Description of the Procedure for Module-Based Learning, Description of the Procedure for Independent Learning and the Description of the Procedure for Extramural Learning) were updated, and numerous initiatives focused on the education of socially excluded groups have been implemented. In vocational education the curricula has been adapted for persons having different education and needs.

1.3. Teacher training and approaches to assessment

To facilitate the transition to the competence-based curriculum Lithuania has developed a network of consultants to organise on-the-spot training for teachers throughout the country, the training programmes include the new working and assessment methods that teachers have to apply according to the updated curriculum. The universities providing initial teacher training took part in the discussion on the new competence-based curricula and will be adjusting their curricula accordingly.

1.4. Evaluation of outcomes

The evaluations of key competences are based on the participation in international comparative surveys (PISA, PIRLS, TIMSS, etc.). At the national level, the outcomes of learning in relation to several key competences (mother tongue, mathematical, scientific and technological literacy as well as social competence and civic awareness) are already partially evaluated by the National Research of Students' Achievements. This research evaluates knowledge, skills and abilities.

2. Development and implementation of LLL strategies.

The updated Strategy for Ensuring of Lifelong Learning provides for and defines the directions of development of lifelong learning and their implementation measures. It focuses on nine key areas, including VET, continuous training of adults, non-formal non-vocational adult education, professional development of andragogues, etc., and is linked to the governmental long term development strategy and state education strategy (the latter covers whole education system). The system of qualifications is being created on the basis of the European Qualifications Framework. In 2007, the documents governing flexible forms of learning were updated in order to facilitate the validation of non-formal and informal learning. The national system of qualifications will enhance cohesion between the qualifications acquired at different levels of education and eliminate a part of the obstacles restricting or complicating lifelong learning.

3. Attractiveness and relevance of Vocational Education and Training

The Law on Vocational Education and Training as amended in 2007 provides for a reform of the systems of vocational education and training and labour market training, and optimisation of the management of the vocational education and training system. The Law establishes a modular system of vocational education and training, application of various forms of acquisition of professional competence and qualifications, thus increasing the accessibility of lifelong learning. This is of particular importance for persons in the labour market who need to acquire higher or different qualifications, and for persons with special needs. In addition the development of VET attractiveness has been supported with a wide range of measures such as the development of social partnership, reorganisation of state VET schools into self-governing institutions thus allowing variety of both stakeholders and funds, sectoral studies carried out to evaluate the need for training and skills for the next five years, vocational guidance and counselling tools, sectoral practical training centres and etc.

4. Modernisation of Higher Education

The reform of higher education in Lithuania has been a high level priority since 2006. In 2009 the new Law on Science and Studies launched the major reform of higher education. One of

the objectives of the reform is to establish a well-functioning and competitive system of funding research projects. The diversification of funding of HE remains a challenge for Lithuania, the main source of funding for HE institutions still being the government.

At the majority of higher education establishments, there are divisions of continuous learning and/or distance studies centres aiming at developing a system of higher education studies and continuing studies based on ICT. The activities of lifelong learning at higher education establishments are considered services and are subject to payment by students themselves, their employers or from various funds.

LUXEMBOURG

		Luxembourg		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		94.7%	93.9% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	(35.1%)	22.9% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	22.8% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	22.1% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		16.8%	13.4%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		72.7% ⁰³	72.8%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	-	-	33.6% ⁰⁷	+15 %	-
	Share of females	-	32.0% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		21.2%	39.8%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		6.5% ⁰³	8.5 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		3.74% ⁰¹	3.41% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰¹ = 2001, ⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Luxembourg performs slightly above the EU average in three school related areas: *Participation in early childhood education*, *Low achievers in reading, mathematics and science* and *Early leavers from education and training*. The *Upper secondary completion rate*, however, is below the EU average and has shown a downward trend in the period 2003-2006. Since 2006 the rate is, however, increasing.

While there is a lack of data on trends as regards the number of MST graduates in Luxembourg, when it comes to the share of female MST graduates Luxembourg performs at EU average.

Measured in percentage points, Luxembourg is the country that, after Ireland, has progressed most in the EU as regards *Higher education attainment*.

As concerns *adult participation in lifelong learning*, Luxembourg has made significant progress too, but still performs below the EU average.

Public investment in education as a % of GDP has slightly dropped since 2000 and is now below EU average. However, it has to be considered that in the case of Luxembourg, the data do not include spending on higher education (on EU average about 1.1% of GDP).

1. Policies for development of the key competences

The competence approach has been introduced at kindergarten, primary and secondary level since 2005 via pilot projects and has had a legal basis since December 2008 with the vote of the law concerning the reform of VET. Since 2009 a new law regulating fundamental education (kindergarten and primary school) is also in force.

1.1. Curricular reforms

The law of fundamental education will establish 4 teaching cycles of 2 years each (covering age 4 years to 12 years). Competencies (basic and additional competencies) are defined for each of the 4 cycles. A national language plan was launched in 2007 and has as main issues a competence based approach and takes into consideration the Common European Framework of Reference for Languages.

All transversal competencies of the European Reference Framework will be part of the curricula of compulsory education. They encompass basic intellectual processing, learning methods, relation attitudes and emotional attitudes.

1.2. Targeted provision of key competences

Several measures have been or are in the process of being implemented to target early school leavers. The main are: a) individualised special follow-up of dropouts organised as soon as they leave school; b) specific classes for the 9th class (9ième) for pupils with grade retention; c) special classes for potential dropouts; d) the opening of a second chance school is foreseen in September 2010.

Since September 2005, a special task force has been in existence at the Ministry of Education and Training, which assesses the competencies of pupils of migrants, most appropriate education or training opportunities. Special classes have been implemented to provide these pupils with a suitable education and training curriculum.

1.3. Teacher training and approaches to assessment

Continuing training for teachers is mainly focused on the challenges which are introduced in the reform processes (competence based learning and assessment, differentiation of methods, teamwork). The teachers involved in the reform of the VET receive specific training by 2

foreign expert organisations in education which are mandated by the Ministry of Education and Training.

The formative assessment approach is important as primary school is organised in learning cycles. The learner's progress is based on a competencies approach which enables the identification of strengths and weaknesses at an early stage in order to take corrective action as soon as possible. Pilot projects have been undertaken in post primary education but only at a starting level.

1.4. Evaluation of outcomes

The evaluations of key competences are based on the participation in international comparative surveys (PISA, PIRLS). At the national level, the outcomes of learning in relation to several key competences (French, German, mathematical literacy) are already partially evaluated by national standardized tests organised by the University of Luxembourg. Follow-up of the implementation of the reforms in fundamental education is also provided by several foreign universities.

2. Development and implementation of LLL strategies.

The development of education and training systems has become one of the most important issues for the Government for the last few years. Competence based approaches have been introduced at different levels in order to modernise and to adapt the Luxembourgish educational system to the needs of the learner. These have not been formulated in a single strategic document.

A new learning culture needs a modular approach of courses combined with credit accumulation, a system of validation of non formal and informal learning, specific measures to reintegrate early school leavers and a strong "formalized" partnership between the key players involved in education and training.

The national system of validation of non formal and informal learning is based on the common European principles, with a particular attention paid to transparency of qualifications and competencies. At this stage, a national qualification framework linked to the EQF does not yet exist.

3. Attractiveness and relevance of Vocational Education and Training

The law on VET of 2008 will implement a competencies-based approach and allow validation of prior experience at the different levels: basic, initial, and continuous and reconversion training.

Basic vocational training will allow low achieving learners to get access to a qualification. In initial vocational training, learners can collect modules and prior experience towards a full diploma. Reconversion training is mainly provided at the National Centre for Continuing Vocational Training (CNFPC) in order to improve employability of people who have employment difficulties.

For people who have difficulties in finding a job, there are special courses for social integration; adult apprenticeships and vocational reconversion measures. Since 2000 private enterprises that organise training for their employees can have grants or tax deduction; and

since 2008 individual training leave is available for employees. Most commissions responsible for the follow-up of these instruments are of tripartite composition.

4. Modernisation of Higher Education

The creation of the new University of Luxembourg (2003) has been a major policy initiative in modernisation of HE. Despite the fact that more and more learners choose to study in Luxembourg, most students study abroad. All bachelor students of the university are legally bound to spend one semester abroad.

The university has several income streams: state budget, contracts with private or public institutions, own assets, project grants by the Fonds National de la Recherche, student fees, etc. The law foresees a procedure of validation of prior learning and professional experience giving access to university studies through submission of a dossier or passing an admission examination.

HUNGARY

		Hungary		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		93.9%	95.1% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	22.7%	20.6% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	21.2% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	15.0% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		13.9%	11.7% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		83.5%	83.6% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	29.4% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	22.6%	26.8% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		14.8%	22.4%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		4.5% ⁰³	3.1%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		4.42%	5.41% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³= 2003, ⁰⁶= 2006, ⁰⁷=2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Hungary performs better than the EU average in all the four school related areas: *Participation in early childhood education, Low achievers in reading, mathematics and science, Early leavers from education and training and Upper secondary attainment*. Since 2000 it succeeded in decreasing the share of low achievers in reading, so that it is now below the EU average.

In the area of *MST graduates* the increase in the number of graduates has been higher than the EU benchmark, but below the EU average. The progress in increasing the share of females has been faster in Hungary than in the EU average. *Higher education attainment* is far below the EU average, although Hungary has improved significantly in the area.

As concerns *Adult participation in lifelong learning*, Hungary's performance was below the EU average in 2003 and since then it has worsened. The benchmark indicator, which measures the frequency of participation, is now less than one third of the EU average and among the lowest in the EU.

Public investment in education, as a % of GDP, changed considerably since 2000, whereas in the EU as a whole it has just slightly increased; as a result of this Hungary is now above the EU average performance.

Hungary performs above the 2020 EU benchmark in *Participation in early childhood education* and above the EU 2010 benchmark as regards the *Increase in MST graduates*.

1. Policies for development of the key competences

The key competences have been included in the National Core Curriculum, without setting priorities among them. Mathematics and Natural Sciences have been defined as separate competences. The National Core Curriculum defines ten "cultural domains", which are larger and more comprehensive than the traditional subject distinctions. It also precisely sets out the knowledge, skills and attitudes necessary for every key competence.

1.1. Curricular reforms

A restructuring of teaching tools, evaluation methods and organisation of education took place between 2004-2008. Programme packages have been developed for all twelve grades within public education, for literacy, numeracy, foreign languages and ICT. After a trial phase with three hundred institutions, the packages will now be generally implemented.

The National Core Curriculum includes a new formulation of the development of initiative taking and entrepreneurship and the teaching of entrepreneurship. The programmes launched so far focus on financial knowledge. In the new National Register of Vocational Qualifications, a separate entrepreneurship module was added to most of the trades.

1.2. Targeted provision of key competences

The existing Integrative System of Pedagogy is a legal framework relating to special pedagogical methodologies. Pupils with multiple disadvantages receive extra help within the mainstream class community, so that they are able to successfully complete their schooling. This is based on an individual development plan, which identifies areas where the learner needs to improve.

Numerous projects inform adult citizens of training-related opportunities and aim to improve their motivation, but reaching the groups with the greatest needs is problematic, as only a small proportion takes part in the supported training programmes and their learning motivation is low. Although steps have been taken to develop the necessary data base, information on adults participating in various forms of education is incomplete. The current target groups of programmes include job-seekers, people with multiple disadvantages and SMEs.

1.3. Teacher training and approaches to assessment

Initial teacher education was restructured in 2006, according to the Bologna system and follows the competence-based approach. Disciplinary studies are followed at undergraduate level, as well as orientation courses in education and psychology. At master level students can opt for teacher training. Teacher trainees must complete an uninterrupted one-semester in-service training and a mentoring system is envisaged.

The learning outcomes at master level follow the competence-based approach. In the first four grades of public education descriptive assessment is mandatory in the school reports, instead of based solely on marks as before. In-service training is mandatory for teachers (120 hours in every 7 years). Schools are required to prepare in-service training plans, based on local needs.

1.4. Evaluation of outcomes

Two key competences (reading comprehension and mathematics) are tested in a standardised way, in grades six, eight and ten, involving all students. Results are published in the internet, with access to results per institution and to individual results. Schools not performing well in the test can apply for additional support.

Hungary participates in international surveys such as PISA, PIRLS and TIMSS.

2. Development and implementation of LLL strategies.

The Hungarian government adopted its lifelong learning (LLL) strategy in 2005. The strategy provides a guideline for education and training policy and related fields for the period to 2013. It is based on the international knowledge accumulated by the OECD and EU. There are qualifications frameworks for the subsectors of education system but only implicit links exist among them. The establishment of the single qualification framework encompassing all subsectors is in progress. In primary, secondary and tertiary education the learning outcome based approach necessitates further development in order to make them fully compatible with competence and achievement based requirements. This is not only a major challenge for the NQF development but also for the EQF referencing process.

Validation of non-formal and informal learning features as a goal in several strategic documents.

The 2007 government report on the implementation of the LLL strategy highlighted the continued poor collaboration between the responsible government actors. The current concept of Hungarian public and higher education is not yet based on learning outcomes approach, and this presents a challenge to the introduction of the EQF and the development of the NQF.

3. Attractiveness and relevance of Vocational Education and Training

A module-type structure of professions has been developed to increase the flexibility of vocational training outputs. Competence-based curricula have been developed, adjusted to new examination requirements. The government is planning to strengthen links between training and the labour market and feeding labour market information into vocational training. Regional Training and Development Committees define for each region a number of professional areas where demand from the labour market is higher than the supply from VET institutions. There are incentives for training in these professional areas.

A multi-annual project for the creation and implementation of a career guidance system and a career tracking system started at the end of 2008. The government has launched a vocational training scholarship programme, which provides scholarships for students enrolling in courses offering training in professional areas where regional shortages are experienced.

4. Modernisation of Higher Education

The 2005 Higher Education Act and its amendments in 2007 and 2008, were aimed at the modernisation of higher education. The purpose of the amendments was to make state funding more calculable, to ensure the quality of education, to review the system of student benefits, and to expand research and development. It highlighted a dual effort to diversify the sources of income and to make the stream of state funds more predictable. Higher education financing is multi-channelled, with the dominant portion of funds contributed by state subsidy. Most of the funds in the budget of HEIs are contributed by normative per capita support from the national budget and tuition fees paid by the self-financing students only. Income from own enterprises or entrepreneurial activities is modest.

HEIs can participate in adult education and can offer their programmes as adult education and training. HEIs are typically not involved in adult education in large numbers. One of the reasons is that they are not entitled to receive normative per capita support for adult education courses from the national budget. The modular construction of programmes which would be necessary for adjusting to different career pathways is not yet typical. Higher education primarily contributes to adult education with advanced training programmes and special postgraduate training courses.

MALTA

		Malta		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		100.0%	98.8% ⁰⁷	85.6%	90.7% ⁰⁷		95%
Low achievers (15 year-olds; PISA study results)	Reading	-	-	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	-	-	24.0% ⁰⁶	-	15%
	Science	-	-	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		54.2%	39.0% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		40.9%	53.0% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	69,3% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	26.3%	37.8% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		(7.4)u%	21.0%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		4.3% ⁰⁴	6.2 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		4.49%	6.76 ⁰⁵ b	4.91%	5.05% ⁰⁶	-	-

⁰³= 2003, ⁰⁴= 2004, ⁰⁵= 2005, ⁰⁶= 2006, ⁰⁷=2007, e= estimate, b = break, p = provisional, u=unreliable figure because of small sample size

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

In school related areas, Malta performs above the EU average on participation in *Early childhood education*. However, Malta has the highest percentage of *Early leavers from education and training* in the EU and the second lowest *Upper secondary attainment rate*. However, on both indicators there has been remarkable progress over the period 2000-2008.

It is notable that Malta has a strong growth on *MST graduates*. Nevertheless, Malta has a relatively low *Higher education attainment rate*, but it is the EU country with the highest growth rate since 2000.

As concerns *Investment in education* as a % of GDP, Malta is above the EU average performance.

Malta performs above the 2010 benchmark level on *MST graduates*; and even above the 2020 benchmark levels on *Participation in early childhood education*.

1. Policies for development of the key competences

The Directorate for Quality and Standards in Education (DQSE), established through the Education Act, sets standards and ensures the quality of education. The DQSE has prepared a National Policy and Strategy for the Attainment of Core Competences in Primary Education, to tackle core competences attainment in Literacy, eLearning and Mathematics.

At secondary and tertiary level, key competencies continue to be developed through the different subjects and across learning areas.

1.1. Curricular reforms

The Maltese National Minimum Curriculum, *Creating the Future Together* (2000) is currently under review. The updated framework to be completed by 2010 will adequately cater for the development of key competences in compulsory education. Students continue building on the cross-curricular key competences during their post-secondary education.

1.2. Targeted provision of key competences

In the primary cycle, the implementation of the policy focusing on the attainment of core competences for all learners (literacy, numeracy and digital literacy) hopes to ensure that all learners master these key competences in the first years of compulsory education. Individual learning plans will be activated for learners who continue to show difficulty after the first three years. Support is given by complementary teachers and core competences co-ordinators, Maltese, English and Mathematics currently also form part of the Basic Skills and Foundation programmes which are, targeted at disadvantaged students in secondary schools. Education Officers visit schools on a regular basis to support teachers and students in class. Activities for the high achievers in Mathematics are also carried out on a regular basis.

A number of education and training institutions at post compulsory education level provide courses at foundation level where key competences are given due importance in preparation for a higher level training. Evening courses are offered to students who do not succeed in obtaining appropriate formal certification in the key competences by the end of their compulsory education. There are new initiatives for courses among the increasing immigrant community, mainly in English and basic social and civic competences.

1.3. Teacher training and approaches to assessment

The Faculty of Education at the University, responsible for initial teacher education, together with stakeholders, has drawn up a set of competences required by newly qualified teachers. These competences are being considered by Boards of Studies while reviews of current programmes are being conducted.

The education authorities are giving increasing importance to formative assessment, including the training of future teachers and the in-service training of teachers on assessment methods. In the first three years of primary education, assessment is formative and is carried out informally. In the last three years of primary education, assessment is both formative and summative. Students in secondary schools are assessed on a continuous formative basis as well as on a summative basis. There are half-yearly school-based examinations and annual examinations on national basis in the state sector.

The Ministry of Education commissioned a group of experts in assessment to review the transition mechanism from primary to secondary education and to suggest alternative methods. The report proposes the setting up of a national benchmarking system at the end of primary schooling for feedback purposes, the validation of school-based assessment alongside summative assessment and the transformation of the reporting system from marks and grades to levels of achievement

1.4. Evaluation of outcomes

From year 4 in primary education up to the final year in the compulsory secondary education, the annual examinations in state schools are used to inform schools and the national authorities about the students' attainment and acquisition of key competences. The schools use this information to take up remedial initiatives to be included in the School Development Plans.

To date, Malta has participated in TIMSS with grade 8 students and is currently exploring the possibility of extending its participation to other international studies in the near future,

2. Development and implementation of LLL strategies.

Most of the LLL policies in Malta are being implemented through the National Qualifications Framework (NQF), set up in 2007. The NQF clarifies progression routes and facilitates the validation of non-formal learning. The Malta Qualifications Council (MQC) is responsible for the recognition of qualifications as well as the validation of informal and non-formal learning.

3. Attractiveness and relevance of Vocational Education and Training

The attractiveness in VET in Malta has mostly been increased through the creation and growth of the Malta College of Arts, Science and Technology (MCAST) and the success of the Institute of Tourism Studies. Both institutions communicate with the relevant state agencies and the Employment and Training Corporation (ETC). This process allows both institutions to adapt to changing economic and industrial scenarios, based on information about the demand for different, often higher, skills in industry.

The ETC considers training as part of the lifelong learning process and aims to anticipate and respond to the changing economic and social environment. The ETC continuously revises its courses to adapt to the needs of the current labour market.

4. Modernisation of Higher Education

The Government intends to provide incentives for the University of Malta to establish a Trust Fund to receive donations and endowments from benefactors, including corporate and private bodies, in order to fund innovative research activity beyond the reach of the annual allocations from the Government. The University of Malta intends to pursue more entrepreneurial avenues, including providing joint degree programmes in partnership with leading world institutions at commercial rates. The University of Malta, the Malta College of Arts, Science and Technology (MCAST) and the Institute for Tourism Studies (ITS) provide a wide range of short and part-time fee-paying evening courses open to students of all ages within a lifelong learning context. The University runs also the University of the Third Age for persons who are interested in enriching their education and culture beyond retirement age.

The Government has in place a number of schemes which provide the support for adults to participate in education and training programmes, such as the scholarships for post-graduate courses, for promotion of further specialisation at higher levels of education. State higher and further professional and vocational education and training institutions offer substantial financial support for the continuing professional development of their academic staff. New full-time and part-time courses are being introduced by further and higher education institutions.

THE NETHERLANDS

		Netherlands		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		99.5%	98.9% ⁰⁷ b	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	(9.5%)	15.1% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	11.5% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	13.0% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		15.4%	11.4% ^b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		71.9%	76.2%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	40.2% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	17.6%	18.9% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		26.5%	40.2%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		16.4% ⁰³	17.0 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		4.96%	5.46% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

The Netherlands performs above the EU average in three school related areas: *Participation in early childhood education*, *Low achievers in reading, mathematics and science* and *Early leavers from education and training*. The *Upper secondary completion rate*, however, is still below EU average, although the Netherlands have made significant progress in increasing this rate.

Another area in which the Netherlands has made good progress is in increasing the number of *MST graduates*, for which the growth rate has been above the EU average. However, the Netherlands has the lowest share of female MST graduates of all EU countries. The share of the population with *Higher education attainment* has strongly improved since 2000 and is now among the higher ones in the EU.

As concerns *Adult participation in lifelong learning*, the Netherlands shows relatively high participation rates, but in the last 5 years there has been limited progress in increasing these further. However, after a decline in the period 2004-2006 the participation rate has increased since then from 15.6% to 17%.

Public investment in education as a % of GDP in the Netherlands has increased by half a percentage point since 2000 and is now clearly above the EU average.

The Netherlands performs above, or near to, four of the present five EU benchmarks for 2020: *Participation in early childhood education*, *Low achievers in reading, math and science literacy*, *Higher education attainment* and *Adult participation in lifelong learning*. The Netherlands performs above the 2010 EU benchmark in the field of increasing the number of *MST graduates*.

1. Policies for development of the key competences

Since 2006 basic skills and key competences have been integrated in the curricula of the whole education system. In primary and secondary education most of the 8 key competences have been incorporated in the attainment targets (with the exclusion of entrepreneurship). In adult and vocational education work on key competences has been integrated in qualification guidelines.

1.1. Curricular reforms

Literacy and numeracy have priority in primary and secondary education. Work is in progress on the implementation of reference levels in education law, . These reference levels define what a child should have learned at the end of primary school and in the middle and the end of secondary school. A considerable extra budget is available for this. In addition primary schools are given scope to specialise in other key competences. The attainment targets for secondary education build on the primary education targets. In adult and vocational education an action plan has been made to combat poor literacy.

Transversal competences have been translated into attainment goals in primary and secondary education. A non-profit placements programme has been set up for all school pupils to acquire social and civic competences. In adult and vocational training core competences apply, depending partly on the requirements reflected in each set of qualification guidelines. Throughout the education system high priority has been placed on entrepreneurship.

1.2. Targeted provision of key competences

The foundation for preventing dropout and combating illiteracy and innumeracy is laid in primary education. Primary, secondary schools receive extra funding to cope with educationally disadvantaged pupils from different backgrounds. There are extra resources in vocational education for language and numeracy. The LLL policy focus is on reducing dropouts by 50 percent by 2012.

An adequate regional infrastructure for adult education has been developed by the Interdepartmental Project Unit on Learning and Working, focusing on programmes combining work and study, recognition of prior learning and building an LLL infrastructure in 45 regions. The main focus for 2008-2011 will be on young workers (18-24 years old) without vocational qualifications at basic level, jobseekers, employees threatened with redundancy.

1.3. Teacher training and approaches to assessment

In 2006 on the initiative of the Teachers' Association, standards of competence were defined for teaching staff and will be reviewed every 6 years. One of the core competences is to prepare young people to take their place in society after initial education. These standards form the basis of teacher training curricula, but also act as a guide throughout a teacher's career.

1.4. Evaluation of outcomes

A new cohort study started in 2007-2008, following pupils progress through the education system from 5 until 18 years old on Dutch, English and maths, social skills and emotional development. In primary education both key competences of pupils and the schools are systematically evaluated, including the participation in TIMSS and PIRLS. In primary and secondary education international studies as PISA and TIMSS are also sources to assess performance, all subjects are tested in the final examinations. In vocational/adult education the Inspectorate monitors quality of provision. For all sectors the findings are published yearly and submitted to Parliament.

2. Development and implementation of LLL strategies.

Since 2005 the Netherlands has with its sector strategies and the work of the interdepartmental Project Unit for Learning and Working a fully comprehensive framework for LLL. The NQF for higher education is compatible with the QF-EHEA. The NQF will be aligned with the EQF by end 2010. Development and implementation of Recognition of Prior Learning (non formal and informal) services is a core instrument in the Dutch lifelong learning policy.

Through a subsidy scheme, 45 regional partnerships have been set up between educational institutions, local/provincial government, the Employment Service and business. In all regions education institutions have increased possibilities for Recognition of Prior Learning (RPL) and (tailor-made) learning and working programmes and training/employment helpdesks have been developed. At national level a knowledge Centre for RPL was set up, as well as a portal containing all available training and awareness campaigns on LLL.

3. Attractiveness and relevance of Vocational Education and Training

Matching education supply with labour market demand has traditionally been one of the strengths of the Dutch vocational system. There are 18 centres of expertise on vocational education, training and the labour market, in which representatives of employers, employees and educational institutions develop qualification guidelines for official approval by the Minister of Education. An internet-tool has been developed containing all available options for work placements and working-learning arrangements. Furthermore in 2006 a pilot scheme for "associate degree programmes" was launched (a 2-year programme leading to a recognised higher vocational training qualification) aiming to increase the participation of

working people. Extra funding has been made available for stimulation of co-operation between schools and business.

4. Modernisation of Higher Education

Since 2005 the LLL infrastructure has been reinforced, including in higher education. The government focus is now on upgrading working people with secondary vocational qualifications to higher professional education. New tailor-made RPL programmes for working people will be stimulated by the grant schemes provided by the Project Unit for Working and Learning. Furthermore a positive evaluation of "associate degrees" by 2010 could increase the number of working people in higher professional education.

The Netherlands is heading towards more diversified funding, although the private part of funding still remains relatively low compared to countries such as the US. Universities and institutes of higher vocational education are mainly funded by government contribution:¹⁶⁸ initial lump sum funding represents 70 % of all funding, supplemented by tuition fees. A second source of funds is (research) grants supplied by government institutions and the increasing third source of funds is grants supplied by business, the EU and others. A major challenge is to keep the spending on education at a sufficient level against the backdrop of the current financial crisis.

¹⁶⁸ Financial annual reports of institutes of higher education for the year 2007

AUSTRIA

		Austria		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		84.6%	88.8% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	19.3%	21.5% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics		20.0% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science		16.3% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		10.2%	10.1% ^b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		85.1%	84.5%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	54.6% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	19.9%	23.8% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		15.9%	22.2%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		8.6% ⁰³	13.2 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		5.74%	5.44% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Austria performs better than the EU average in three school related areas: *Low achievers in reading, mathematics and science, Early leavers from education and training* and *Upper secondary attainment*, despite the fact that recent trends have been in some cases in the direction of a lower performance. *Participation in early childhood education* has increased but is slightly below EU level.

Austria performs significantly above the EU average in the area of *MST graduates*, in which the increase has been notable. The share of female graduates, even if improved, has however not reached the EU level. In the area of *Higher education attainment* there has been progress, but Austria is still below the EU average performance levels.

As concerns *Adult participation in lifelong learning*, progress has been faster than the EU average and Austrian performance exceeds the EU average in this area.

Investment in education, as a % of GDP, has decreased since 2000 in Austria but is still above the EU average.

Austria already performs above the EU 2010 benchmarks in *MST graduates* and *Adult participation in lifelong learning*. It is very close to that level of performance in the area of *Early leavers from education and training* and *Upper secondary attainment*.

1. Policies for development of the key competences

The implementation of the Recommendation on Key Competences has been taken up in various educational and VET fields, which are currently under development, such as standards for education and training, LLL strategy, Lifelong Guidance Strategy, NQF, etc. A wide range of stakeholders (social partners, universities, school councils, staff representatives, experts, and parents' associations) are involved in this process.

1.1. Curricular reforms

The key competences are included in all curricula, but this varies depending on the school type. In October 2008 an extensive project started aiming at focusing the so-called teaching principles (*Unterrichtsprinzipien*) on the eight key competences. The architecture of curricula for the lower secondary school level will be reviewed by end 2010.

All transversal key competences are included in curricula in different ways: as thematic entities across subjects or as thematic entities within subjects. Of particular relevance is the initiative "25plus" (Initiative "25plus"): a reduction class size combined with individualisation of learning and teaching.

1.2. Targeted provision of key competences

Early language support is provided in kindergarten for children with inadequate knowledge of German. The pilot project New Middle School (*Neue Mittelschule*) started in 2008 as a measure to provide alternatives to early tracking. It offers individual learning approaches and coaching with the aim of developing a new learning culture.

The budget for adult education has been increased by one third in order to support access to basic education and the acquisition of school leaving certificates. Specific measures have been implemented for educationally disadvantaged (*bildungsferne*) women (e.g. mobile ICT workshops) and migrants (coaching and language support). Other key competences, such as social and civic competence, ICT, learning-to-learn are embedded in these courses with the aim of improving their sustainable impact.

1.3. Teacher training and approaches to assessment

Pedagogical colleges (*Paedagogische Hochschulen*) have been set up for the initial education and training of teachers. This will be combined with a learning outcome oriented and competence based curricular reform.

Summative evaluations have been introduced as a first step in the implementation of external evaluations. Educational standards are used as a monitoring-tool and have been introduced at the beginning of the school year 2008/2009. In addition, tools for formative evaluations are in development. A balanced system of summative and formative assessments should give feedback to teachers on the competences of pupils.

1.4. Evaluation of outcomes

The participation in international studies, such as PISA, PIRLS and TIMSS provided a solid base for the development of educational standards, whose implementation started in the academic year 2008/09. In addition, a standardised school-leaving examination (*Reifeprüfung*, giving access to tertiary education) has been in a trial stage for two years. In 2009, the first national report on education (Nationaler Bildungsbericht 2009) was published. It contains data and indicators on the educational system together with the analysis of some key competences and is designed to foster evidence-based policy.

2. Development and implementation of LLL strategies.

A strategy paper on LLL has been drafted, which is currently in a consultation process. By the end of 2009 the consultation results will be presented to the council of ministers, followed by the approval of further steps. Ongoing work on lifelong guidance is closely related to the development and implementation of the LLL strategy.

Consultations on the national qualifications framework took place in the first half of 2008. The validation of non-formal and informal learning is integrated in the development of the national qualifications framework: work is more advanced with regard to non-formal learning; the validation of informal learning has still to be tackled.

3. Attractiveness and relevance of Vocational Education and Training

Austria has a high proportion of people in initial vocational training at secondary level. The strength of Austria's VET system is its serious theoretical foundation and practical training content (in particular in the so-called "dual system").

Vocational training graduates have increasingly gained further qualification prospects by being given access to tertiary education (*Berufsreifeprüfung*). In addition, a new initiative (*Lehre mit Matura*) offers VET certification and a certificate for university entrance in parallel. The modularisation of training for apprentices aims at enhancing the flexibility of VET and thus responding better to the needs of the labour market. The establishment of non-company based (*überbetriebliche*) VET addresses young people with difficulties in finding apprenticeship placements.

4. Modernisation of Higher Education

The Law on Universities, adopted in 2002 and implemented from 2004, gave more autonomy to universities, made the sources of funds more predictable and developed transparency and accountability. Universities for Applied Studies (*Fachhochschulen*), focusing on disciplines such as engineering, business management and ICT, are receiving a growing number of applicants.

In 2007, 77 % of the budget for Higher Education Institutions was financed from the federal budget. Major additional funding comes from revenues from research projects. Fundraising, sponsoring and private-public-partnerships have been expanding, but due to the reform of student fees, the income from this source will decrease. A number of initiatives, in particular study programmes for people in employment (*berufsbegleitend*) aim to open up universities for life long learners.

POLAND

		Poland		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		58.3%	66.8% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	23.2%	16.2% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	19.8% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	17.0% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		7.4% ⁰¹	5.0%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		88.8%	91.3%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	123,3% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	35.9%	39.2% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		12.5%	29.7%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		5.0% ⁰⁴	4.7 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		4.89%	5.25% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰¹ = 2001, ⁰³ = 2003, ⁰⁴ = 2004, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Poland performs above the EU average in three school related areas: *Low achievers in reading, mathematics and science, Early leavers from education and training* and *Upper secondary attainment*. Progress has been notable In 2008, Poland is the best performer in the EU as for *Early leavers from education and training* and among the best on *Upper secondary*

attainment. Despite visible increase in *Participation in early childhood education*, it is still far below EU average and the country with the lowest rate among the Member States.

Another area in which Poland has made notable progress is in increasing the number of *MST graduates*, for which the growth rate has been more than three times the EU average. Also the *Gender balance* improved. At the same time the share of the population with *Higher education attainment* has strongly increased, but is still slightly below the EU average.

Adult participation in lifelong learning has decreased a little. The gap between Poland and the EU average has widened.

Investment in education as a % of GDP has increased since 2000 and is now significantly above the EU average.

Poland already performs above the 2010 EU benchmark in *Early leavers from education and training*, *Upper secondary attainment* and *MST graduates*.

1. Policies for development of the key competences

The role of key competences in the development of the educational system with reference to curriculum changes in general and vocational education has been highlighted in the *Strategy for development of education for the years 2007-2013* adopted in the year 2005. The strategy encompasses the whole educational system from pre-school to adult education.

Currently, work is in progress on a lifelong learning strategy which aims to highlight two dimensions of LLL – *lifewide learning* (taking account of the potential of non-formal and informal learning) and the *learning outcomes* (indicating the need for assessment and recognition of the competences as learning outcomes, irrespective of the method, place and time of their acquisition). Elements of the so designed LLL strategy are already now being implemented on the basis of the *National Reform Programme (NRP) for 2005-2008 and for 2008-2011*.

1.1. Curricular reforms

All eight competences are integral part of the curricula in general education and vocational education and training. A new core curriculum specifying the requirements to be met at the end of each education stage and new school manuals will be gradually introduced from September 2009. This shall increase the autonomy of schools with reference to organisation of the educational process. The new offer emphasizes the development of autonomy, creativity and responsibility in learning. The reform will encompass all types of schools. The transversal competences such as social and civic competence, entrepreneurship will be developed via a number of individual subjects. New importance will be given to art-related activities. Digital competencies are emphasised from the start of compulsory education.

1.2. Targeted provision of key competences

There are several comprehensive national education development programmes targeted at provision of key competences to disadvantaged groups, e.g. from rural areas to eliminate barriers in the access of rural areas inhabitants to a good quality educational, cultural, IT and sports offer. This includes shaping of basic life skills and fostering educational development, the provision special scholarships, or providing partial financing for classes aimed at development of knowledge and skills, as well as interests, hobbies and talents. The Voluntary

Labour Corps provide education and training to youth from at risk of exclusion, offering training allowing the unemployed from rural areas to take up non-agricultural jobs.

The target groups for adult education are among others unemployed, old workers, disadvantaged groups, disabled people, the poor, homeless foreigners; formerly imprisoned or drug users. The activities provided include training, guidance, organisation or clubs and integration centres, financial grants, counselling and refunding of training costs.

1.3. Teacher training and approaches to assessment

A reform of initial and in-service teacher education in higher education institutions was introduced in 2004. According to the regulations, teacher education should be related to the changes made to general curriculum in the direction of teaching competences. Such education is provided by post-graduate studies licensing teachers. The core curriculum and the teacher initial and in-service education system emphasize a cross-subject attitude to the development of transversal key competences.

1.4. Evaluation of outcomes

The system of monitoring and assessment of the outcomes of education and training encompasses the assessment system of the outcomes of education based on the combination of external system of tests and exams with the internal school assessment (the two systems encompass both summative and formative assessment) and with the system of pedagogical supervision, accreditation system and educational research (including international surveys). In the external tests and exam system an increased role is given to feedback.

The importance of formative assessment in the form of current assessment at schools is emphasized in the information materials sent to all schools and differences between summative and formative assessment are taken into account in the initial and in-service teacher training. At vocational schools state external exams are additionally conducted confirming vocational qualifications.

2. Development and implementation of LLL strategies.

Currently a comprehensive LLL strategy is developed, based on the *Education Development Strategy for 2007-2013* and a complete LLL strategy encompassing the period of up to the year 2020 should be ready by the end of 2009. A project co-financed from the EFS is focused on the development of the NQF. There are some elements of validation of non-formal and informal learning outcomes e.g. in a system of extramural exams for adults, exemption from external national exams on the basis of achievements in national and international Students' Olympics and school subject contents, or the system of exams for apprentices organised by vocational associations.

3. Attractiveness and relevance of Vocational Education and Training

An ongoing VET core curriculum modernisation initiative (together with sectoral organisations, social partners and employers) aims to align better the general and the VET curriculum, to increase flexibility and VET job classification, to improve VET counselling, to have a system for validation of vocational qualifications obtained through formal, non-formal and informal learning; to enhance long-distance learning offer in VET, increase flexibility of VET financing and VET promotion and to include employers to the process of planning, implementation and validation of vocational qualifications.

The National Centre for Supporting Vocational and Continuous Education is training vocational advisers and elaborating and disseminating didactical materials based on a concept of lifelong guidance it developed. There are projects and research carried out to diagnose the demand for qualifications and skills on the regional and local employment market, to trace the graduates' life-paths, and forecast changes on the employment market and their results will be published in a good practice catalogue.

4. Modernisation of Higher Education

Current reforms aim to develop closer links with regions, businesses and research and to increase the relevance of provision to the labour market, to increase the autonomy of higher education institutions, to enable students to take various studies paths and forms of learning, providing incentives for its continuing, diversity of studies, improve attractiveness of technical and natural science faculties and to encourage innovative solutions including problem-based and project-based learning.

Higher education institutions are financed from the state budget, and through own sources, including tuition fees. A planned reform aims to simplify the granting of tax free scholarships by regional government bodies to students and doctoral students and academic workers. It also focuses on encouraging higher education institutions to apply for competitively-based funding for their development policy. Third Age Universities functioning in higher education institutions, classes for young pupils (in the form of Children's Universities) and for gifted pupils of primary and secondary schools, as well as flexible delivery of courses (distance learning), expanding the educational offer in response to the economy and labour market needs, are the main means to open up higher education institutions to lifelong learning.

PORTUGAL

		Portugal		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		78.9%	86.7% ⁰⁷	85.6%	90.7% ⁰⁷		95%
Low achievers (15 year-olds; PISA study results)	Reading	26.3%	24.9% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	30.7% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	20.2% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		43.6%	35.4% p	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		43.2%	54.3%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	164.0% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	41.9%	34.8% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		11.3%	21.6%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		4.3% ⁰⁴	5.3%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		5.42%	5.25% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³= 2003, ⁰⁴= 2004, ⁰⁵= 2005, ⁰⁶= 2006, ⁰⁷=2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Portugal performs below the EU average in four school related areas: *Participation in early childhood education, low achievers in reading literacy and mathematics, Early leavers from*

education and training and *Upper secondary attainment*, however, its performance has improved significantly during the period 2000-2008.

Portugal has made spectacular progress in increasing the number of *MST graduates*, about five times higher progress than the EU average. The share of females in this field has however decreased but it is still above the EU average. While the proportion with *High education attainment* is below the EU average, it has nearly doubled since 2000.

As concerns *Adult participation in lifelong learning*, Portugal is performing below the EU average although progress also in this field has been made since 2000.

On *Investment in education* as a % of GDP, Portugal is performing above the EU average but investment rates appear to stagnate.

Portugal performs above the 2010 EU benchmark level as regards the increase in the number of *MST graduates*.

1. Policies for development of the key competences

The development of basic skills (Portuguese, mathematics and study of the environment) is the core function of the 1st cycle of basic education, more recently the offer has been extended to curriculum enriching activities such as foreign language learning (English), music or physical activities.

Portugal has initiated a major restructuring of its education system partly supported by the Structural Funds.

1.1. Curricular reforms

The reorganization of the basic education curriculum, initiated in 2001, focused on improving basic skills and social competences, as well as preventing early school failure and leaving. More specific recent measures concerning literacy and numeracy in basic education are: the National Plan for the Teaching of Portuguese, the Action Plan for Mathematics and the Teacher Training Programmes for 1st cycle teachers of Mathematics, Portuguese, Experimental Teaching of Sciences and ICT. The ongoing secondary education reform, initiated in 2004, includes the reorganization of curricula and the definition of alternative learning paths. The reform of VET has also involved major curricular development, especially due to the introduction of education and training courses (EFA), structured around a learning outcomes based qualifications approach.

All the key competencies included in the EU Recommendation are covered by the curricular and non curricular areas, both in general education and VET. A particular focus has been on digital competence through initiatives like e-escolinha, e-escola or e-professor, supporting the use of new pedagogical materials and the familiarisation with the new information and communication technologies.

1.2. Targeted provision of key competences

Targeted approaches to disadvantaged groups include: provision aimed at 15 year olds more at risk of leaving school or who have left school, as well as those who, after 12 years in school, have not acquired a qualification; the Action Plan for the Integration of People with Disabilities, which comprises the development and implementation of Individual Transition

Plans for 12+ year olds with a view to promote the transition to life after school and, whenever possible, to a professional occupation; and the Plan for the Integration of Migrants 2007-2009.

Under the *Novas Oportunidades* initiative there has been an increase in the certification of adult competences, in the period 2006-2008, with 152 000 school education certificates at 9th or 12th grade, and circa 20 000 certifications through Adult Education and Training Courses (EFA).

1.3. Teacher training and approaches to assessment

The new initial teacher training policy is focused on: learning outcomes, new demands on the teaching profession, the acquisition of knowledge in the subjects to be taught, evidence based teaching practice and the introduction to professional practice in a school context. To cater for the improvement of quality in teacher training two significant measures have been adopted: the reform of the regulation on access to the teaching career and the reorganisation of the Schools Associations Training Centres.

1.4. Evaluation of outcomes

In basic education, graded tests in the 1st and 2nd cycles and national examinations (Portuguese and Maths) in the 3rd cycle, as well as national examinations (e.g. Maths, Biology, Physics and Chemistry, History or Portuguese Literature) in secondary education provide the relevant data on pupils and students performances. Graded test results, made available to pupils, schools and teachers, and national examinations results, which are public, support policy decision making. Qualitative external assessments of curricula by expert panels are also a means to support specific reforms or reorganisations. International comparative evaluations also constitute an input for curriculum reorganisation, as it was the case for PISA in the preparation of the revision of the Portuguese programme in 2007.

2. Development and implementation of LLL strategies.

Although PT has not adopted a formal document setting out a national lifelong learning strategy, all the major policy developments in education and training in the last few years are consistent with such an approach.

In this context, a major step has been taken through the reform of the VET system in 2007, including the creation of the National Qualifications System, the adoption of the National Qualifications Catalogue, the drafting of the National Qualifications Framework, which has just been the subject of public consultation, and the creation of the System for the Recognition, Validation and Certification of Competences under the *Novas Oportunidades* initiative. Other important steps are the rapid expansion of the *Novas Oportunidades* network, the offer of double certification courses, the diversification of VET offers, the modularisation of courses and the flexibilisation of VET learning paths.

3. Attractiveness and relevance of Vocational Education and Training

One of the main objectives of the VET reform was to increase the participation of young people and adults and to strengthen the sector's contribution to the competitiveness and innovation capacity of enterprises. The public school system has since 2006/2007 developed, improved or enlarged its offer of professional and apprenticeship courses, and has implemented guidelines for the reorientation of secondary student training paths, while

universities have increased the offer of Technical Specialisation Courses (CET). On the other hand, continuing vocational training is provided by instruments like "Programa Formação-Acção para PME" and "Formação para Inovação e Gestão".

The availability of a wide array of courses, especially Technical Courses, adapted to local needs aims to improve the relevance of VET programmes to the labour market. The adoption of the National Qualifications Catalogue and the establishment of Sectoral Qualifications Councils are also important tools in adapting the training offer to labour market needs.

4. Modernisation of Higher Education

Portugal initiated in 2005 a major reform of HE. Some of the most significant legislative measures include the new Legal System of Higher Education Institutions, the setting up of a quality assurance system, the new rules for the admission of adults to HE and the new rules on non-refundable scholarships.

Portugal has implemented a new legal system which reinforces the autonomy of universities, including the possibility to change their statute, becoming foundations and opening up their possibilities of a more autonomous financial, assets and human resources management. A new system of loans with state guarantee has been set up. The creation of Technical Specialisation Courses (CET, level 4) offers the possibility to enrol in HE to a wider public and the legislation setting out the conditions of access to HE of people older than 23 has also significantly widened the target population.

ROMANIA

		Romania		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		67.6%	81.8% ⁰⁷	85.6%	90.7% ⁰⁷		95%
Low achievers (15 year-olds; PISA study results)	Reading	41.3%	53.5% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	52.7% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	46.9% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		22.9%	15.9%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		76.1%	78.3%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	58,6% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	35.1%	40.0% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		8.9%	16.0%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		1.4% ⁰⁴	1.5 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		2.86%	3.48% ⁰⁵	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁴ = 2004, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

In the area of school education, Romania's performance on *low achievers* is the lowest within the EU and has deteriorated since 2000. On *participation in early childhood education* and *early leavers from education and training* Romania has progressed significantly over the period 2000-2008 and is now performing just below EU average performance. On *upper secondary attainment* Romania performs close to EU average levels.

One area in which Romania has made more progress is in increasing the *MST graduates* for which the growth rate has been above the EU average, and there has also been an improvement in the gender balance.

Considerable progress has been made with regard to *higher education attainment*, but Romania performs close to the lowest level in the EU. This is also the case for *investment in education*, *higher education attainment* and *adult participation in lifelong learning*. Romania is, however, improving in all these areas.

Romania performs above the 2010 EU benchmark level as regards the increase in the number of *MST graduates*.

1. Policies for development of the key competences

The transition to a curriculum based on key competencies is a central part of current educational reforms. The orientation towards learning outcomes has been stronger in the area of VET. A major reform of education is currently being prepared, aiming to raise the quality of provision.

1.1. Curricular reforms

A curricular reform planned for 2009 aims to better link the curriculum in compulsory education to the key competencies framework. The modular VET curriculum, introduced in 2005, already includes competence units correlated with the eight domains of key competences. All students study two modern languages during compulsory education.

The 2003 and 2005 curricular reforms introduced ICT and entrepreneurship as subjects in compulsory education. The current school based curriculum offer largely targets social and civic competencies. Entrepreneurship education is included in the VET curriculum, including through simulated firms exercises.

1.2. Targeted provision of key competences

The Rural Education Project has provided support for children in rural areas. Teacher training, methodological guidelines and materials support the development of inclusive approaches for pupils with special needs and their inclusion in mainstream classes. A flexible system of second chance education based on a modular curriculum and integrating the validation of experiential learning aims to compensate the high early school leaving.

Key competencies are included in the occupational standards which guide the offer of adult education. Social partners and stakeholders participate in the definition of occupational standards and in the authorisation of training providers. A growing supply of courses targets specifically key competencies, including transversal ones. Evening and distance courses are provided for adults, covering the lower and upper secondary curriculum.

1.3. Teacher training and approaches to assessment

Initial teacher training has been restructured during the transition to the Bologna system, but the content of teacher training curricula can be further adapted to a competence-based approach. Team teaching has been provided for in regulations since 1998, but has so far been lagging behind in implementation. There is a wide offer of in-service teacher training focused on the key competencies, including for VET teachers. Vocational training standards used in

initial VET systematically combine the formative and summative assessment of competencies.

1.4. Evaluation of outcomes

The results of national examinations, presented in annual-based national reports, sample-based standardised tests at the end of primary education, as well as the results of international tests (PISA, PIRLS and TIMSS) are used for assessing the achievement levels. Quality assurance authorities were established in 2005 and 2006 for both pre-university and university education.

2. Development and implementation of LLL strategies.

Romania is committed to adopting a lifelong learning strategy, based on a process of stakeholder consultation. The development of a national qualifications framework is based on a social pact from 2005 and involves the social partners through the sectoral committees involved in the definition, updating and validation of qualifications.

The National Council for Adult Training will be reorganized as the National Qualifications Authority. A methodology for the National Qualifications Framework for Higher Education has been piloted and is currently pending approval. A compulsory portfolio for lifelong learning was introduced in compulsory education in 2000. The validation of non-formal and informal learning is organised in 42 authorised evaluation centres for adults, as well as through the second chance education programme.

3. Attractiveness and relevance of Vocational Education and Training

Romania is currently reforming the initial VET system, aiming to simplify pathways and to issue qualifications for all levels of initial VET. Sectoral, regional and local consultative bodies including the social partners and the professions are involved in the design of VET programmes.

Tracer studies, aiming to provide information on the transition to work and skills forecasting exercises are planned for improving transition to the labour market. Existing annual plans of action for education aim to correlate the VET provision to demand on the labour markets at regional and local levels, based on consultations with stakeholders.

4. Modernisation of Higher Education

Higher education reforms have been centred on the implementation of the Bologna process and on the introduction of quality assurance mechanisms. Public HEIs rely mainly on public funding, disbursed on a per-capita basis. Tuition fees exist both in public and in private HEIs. Regulations on private scholarships were introduced in 2004 and a student credit system is in the pipeline.

The opening of institutions to lifelong learners is mainly focused on graduate studies. However, increasing provision of distance and evening courses facilitates broader access to higher education. A national student matriculation system, under development, will provide information on participation to higher education.

SLOVENIA

		Slovenia		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		85.2%	89.2% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	-	16.5% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	17.7% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	13.9% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		6.4% ⁰¹	5.1% u	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		88.0%	90.2%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	8.3% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	22.8%	25.0% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		18.5%	30.9%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		13.3 % ⁰³	13.9 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		5.89% ⁰¹	5.72% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰¹ = 2001, ⁰³ = 2003, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional, u = data lack reliability because of small sample size

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Slovenia performs considerably better than the EU average in two school related areas: *Low achievers in reading, mathematics and science* and *Upper secondary attainment*. As for *Early leavers from education and training* its performance is better than the EU average but data are to be used with caution, as there are questions about their reliability. In the area of

Participation in early childhood education Slovenia has progressed and is close to the EU average.

As for *MST graduates*, the growth rate has been well below the EU average, while the share of female graduates, even if it has improved, has not reached the EU average level. In the area of *Higher education attainment* there has been considerable progress and Slovenia is now approaching the EU average.

As concerns *Adult participation in lifelong learning*, Slovenia's performance is well above the EU average despite limited increases in recent years.

Investment in education, as a % of GDP, has slightly decreased in Slovenia while in the EU as a whole it has slightly increased. However, Slovenia is above the EU average.

Slovenia performs better than EU 2010 benchmarks in a number of areas: *Low achievers in reading*; *Early leavers from education and training*, *Upper secondary attainment* and *Adult participation in lifelong learning*. It exceeds the 2020 benchmark for *Low achievers in science*.

1. Policies for development of the key competences

The modernization of the curricula in Slovenia is in line with the Recommendation of the European Parliament and the Council on Key Competences. The principles of the Recommendation were discussed with stakeholders and also used as the basis for the reforms in different areas of education.

1.1. Curricular reforms

The updating of curricula in basic schools (ISCED 1 and 2) and "gimnazije" (general upper secondary schools - ISCED 3A) began in 2006 as an upgrade of the 1996-1998 curricular reforms. The explicit demand to take into account a competence approach is among the fundamental principles of the update. The focus of the above mentioned updating of the curricula was literacy, numeracy and foreign language.

Slovenia addresses transversal key competences (linguistic, social and civic, environmental, technical) in general education, primarily through the promotion of a coherent approach to the work of preschool institutions and schools as a whole. In VET new organizational and didactic approaches are developed aiming at transversal key competences, linked to the implementation of new curricula.

1.2. Targeted provision of key competences

A document on *Working with Pupils with Learning Difficulties* has been adopted and is competence oriented. It focuses primarily on reading, mathematical and motor competences (grapho and loco). Teachers are trained to deliver specific competences for learners with SEN.

The Slovenian Statistical Office is collecting data on the participation in non-formal education by age and gender as well as by education area. In collaboration with the Ministry of Labor (MLFSA), the Ministry of Education (MOES) is preparing annual adult education programs (implemented by private and public adult education institutions and public upper general and VET secondary schools) with special attention to low skilled, older people and unemployed workers.

1.3. Teacher training and approaches to assessment

On the basis of the Higher Education Act (2006) the Council for Higher Education adopted *Criteria for the Accreditation of Study Programs for Teacher Education* based on cognitive, action, emotional and motivational competences. At present no major changes in methods of assessment are envisaged: teaching is based on seminars, and assessment on practice in schools and examinations.

1.4. Evaluation of outcomes

Slovenia has in the last twenty years developed a structured system of external examinations at the end of obligatory primary education and with an external baccalaureate as the final exam of gimnazija at the end of general upper secondary education. A combination of external examinations and internal final examinations is in place also in VET. The first evaluations of redefined key competencies in VET took place in 2008, which will form the basis for changes in VET curricula. Slovenia participates in TIMSS and PISA.

2. Development and implementation of LLL strategies.

The Lifelong Learning Strategy for Slovenia was adopted in 2007. The strategic development vision states that its fundamental objective is to "create the appropriate conditions to ensure every person the opportunities for a full development of their abilities". Specific objectives (positive attitude towards learning, higher level of all kinds of literacy, integration of different levels of education) were taken into account when the guidelines for reform of all types of education programmes across all levels were drawn up during the reporting period.

The National Vocational Qualifications Act adopted in 2000 and amended in 2006 introduced a system for the assessment and certification of NVQs which is based on learning outcomes, irrespective of the "location" at which knowledge, skills or abilities are obtained. It allows the combination of formal and non-formal education and work experience, and ensures partnership and cooperation in the development of NVQs, their promotion and transfer between different areas and levels of education and training.

3. Attractiveness and relevance of Vocational Education and Training

Slovenia is pursuing measures to increase the attractiveness of VET programs and their connection to the labour market. These include competence-oriented and modular educational programs, the establishment of inter-business educational centres and the recognition of knowledge and skills acquired through non-formal routes. At the same time efforts are underway to increase the attractiveness of VET by improving its reputation, providing better information (organizing joint presentations of different professions; sponsoring broadcasts promoting VET) and working closely with vocational guidance professionals.

4. Modernisation of Higher Education

The curricular reform, undertaken within the first decade of the Bologna process, is completed as all study programmes announced in 2009-2010 academic year, are Bologna study programmes. One of the remaining key challenges, requiring further work in coming years, is quality assessment and control.

75% of HEI funding comes from the national budget. Additional funds come from public tenders, related to the cohesion policy and ESF, and from fees and sale of goods and services on the market (6% in 2007).

SLOVAKIA

		Slovakia		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		76.1%	79.4% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	-	27.8% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	20.9% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	20.2% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		6.7% ⁰²	6.0% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		94.8%	92.3%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	129.9% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	30.1%	35.4% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		10.6%	15.8%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		3.7% ⁰³	3.3 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		3.93%	3.79% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰²= 2002; ⁰³= 2003; ⁰⁶= 2006; ⁰⁷=2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Slovakia performs notably better than the EU average in two school related areas: *Early leavers from education and training* and *Upper secondary attainment*. In the latter field it has

the top performance among EU countries. As for *Low achievers*, the situation is differentiated: poor performers *in reading* are more frequent than in the EU as a whole, while the performance on *Low achievers in mathematics* is above the EU average, in the area of *science* the performance is equal to the EU average. As for *Participation in early childhood education* the rate of Slovakia is significantly below the EU average.

Progress in the area of *MST graduates* has been extremely positive, with a growth rate almost 4 times the EU average and a share of female graduates above the EU level. Despite recent progress, in the area of *Higher education attainment* Slovakia is below the EU average and in 2008 had the second lowest share of 30-34 years old with tertiary attainment in EU.

As concerns *Adult participation in lifelong learning*, it was below EU average in 2003. Thereafter a further decrease took place, so that the distance from the average is now even greater.

Investment in education, as a % of GDP, has decreased since 2000, while it has risen in the EU as a whole. Therefore Slovakia is below the EU average and the gap has increased.

Slovakia already performs above the EU 2010 benchmarks in *Early leavers from education and training*, *Upper secondary attainment* and the increase in *MST graduates*. The country furthermore succeeded in improving gender balance in MST.

1. Policies for development of the key competences

The main policy and implementation tool for the development of the key competences is the School act, adopted in 2008, which reformed the curricula in primary and secondary education. The key competences are perceived as the outcome of formal, non-formal and informal learning and considered to be a basic foundation for lifelong learning and for improving peoples' employability.

1.1. Curricular reforms

All eight key competences are integral part of both state (national framework curricula) and school educational programmes in the curricula for pre-primary, primary, lower secondary and upper secondary education (including VET at upper secondary level). The School act explicitly stipulates the educational objectives for communication in the state, mother and foreign languages, mathematical and technical sciences and technologies as well as ICT.

The development of the transversal key competences is included as a horizontal issue across the curricula of various subjects. There are specific initiatives such as Junior Achievement, Training Firms to develop entrepreneurship competences, as well as competitions focused on the development of ICT skills.

1.2. Targeted provision of key competences

Special educational programmes are designed for children with health disadvantages and for children from socially or culturally disadvantaged backgrounds. The provision of training for groups at risk (jobseekers, low skilled, disabled) is organised by Public Employment Services (Ministry of Labour). Specific programmes for talented children will be introduced in September 2009.

The basic framework for the development of key competences of adults is set by the Lifelong learning strategy in 2007 and its accompanying Action Plan which describe the priorities and objectives for lifelong learning (with a special focus on non-formal learning). There is a system to gather statistics on participation of adults in non-formal learning.

1.3. Teacher training and approaches to assessment

Qualitative indicators developed for all key competences serve as a methodological instrument for teachers in developing student competences, and as a baseline for their evaluation. Apart from summative and formative assessment, criteria and authentic assessment are also used. The in-service training programmes for pedagogical staff are designed and implemented to equip them with approaches to develop students' key competences.

1.4. Evaluation of outcomes

Slovakia carries out an external annual nationwide evaluation of students of the 9th grade to measure the qualitative level of learning outcomes in mathematics and the school's language of instruction. The feedback is used in policymaking for the design of legislation for education and VET. The country is involved in a number of international studies, such as OECD PISA, OECD TALIS, IEA PIRLS, IEA TIMSS, ICCS aimed at evaluation of specific key competences.

2. Development and implementation of LLL strategies.

The strategy for lifelong learning and lifelong guidance was adopted in 2007 together with the Action Plan which sets out concrete steps and instruments for the implementation of lifelong learning, NQF, EQF, validation of non-formal and informal learning and lifelong guidance.

The Act on lifelong learning, currently in preparation, will focus on quality and validation of non-formal and informal learning with the aim to interconnect them to the formal system and so to create an open system of lifelong learning. The implementation of EQF in Slovakia will be carried out through a 5-year ESF national project to be launched in the beginning of 2010 aimed at the design of the NQF referenced to the EQF levels. The National System of Qualifications and the National System of Occupations will be designed in parallel.

3. Attractiveness and relevance of Vocational Education and Training

The new law on VET adopted in April 2009 establishes the basic conditions to improve its quality and relevance to the labour market needs. Complementary to the curricular reform established by the School act, the new law on VET will introduce incentives for increasing VET funding, clarify the role of national and regional administrations, employers and employees, and create suitable coordination structures for the VET system (national, regional and sectoral skills councils).

In terms of the attractiveness of the VET system, attention is given to flexible learning pathways, permeability from secondary VET to HE, and organisation of a number of national skills competitions as well as participation in EuroSkills. The attractiveness of the VET system is also determined by its relevance to the labour market needs. To ensure this relevance, Slovakia is now developing a system for monitoring and forecasting labour market needs.

4. Modernisation of Higher Education

A number of legislative reforms and concrete initiatives have been launched in Slovakia related to the modernisation of higher education. The challenges are related to increased quality of HE institutions, improved governance of HE institutions, closer links with businesses and research, as well as increased and performance-based funding.

The new status of HE institutions enables them to acquire funds from various sources such as international or EU funds, businesses and other organisations in order to improve the quality of education process and research activities. HE institutions are allowed to make profit and charge tuition fees according to specific rules. There is an emergence of adult learning – "universities of third age" – at HE institutions. The implementation of the strategy for LLL (in particular validation of non-formal and informal learning) and lifelong guidance should contribute to the opening up of HE institutions to lifelong learners.

FINLAND

		Finland		EU average		EU Benchmarks and goals	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		55.2%	69.8% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	7.0%	4.8% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	6.0% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	4.1% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		9.0%	9.8% ^{b,p}	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		87.7%	86.2%	76.6%	78.5%	85 %	-
MST graduates (tertiary education)	Increase since 2000	-	23.2% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	27.3%	28.9% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		40.3%	45.7%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		22.4% ⁰³	23.1%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education % of GDP		5.89%	6.14% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Finland performs above EU average in almost all education areas. *Adult participation in lifelong learning* in Finland is more than twice the EU average and in the benchmark areas *Early school leavers* and the *Upper secondary attainment* Finland is performing above EU average. However further progress has been limited. When it comes to *Low achievers*,

Finland succeeded to reduce the lowest rate in EU countries even further since 2000 whereas the rate increased in most other EU countries during the same period. Performance in the skills areas mathematics and science is at a similar high level.

Finland has one of the highest *Higher education attainment* rates. The absolute numbers of MST graduates has increased less than the average for EU since 2000 and the share of female graduates in MST is lower.

Investment in education as a % of GDP is relatively stable in Finland and exceeds the EU average by about 1 percentage point.

When it comes to *Early childhood education*, Finland is 20 percentage points below the EU average, but with considerable progress since 2000. It should be noted that statistical data for Finland in this field is currently being improved because of concerns about validity and comparability with other EU countries

Finland performs above the 2010 EU benchmark levels on *Upper secondary attainment*; and above the 2020 EU benchmark levels on *Low achievers in reading, science and mathematics*, *Early leavers from education and training*, *Higher education attainment* and on *Adult participation in lifelong learning*.

1. Policies for development of the key competences

Transversal key competences are included mainly as thematic entities across subjects. These competences have a prominent role in pupil assessment: the core curriculum defines the level "good" and describes this as broad dispositions including learning skills; digital and social skills and ability to take initiative and maintain an "entrepreneurial mindset" in working. The core curriculum for compulsory education integrates theory with practical learning.

In the field of *VET* and *adult learning* the system of competence-based qualifications offers a flexible way to demonstrate vocational skills through competence tests, regardless of whether the skills have been acquired through work experience, studies or other activities.

Recent initiatives in VET include a 'well-being at work passport'. It helps young people in initial vocational training learn to take care of their occupational health, develop their collaboration skills and plan ahead for further learning and development.

1.1. Curricular reforms

Initial Vocational qualifications will be renewed to better correspond to the requirements of the world of work. More options will be given to demonstrate competences and obtain qualifications. The descriptions and assessment criteria of learning outcomes in the new curricula will follow the EQF approach. 'Vocational Start' will be mainstreamed as of 2010. It aims to enhance learning to learn skills, help transition and choose the right field of training.

1.2. Targeted provision of key competences

A considerable subsidy has been allocated to various adult education providers since 2006 for promoting civic participation. The 'Noste' project (2003-2009) has provided least educated adults training for completing vocational qualifications and the 'ICT Driver's Licence' for free.

Immigrants, the unemployed and other disadvantaged groups have been given vouchers to continue learning in liberal adult education. Similarly, drop-outs from universities receive vouchers to continue in summer universities. Vouchers amount now up to 5% of all funding of liberal adult education.

1.3. Teacher training and approaches to assessment

The key principles of the teacher education curricula established in 2005-06 include: profound knowledge of learning and teaching; subject knowledge and specific didactics; social, cultural and ethical aptitude for teaching, research-orientation and ability for self-reflection and practical skills. The Ministry has funded in-service training on e.g. entrepreneurship, gender and equality issues, multiculturalism and migration, ICT/IS-technologies and SEN.

The guidelines for continuous assessment of learning include the 'Learning to learn' competence; similarly, summative assessment emphasises e.g. initiative taking as part of the criteria for progress.

1.4. Evaluation of outcomes

National evaluation is made on a sample basis, but also by longitudinal monitoring. A rich data base includes basic, contextual and trend indicators. Benchmarks are used at national level, and also in steering e.g. higher education institutions. Self-evaluation is an obligation for providers of education and training.

Finland takes part in international comparative studies, e.g. PISA, TIMMS, PIRLS and IEA reviews.

2. Development and implementation of LLL strategies.

The Finnish Development Plan for Education and Research, adopted for 5-year periods, serves as a comprehensive LLL strategy. A new National Qualifications System, compatible with the EQF, is projected to be ready by 2010. The quality assurance dimension is also being addressed.

Quality criteria for compulsory education are being developed. A national framework for qualifications and other learning, compatible with the EQF, is projected to be ready by 2010.

3. Attractiveness and relevance of Vocational Education and Training

The overall popularity of VET has grown. Existing differences between regions, providers and fields of study are being addressed by various media campaigns. The introduction of an electronic application system provides applicants with broad information on available options and increases the overall efficiency of the application process.

4. Modernisation of Higher Education

In 2007 research and development expenditure represented 3.5% of the gross domestic product, which puts Finland among the OECD top. The new Universities Act forms part of an overall reform of higher education, which includes a reform of higher education structures, strategy formation, internationalisation and a reform of the funding model. A new Act will take effect in 2010 and will make universities corporations under public law or foundations

under private law. This will help them acquire more private funding and collaborate with business and other research and innovation partners.

New University Act includes the mission of lifelong learning to universities. Also new Polytechnics Act includes a mission for lifelong learning. The reform of vocationally oriented adult education includes proposals for developing further training of higher education graduates. The aim is to provide a flexible system allowing for studying parts of degree programmes without having to apply for a full study programme and combine further studies with work. The higher education institutions may also sell degree modules to employers as staff-development training. Open university and open polytechnic studies are offered in most subject fields.

SWEDEN

		Sweden		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		83.6%	94.0% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	12.6%	15.3% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	18.3% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	16.4% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		7.3%	11.1% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		85.2%, b	87.9% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	14.3% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	32.1%	33.1% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		31.8%	42.0%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		31.8% ⁰³	32.4% ⁰⁷	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		7.21%	6.85% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Sweden is performing above the average EU level in all the areas of school education and in early childhood education, but progress is mixed. The share of *Low achieving 15 year-olds in reading* increased from 2000 to 2006, but it is still far below the EU average. The share of *Early leavers from education and training* has increased in Sweden since 2000 reaching more than 11% in 2008, while during the same period *Upper secondary attainment* increased.

Although Sweden has a relatively high attainment level in higher education and shows substantial progress in the field, the growth in MST graduates was in the period 2000-2007 less than half of the average growth in the EU. The female share of MST graduates on the other hand is clearly above EU average and gender balance has significantly improved since 2000.

Adult participation in lifelong learning in Sweden is the highest in the EU and it is increasing.

Sweden allocates nearly 7% of GDP to education, and hence has the second highest rate of *investment in education* (after Denmark) among the Member States.

Sweden performs above the 2010 EU benchmark levels on: *Low achievers in reading*, *Upper secondary attainment* and *Adult participation in lifelong learning*; and above the 2020 EU benchmark levels on *Higher education attainment* and on *Adult participation in lifelong learning*.

1. Policies for development of the key competences

Sweden already has a curriculum based on learning outcomes and existing educational goals generally match the key competencies framework. Current reforms aim at strengthening the acquisition of basic skills through the introduction of compulsory national tests in Swedish, Swedish as a second language and mathematics in school years 3, 6 and 9, as well as in science in year 9.

1.1. Curricular reforms

Clarification of the learning objectives in the curricula is currently carried out by the National Agency for Education. Additionally, Sweden has introduced special subsidies to municipalities and schools for reinforcing reading, writing and arithmetic 2008-09, and for mathematics, science and technology 2009-11. Digital competences, previously supported through a series of programmes are currently mainstreamed across subjects.

Transversal key competences, especially social and civic competences and initiative taking are generally included among the overarching goals of the curriculum and schools enjoy a wide autonomy in implementation. Learning to learn is supported through compulsory individual development plans. A subsidy for cultural initiatives in schools is currently available.

1.2. Targeted provision of key competences

Pupils lagging behind are assisted to reach the educational goals through individual action plans, enabling them to receive special support. The individual programme in upper secondary schools targets pupils who do not meet eligibility criteria for upper secondary level.

Sweden has very high rates of adult participation in education and a well developed infrastructure. The provision of key competences is offered through the extensive network of municipal adult education corresponding to primary and secondary levels. The right to basic adult education was extended in 2007 to those with learning difficulties. Several are targeting improved quality and graduation rates in the system of Swedish tuition for adult migrants.

1.3. Teacher training and approaches to assessment

Sweden introduced in 2007 a major programme for continuous professional development of teachers ("Lärarlyftet"), providing specially designed university courses linked to school subjects and key competences. A number of reforms aim at reinforcing the assessment framework, through the introduction of grades and written assessments from lower grades, as well as through national standardised tests.

1.4. Evaluation of outcomes

Sweden has introduced standardised national tests, facilitating the identification of pupils lagging behind and aims to extend the awarding of grades in earlier school years than today, in year 8. Sweden participates in international tests (PISA, PIRLS, TIMSS, PIAAC) and publishes national analyses of the results and trends which are fed into policymaking. A new national school inspectorate was set up for improving supervision and quality assessment of education.

2. Development and implementation of LLL strategies.

Sweden has not developed a strategy for lifelong learning, but has a well developed and coherent lifelong learning sector. The newly established National Agency for Higher Vocational Education (NAHVE), established in July 2009, will coordinate and support a national structure for validation, based on the participation of the education and business sectors in the development of validation strategies, methods and information. Validation of experiential learning was introduced for applicants to higher education in 2003 and can be used for awarding study credits. Current reforms aim to improve validation of overseas education and qualifications, especially higher education, through a new knowledge base for assessing overseas education and through providing better study and career guidance.

Sweden has decided to implement the EQF, relating it to the public education and training system as a first step. The newly established NAHVE has been appointed national coordination point for EQF.

3. Attractiveness and relevance of Vocational Education and Training

Sweden has a school-based initial vocational education system. For addressing quality issues, such as the relatively high rate of early school leaving in initial vocational education, the government has proposed a reform of the upper secondary education, including initial vocational education and training. When it comes to the vocational study paths, the reform will increase the vocational part of the curriculum, will introduce a vocational diploma and will strengthen the involvement of social partners and sectoral dialogues for making VET programmes more relevant for the labour market. An upper secondary apprenticeship track has been piloted since 2008 and is planned to be mainstreamed starting in 2011.

, In order to secure quality in post secondary education and training the Government has introduced a common framework of Higher Vocational Education as of July 1st 2009, to be administered by the NAHVE aiming to offer education which leads directly to employment and corresponds to the needs of the labour market.

As a measure to address the economic crisis, the government has substantially increased training provision within Higher Vocational Education and introduced a major subsidy in

order to increase VET training for adults in the public municipal adult education framework. The Government has also allocated resources for a temporary increase in opportunities for unemployed people to obtain the higher rate of upper-secondary student aid in 2009 and 2010 aiming to upgrade the skills of the unemployed over 25 year olds.

4. Modernisation of Higher Education

The process of modernisation of universities has continued and a new bill introduces a number of measures to increase the internationalisation of HEIs, announcing the intention to introduce tuition fees for students coming from countries outside the EEA and Switzerland. Research funding already represents a large part of HEI funding. The possibility of tax relief for donations to research and the possibility to increase the autonomy of HEIs were investigated by committees of inquiry.

Sweden already has a tradition of participation of adult learners in higher education, based on flexible study programmes, flexible financial support for students, validation of work experience and on distance and evening courses. HEIs in areas suffering the consequences of the economic crisis have received additional funding for increasing the participation of recently unemployed workers and guidance was offered within enterprises undergoing restructuring.

UNITED KINGDOM

		United Kingdom		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		100%	90.7% ⁰⁷ b	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	(12.8%)	19.0% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	19.8% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	16.7% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		18.2%	17.0% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		76.7%	78.2%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	17,6% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	32.1%	31.1% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		29.0%	39.7%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		27.2% ⁰³	19.9% b	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		4.46%	5.48% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

The UK performs near to the EU average in most school related areas: *Participation in early childhood education*, *Early leavers from education and training* and the *Upper secondary completion rate* but has progressed in these areas slightly less than the EU as a whole.

Results for low achievers are slightly better than for the EU (comparability to 2000 results is limited).

The UK has a relatively high higher education attainment rate, which has increased considerably since 2000. However, growth in the number of MST graduates was below EU average.

As concerns *adult participation in lifelong learning*, which measures the frequency of participation, the UK shows good performance with participation rates more than twice the EU average. If breaks in time series are taken into consideration, the participation rate has, however, not changed much since 2000. Results from the European Adult Education Survey, however, imply that the number of instruction hours spent per participant is below EU average.

Public investment in education as a % of GDP has shown a significant growth since 2000 and is now above EU average.

The UK performs above the 2010 EU benchmark on *Increasing the number of MST graduates* and above the 2020 EU benchmark on *Adult participation in lifelong learning*.

1. Policies for development of the key competences

All the eight competences listed in the European Reference Framework have been embedded in UK school curricula for some time. The UK has strategies to increase the numbers of adults with basic level literacy and numeracy skills.

1.1. Curricular reforms

The English National secondary Curriculum has been revised to highlight connections between subjects and cross-curricular themes, to provide for more personalised learning - especially in literacy, numeracy and ICT - and focus on skills for life, learning and work. Transversal competences such as learning to learn and entrepreneurship are explicitly covered. Languages will be a part of the statutory Key Stage 3 (primary) curriculum from September 2011.

The Scottish National Curriculum has been revised to be more coherent, flexible and rich; it includes all eight Key Competences; together with a new Lifelong Skills Strategy and new Early Years Framework published in January 2009, it is designed to create a coherent framework for the development of key competences for lifelong learning from age 3 to 18 and beyond. There is a revised curriculum in Wales.

1.2. Targeted provision of key competences

To ensure that all young people acquire skills, four alternative learning routes have been developed: the revised GCSE (General Certificate of Secondary Education) and A-Level qualifications system; a new system of more practically oriented Diplomas; apprenticeships; and the Foundation Learning Tier.

The government has legislated to raise the school leaving age to 17 by 2013 and to 18 by 2015. England has published a strategy to reduce the proportion of young people who are not in education, employment or training (NEET). It includes a guarantee to offer every school leaver a suitable place to continue in learning.

Learning support for young people with learning difficulties and /or disabilities (LLDD) has been improved e.g. via an on-line toolkit and exchange of good practice to help this group into employment.

A 2009 White Paper ‘The Learning Revolution’ revises the English strategy for informal adult learning. It aims to widen participation, open access to new learning places, support self organised learning, and harness the benefits of technology and broadcasting. England is targeting additional funding at people who are unemployed and on benefits; low-skilled adults in employment; offenders in custody and those supervised in the community and other groups at risk of social exclusion

1.3. Teacher training and approaches to assessment

Particularly in England and Scotland, formative approaches to assessment, in a context of individualised learning, have been a key feature of compulsory education for many years. This approach ensures that learning is meaningful for all pupils, teaching is effective and outcomes are improved. It equips teachers to fine-tune their understanding of learners’ needs and tailor their teaching accordingly.

1.4. Evaluation of outcomes

In England, standardised assessments of certain pupil competences are organised at ages 7 and 11; public examinations are organised in the final years of secondary schooling. Results are analysed at pupil, school and Local Authority level; a Contextualised Value Added model takes into account factors such as gender, mobility and levels of deprivation. This information provides context and feedback for policymaking and public accountability. The Scottish Survey of Achievement is a sample survey which monitors how well pupils in Scotland are learning, focussing each year on a different aspect of the curriculum. England and Scotland regularly take part in PISA, TIMSS and PIRLS.

2. Development and implementation of LLL strategies.

Each UK country has published its own lifelong learning strategies, each based upon a number of key documents.

There will be a new framework for accrediting qualifications in England, Wales and Northern Ireland, linked to the European Qualifications Framework. The framework for higher education qualifications has been revised and is compatible with the Framework for Qualifications of the European Higher Education Area. The Scottish Credit and Qualifications Framework (SCQF) is the lifelong learning framework which recognises academic, vocational and general qualifications using a scale of 1 to 12. The Credit and Qualifications Framework for Wales (CQFW) is an overarching meta-framework. Wales has a credit system based on learning outcomes and level.

3. Attractiveness and relevance of Vocational Education and Training

England is undertaking a major reform of the vocational qualifications system to increase the attractiveness and relevance of VET. This includes rationalised system of qualifications for ages 14-19; development of a Qualification and Credit framework; sector skills councils that develop qualifications relevant to the labour market; development of national skills academies; expanded apprenticeship programmes. Scotland has increased apprenticeship

funding, extended support for people facing redundancy, and funded trades union learning representatives to encourage workplace learning.

4. Modernisation of Higher Education

The English Higher Education sector already has a very diverse range of income streams (multiple streams of public funding, domestic and international tuition fees and university private revenues). Half of universities' income is from Funding Council grants for research or teaching or from EU/UK student fees; half comes from other sources.

To further diversify streams, government will match-fund voluntary donations to universities, and a special fund will enable universities to provide tailored training, development and professional support to vulnerable groups.

The Government is investing to encourage employers and universities to co-develop and co-fund provision for high level skills to develop Higher Education that is flexible, relevant and responsive to the needs of learners and employers. Enrolments in Foundation Degrees - flexible work-focused and demand-led qualifications – are increasing.

CROATIA

		Croatia		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		54.1% ⁰³	65.2% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	-	21.5% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	28.6% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	17.0% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		8.0% ⁰²	3.7% u	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		90.6% ⁰²	95.4%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	41,9% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	-	34.9% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		16.2% ⁰²	(18.5)%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		1.8% ⁰³	2.2%	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		3.72% ⁰²	4.11% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰² = 2002, ⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional, u=data lack reliability because of small sample size

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels"

Croatia performs better than the EU average in three school related areas: *Low achievers in reading and science*, *Early leavers from education and training* and *Upper secondary attainment*. For upper secondary attainment and for early leavers from education Croatia's performance is among the best in Europe

The results for early leavers from education, however, lack reliability because of small sample size. *Participation in early childhood education* in Croatia is on the other hand far below the EU average.

In the area of *MST graduates* the increase has been lower than the EU average. *Higher education attainment in Croatia* is below the EU average and has improved little since 2000.

As concerns *Adult participation in lifelong learning*, Croatia's performance is clearly below the EU average and has improved little since 2000.

Public investment in education, as a % of GDP increased in Croatia significantly since 2000, but is still nearly one percent of GDP below the EU average.

Croatia has already reached the 2010 EU benchmarks as regards *early leavers from education*, *upper secondary attainment* and *increasing the number of MST graduates*.

1. Policies for development of the key competences

Croatia encourages the development towards a knowledge based society and economy. The national curriculum includes all the key competences. The concept of lifelong learning is accepted as a basis of the education system for the purpose of realizing permanent employability and active citizenship. The shift from content-based to competence-based education has been presented to school principals and teachers in numerous plenary sessions and workshops. Key stakeholders are involved in the development of strategic documents.

1.1. Curricular reforms

The quality of education based on competences is set as a goal and a principle of Croatian education policy. The new competence-based draft National Curriculum Framework (2009) includes all key competences contained in the EU Reference Framework. The new school curriculum Framework will be based on the National Curriculum Framework.

The Strategy for the Development of the National Curriculum is competence based and promotes the acquisition of the transversal competences. "Compulsory democratic citizenship" is included as a cross-curricular topic at all levels of education as well as as an optional subject.

1.2. Targeted provision of key competences

A number of programmes target different groups of adults: the unemployed, war veterans, illiterate persons, young people with inadequate education, the disabled, victims of family violence, young adults, adults without primary or secondary education, senior citizens and adults with special needs, minority groups, women, etc.

The Act on Vocational Education and Training adopted in 2009 defines a set of knowledge and skills necessary to meet basic needs, developing social cohesion, democratic society and employment. Its main goal is to enable people to acquire key competences as well as vocational competences.

1.3. Teacher training and approaches to assessment

Continuous professional education and training are compulsory. Experts from universities and NGOs are developing a project to reform compulsory teacher training. Professional supervision is organised for beginning teachers during their first working year. Specialised training at national and regional level is organised to familiarise teachers with the changes in different fields of the education system, with new methods of active teaching and learning, with the new modules of the curriculum and other educational topics. Teacher training is also offered at county level by Teacher Councils for each subject or cross-curricular subject such as democratic citizenship. Specialised training is offered to teachers and principals of primary and secondary schools and student dormitories

The teacher training programme for VET teachers is based on competences, interdisciplinary, multi-functionality, new approach to teaching, orientation towards pupils, cooperation between colleagues, creativity, individual approach, flexibility of modular curricula, combination of the theoretical and the practical work and self-development. The training of VET teachers can be carried out in relevant companies.

1.4. Evaluation of outcomes

The State Matura is a standardized instrument for quality assessment and improvement in education, which will gradually replace admission exams at many HE institutions.

National exams will ensure harmonization of pupils' academic achievement nation-wide. Croatia participated in 2006 for the first time in the OECD PISA test.

2. Development and implementation of LLL strategies

The strategy for adult education is aimed at developing measures, organisational and financial conditions for realizing LLL as a right and an obligation for all citizens; offering equal opportunities for quality learning throughout life for all; developing measures for joint action of the relevant ministries, social partners and educational institutions; creating legal and professional prerequisites for comprehensive adult education as an integral part of the Croat education system.

The Croatian Qualification Framework is based on the Croatian educational tradition, the guidelines of the EQF and the international regulations. It sets out clear quality criteria for gaining a set of competences that a learner can expect to have after completing education for a qualification of a certain level and volume. It is a unified system that allows for learning outcomes to be measured and compared to each other.

3. Attractiveness and relevance of Vocational Education and Training

The VET Strategy (2008) is based on the principles and goals of EU education strategies, LLL and partnership. The system is oriented to learning outcomes and also guarantees horizontal and vertical mobility. The strategy is based on the concept of flexibility and adjusting education to the labour market needs. In 2006, 13 sectoral councils were established in order to reinforce the link between the VET and the labour market. They have been working on restructuring existing vocational qualifications.

4. Modernisation of Higher Education

The Act on Scientific Activity and Higher Education enables HEIs to establish and perform LLL activities and programmes. A number of universities have opened up to LLL centres catering for the needs of their communities.

Lump-sum financing of universities with a mechanism for long-term strategic planning as well as a greater degree of autonomy was introduced in 2007. In 2007 amendments to the Act of Scientific Activity and Higher Education introduced significant changes to the system of incentives for enterprises to invest in higher education, which facilitated the input of private funding. Greater autonomy which will further facilitate diversification of income streams is planned in upcoming changes of university law.

ICELAND

		Iceland		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		91.8%	95.4% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	14.5%	20.5% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	16.8% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	20.5% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		29.8%	24.4%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		46.1%	53.6%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	29.9% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	37.9%	34.2% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		32.6%	38.3% ⁰⁷	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		29.5% ⁰³	25.1 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		5.81%	7.55% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

ICELAND

⁰³ = 2003, ⁰⁶ = 2006, ⁰⁷ = 2007, e= estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Iceland performs slightly above the EU average in the school related areas: *Participation in early childhood education, Low achievers in reading and mathematics and Early leavers from*

education and training. On *Early leavers from education and training* Iceland is improving but still has a significantly higher share than the average in the EU. Also the share of *Upper secondary attainment* is increasing, but Iceland still performs below the EU average.

Iceland has made progress in increasing the number of *MST graduates*, however the growth rate has been slightly below the EU average figure. At the same time the share of the population with higher education attainment has also improved.

As concerns *Adult participation in lifelong learning*, Iceland has decreased its share, but from a high level and still performs above the EU average.

Investment in education as a % of GDP has increased significantly since 2000, reaching one of the highest levels among the EU Member States. The increase in Iceland is higher than for the EU, therefore the gap between Iceland and EU average performance has grown.

Iceland performs above the 2010 EU benchmark level on *Low achievers in reading and mathematics*, *MST graduates* and *Adult participation in lifelong learning*.

1. Policies for development of the key competences

A new legislation has been adopted for all school stages as well as teacher education and the revision of curricula for pre-schools, compulsory schools and upper-secondary schools is ongoing. The revision is based on national development of the eight key competences. The key competences are a fundamental part of the Comprehensive National Lifelong Learning Strategy and a foundation for formal, informal and non-formal lifelong learning.

1.1. Curricular reforms

The aim of the developments is to have the Curriculum Guides in place before the end of 2010. Teacher education is also being redesigned so as to be in line with the Comprehensive National Lifelong Learning Strategy (see 1.3 below).

The revision of the curricula for the three school stages is based on national development of the eight Key Competences set out in the EU Framework. This work started during the summer 2008 after the adoption of the new law. The Key Competences will be continuous through all school stages and adult education.

Curriculum development for general studies, VET, art studies and special education will be further decentralised, and schools will propose lines of study and describe their content. The proposed study lines have to be certified by the Ministry of Education, Science and Culture. This will open up the possibility for direct cooperation between labor market actors and schools in the creation of new study lines.

1.2. Targeted provision of key competences

The revised Curriculum Guides will include provisions for learning support for pupils in special education, including the use of individual curriculum for each pupil. After the publication of the Curriculum Guides the focus will be on the production of learning materials taking into account the different needs of individual pupils so that each can maximise his abilities for the best results in preparation for adult life.

The government has set national targets relevant to the adult learning sector including plans to increase the number of people with upper secondary education, decrease the drop-out from upper secondary schools and provide more flexible pathways. Creating new opportunities and ensuring access for all individuals to the education system, is considered very important in this context. The policy is to ensure equal opportunities for participation in the knowledge society for people that have for some reason, e.g. economical situation, dyslexia or other study difficulties, dropped out of school and wish to update their skills.

1.3. Teacher training and approaches to assessment

Teacher education is being redesigned taking into account initial- and in-service training, school development, assessment procedures, production of learning material and support for schools and teachers to develop and adopt a competence based approach. The legislation from 2008 upgrades teacher education and all new teachers must undergo five years' study, leading to a master degree, instead of three years bachelors degree that was previously required.

1.4. Evaluation of outcomes

Currently the assessment of pupils' progress and competence is mainly the responsibility of the teachers but schools' internal evaluations also play a role. National coordinated examinations are held in 4th grade (9 year olds/Maths and Icelandic), 7th grade (12 year olds/Maths and Icelandic) and 10th grade (15 year olds/ Maths, Icelandic and English) of the Compulsory School.

Iceland has participated in international assessments, such as PIRLS and PISA, for many years. The results are used when the Curriculum Guides are revised and for other policy developments. In 2009 the Ministry offered grants to Upper Secondary Schools to develop study programmes based on the new Act on Upper Secondary Schools (no. 92/2008), to prepare for structural change. The basis for their work is the NQF, the national Key Competences and the Framework of Learning Outcomes.

2. Development and implementation of LLL strategies.

A Comprehensive National Lifelong Learning Strategy is being implemented on the basis of new legislation for all school stages and teacher education. An important part of the implementation is the revision of the curricula for the three school stages. A new Bill on Adult Education will include provisions for building bridges between the system for validation of non-formal and informal learning and the formal school system. This system is already being piloted and it focuses particularly on reaching out to people on the labour market without formal qualifications. The goal is to bring them back to VET, recognising what they have learnt in the work place thus allowing them to complete their skills in order to attain qualification.

The concepts of NQF, EQF and Key Competences have been presented and discussed with stakeholders preparing them for their role in the structure of the study programmes. A framework of Learning Outcomes has been produced to help schools to formulate their study programmes. The framework aims at increasing the focus of secondary education on student competences and encouraging schools to review and define their study programmes focusing on learning outcomes.

3. Attractiveness and relevance of Vocational Education and Training

The upper secondary education system in Iceland has been restructured in order to promote the attractiveness of VET. There is only one system in Upper Secondary Education encompassing both academic education and VET and the new legislation makes the integration of academic and VET courses more flexible. There are provisions in the legislation for structural reform/changes. Pupils in VET will have easier access to higher education than before and dead ends in the system are being eliminated. The new legislation, moreover, gives Compulsory Schools (6-16 year olds) the opportunity to introduce VET courses in cooperation with Upper Secondary Schools or with local firms for students 14-16 years old.

4. Modernisation of Higher Education

In recent years the government has placed emphasis on decentralisation and increased autonomy of universities.

HEIs in Iceland are either run as public, private non-profit organisations or as limited public companies. All HEIs both public and private that are accredited by the Ministry of Education, Science and Culture receive state funding through a contract with the Ministry, for teaching and research. Private HEIs can collect tuition fees, but public HEI's are not permitted to do so. It is defined by law which additional income public HEIs can generate. There are means to diversify the income streams of public HEIs where they can i.e. become a partner in a shareholding company, a non-profit organisation or a limited liability company, subject to agreement by the Minister.

HEIs have been effective in reaching out to mature students both in undergraduate and graduate programmes, as well as continuing education. The total number of registered HEI students has increased significantly in recent years and the increase in percentage of mature students is even higher than for the younger students. As a reaction to the financial crisis the government has appealed to HEIs to open their doors for those who have lost their jobs.

NORWAY

		Norway		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		79.7%	94.3% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	17.5%	22.4% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	22.2% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	21.1% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		12.9%	17.0% b	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		95.0%	70.1% b	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	9.8% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	26.8%	28.6% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		37.3%	46.2%	24.3%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		17.1% ⁰³	19.3 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		6.74% ⁰¹	6.55% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰¹ = 2001, ⁰³ = 2003, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Norway performs above the EU average on *Low achievers in Reading and mathematics* although the share of low achievers has increased since 2000. In the other school related areas: *Participation in early childhood education*, *Early leavers from education and training* and *Upper secondary attainment*, Norway performs below the EU average. There has been a significant increase in early childhood education, and it is now above the average of the EU.

Early leavers from education and training and *Upper secondary attainment* Norway show a reduction in performance compared to 2000 even allowing for a break in the data series.

The *Adult participation in lifelong learning* is among the highest in the EU and increasing.

On *Higher education attainment* Norway has among the highest shares in the EU and progress since 2000 has been strong. The growth in *Graduates in MST* since 2000 is less than 10% and far below the average in the EU. The share of female *MST graduates* is below the EU average and the gender balance has been almost unchanged since 2000.

Concerning *Investment in education*, Norway has among the highest public spending on education compared to the average of the EU.

Norway performs above the 2010 EU benchmark levels on *Adult participation in lifelong learning*; and above the 2020 EU benchmark levels on *Higher education attainment* and *Adult participation in lifelong learning*.

1. Policies for development of the key competences

The eight key competences defined in the EU Recommendation are defined in the holistic learning perspective in Norway. Basic skills are considered subject independent and are identical for different strands of education.

1.1. Curricular reforms

The “Knowledge Promotion Reform”, a comprehensive school reform, was introduced in 2006. The reform covers primary, lower secondary and upper secondary education, including vocational education and training (VET). The focus of this reform is the strengthening of basic skills and a shift to outcome based learning. “Knowledge Promotion” is a curriculum reform where the curriculum clearly states the objectives for learning outcomes and gives the teacher more freedom in the choice of teaching methods. The new curricula are based on learning outcomes approach and the Key Competences. The reform has been subject to an ongoing evaluation which will end in 2011.

1.2. Targeted provision of key competences

The Norwegian Education Act states that all pupils have the right to individually adapted education. Pupils with special education needs have the right to individually adapted subject curricula. The teacher has the responsibility to adapt teaching to the pupil's capacities and needs. To promote integration and employability of immigrants, the Government has introduced compulsory Norwegian and civics courses for new immigrants. Education at primary and lower secondary level is guaranteed to all adults who have this need, irrespective of any prior training at this level. All adults aged 25 or above who have not completed upper secondary education, have the right to do so.

1.3. Teacher training and approaches to assessment

The Government has proposed to reorganise the existing general teacher education program into a new system of primary and lower secondary teacher education, split into two equal programs: one for grades 1-7 and one for grades 5-10. Both programs have a new compulsory area of concentration – pedagogy and teacher knowledge of pupils – consisting of 60 credits.

In 2009 a new program for in-service teacher education has been implemented linked to the new Qualification regulation. Key competences are an essential part of the curriculum of the in-service teacher program which will be fully implemented in 2011. Mapping tests in reading have been introduced to better identify pupils who need special attention, and teachers are encouraged to take further actions if pupils fall behind in one or more basic competence. Teachers are asked to inform parents about the results of the assessments.

1.4. Evaluation of outcomes

Results from national tests are published on a webpage called "Skoleporten" along with data on resources, learning environment and completion rates.

Norway is involved in a number of international studies, such as OECD PISA, OECD TALIS, IEA, PIRLS, TIMSS and ICCS aimed at evaluation of specific key competences. Results from the national tests give information on the variation in learning outcomes locally and are used together with the results from the international surveys as a basis for policy development.

2. Development and implementation of LLL strategies.

In Norway lifelong learning has been on the political agenda for more than a decade and embedded into the system through several elements, such as universal access to early childhood education and care, a legal right to basic education, bridges between different types of education and training, no dead ends in mainstream education and training, arrangements for validation of non-formal and informal learning outcomes.

Norway has taken part in the establishment of the EQF and will develop qualification frameworks linked to the EQF at the levels of initial and tertiary VET. Norway has developed a qualifications framework for higher education based on the EQF and the overarching framework for the European Higher Education Area. No decision has been made concerning the general upper secondary education and a fully comprehensive NQF.

3. Attractiveness and relevance of Vocational Education and Training

Strengthening basic skills are intended to prepare students and apprentices for future changes in the labour market. All teachers and trainers are responsible for enabling students and apprentices to develop basic skills through their work in various subjects and learning situations and within all education programs.

Students in VET programmes have a much higher drop-out rate than pupils in general programs. In order to reduce the drop out rate pupils at lower secondary level have the possibility to try out upper secondary programs and to experience work-based learning to give them the possibility to develop a special interest for a subject. A certificate of practice which allows pupils with poor motivation to gain a formal certificate at a lower level than a crafts – or journeyman's certificate has been introduced.

4. Modernisation of Higher Education

No tuition fees are allowed at state institutions for ordinary degree programmes. Tailor-made programs for business and industry can generate income.

Distance education has increased greatly with the development of ICT-supported learning. In addition, ICT is now part of ordinary campus teaching, and since the end of 2004 all public

and the larger private institutions have learning management systems for course administration, teaching and learning (LMS).

Norway Opening Universities (NU) is an agency with a mandate to stimulate the development of flexible lifelong learning in higher education. The main objective for NU is to strengthen contact between the world of work and higher education.

The evaluation of NU will be finalised in 2009 and runs parallel to an analysis of the market for decentralised higher education. Both flexible (ICT-supported) learning and decentralised education provide higher education to the wider population. Therefore, the Ministry would like to consider the two modes of learning in conjunction when considering further policy-making.

There is a system of admission to HE on the basis of formal, non-formal and informal learning for applicants aged 25 and above, and through the so-called v-path (for all ages) it is possible to gain admission to particularly adapted higher education programmes on the basis of an upper secondary vocational qualification alone.

TURKEY

		Turkey		EU average		EU Benchmarks	
		2000	2008	2000	2008	2010	2020
Participation in early childhood education (4 years old - year before start of comp. primary)		11.6%	26.7% ⁰⁷	85.6%	90.7% ⁰⁷	-	95%
Low achievers (15 year-olds; PISA study results)	Reading	-	32.2% ⁰⁶	21.3%	24.1% ⁰⁶	17.0 %	15%
	Mathematics	-	52.1% ⁰⁶	-	24.0% ⁰⁶	-	15%
	Science	-	46.6% ⁰⁶	-	20.2% ⁰⁶	-	15%
Early leavers from education and training (age 18-24)		59.3%	46.6%	17.6%	14.9%	10 %	10%
Upper secondary attainment (age 20-24)		44.7% ⁰⁷	47.8%	76.6%	78.5%	85 %	-
MST graduates (higher education)	Increase since 2000	-	57.3% ⁰⁷	-	33.6% ⁰⁷	+15 %	-
	Share of females	31.1%	31.1% ⁰⁷	30.7%	31.9% ⁰⁷	Improve gender balance	-
Higher education attainment (age 30-34)		-	12.4%	22.4%	31.1%	-	40%
Adult participation in lifelong learning (age 25-64; 4 weeks period)		1.8 % ⁰⁶	1.8 %	8.5% ⁰³	9.5%	12.5 %	15%
Investment in education Public spending on education,% of GDP		2.59%	2.86% ⁰⁶	4.91%	5.05% ⁰⁶	-	-

⁰³ = 2003, ⁰⁵ = 2005, ⁰⁶ = 2006, ⁰⁷ = 2007, e = estimate, b = break, p = provisional,

PISA: reading: 18 EU countries, maths and science: 25 EU countries

"EU Benchmarks" are defined as "EU average performance levels" (weighted averages)

Turkey performs below EU average in all school related areas: *Participation in early childhood education, Low achievers in reading, mathematics and science, Early leavers from education and training and Upper secondary completion rate*. However, as regards all school related participation rates Turkey has made significant progress since 2000.

Another area in which Turkey has made progress is in increasing the number of *MST graduates*, for which the growth rate has been clearly above the EU average. At the same time the *Higher education attainment* level is significantly lower than the EU average level.

As concerns *adult participation in lifelong learning*, Turkey's performance has stagnated in recent years, but the participation rate remains one of the lowest in Europe.

Public investment in education as a % of GDP has increased since 2000 in Turkey, but is still clearly below EU average.

Turkey has already reached the EU benchmark of 2010 as regards the growth in the number of MST graduates.

1. Policies for development of the key competences

The rate of literacy is still a problem in Turkey; this situation is particularly prominent as regards women (19.6% not literate). Since 2006 the country developed its provision for Key Competences. Competence Based Modular Education Programmes are implemented in schools, are open to all kinds of horizontal and vertical transfer and lead to a wide base of certificate and diplomas encompassing all vocational and technical secondary education.

1.1. Curricular reforms

For mother tongue the education programme has been updated in all grades of general education from preschool to the 9th grade by taking the level of students in consideration. For vocational education and training the lesson of Communication is included in the framework of the education programme. For foreign languages education programmes contain the same skills as those in Turkish. First foreign language should be B2+ level at the end of 12th grade and second foreign language will be progressively included as compulsory. In vocational education foreign language subjects are included. For MST lessons are provided through all the school education cycle for cognitive development and mathematical, science and technology skills. For digital competence new education programmes are implemented from preschool to the 9th grade in secondary education institutions and in the scope of the SVET project for qualified vocational personnel.

For learning to learn programmes are student centred to help achieve skills and information as well in the general as in vocational education. For social and civic competence qualifications are provided through the lessons of social studies on primary level, and history in the level of general and vocational secondary education. Initiative taking and entrepreneurship is included in primary in the lessons of Turkish, Maths and sciences with the "Technology and Design Lesson Education Programme", and in vocational education in new modular VE programmes within SVET. Cultural awareness and expression are included in the Visual Arts Lesson Education Programme of 1-8 grades of primary and in the education programmes of secondary and vocational education.

1.2. Targeted provision of key competences

Disadvantaged groups (early school leavers, special needs) and adults (low skilled, aged workers) may participate in the courses provided within Public Education Centres and Open Primary School, be informed and assisted via internet Radio and TV and be awarded a diploma via distant education methods. Through the national vocational qualification system

to be established, information, skills and qualifications will be acknowledged within a national framework

1.3. Teacher training and approaches to assessment

The concept of Support to Basic Education (TEDP), created in the frame of Financing Agreement between Turkey and the EU is to determine of teacher competencies and includes: General Competencies for Teachers put into force in 2006, Specific field competencies including performance, put into force in 2008, a School Based Vocational Development guide to support the vocational and personal development of teachers along with the determination of General Qualifications for Teachers and Specific Field Competencies.

1.4. Evaluation of outcomes

The changes made in the structure of new education programmes implemented as of 2004-2005 included both result-oriented and process-oriented evaluation. In the evaluation carried out on national scale (Placement Test), process-oriented evaluation is focused on. Placement tests are performed at 6th, 7th and 8th grade. The use of self-evaluation, peer evaluation, product file (portfolio), observation etc. methods to observe the development of children is also stated in the Regulations on Primary Education Institutions. In VET, modular programmes which are already prepared have been designed to include both “summative” and “formative” student evaluation. When Vocational Qualifications Institute (MYK) starts to carry out its activities, all vocational standards will be prepared by MYK, social partners and sectors.

2. Development and implementation of LLL strategies.

The lifelong education strategy has been developed towards increasing the employment skills of individuals in line with the requirements of a changing and developing economy and labour market. The purpose of “Lifelong Learning Strategy Paper” is to establish a lifelong learning system that can respond to the needs and expectations of the society in Turkey and to bring this system to a functional and sustainable status.

Initial works towards the development of National Qualifications Framework (NQF) in Turkey have been initiated concurrently with the Project for Strengthening the Vocational Education and Training System. Works concerning the draft of Turkish National Qualifications Framework, which is largely in accordance with the EQF and which consists of eight levels, have been transferred to Vocational Qualifications Institute.

With the project of “Providing a Common Understanding on and Raising Awareness of Informal Learning in Turkey within the scope of Lifelong Learning” (2008), the issue has been put forward for discussion and first step towards raising a common understanding is taken to provide a validity and certification for informal learning.

3. Attractiveness and relevance of Vocational Education and Training

The system is based on programme type rather than the school type in vocational and technical education, transitions between programmes can be made. The lesson of “Promotion and Guidance” is added to the 9th grade curriculum, which is common for all secondary education: the students are aimed to know all the sectors and occupations and to choose the best occupation according to their interest and tendencies. CD and books promoting the academic and general occupations are for free. Protocols for education establish connections

with labour market for the vocational qualifications of teachers in their fields/occupation. Workforce market need analyses have been performed via cooperation with social stakeholders and competency-based modular training system has been implemented in the direction of need analyses for this labour market.

Education and training period of three-year general, vocational and technical high schools were gradually increased to four years in 2005-2006 education year, starting from 9th grade. Modular education programs of 42 fields and 197 branches are developed to be used at vocational and technical education schools and institutions and modular education programmes have been gradually implemented as of 2006-2007 education year.

4. Modernisation of Higher Education

Turkish higher education system is consisting of one type of institutions: universities. As of 2008, there are totally 130 universities (94 state and 36 non-profit foundations). Enrolment in the foundation (private) universities accounts for only 5.7 % of the total. A new funding mechanism for state-owned universities exists since 2007; it is a performance-based budget system. Since 2007, Turkey developed implementations in each topics of the Bologna Process. Establishment of NQF for HE should be implemented by the end of 2012. Flexible learning paths have been promoted via distance education programmes in various fields and in different HEIs. Financing model still has to be re-designed to allow for diversity of resources and equal opportunities and efficiency of use of the resources.

The major source of income of state universities is the funds allocated through the annual state budget. In addition each university has three more sources of income: services such as patient care and contract research, student contributions and a research fund, financed by the state. Financial autonomy is still limited and flexibility of use very little.