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PROGRESS TOWARDS THE COMMON OBJECTIVES IN EDUCATION AND TRAINING

INDICATORS AND BENCHMARKS

THE REPORT IS WRITTEN WITHIN THE FRAME OF THE OPEN METHOD OF CO-ORDINATION AND THE "DETAILED WORK-PROGRAMME ON THE FOLLOW-UP OF THE OBJECTIVES OF EDUCATION AND TRAINING SYSTEMS IN EUROPE"

CONTENT

EXECUTIVE SUMMARY

The present report is a contribution to the preparation of the first joint Communication of the Commission and the Council (Education) to the European Council in 2004 reporting on progress made in improving European education and training.

Following the Conclusions of the Heads of State in Lisbon in 2000 and their endorsement of the common objectives for education and training in Europe in Barcelona, 2002, a radically new process of co-operation has been launched in the education and training areas. The overall objective is to make education and training systems in Europe a world quality reference by 2010.

This report includes an analysis of 29 indicators identified and endorsed by the Standing Group on Indicators and Benchmarks, a working group set up as part of the objectives process. This is a first attempt at establishing a statistical framework for measuring progress towards the common objectives.

The performance of the Union with regard to the five reference levels of European average performance (Benchmarks) adopted by the Council in May 2003 figure prominently in this analysis.

The report analyses performance and progress of education and training systems using 29 indicators. The analysis covers 30 European countries.

Performance and progress of education and training systems in Europe

The analysis of available data in this report provides a number of central messages on the performance and progress of educational systems in Europe.

- The demographic situation of the TEACHING PROFESSION in the Union indicates that more than 1 million new teachers need to be recruited in primary and secondary education in order to meet replacement needs during the period 2000-2015.

- The European Union is on track to reach its objectives in relation to the COMPLETION OF UPPER SECONDARY EDUCATION. If present trends can be sustained there are reasons for optimism with regard to reaching the target set by the Council of 85% of 22 year olds completing upper secondary education, in 2010.

- A major effort is needed to reach the European benchmark concerning LOW PERFORMANCE IN READING LITERACY among 15-year-olds, and decreasing the rate by 20% in order to reach 13.7% low-performers in 2010.

- It appears from the analysis of existing data that it should be possible to achieve the benchmark set for 2010 to increase the number of GRADUATES IN MATHEMATICS, SCIENCE AND TECHNOLOGY by 15%. This entails increasing the number of graduates per year by 85 000 for EU-15 and by 100 000 for EU-25. To address the issue of gender imbalance among graduates in these fields could be a bigger challenge. Several countries encounter a very serious

imbalance between the numbers of female and male graduates. Moreover the Barcelona Council (2002) specified an objective towards the Lisbon Strategy: "increasing the European Union investment in research and development (R&D) up to 3% of GDP in 2010". This objective is an important challenge for the education and training system, especially in science and technology tertiary studies, as it implies an increase of about 50% of the total R&D personnel in the EU by 2010, as well as the replacement of the ageing population working in R&D.

- When it comes to answering the question whether the Union is on track to meet the call in the Lisbon Conclusions for a "significant yearly increase in per capita **INVESTMENTS IN HUMAN RESOURCES**", one observes that public investment in education and training (as a percentage of GDP) has shown slightly declining trends in recent years, possibly as a consequence of demographic changes. The rates of private investment in education and training are very modest in almost all Member States compared with the best-performing countries in the World.

- Reaching the European Benchmark of 12.5% of 25- to 64-year-olds participating in **LIFELONG LEARNING** activities by 2010 poses a significant challenge for many European countries. It will require drawing full benefit from good practices in the participating countries.

- When it comes to ensuring a significant fall in the rate of **EARLY SCHOOL LEAVERS**, reaching 10% in 2010, experiences during recent years seem to indicate that the benchmark can be reached, but it will clearly require substantial political action and sustained commitment from all countries.

- At present (2000) an average of only 1.4 and 1.5 **FOREIGN LANGUAGES** per pupil are taught, in general lower and upper secondary education respectively in the Member States. Major efforts will have to be made by most countries in order to reach the objective of a European average level of at least two foreign languages learned by all.

- As concerns **MOBILITY** of students/trainees and teachers/trainers, the international data collection suffers from major drawbacks. However, available data suggests that significant differences exist between the percentage of foreign students in European countries. The available data also give an indication of the success of the Community programmes Socrates/Erasmus and Leonardo da Vinci, which have experienced steep increases in the number of students/trainees involved.

Finally, Member States' position in terms of investment and performance in the knowledge-based economy is analysed using **COMPOSITE INDICATORS**. These indicators, although they are not based on the indicators used in the main body of the present document, are given as an example for future work. They attempt to capture the complex, multidimensional nature of the knowledge-based economy by aggregating a number of key variables, and expressing the result in the form of an overall index. The analysis clearly show that during the period 2000-2001 Member States have not invested in the knowledge strand of the Lisbon strategy and their performance has

deteriorated. It appears that acceding countries are catching up with regard to investment in the knowledge-based economy. However, this apparently does not translate into catching up in terms of performance in the knowledge-based economy in all acceding countries. Finally, the analysis shows that the US is ahead in terms of both investment and performance in the knowledge-based economy.

Improving the quality of indicators

Indicators and benchmarks are essential for the implementation of the open method of co-ordination and for the success of the Lisbon strategy. Without valid and comparable data, Member States will lack information on how their actions support the attainment of the Lisbon objectives by 2010.

However, there is an urgent need to improve the situation in order to make the necessary data and indicators available. The analyses in this report show that the need for the development of new indicators is particularly urgent in the area of key competencies and that, within this area, learning to learn and foreign language skills are to be considered absolute priorities.

In many more areas, all central to the success of the Lisbon strategy, the present analyses show that it is necessary to obtain new data on many aspects of education and training such as, for instance, data on: private investments in education and training; continuing training of teachers and trainers; adult education and competencies; mobility of students/trainees and teachers/trainers; and data on a series of core elements of lifelong learning such as access to education and learning possibilities, guidance and the flexibility and openness of learning systems.

Using sets of indicators instead of analysing individual indicators only can in many cases enhance the interpretation of the available data. The analysis in the fields of "investment in education and training" and "early school leavers" could, for instance, benefit from drawing on indicators from other fields. The result of using a more complex analytical framework is shown in the appendix on composite indicators.

The substantial demand for new data and new indicators that has emerged in connection with the implementation of the open method of co-ordination and the Lisbon objectives in the field of education and training, however, calls for priority-setting and the identification of a short-term and a longer-term strategy for the development of indicators and the underlying data making maximum use of the capacity of the European Statistical System.

SECTION A

INTRODUCTION

At the European Council meeting in Lisbon (2000) a whole new agenda for the European Union was announced by the Heads of State. The Union should, by 2010, become:

"..the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion".

Moreover, the conclusions of the European Council outlined a new method of European co-operation for achieving the goal:

"Implementation of the strategic goal will be facilitated by applying a new open method of co-ordination as the means of spreading best practice and achieving greater convergence towards the main EU goals. This method, which is designed to help Member States to progressively develop their own policies, involves:

- *fixing guidelines for the Union combined with specific timetables for achieving the goals which they set in the short, medium and long terms;*
- *establishing, where appropriate, quantitative and qualitative indicators and benchmarks against the best in the world and tailored to the needs of different Member States and sectors as a means of comparing best practice;*
- *translating these European guidelines into national and regional policies by setting specific targets and adopting measures, taking into account national and regional differences;*
- *periodic monitoring, evaluation and peer review organised as mutual learning processes.*[1] *"*

The "open method of co-ordination" is inspired by economic policy co-ordination that, through the broad economic policy guidelines, has taken place since 1993 with the entry into force of the Maastricht Treaty and the preparation of the Economic and Monetary Union. Moreover, the European Employment strategy, which was launched by the Luxembourg European Council in 1997 and codified in the Amsterdam Treaty, offers another early example of the open method of co-ordination in action. In these two areas, however, the open method of co-ordination is enshrined in the Treaty, whereas the Lisbon conclusions are the only legitimisation in other policy areas.

On the one hand, the open method of co-ordination defines the common outcomes or objectives in a given policy area. On the other hand, the open method of co-ordination is an instrument for identifying best policy practices, using the diversity of policy approaches in European countries as a grand reservoir of ideas for possible policy measures to achieve the agreed objectives or outcomes. The full use of indicators and benchmarks is central for the success of the method. In Brussels, March 2003, the European Council called explicitly for "using benchmarks to identify best practice" in the follow-up of the Lisbon Objectives and especially in order to ensure efficient and effective investment in human resources[2].

[1] Conclusions of Lisbon European Council 23/24 March 2000 - paragraph 37.
[2] Conclusions of the European Council in Brussels 20/21 March 2003, paragraph 40.

1. The role of Indicators and Benchmarks within the Open Method of Co-ordination

The shared European ambition of becoming the most dynamic knowledge-based economy in the world could become hollow if it did not entail measurable policy measures in areas of relevance for the overall ambition. Therefore, indicators and benchmarks are needed to make progress easily visible and to break down the overall ambition in achievable goals in different policy areas.

The Conclusions of the European Council's Spring Summits in Lisbon (2000), Stockholm (2001) and Barcelona (2002) provided a first set of messages regarding required guidelines and benchmarks for fulfilling the ambition. The Council (Education) has since further elaborated this list of guidelines and benchmarks in an ongoing process of finding relevant reference points for progress in contributing to the Lisbon ambitions by improving education and training in Europe.

The use of indicators for monitoring progress in the follow-up to the Lisbon conclusions is inherent to the process. In each one of the Commission reports to the Spring summits, the so-called Synthesis reports, an analysis is presented on progress made towards achieving the Lisbon ambition using a framework of structural indicators (including 42 indicators in 2003)[3]. Four of these indicators are specifically relevant for education and training. These indicators cover: "Spending on human resources", lifelong learning, science and technology graduates and early school leavers. Due to the very large number of indicators necessary to cover the full range of policy fields involved in the follow-up to the Lisbon conclusions, efforts have been made by the Commission services and especially DG RTD and DG EAC to develop specific composite indicators on "investment in the knowledge-based economy" and "performance in the transition to the knowledge-based economy", please see the appendix. Such indicators can in due time be applied to give an aggregated view of progress towards the Lisbon targets for the European knowledge economy.

The policy push for using indicators and benchmarks in the area of education and training became explicit in the Detailed Work Programme on the implementation of European common objectives in the field of education and training[4], which provides an "indicative list" of 33 indicators and indicator areas and a standard format to be used for measuring progress within the 13 objective areas.

In addition, the work programme outlines how progress in education and training will be monitored and measured:

"On the basis of chosen indicators for each objective an interim report foreseen in 2004 and the final report foreseen in 2010 will include an evaluation of progress

[3] See Communication from the European Commission on "Structural Indicators" COM (2003)585 – 8 October 2003.

[4] A more complete description of the concrete action taken by the European Commission services in order to implement the Detailed Work Programme, including the setting up of eight Working Group as well as the setting up of the Standing Group of Indicators and Benchmarks can be found in the Joint Intermediate Report prepared for transmission to the European Council meeting, Spring 2004.

made. Where feasible, European-wide benchmarks could be set by the Council, by consensus, within the scope of articles 149 and 150."

Therefore, indicators are in principle used for measuring progress in all objective areas. "Benchmarks" function as reference points for where the European Union should be in 2004 and in 2010. They point to areas where special policy efforts are necessary to improve education and training in Europe.

Monitoring performance and progress regarding Education and Training within the Open Method of Co-ordination.

Indicator	Present levels			Progress		Benchmarks	
Indicator definition	Average performance (EU)	Average of 3 best performing countries (EU)	USA and Japan	Up to 2004	Up to 2010	For 2004	For 2010

Moreover, as the "model" clearly suggests, comparisons should be made to performance in the US and Japan, i.e. third countries that are considered the main "competitors" in realising the ambition of becoming the most dynamic knowledge-based economy in the world.

Indicators should, however, not be considered only in their capacity for measuring progress. Indicators should function mainly as a basis for a constructive dialogue and exchange between Member States as a tool to understand the reasons for differences in performance, so that other countries can learn from policy practices adopted by the most successful countries. Therefore, indicators can be used as an instrument for stimulating the exchange of good experience and new ways of thinking about policy approaches. Using indicators as a vehicle for the exchange of best practice within the European Union is even more relevant when considering that a number of Member States are already achieving world-best performances in a number of objective areas, whereas others are faced with serious challenges.

2. An Initial Tool for Monitoring Performance and Progress of Education and Training Systems: 29 indicators and 5 European benchmarks

This report analyses performance and progress of education and training systems using 29 indicators. The decision on the indicators to be used within the framework of the Open Method of Co-ordination in the field of education and training should, in accordance with the Detailed Work Programme, be endorsed by the Council.

The indicators used in this report have been subject to in-depth analysis and have been endorsed by the Standing Group on Indicators and Benchmarks[5] – an expert group including members from all participating countries giving advice to the Commission on the use of indicators as tools for measuring progress towards common objectives and benchmarks. They have furthermore been endorsed by the relevant Working Groups set up to advice the Commission services in specific objective areas.

The point of departure for the work of the Standing Group on Indicators and Benchmarks was the indicative list of 33 indicators in the "Detailed Work Programme on the follow-up of the objectives of education and training systems in Europe[6]".

The mandate of the Standing Group of on Indicators and Benchmarks includes:

- Advising on the use of indicators and benchmarks within the Objectives process;
- Reviewing the existing range of data available in the light of the needs of European co-operation and policy co-ordination in the fields of education and training;
- Advising on the usability and comparability of existing indicators, and on proposals to develop new ones.

The main concern of the Standing Group on Indicators and Benchmarks has been to evaluate:

- The pertinence of the suggested indicators in relation to the objectives defined by the Council;
- The availability and relevance of data within each indicator area.

This report emphasises the role of indicators and benchmarks within the Open Method of Co-ordination in the framework of the Detailed Work Programme. The indicators and benchmarks are analysed, objective by objective, with the aim of both measuring performance and progress and pointing to examples of good policy practice by applying wherever possible data based on the 29 selected indicators within the following indicator areas:

[5] This process is recorded in the report "Final list of indicators to be used in the framework of the objectives report - Results of the consultation of the Working Groups on the work of the Standing Group on Indicators and Benchmarks".

[6] "Detailed Work Programme on the Follow-up of the Objectives of Education and Training Systems in Europe" jointly adopted by the Council and the Commission on 14 February 2002 (OJ of the European Communities C 142 of 14.06.2002).

Teachers and Trainers

Indicator n°1	**Age of teachers**
Indicator n°2	**Number of young people**
Indicator n°3	**Ratio of pupils to teaching staff**

Skills for the Knowledge Society

Indicator n°4	**Completion of upper secondary education**
Indicator n°5	**Low-performing students in reading literacy**
Indicator n°6-8	**Performance in reading, mathematical and scientific literacy**
Indicator n°9	**Participation in education or training of initially low qualified people**

Mathematics, Science and Technology

Indicator n°10	**Enrolment in mathematics, science and technology studies**
Indicator n°11-13	**Graduates in mathematics, science and technology**

Investments in Education and Training

Indicator n°14	**Public expenditure on education**
Indicator n°15	**Private expenditure on educational institutions**
Indicator n°16	**Enterprise expenditure on continuing vocational training courses**
Indicator n°17-18	**Total expenditure on educational institutions per pupil/student**

Open Learning Environment

Indicator n°19	**Participation in lifelong learning**

Making Learning more Attractive

Indicator n°20-21	**Participation in continuing vocational training**
Indicator n°22	**Participation rates in education**
Indicator n°23	**Early school leavers**

Foreign language learning

Indicator n°24	**Pupils learning foreign languages**
Indicator n°25	**Number of foreign languages learned**

Mobility

Indicator n°26	**Mobility of teachers and trainers**
Indicator n°27-29	**Mobility of students and trainees**

The full title of each of the 29 indicators can be found in annex 1.

It should be noted that not all of the thirteen objectives are covered by the present list of indicators. For example very important areas such as: Access to Information and Communication Technology, Active citizenship, Entrepreneurship or European co-operation are not covered by indicators. In these areas further work on the choice of - and where relevant the development of - indicators will have to be made.

3. Adoption by the Council of Five European Benchmarks in Education and Training.

In the Communication "European benchmarks in education and training: follow-up to the Lisbon European Council"[7] the Commission proposed five European benchmarks and invited the Council to adopt these benchmarks by May 2003.

Benchmarks were proposed in five areas which are central to the strategic goals set in Lisbon: Early school leavers; Graduates in mathematics, science and technology; Population having completed upper secondary education; Key competencies; and Lifelong learning. This Commission proposal was consequently followed up by Council Conclusions on European benchmarks[8].

The Council set five European benchmarks for the improvement of education and training systems in Europe up to 2010:

- **By 2010, an EU average rate of no more than 10% early school leavers should be achieved.**

- **The total number of graduates in mathematics, science and technology in the European Union should increase by at least 15% by 2010 while at the same time the level of gender imbalance should decrease.**

- **By 2010, at least 85% of 22 year olds in the European Union should have completed upper secondary education.**

- **By 2010, the percentage of low-achieving 15 year olds in reading literacy in the European Union should have decreased by at least 20% compared to the year 2000.**

- **By 2010, the European Union average level of participation in Lifelong Learning should be at least 12.5% of the adult working age population (25-64 age group)**

These European benchmarks are not concrete targets for individual countries to be reached by 2010. They are defined by the Council as "reference levels of European average performance". National governments are invited to consider, on the basis of these benchmarks, how, and to which degree, they can contribute, so that Europe (EU-25), in 2010, has reached the set targets. It is therefore essential that the indicators corresponding to the benchmarks are included in the list of 29 indicators.

The following main section of the report is divided into eight chapters, each one concentrating on areas of the thirteen Objectives of the Detailed Work Programme

[7] Communication from the European Commission "European benchmarks in education and training: follow-up to the Lisbon European Council" (COM (2002) 629) 20.11.2002. See for an analysis and discussion on the use of benchmarks in the field of education and training: Jaap Scheerens, Maria Hendriks (Eds.) "Benchmarking the Quality of Education", Study co-financed by the European Commission, Socrates programme, 2002.

[8] Council Conclusions of 5 May 2003 on "Reference Levels of European Average Performance in Education and Training (Benchmarks)" (OJ C 134, 7.6.2003).

covered by the 29 indicators and the five European benchmarks. In each chapter an analysis is made of the most recent valid and comparable data in order to evaluate the present levels of European performance. In areas where European benchmarks have been decided upon, the analysis, where possible, draws conclusions on the prospects for education and training systems in Europe of reaching the targets set by 2010.

The report analyses, where possible, data on the following countries:

European Union (EU) :
Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, UK

Acceding Countries (ACC) :
Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovenia, Slovakia

Candidates Countries (CC) :
Bulgaria, Romania

European Economic Area (EEA) :
Iceland, Liechtenstein, Norway

The graphs and tables in the report were prepared by Eurydice European Unit on the basis of data provided by Eurostat and the OECD.

SECTION B

PERFORMANCE AND PROGRESS OF EDUCATION AND TRAINING SYSTEMS IN EUROPE

I. IMPROVING THE QUALITY OF TEACHERS AND TRAINERS

1. Introduction

The Detailed Work Programme points out that "attracting and retaining well qualified and motivated people in the teaching profession, which is faced with massive recruitment needs due to the ageing of the teaching population, is a short and medium term priority in most European countries[9]". The ageing population is a general concern in the Union which has led to a series of Community initiatives due to the increasing number of retirements foreseen for the coming years in many countries.

"In general, the European Union is facing a pension problem, which should be redressed by encouraging active ageing and by discouraging early retirement incentives[10]."

"Efforts should be stepped up to increase opportunities for older workers to remain in the labour market, for instance, through flexible and gradual retirement formulas and guaranteeing real access to lifelong learning. A progressive increase of about 5 years in the effective average age at which people stop working in the European Union should be sought by 2010[11]."

These two recent declarations from the European Council regarding the problem of early retirement illustrate a key issue facing the teaching profession in Europe.

The Detailed Work Programme outlined the following four key issues:

1. Identifying the skills that teachers and trainers should have, given their changing roles in knowledge society

2. Providing the conditions which adequately support teachers and trainers as they respond to the challenges of the knowledge society, including through initial and in-service training in the perspective of lifelong learning

3. Securing a sufficient level of entry to the teaching profession, across all subjects and levels, as well as providing for the long-term needs of the profession by making teaching and training even more attractive

4. Attracting recruits to teaching and training who have professional experience in other fields

Indicators for monitoring performance and progress

Three indicators have been identified to address the issue of teachers and trainers:
- *Age distribution of teachers together with upper and lower retirement age*
- *Number of young people in the 0-14 and 15-19 age groups and as percentage of total population*
- *Ratio of pupils to teaching staff by education level*

[9] The Detailed Work Programme on education and training systems page 15.
[10] Presidency conclusions – Brussels, 20 and 21 March 2003 page 20.
[11] Presidency conclusion – Barcelona, 15 and 16 March, 2002 page 12.

Quality and availability of data and indicators

It is easy to see that these indicators do not adequately reflect the complexity of this objective area.[12] First, the only indicator that policy makers can really influence in the short term is the indicator on the ratio of pupils to teaching staff. Second, the three indicators selected in this objective area measure solely issues that relate to shortages/surpluses of teachers and do not address the strategically very important area of the quality and content of teaching.

However, the increasing average age of teachers is a worrying issue taking into consideration the central role of teachers in responding to changing social and economic conditions in the knowledge economy that is in the process of being established. Although an ageing teaching profession obviously implies a relatively more experienced teaching profession, it also implies increased needs for continuing training for updating and renewing professional competencies. The quality of the teaching profession is a key subject discussed in relation to a number of Objectives such as skills for the knowledge society, mathematics, science and technology, attractiveness of education and training, foreign language learning.

These considerations lead to the conclusion that a series of new indicators need to be developed:

- Indicators on teachers and trainers undergoing continuing training.
- Indicators on shortage/surplus of teachers.

The issue of the definition of "qualified teachers", which varies widely between European countries, will furthermore have to be addressed as well as the recognised shortcomings with regard to clear definitions and data on "trainers".

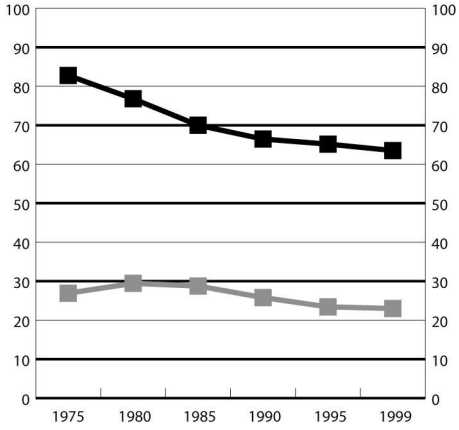
2. Performance and Progress in the field of improving the quality of teachers and trainers

Demography and the Teaching Profession

The number of young people in the Union is falling sharply, and has decreased by almost a quarter since 1975, from 83 million aged 0-14 in 1975 to 64 million in 1999 (see table below). This trend will not be altered by including data on the new Member States. In these countries the downward trend in the number of young people is even more pronounced.

[12] See for a comprehensive analysis on Eurydice "The Teaching Profession in Europe : Profile, Trends and Concerns" Key topics in Education in Europe, 4 volumes, 2003, Bruxelles.

Change in the numbers of young people in the 0-14 and 15-19 age groups in the European Union, from 1975 to 1999



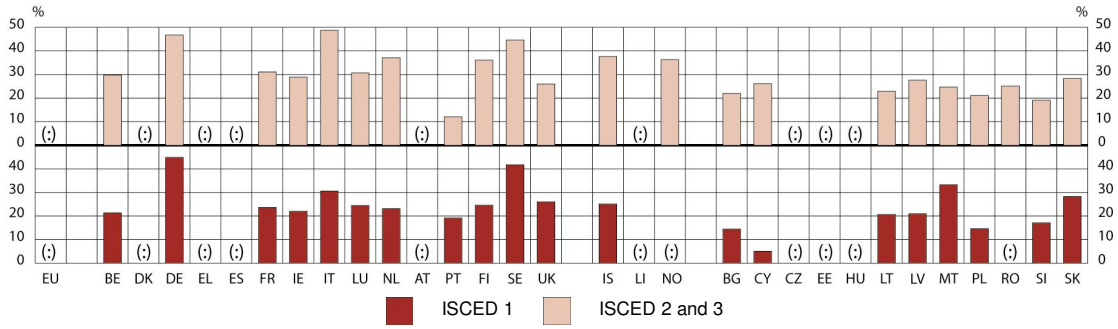
(mio)	1975	1980	1985	1990	1995	1999
ν	82.78	76.79	70.00	66.45	65.16	63.51
ν	26.92	29.43	28.76	25.79	23.41	22.99

ν 0-14 age group ν 15-19 age group

Data source: Eurostat, population statistics.

The teaching profession itself has also to face up to demographic change. Within the Union, in many countries more than 30% of secondary teachers are older than 49 and the proportion of older teachers has been growing in recent years.

Percentage of teachers older than 49 years old, ISCED 1 and ISCED 2-3, 2000/01



	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
	(:)	29.8	(:)	46.7	(:)	(:)	31.1	28.9	48.7	30.7	37.1	(:)	12.1	36.1	44.6	26.0
	(:)	21.4	(:)	44.9	(:)	(:)	23.6	22.0	30.6	24.5	23.1	(:)	19.2	24.6	41.7	26.0

	IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
	37.6	(:)	36.3		22.0	26.1	(:)	(:)	(:)	22.9	27.6	24.7	21.1	25.1	19.1	28.3
	25.1	(:)	(:)		14.5	5.1	(:)	(:)	(:)	20.7	21.0	33.3	14.6	(:)	17.1	28.3

Data source: Eurostat, UOE.

At lower and upper secondary level, more than 40% of teachers are older than 49 in Germany, Italy and Sweden. However, in other countries the situation is very different. In Portugal and Slovenia the percentage of teachers older than 49 is lower than 20%.

At primary level it is again in Germany and Sweden that more than 40% of teachers are older than 49 years.

The high proportion of older teachers implies a relatively more experienced teaching profession and increased needs for continuing training for updating and renewing professional competencies. However, a consequence is also an increased need for

recruiting new teachers replacing retiring older teachers. This is an issue further accentuated by the fact that most teachers leave the profession before "normal" retirement age[13]. The implications of these two factors for teacher education and recruitment are serious, particularly if combined with the difficulty which some countries experience in attracting highly qualified recruits[14].

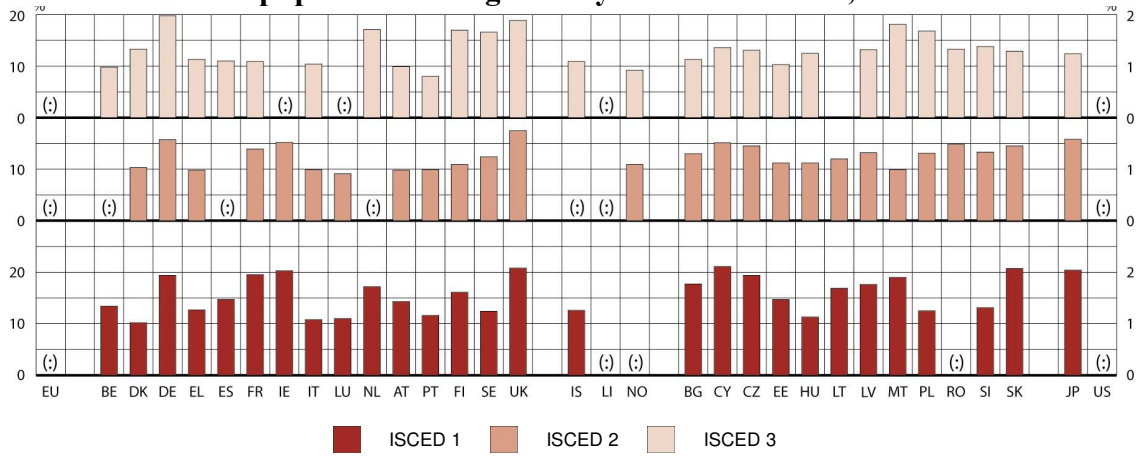
Taking into consideration that the Union presently counts some 4.5 million teachers (2001)[15] in primary and secondary education, the need of recruitment into the profession to satisfy replacements amounts, during the period 2000-2015, to significantly more than 1 million new teachers.

The Ratio of Pupils to Teaching Staff

Although the ratio of pupils to teaching staff of course fluctuates exogeneously as a consequence of demographic changes in the number of pupils, it can also in many countries be subject to policy initiatives and used by policy makers to counterbalance the effect of retirement and a likely shortage of teachers.

This ratio is also an important indicator of resources devoted to education, and it is often used as a proxy for quality of teaching and learning, assuming that a smaller ratio of pupils to teaching staff means better pupil access to teaching resources. The link between the ratio of pupils to teaching staff and quality of education is nevertheless highly complex and subject to debate.

Ratio of pupils to teaching staff by educational level, 2000/01



	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
ISCED 1	(:)		9.8	13.3	19.8	11.3	11.0	10.9	(:)	10.4	(:)	17.1	9.9	8.0	17.0	16.6	18.9
ISCED 2	(:)		(:)	10.3	15.7	9.8	(:)	13.9	15.2	9.9	9.1	(:)	9.8	9.9	10.9	12.4	17.5
ISCED 3	(:)		13.4	10.2	19.4	12.7	14.7	19.5	20.3	10.8	11.0	17.2	14.3	11.6	16.1	12.4	20.8

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
ISCED 1	10.9	(:)	9.2	11.3	13.6	13.1	10.3	12.5	(:)	13.2	18.1	16.8	13.3	13.8	12.9	12.4	(:)
ISCED 2	(:)	(:)	10.9	13.0	15.1	14.5	11.2	11.2	12.0	13.2	9.9	13.1	14.8	13.3	14.5	15.8	(:)
ISCED 3	12.6	(:)	(:)	17.7	21.1	19.4	14.7	11.3	16.9	17.6	19.0	12.5	(:)	13.1	20.7	20.4	(:)

Data source: Eurostat, UOE.

[13] Eurydice, "Key Data on Education in Europe" Bruxelles, 2002 - page 142.
[14] Report from the Education Council to the European Council "The concrete future objectives of education and training systems" 14 February 2001.
[15] Eurostat, UOE data collection, 2001.

There is a lot of variation in the ratio of pupils to teaching staff across countries. It is particularly relevant to compare the ratios at ISCED level 1, where in most countries one teacher is responsible for the class. Here, Denmark Italy, Luxembourg and Portugal have pupil/teacher ratios below 12. Within the EU, France, Germany, Ireland and the UK have ratios above 18. In acceding countries' pupil/teacher ratios range from 11 in Hungary to 21 in Cyprus.

3. Conclusion

Due to the present demographic situation of the teaching profession in the Union, over 1 million new teachers in primary and secondary education will have to be recruited during the period 2000-2015 just to ensure replacements. Pupil-teacher ratios will rise in Europe, if sufficient numbers of new teachers are not recruited, notwithstanding an expected decrease in the number of pupils during the coming years.

This implies that a number of countries should have policies in place for handling this situation in terms of:

- recruitment
- maintaining teachers in the profession, and
- retirement

Successful policy practices in these areas are important issues for the exchange of experience and, where relevant, peer reviews.

Moreover, in order to remedy the current lack of data in a number of essential areas, answers should be found to the following questions:

- How to measure other key issues undergoing the Detailed Work Programme including percentage of teachers and trainers in continuing training.
- The issue of the definition of qualified teachers, which varies widely between European countries as regards access to teacher training, length of studies etc.
- The establishment of a harmonised indicator on the shortage/surplus of teachers.

II. DEVELOPING SKILLS FOR THE KNOWLEDGE SOCIETY

1. Introduction

Key competencies represent a transferable, multifunctional set of knowledge, skills and attitudes that all individuals need for personal fulfilment and development, social inclusion and employment. These should have been developed by the end of compulsory school or training, and should act as a foundation for further learning as part of Lifelong Learning.

Completing upper secondary education and ensuring that an adequate level of key competencies is acquired by European citizens is extremely important in order to reach the Lisbon objectives for the European knowledge economy and knowledge society. Research demonstrates that participation in lifelong learning is closely linked to successful participation in previous education and to the skills level reached at the end of initial education.

The fundamental role of key competencies in our societies has been spelt out in the detailed work programme, which enumerates the following principal areas of basic skills

- Numeracy and literacy (foundation skills),
- Basic competencies in mathematics, science and technology;
- Foreign languages;
- ICT skills and use of technology;
- Learning to learn skills;
- Social skills;
- Entrepreneurship and
- General culture.

The key issues that should be addressed within this area were identified as follows in the detailed work programme:

1. Identifying new basic skills, and how these skills together with the traditional basic skills can be better integrated in the curricula, learned and maintained through life
2. Making attainment of basic skills genuinely available to everyone, including those less advantaged, those with special needs, school drop-outs and to adult learners
3. Promoting official validation of basic skills, in order to facilitate ongoing education and training and employability

Indicators for monitoring performance and progress

In this area two different sets of indicators have been chosen. A first set of two indicators looks respectively at successful completion of upper secondary education and at participation in education and training. A second set of four indicators concerns the measurement of skills acquired by 15 year olds. They all imply evaluation of success and attainment and stress two dimensions which are crucial for the assessment of skills.

These indicators should be read taking into account especially the benchmarks set by the Council, which cover both dimensions.

- *Percentage of those aged 22 who have successfully completed at least upper secondary education (ISCED 3).*
- *Percentage of adults with less than upper secondary education who have participated in any form of education or training, in the last 4 weeks by age group (25-34, 35-54 and 55-64).*
- *Percentage of pupils with reading literacy proficiency "level 1 and lower" on the PISA reading literacy scale.*
- *Distribution and mean performance of students, per country, on the PISA reading literacy scale.*
- *Distribution and mean performance of students, per country, on the PISA mathematical literacy scale.*
- *Distribution and mean performance of students, per country, on the PISA science literacy scale.*

The indicators chosen for this area give a satisfactory coverage of the key issue relating to skills availability (making attainment of basic skills genuinely available to everyone) by taking into account completion of upper secondary education, participation in education and, most importantly, attainment levels. However it should be a priority area to develop new indicators in the field of direct skills assessment. The key issue concerning the identification of new skills does not lend itself at present to being measured through indicators but rather to being investigated through examination of good practice. The same consideration applies to the key issue on validation of basic skills.

Quality and availability of data and indicators.

"Key competencies" should be a priority area for the development of new indicators in the field of direct skills assessment both at school age and for adults. The Council has set two benchmarks in this crucial area. One of them is supported by existing data from the PISA survey. The new phases of PISA already launched ensure continuing delivery of new data until at least 2010. Such data should be comparable with the data analysed above and it will therefore be possible to measure progress in this field in the participating countries (all EU member states and an increasing number of the new Member States).

Experience with the PISA survey[16] has shown that there is room for improving methodologies and analysis related to the survey in general and to the national implementation of the survey in particular, in order to reinforce the validity and the comparability of the results. Increasing the cooperation between the European participating countries could clearly support such development. Close cooperation in the field with the OECD Secretariat should be ensured as much as possible.

[16] OECD "Knowledge and skills for life – First results from Pisa 2000" Programme for International Student Assessment, PISA, Paris, 2001.

In the field of key competencies, however, we find areas where new indicators are clearly needed to support the implementation of the Detailed Work Programme in the field of education and training and the follow up of the Lisbon objectives. This appears to be especially urgent in the case of:

- learning to learn competence
- foreign language competence

Learning to learn competence, should be considered a prerequisite for skills oriented education and training approaches. Although some attempts have been made in this field within the PISA survey, a thorough approach should be adopted in order to develop a comprehensive tool to be used across a wide age range to measure these fundamental competencies.

Measuring language competencies is the most urgent priority, in a European Union which considers language diversity one of the main assets to be maintained and further developed. The Barcelona European Council has called for the development of such an indicator and work is in progress within the Commission to ensure its development at the earliest possible point in time.

Much remains to be done also in the field of adult competences to ensure a satisfactory coverage of the skills level of the adult population. Some results will be obtained by the ALL survey and more descriptive data will be gathered through the planned Adult Education Survey. A direct assessment of skills remains however at the heart of this matter. Some initiatives are currently in the pipeline within both the OECD and the Commission. Close co-operation in this crucial area is strongly recommended.

Developing the spirit of enterprise and entrepreneurial competence has been one of the priorities in defining the package of key competences in the knowledge-based society. The Commission's DG Enterprise has conducted a project on best procedure on education and training for entrepreneurship[17] with an indicative list of possible qualitative and quantitative indicators to measure progress in teaching entrepreneurship at various levels of education. Co-operation with the working group responsible for key competencies is needed to find the best possible ways to measure progress in this area.

2. Monitoring progress in the field of skills development for the knowledge society

Increasing the level of completion of upper secondary education

Completion of upper secondary level education by the greatest proportion of people in a knowledge society is a fundamental objective within the Lisbon process. Without high levels of general education especially among the active population, the dynamism and competitiveness of the economy and the society at large would be

[17] European Commission final report of the Expert Group "Best procedure" Project on Education and Training for Entrepreneurship. European Commission, November 2002. (mimeo) http://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/index.htm

jeopardized. This is why completion of upper secondary education was singled out by the Ministers for education as one of the main areas for European Benchmarks.

European Benchmark for 2010

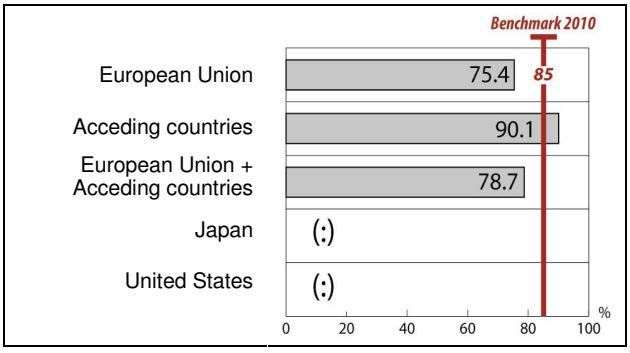
"**By 2010, at least 85% of 22 year olds in the European Union should have completed upper secondary education** [18]

This benchmark like all five benchmarks adopted by the Council (Education) in May 2003, was defined as an "average level of European performance". It is therefore not a target set for individual countries but a common European target of average performance. The following indicator is applied for measuring progress in the field: *Percentage of those aged 22 who have successfully completed at least upper secondary education (ISCED 3)*.

The figure below shows that the target of reaching a level of completion of upper secondary level education of 85%, in 2010, for those aged 22, is a significant challenge for the Member countries. The present average level in the Union is 75.4% (2002). It should be kept in mind that while several countries have only increased these figures slightly in recent years others have made great progress, like, for instance, Portugal. It should also be noted that "upper secondary level education" (ISCED 3) covers educational strands of very different order. As it can be seen in the Annex to this report, "ISCED 3" education covers both upper secondary education that gives access to a higher educational strand (ISCED 3A and 3B giving access to 5A and 5B respectively) and an upper secondary education strand, ISCED 3C, that does not give such access. In some countries "upper secondary level education" includes a relative high proportion of ISCED 3C that does not give access to higher education (ISCED 5). This is for example the case in France, Poland, Slovenia and the UK.

Completion of upper secondary education

Indicator: Percentage of those aged 22 who have successfully completed at least upper secondary education (ISCED 3), 2002



Data source: Eurostat, Labour force survey.
Additional note : - **Malta**= Data not available.
- In the European Union average, UK is not included. A definition of upper secondary school competion has to be agreed

[18] Indicator: *Percentage of those aged 22 who have successfully completed at least upper secondary education (Isced 3).*Labour force survey.

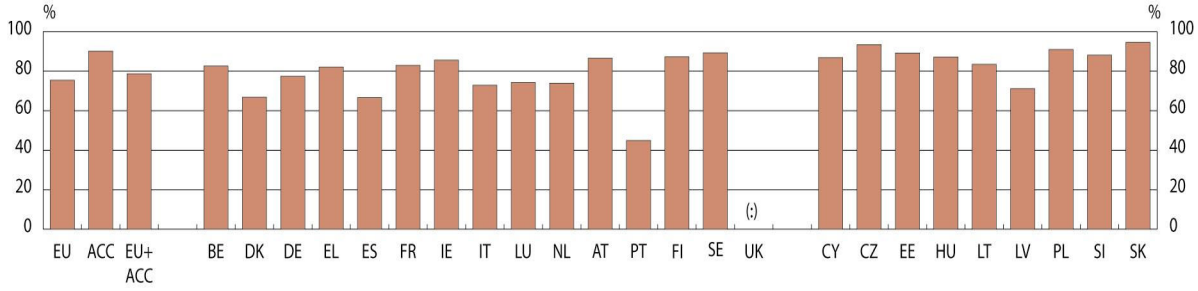
Over three-quarters of young people (75.4%) in the Union have successfully completed upper secondary education. On average, in the Union and the acceding countries, almost 79% of 22-year-olds have successfully completed at least upper secondary education. No comparable data exist presently in the field as concerns Japan and the US.

Several EU countries are at present achieving completion rates beyond 80% (see table below) such as Austria, Belgium, France, Greece, Ireland, Finland and Sweden. Conversely, Portugal has the lowest percentage among the Member States, 45%, a level that should however be seen in the context of its rapid growth during recent years.

As regards the acceding countries we observe in all of these a completion rate for upper secondary education that lies around the EU average figure or above. In fact most new member countries perform much better than the EU-15 average level in the field. The cases of Slovakia (94.6%), the Czech Republic (93.4%) and Poland (91.0%) are especially noteworthy. The average level of completion of upper secondary level education (22 years olds) in the new acceding countries, is thus 90.1 which is already above the target set for the Union for 2010.

As mentioned in the introduction to this chapter, completion of upper secondary education by the greatest possible proportion of young people is central to meeting the challenges of the Lisbon objectives. The Council has set a European Benchmark of 85% of 22 year olds completing upper secondary education by 2010, a target that can be considered as being fully attainable especially when new member countries enter the Union. Present trends in the field give reason for optimism. The Union can reach the target set for 2010 in the field if present trends are continued and even reinforced by the exchange of experiences and peer review of good policy practices.

Percentage of those aged 22 who have successfully completed at least upper secondary education (ISCED 3), 2002



BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
82.6	66.8	77.4	82.1	66.6	82.9	85.6	72.9	74.2	73.9	86.5	44.9	87.3	89.3	(:)

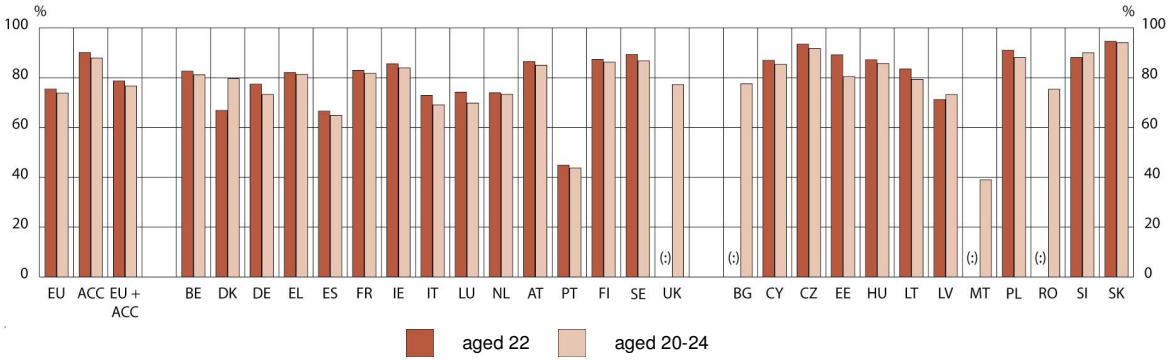
EU	ACC	EU + ACC		CY	CZ	EE	HU	LT	LV	PL	SI	SK
75.4	90.1	78.7		86.9	93.4	89.2	87.2	83.5	71.2	91.0	88.1	94.6

Data source: Eurostat, Labour force survey, 2002.
Additional note : UK is not included. A definition of upper secondary school competion has still to be agreed

The indicator presented here has been chosen in accordance with the benchmark adopted by the Council, which refers to 22 year olds. This indicator is considered however of limited validity by Eurostat, due to the relative small sample on which it is based within the Labour Force Survey.

If we analyse the more complete "Structural indicator" on "Educational attainment (20-24)", based on the educational attainment of the percentage of the population aged 20-24 having completed at least upper secondary education, and we compare it with the previous one, we note some differences.

Youth education attainment level - Total - Percentage of the population aged 22 and 20 to 24 having completed at least upper secondary education, 2002



	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
	82,6	66,8	77,4	82,1	66,6	82,9	85,6	72,9	74,2	73,9	86,5	44,9	87,3	89,3	(:)
	81,1	79,6	73,3	81,3	64,9	81,7	83,9	69,1	69,8	73,3	85	43,7	86,2	86,7	77,2*

	UE	ACC	UE+ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
	75,4	90,1	78,7	(:)	86,9	93,4	89,2	87,2	83,5	71,2	(:)	91	(:)	88,1	94,6
	73,8*	87,9	76,6*	77,5	85,3	91,7	80,4	85,7	79,3	73,2**	39**	88,1	75,3	90	94

Data source: Eurostat, Labour force survey.

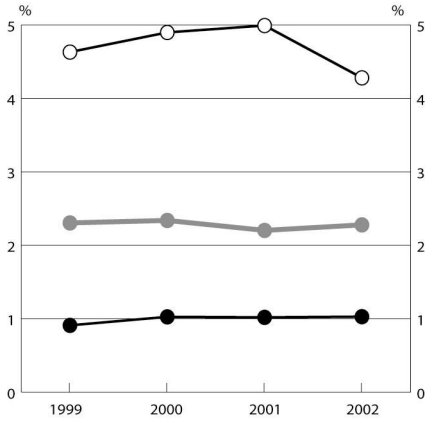
Additional notes :

* : Provisional data
** : Break in series

The differences relate to the performances of individual countries (e.g.: Denmark) and this confirms the limited validity of this indicator.

The trends shown by the previous indicator appear however unchanged. The position of the acceding countries comes out as even more favourable in relation to the benchmark and in general a slightly more positive outlook can be detected looking at the wider age range throughout Europe.

Percentage of adults with less than upper secondary education who have participated in any form of education or training, in the last 4 weeks by age group (25-34, 35-54 and 55-64), in the European Union, from 1995 to 2002



%	1999	2000	2001	2002
μ	4.6	4.9	5.0	4.3
λ	2.3	2.3	2.2	2.3
λ	0.9	1.0	1.0	1.0

μ 25-34 age group λ 35-54 age group λ 55-64 age group

Data source: Eurostat, Labour force survey.

Additional note:
Data for 1999, 2000, 2001 : Data for IE is missing

This indicator complements the previous one by showing a considerable increase in participation in education and training. The increase is particularly noticeable in participation in the younger group and can therefore be interpreted as a positive sign for the development of lifelong learning. It remains to be seen whether these trends will steadily increase in order to ensure that the benchmark adopted in the area of lifelong learning is achieved.

Developing key competencies

The second set of indicators linked to the area of "skills for the knowledge society" relates specifically to the measurement of attainment levels. At present, the most reliable comparable indicator of key competencies is provided by the OECD PISA 2000 survey that covers the proficiency levels in reading literacy, for 15-year-olds. Up to now, PISA 2000 can be considered the most comprehensive output survey in this complex area. These data can therefore be considered reliable proxies for measuring some of the foundation "skills for the knowledge society".

All individuals need a core set of knowledge, skills and attitudes for employment, social inclusion, subsequent learning and personal fulfilment and development. The PISA 2000 survey makes it possible for us to identify population groups who are inadequately prepared for such challenges and for lifelong learning as regards the foundation competencies such as literacy and mathematics. It is on the bases of such considerations that the Ministers for Education adopted a specific benchmark targeting low performance in reading literacy.

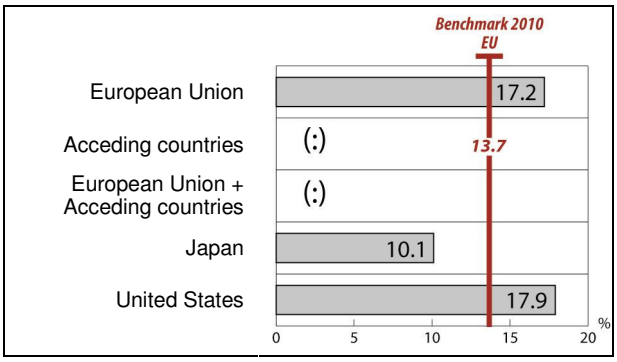
European Benchmark for 2010

By 2010, the percentage of low-achieving 15 years old in reading literacy in the European Union should have decreased by at least 20% compared to the year 2000.

This benchmark, adopted by the Council in May 2003, is based on an indicator taken from the PISA survey and in particular on the percentage of pupils with reading literacy proficiency at level 1 and lower in the PISA reading literacy scale.

Key Competencies

Indicator : Percentage of pupils with reading literacy proficiency level 1 and lower in the PISA reading literacy scale, 2000



Data source: OECD, PISA 2000 database.

Explanatory note

By 2010, the percentage of low-achieving 15 years old in reading literacy in the European Union should have decreased by at least 20% compared to the year 2000.

In 2000, the percentage of 15 year olds in level 1 or below in the European Union (15) is equal to 17.2. Therefore, the benchmark has been fixed at 13.7.

Each proficiency level is associated with certain tasks which students at this proficiency level are assumed to be able to complete. Students who have reached the highest level (5) are expected to be capable "of completing sophisticated reading tasks, such as managing information that is difficult to find in unfamiliar texts" or " being able to evaluate critically and build hypotheses" (OECD, 2001). At the lowest level (1) of proficiency, students are capable of "completing only the least complex reading tasks developed for PISA, such as locating a single piece of information, identifying the main theme of a text, or making a simple connection with everyday knowledge" (OECD, 2001).

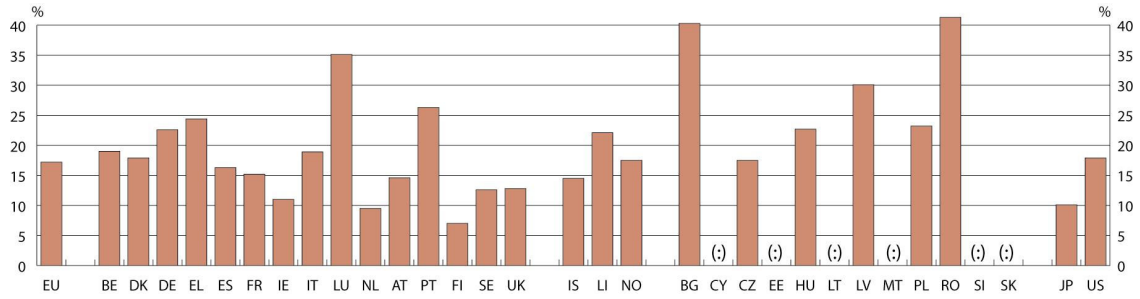
The analysis of the PISA results shows that a certain proportion of pupils in all countries participating in the survey do not reach even the lowest "proficiency level (1)". While performance at level 1 or below cannot be directly equated with illiteracy it is safe to assume that students at this level of attainment will experience serious difficulties when dealing with written information and thus with any learning process dependent upon written material.

Finland, Netherlands[19], Austria, Ireland, Sweden and UK all have less than 15% of 15 year olds that are low-performers in the sense of the PISA reading literacy survey. But other countries of the Union experience higher proportions of pupils in this category. In Germany, Portugal and Greece more than 20% are low performers according to the survey. In this field, the performance of some candidate countries, where the proportion of low performers reaches more than 40% (e.g.: Bulgaria) calls on our attention. As concerns the performance in third countries one notices that Japan, where the proportion of low performers is as low as 10.1 of 15 year olds is on a par with some of the highest-performing countries in Europe, whereas the US with 17.9% is performing less well than the present EU average level.

The table below shows that, on average, some 17.2% of 15 year olds are low performers in the member countries. Following the European benchmark adopted by the Council this proportion should be decreased by 20% and reach 13.7% in 2010 as a European average performance level. To reach such lower levels by 2010 will be a major challenge for many countries. It would demand that both the more and the less successful countries in the field, find ways and means for further progress, attacking the problem of low performance in reading literacy among 15 year olds. In this field it is very clear that some countries have very good experience and practices to share to the benefit of others. Looking at the present situation it is reasonable to ask which practices have been implemented in, for example, Finland and the Netherlands to make these countries so successful in limiting the proportion of low-performing 15 year olds in reading literacy.

[19] The results of the Netherlands have been published only partially in the OECD PISA report, because the Netherlands did not meet the required response rate of 80%; nevertheless the response received was representative. (CITO, December 2001)

"Percentage of pupils with reading literacy proficiency level 1 and lower in the PISA reading literacy scale", 2000

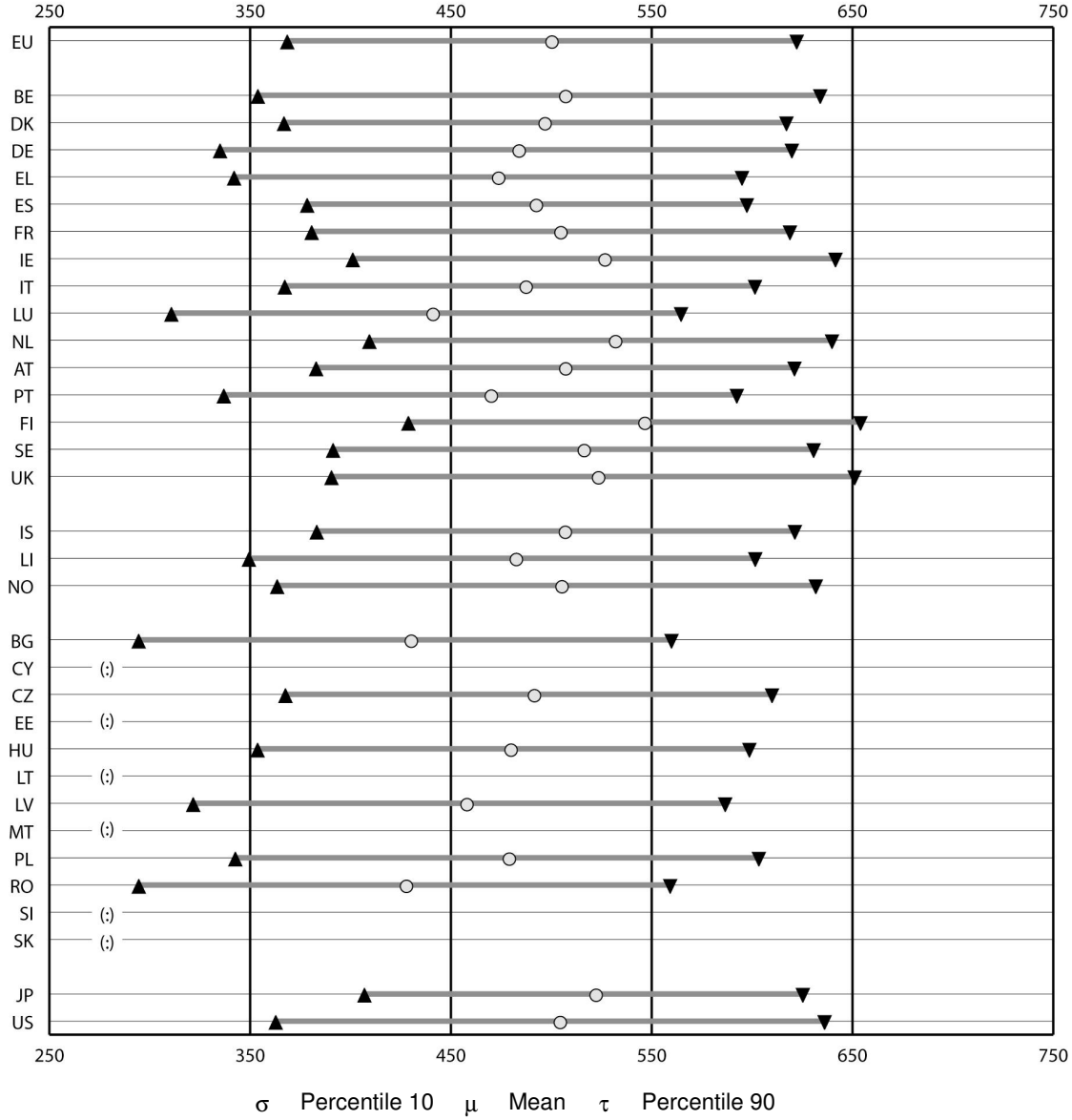


EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
17.2		19.0	17.9	22.6	24.4	16.3	15.2	11.0	18.9	35.1	9.5	14.6	26.3	7.0	12.6	12.8
IS	**LI**	**NO**	**BG**	**CY**	**CZ**	**EE**	**HU**	**LT**	**LV**	**MT**	**PL**	**RO**	**SI**	**SK**	**JP**	**US**
14.5	22.1	17.5	40.3	(:)	17.5	(:)	22.7	(:)	30.1	(:)	23.2	41.3	(:)	(:)	10.1	17.9

Source: OECD PISA 2000 database.

Whereas the distribution across proficiency levels indicates the proportion of students in each country that can demonstrate a specified level of knowledge and skills, the following indicator (*The distribution and mean performance of students, per country, on the PISA reading literacy scale)* focuses on the relative distribution of the score, i.e. the gap that exists between students with the highest and the lowest level of performance *within* each country. The graph below shows that in countries like Finland, the Netherlands, Italy, and Spain the difference in reading literacy attainment is especially low whereas it is relatively high in countries like Belgium, Germany and the UK. The big difference for the Belgian students is to a large extent due to the differences between the Flemish and the French Communities of Belgium. The cases in particular of Finland, but also of Japan, indicate that it is possible to combine high performance standards with an equitable distribution of learning outcomes. Again, one might ask what practices that other countries could learn from are behind such success in these countries.

Distribution and mean performance of students, per country, on the PISA reading literacy scale, 2000



	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
mean	500		507	497	484	474	493	505	527	487	441	532	507	470	546	516	523

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
mean	507	483	505	430	(:)	492	(:)	480	(:)	458	(:)	479	428	(:)	(:)	522	504

Source: OECD, PISA 2000 database.

Although the testing in mathematical and scientific literacy was less comprehensive in PISA 2000 than the one on reading literacy, these two indicators provide additional information about the skills acquired by 15 year old students. (See the Annex table 1.2 C-E)

The comparison between the results in mathematical, scientific and reading literacy performance **within countries** makes it possible to determine the countries' relative strengths in the different domains. A further analysis of these elements could be useful to determine strengths and weaknesses in relation to Objective 1.4 - Increasing

recruitment to scientific and technical studies and to identify good practice in these very relevant areas.

Many countries achieved similar results in reading, mathematical and scientific literacy. There are, however, some exceptions. Denmark, Hungary and Japan are among the countries that show better performances in mathematical than in reading literacy. Countries with relative strength in reading rather than in maths are Finland, Greece, Ireland, Italy and Sweden. In the comparison between reading and scientific literacy, we note that Austria, the Czech Republic, Hungary and the United Kingdom perform better in science than in reading literacy, while the opposite relates to countries such as Belgium, Finland, and Ireland.

Numeracy and literacy (foundation skills) as well as basic competencies in mathematics, science and technology are all included in the list of key competencies. High attainment levels in one of these areas, but not in others, in specific countries, could point, on a national level, to experiences and good practices that could be applied to improve overall performance.

3. Conclusion

The two European benchmarks that have been adopted by the Council in this field to identify levels of European average performance for 2010: "completion of upper secondary education" and "attainment levels in reading literacy" highlights the vital importance of this area. The analysis that we have presented above shows that the European Union is on track to reach its objectives in relation to the completion of upper secondary education. The European benchmark set by the Council of reaching 85% of 22 year olds completing upper secondary education by 2010 as European average performance is a target that can be achieved, especially when the new member countries enter the Union.

The objective concerning "new skills" or "key competencies" as defined by experts, is one of the cornerstones in the education and training strategy for the achievement of the Lisbon objectives. Without sufficient levels of key competencies, including necessary skills, attitudes and knowledge, Europe will not be able to answer the challenges of the knowledge society.

In the field of key competencies, some 17.2% of 15 years olds are low performers in reading literacy in the member countries. Following the European benchmark adopted by the Council, this proportion should be reduced by 20% in order to reach 13.7% in 2010 as a European average performance level. Reaching such lower levels by 2010 will demand a major effort of all countries. Both the more and the less successful countries in this field will have to find ways and means for further progress, attacking the problem of low performance in reading literacy among 15 year olds. In this field some countries have very good experience and practices to share for the benefit of others. The reservoir of good practices available in Europe must be drawn upon by identifying, through the chosen indicators, the poles of excellence existing in the different areas. Which practices have been implemented, for instance, in Finland and in the Netherlands to make these countries so successful in limiting the proportion of low-performing 15 year olds in reading literacy?

The search for good practice should not be limited to Europe either. In our analysis we highlighted the cases of Finland, but also of Japan, which show that it is possible to combine high performance standards with an equitable distribution of learning outcomes among pupils. Other countries could learn what practices are behind such success stories.

The area of "key competencies" will clearly be one of the central areas where new indicators need to be developed. Further developments are needed in the areas of adult competencies and entrepreneurship and, as stated above, indicators in following fields will have to be considered absolute priorities in this context:

- Adult competencies
- learning to learn competence and
- foreign language competence

III. INCREASING RECRUITMENT TO SCIENTIFIC AND TECHNICAL STUDIES

1. Introduction

The issue of increasing recruitment to scientific and technical studies has been emphasised on numerous occasions in various settings. In the Detailed Work Programme, for instance, it is stressed that:

"Scientific and technological development is fundamental for a competitive knowledge society.[…]. All citizens need a basic understanding of mathematics, science and technology. If Europe is to maintain, let alone to improve, its position in the world, and to meet the Lisbon targets, it must do more to encourage children and young people to take a greater interest in science and mathematics […][20]."

Moreover, by adopting on 5 May 2003 a benchmark in this area, the Council wanted to underline that it was willing to put action behind these words. In its Conclusions on European Benchmarks, the Council made reference to the necessity of an adequate output of scientific specialists in order for Europe to become the most dynamic and competitive knowledge-based economy in the world. Moreover, it underlined that the education of these specialists was all the more important in the light of the Barcelona European Council goal of increasing the overall spending on research and development (R&D) with the aim of approaching 3% of GDP by 2010[21]. The Communication (COM(2003)226 final) "Investment in research: an action plan for Europe" evaluates the future needs in R&D personnel in 2010, which implies the need of new skilled persons: an increase of 1.2 million R&D personnel, of which 700 000 researchers, is foreseen. Education and training systems have to be aware of the efforts which are necessary to provide the number of graduates and PhDs who will make their career in research. In order to reach this objective, it is recognised *inter alia* that more women are needed in the scientific and technological professions[22]. The actual benchmark reads[23]:

European Benchmark for 2010

The total number of graduates in mathematics, science and technology in the European Union should increase by at least 15% by 2010 while at the same time the level of gender imbalance should decrease.[24]

[20] The Detailed Work Programme on the Follow-up of the objectives of education and training systems in Europe, op.cit.

[21] See European Commission "Third European Report on Science and technology Indicators, 2003" Dg RTD, Bruxelles, 2003.

[22] European Commission, "She Figures 2003" OPOCE, Luxembourg, 2003, 118pp. ISBN: 92-894-5812-7

[23] Council conclusions of 5 May 2003 on reference levels of European average performance in education and training (Benchmarks) (2003/C 134/02).

[24] Indicator: "*Total number of tertiary (ISCED 5A, 5B and 6) graduates from mathematics, science and technology fields".*

The European Council has also emphasised that *"Special attention must be given to ways and means of encouraging young people, especially women, in scientific and technical studies as well as ensuring the long-term recruitment of qualified teachers in these fields*[25]".

However, it is interesting to note that Europe "produces" more science graduates (PhDs) than the United States but has fewer researchers in the labour market. The way in which research careers are structured and organised in Europe, does not allow Europe to fully exploit its potential in this field. The Commission has analysed[26] the structural weaknesses which condition and shape research careers in Europe and these, together with the different administrative, cultural, geographical and legal environments in which researchers work, prevent the development of proper career perspectives at European level as well as the emergence of a real employment market for researchers in Europe. In order to overcome this, the Commission has proposed a range of concrete measures aimed at providing a better overall coordination of efforts in favour of the recognition of the researcher's profession in Europe thus establishing the dynamics for a European labour market for researchers.

In the Detailed Work Programme, four key issues are enumerated:

1. Increasing the interest in mathematics, science and technology from an early age
2. Motivating more young people to choose studies and careers in the fields of mathematics, science and technology in particular research careers and scientific disciplines where there are shortages of qualified personnel, in a short- and medium-term perspective, in particular through the design of strategies for educational and vocational guidance and counselling
3. Improving gender balance among people learning mathematics, science and technology
4. Securing a sufficient numbers of qualified teachers in mathematics and scientific and technical subjects

Indicators for monitoring Performance and Progress

The following indicators have been selected to monitor progress in the area:

- *Students enrolled in mathematics, science and technology as a proportion of all students in tertiary education (ISCED 5A, 5B and 6)*
- *Graduates in mathematics, science and technology (ISCED 5A, 5B and 6) as percentage of all graduates (ISCED 5A, 5B and 6)*
- *Total number of tertiary (ISCED 5A, 5B and 6) graduates from mathematics, science and technology fields*
- *Number of tertiary graduates in mathematics, science and technology per 1000 inhabitants aged 20-29 - Broken down by ISCED levels 5A, 5B and 6*

The selected indicators, which are all to be broken down by sex, mainly cover key issue 3 i.e. improving the gender balance. However, key issues 1 and 2 (i.e. increasing

[25] Stockholm European Conclusions of 23/24 March 2001.
[26] Please see Communication from the European Commission "Researchers in the European Research area: One profession, multiple careers" COM (2003) 436 of 18 July 2003.

the interest in mathematics, science and technology from an early age and motivating more young people to take up studies in these fields) are covered implicitly, since an increase in interest or motivation will naturally over time increase the number of graduates.

This is also a reason for analysing this area in close connection with the area of basic skills[27] where the OECD PISA study provides essential information on pupils' skills and interest in this area.

Quality and availability of data and indicators

With regard to the data obtained on these four indicators, it should be pointed out that double counting of graduates is a problem in some countries because of the specific features of the educational system (for instance in France). What occurs is that both first and second degrees are counted as graduates implying that the actual number of graduates is overestimated. Some countries cannot provide the unduplicated count of graduates by field of studies. The full comparability, between countries, of the data in this field is therefore questionable.

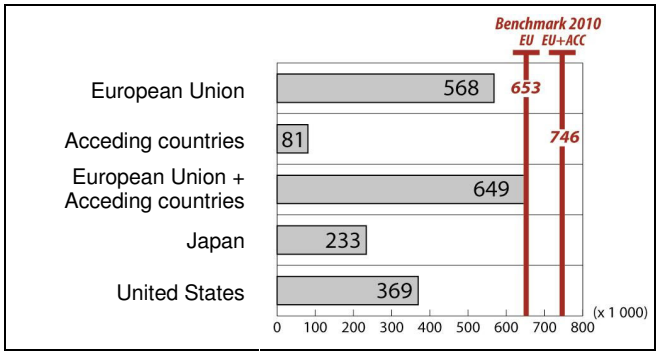
2. Monitoring Performance and Progress in the field of increasing recruitment to scientific and technical studies

Number of Graduates in Mathematics, Science and Technology

As mentioned above, the Council adopted an ambitious benchmark regarding the total number of tertiary graduates in the fields of mathematics, science and technology. However, based on a current EU growth rate[28] of 2.66% per year [29], the EU should be on track to fulfil the benchmark of increasing the total number of graduates in these fields by 15% in 2010.

Graduates in Mathematics, Science and Technology

Indicator : Total number of tertiary (ISCED 5A, 5B and 6) graduates from mathematics, science and technology fields, 2001



Data source: Eurostat, UOE.

Additional notes

Denmark, France, Italy, Luxembourg, Finland, United Kingdom, Cyprus and **United States**: Data refer to 2000.
Greece: Data not available.

[27] Please see chapter on developing skills for the knowledge society.

[28] Please find figures for all EU countries in report from the European Commission "Third European report on Science & Technology Indicators 2003" page 187, op. cit.

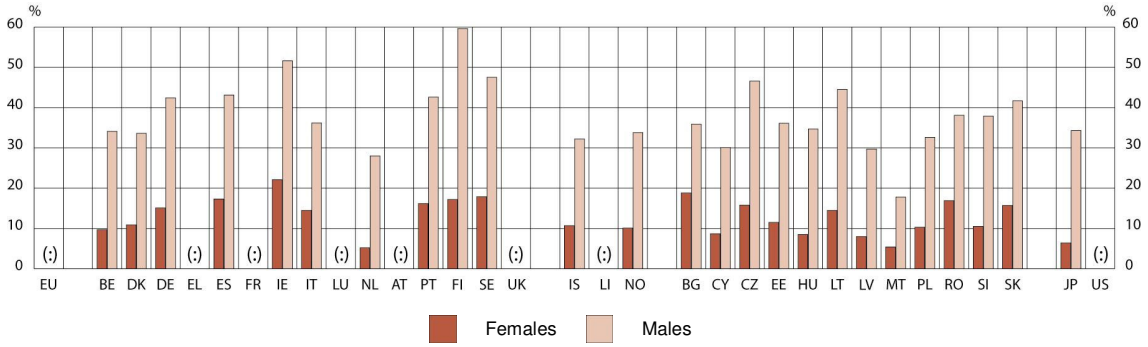
[29] Based on the observed growth rate from 1998-2000. Source: European Commision DG Research; Data source: Eurostat. Note: 1998-1999: No data for EL, P which are not in the EU average. Data however analyses science & engineering and not mathematics, science and technology.

The available data tells us that EU-15 would need to increase the number of graduates in mathematics, science and technology by more than 80 000 per year by 2010. Following the next enlargement of the Union, in 2004, the benchmark is naturally increasing and EU-25 will need to increase the total number of graduates in the fields by nearly 100 000 per year.

Student Enrolment Rates and Gender

When studying enrolment rates in mathematics, science and technology, it is clear why the Council Conclusion on European Benchmarks[30] also made reference to the gender imbalance as a highly relevant issue in this area, as did also the Commission in its original proposals [31]. In fact, Ireland is the only country where more than 20% of the females in tertiary education are enrolled in the fields of mathematics, science and technology.

Students enrolled in mathematics, science and technology as a proportion of all students in tertiary education (ISCED 5A, 5B and 6), 2001



	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
Total	(:)		21.2	20.8	29.1	(:)	29.5	(:)	35.5	24.0	16.8	16.5	(:)	27.5	36.8	30.0	(:)
Females	(:)		9.7	10.9	15.1	(:)	17.3	(:)	22.1	14.5	(:)	5.2	(:)	16.2	17.2	17.9	(:)
Males	(:)		34.1	33.6	42.4	(:)	43.1	(:)	51.6	36.2	(:)	28.0	(:)	42.6	59.6	47.5	(:)

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
Total	18.7	(:)	19.8	26.2	17.7	31.3	21.3	20.4	26.6	16.3	11.0	19.9	26.9	22.5	28.3	21.9	(:)
Females	10.7	(:)	10.1	18.8	8.7	15.8	11.5	8.5	14.5	8.0	5.4	10.3	16.9	10.5	15.7	6.4	(:)
Males	32.2	(:)	33.8	35.9	30.1	46.6	36.1	34.7	44.5	29.7	17.8	32.6	38.1	37.9	41.7	34.3	(:)

Data source: Eurostat, UOE, 2001.

By contrast, in the Netherlands and in Belgium less than 10% of the females in tertiary education are enrolled in the fields of mathematics, science and technology. Also in a number of acceding countries (Cyprus, Hungary, Latvia and Malta) the share of females enrolled in the fields of mathematics, science and technology accounts for less than 10% of females enrolled in tertiary education. Therefore, improving the gender balance of students in the area of mathematics, science and technology might actually contain the answer to increasing the overall level of graduates in these fields.

[30] Council Conclusions of 5 May 2003 - Official Journal of the European Union C 134/4 (7.6.2003).
[31] See the Communication from the European Commission on European benchmarks in education and training, op. cit.

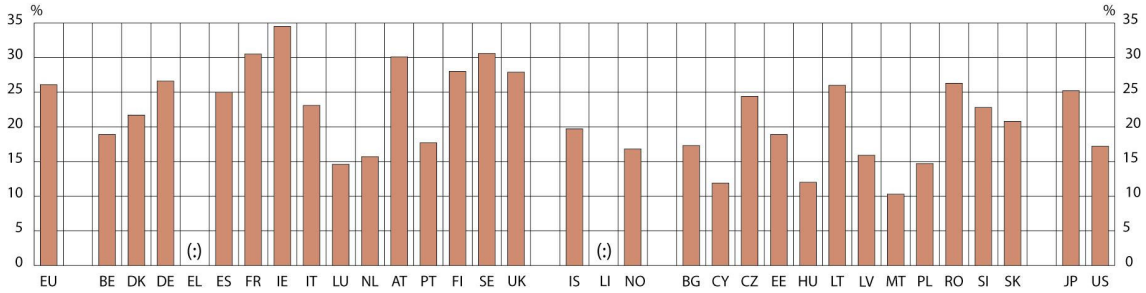
When analysing the proportion of males enrolled in mathematics, science and technology as a proportion of all students in tertiary education, it is evident that these fields of study are most popular among males in Ireland and Finland. In these two countries more than 50% of male students are enrolled in these fields.

These differences in enrolment rates translate into marked differences between European countries as regards the proportion of mathematics, science and technology graduates as a percentage of all graduates.

The Relative Size of Number of Graduates in Mathematics, Science and Technology

On average 26.1% of the graduates in the EU are graduates from mathematics, science and technology. However, in France, Ireland and Sweden graduates in mathematics, science and technology account for more than 30% of the total number of graduates, while in Belgium, Luxembourg, Portugal and the Netherlands this share is below 20%. In all acceding countries the share of graduates in mathematics, science and technology is below the EU average. Moreover the share is below 15% in countries like Cyprus, Hungary, Malta and Poland.

Graduates in mathematics, science and technology (ISCED 5A, 5B and 6) as percentage of all graduates (ISCED 5A, 5B and 6), 2000



EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
26.1		18.9	21.7	26.6	(:)	25	30.5	34.5	23.1	14.6	15.7	30.1	17.7	28.0	30.6	27.9

IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
19.7	(:)	16.8	17.3	11.9	24.4	18.9	12.0	26.0	15.9	10.3	14.7	26.3	22.8	20.8	25.2	17.2

Data source: Eurostat, UOE, 2000.

It is interesting to note that also in Japan and the US, the share of graduates in mathematics, science and technology is below the share in EU-15.

More than twice as many men compared to women graduate from these fields in Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands Spain, Sweden, and the UK. The best performing countries as regards the proportion of women graduates in mathematics, science and technology are Ireland, Italy and Portugal[32].

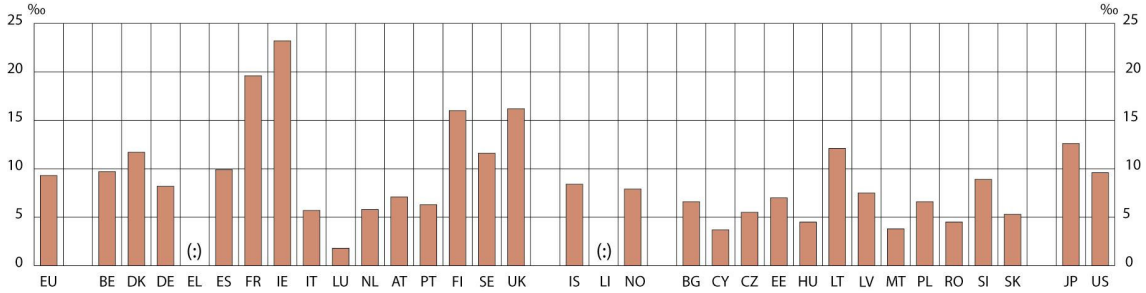
Naturally these differences also impact on the number of tertiary graduates in mathematics, science and technology per 1000 inhabitants aged 20-29 (see graphics

[32] See the Communication from the European Commission on European benchmarks in education and training, op. cit.

below). The EU average is 9.3 graduates in mathematics, science and technology per 1000 inhabitants aged 20-29. The highest share is found in Ireland where 23 graduates per 1000 inhabitants aged 20-29 are graduates in mathematics, science and technology. France, the UK and Finland follow, while Belgium, Germany, Spain, Italy, Luxembourg, the Netherlands, Austria and Portugal all have less than 10 tertiary graduates in mathematics, science and technology per 1000 inhabitants aged 20-29.

In the acceding countries only Lithuania has more than 10 tertiary graduates in mathematics, science and technology per 1000 inhabitants aged 20-29. All other acceding countries have fewer than 10 tertiary graduates in mathematics, science and technology per 1000 inhabitants aged 20-29.

Number of tertiary graduates in mathematics, science and technology per 1000 inhabitants aged 20-29 (ISCED levels 5A, 5B and 6), 2000



EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
9.3		9.7	11.7	8.2	(:)	9.9	19.6	23.2	5.7	1.8	5.8	7.1	6.3	16.0	11.6	16.2

IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
8.4	(:)	7.9	6.6	3.7	5.5	7.0	4.5	12.1	7.5	3.8	6.6	4.5	8.9	5.3	12.6	9.6

Data source: Eurostat, UOE, 2000.

3. Conclusion

It appears from the analysis of existing data that the benchmarks set by the Council for 2010 on increasing the number of graduates in mathematics, science and technology by 15% should be attainable. It involves an increase in the number of graduates per year by more than 80.000 for the EU- and by nearly 100.000 for the EU-and the ACC together. To address the issue of gender imbalance among graduates in these fields could be a bigger challenge. Indeed, several countries encounter a very serious imbalance between the numbers of female and male graduates. In this specific field the participating countries could certainly benefit from the exchange of experience on good practice. To alter the present situation in many countries it will be necessary to identify new successful methods and ways forward for motivating women and girls to pursue studies in mathematics, science and technology.

It should furthermore be noted that improving of the gender balance of students in the area of mathematics, science and technology might actually in itself contribute to achieving the objective of increasing the overall number of graduates in these fields.

Mathematics, science and technology appears to be an area where new indicators are not necessarily required. The already existing data should allow Member States to identify countries where examples of best policy practice exist. Based on the preceding analysis, a number of questions could be taken up by the working group on mathematics, science and technology, for instance:

- Why do relatively more students in France, Ireland, Finland and Sweden choose to study in these fields, compared to other countries?
- Why are women in Spain, Ireland, Finland and Sweden relatively more inclined to take up studies in these fields compared to other countries?

IV. MAKING BEST USE OF RESOURCES

1. Introduction

People are Europe's main asset and should be the focal point of the Union's policies. Investing in people and developing an active and dynamic welfare state will be crucial both to Europe's place in the knowledge economy and for ensuring that the emergence of this new economy does not compound the existing social problems of unemployment, social exclusion and poverty[33]. In Lisbon (2000), the European Council called for "a substantial annual increase in per capita investment in human resources".

In Brussels on 20/21 March 2003, the European Council underlined that: "investing in human capital is a prerequisite for the promotion of European competitiveness, for achieving high rates in growth and employment and moving to a knowledge based economy" and furthermore called for "using benchmarks to identify best practice and to ensure efficient and effective investment in human resources [34]".

Investments in human resources is an issue of great importance and the level of investment in education and training has implications for all 13 objectives and most key issues in the Detailed Work Programme.

The Commission has recently stressed the efficiency aspect of investing in human resources. In the Communication "Investing efficiently in education and training: an imperative for Europe" [35], the Commission analysed a new investment paradigm in education and training. In this Communication it is asserted that the EU suffers from under-investment in human resources. However, the main issue in this Communication is to explore efficient investment in human resources, and to investigate signs of inefficiency.

Moreover, the contribution of education and training to economic growth is debated in this Communication. Even though research points to a very positive relationship[36], investments in human resources are investments with long-term returns which are difficult to quantify precisely. Such investments are in most countries to the largest part the responsibility of the public sector as long term investment of "general interest".

However, in a fully developed knowledge society this might change. The returns of investments in education and training of private households and enterprises might become more visible and less long term in a society where lifelong learning is central.

[33] Conclusions of the European Council in Lisbon 23/24 March 2000 paragraph 24.
[34] Conclusions of the European Council in Brussels 20/21 March 2003 paragraph 40.
[35] COM (2002) 779 of 10.01.2003
[36] See for instance: De la Fuenta and Ciccone "Human Capital in a global and knowledge-based economy", final report for the DG Employment and Social affairs, European Commission, 2002. OECD "Education at a Glance 2003", op. cit.

In the Detailed Work Programme, the following key issues are enumerated:

1. Increasing investment in human resources while ensuring an equitable and effective distribution of available means in order to facilitate general access to and enhance the quality of education and training.
2. Supporting the development of compatible quality assurance systems respecting diversity across Europe.
3. Developing the potential of public-private partnership.

The Council has adopted no specific benchmarks in the field of investments in education and training. However, it should be noticed that the Commission in its Communication on European Benchmarks (COM (2002) 629 final) clearly invited the Member States: "to set transparent benchmarks " in this area "to be communicated to the Council and the Commission". This invitation has not yet been answered by Member States.

Indicators for monitoring performance and progress

In this area the following indicators are currently used for monitoring progress:

- *Public expenditure on education as a percentage of GDP*
- *Private expenditure on educational institutions as a percentage of GDP*
- *Enterprise expenditure on continuing vocational training courses as a percentage of total labour costs.*
- *Total expenditure on educational institutions per pupil/student by level of education (PPS)*
- *Total expenditures on educational institutions per pupil/student by level of education relative to GDP per capita.*

These indicators cover only in part the key issues: "Investment in human resources" and "equitable and effective distribution of available means". The two other issues mentioned under this Objective: "quality assurance systems" and "public-private partnership" are not addressed by the five indicators selected. Moreover, the whole issue of efficient spending in education and training is not covered by the indicators.
However, the five chosen indicators cover what the Lisbon Summit conclusions targeted explicitly, namely: "levels of investment in human resources".

Quality and availability of data and indicators

When analysing the available data and comparing countries, a number of issues come to the fore. For instance:

- Demographics i.e. share of young people (pupils and students) differs between countries, which has an impact on expenditure levels.
- Differences in teacher salaries between countries. Approximately 70% of total educational expenditure is made up of salaries; therefore high teacher salaries may imply high spending.
- The difficulty of measuring private investment in education and training may lead to an underestimation of private investments in some countries. In contrast to

public investment, data on private investment is collected at micro level (the level of the institution). In some cases institutions might not wish to record the total private funds they receive.

- The difference between Gross Domestic Product and Gross National Product. Some Member States record a large gap between Gross Domestic Product (all income before adjustment for net factor income flows in and out of a country) and Gross National Product (all income after adjustment for net factor income flows in and out of a country). Therefore, when dividing expenditure by GDP to arrive at a measure of relative investment in education, Member States are not necessarily comparable[37].

None of the indicators on the current list addresses the central question of efficiency of investments. However attempts should be made to develop such indicators in the future. Furthermore, improving the collection of data on private expenditure on education and training and increasing its validity and comparability is considered highly important for the follow-up of the Lisbon process and the Communication of the Commission on "Investing efficiently in education and training: an imperative for Europe."

It is important to note as regards data on "investment in education and training", that educational "investment" in most statistics is still treated as "expenditure". The Commission did however already in 1995 in the White Paper "Teaching and Learning"[38] invite Member States to work towards approaching the subject from the point of view of investments. Such a change would have important consequences especially for accounting practices and fiscal practices in the Member States.

2. Monitoring progress on making best use of resources

Public investments in education and training

In all countries, investment in education is a high priority and therefore also a major spending item in public budgets. In the EU some 10.5% of public budgets are devoted to education – a percentage that appears to have been only slightly increasing during the last 5 years[39].

The data shows clearly that "*public expenditure on education and training as a % of GDP"* differs greatly between individual countries. In Denmark and Sweden public expenditure on education represents more than 7% of GDP. In a number of countries (Belgium, France, Austria, Portugal, and Finland) expenditure on education accounts

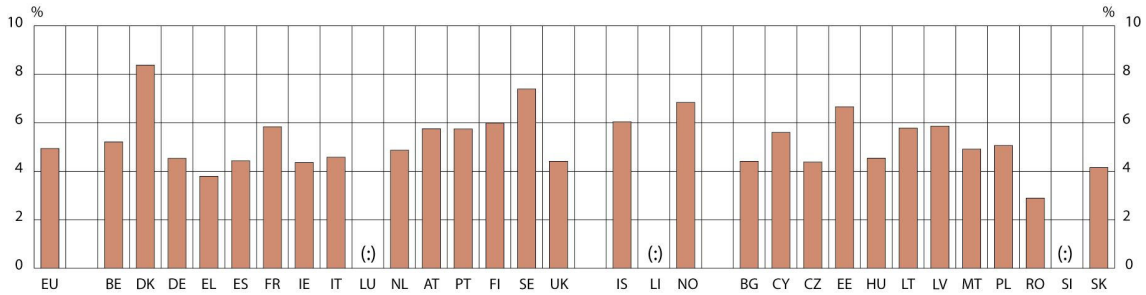
[37] For example, in Ireland in the year 1993, 5.9% of GNP and 5.3% of GDP was spent on education (from public sources). In 2003 these figures are 5.1 and 4.1% respectively (Irelands own estimates). The decline of share of GDP has to do with the strong economic growth in Ireland in the 90s and the reason for the growing gap between the two figures lies in the that the gap between GDP and GNP has grown from 10% of GDP in 1993 to 20% in 2003 due to large and increasing profit repatriations by overseas companies in Ireland.

[38] See Communication from the European Commission "Teaching and Learning – Towards the Learning Society". (COM (95) 590)

[39] See the Communication from the European Commission on European benchmarks in education and training op. cit. and "Key Data on Education in Europe, 2002"

for between 5-6% of GDP. While in Germany, Greece Spain, Italy, Ireland, the Netherlands and in the UK this percentage is lower than 5%.

Public expenditure on education as a percentage of GDP, 2000



EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
4.94		5.21	8.38	4.53	3.79	4.43	5.83	4.36	4.58	(:)	4.87	5.75	5.74	5.99	7.39	4.41

EU+ACC	ACC	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
4.94	4.86	6.04	(:)	6.84	4.41	5.6	4.38	6.66	4.54	5.78	5.86	4.91	5.06	2.89	(:)	4.15

Data source: Eurostat, UOE, 2000.

Also in acceding countries, education is an important spending item. In Estonia public expenditure on education budget constitutes more than 6% of GDP. While in Cyprus, Lithuania, Latvia and Poland public expenditure on education represents between 5 and 6% of GDP. At 2,9%, the lowest public expenditure on education relative to GDP is recorded in the candidate country Romania.

During the five years period 1995-2000, the proportion of public expenditure as a proportion of GDP has risen in only four countries[40]. The only substantial increase (25%) has been in Greece. In Finland and UK (10%) and Ireland (15%) there has been a substantial reduction[41].

These data give reason to caution regarding the Lisbon objective of ensuring "a substantial annual increase in the per capita investment in human resources". Declining public expenditure in education in relation to GDP might indicate that the public sector is leaving an increasing responsibility to private investments in education and training (household and enterprises) to answer the challenges of the knowledge society. Such a trend could signal a reversal of the traditional role of the public sector of guaranteeing the European social model, marked by equal access for all education [42].

Private Investments in Education and Training

This question is accentuated when analysing private expenditure on educational institutions. Europe is structurally different from Japan and the US when it comes to private expenditure on education. In these two countries private investments amount

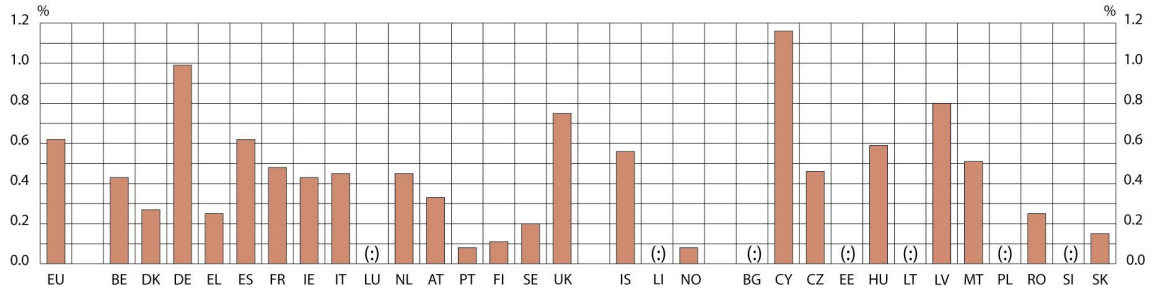
[40] See Eurydice – "Key Data 2002", Bruxelles, 2002 - page 184.

[41] However, this observation has to be qualified in the case of Ireland and Finland, because of fast growth in GDP. In Ireland, for example, total spending on education doubled between 1993 and 2000 in Ireland while GDP grew by 140% (both in nominal terms). The result is that the ratio fell notwithstanding the fast growth in absolute spending (figures are provided by Ireland).

[42] Communication on European benchmarks in education and training op. cit.

to 1.2% and 2.2% of GDP respectively [43]. Only Germany with 0.99% come close to Japan while most other EU Countries attracts less than 0.5% in private investment.

Private expenditure on educational institutions as a percentage of GDP, 2000



EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
0.62		0.43	0.27	0.99	0.25	0.62	0.48	0.43	0.45	(:)	0.45	0.33	0.08	0.11	0.2	0.75

EU+ACC	ACC	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
(:)	(:)	0.56	(:)	0.08	(:)	1.16	0.46	(:)	0.59	(:)	0.8	0.51	(:)	0.25	(:)	0.15

Data source: Eurostat, UOE, 2000.

The acceding country Cyprus stands out as the European country able to attract the highest level of private investment in education, namely 1.16% while Latvia comes close by attracting 1% of GDP in private expenditure on education[44].

The question of private investment in education and training is politically sensitive. How much can be asked of the individual in terms of contribution to his/hers own education without threatening principles like equal access to education and equity?

An analysis of "*Enterprise expenditure on continuing vocational training (as a % of labour cost)*[45] shows huge differences in enterprise spending on continuing vocational training and thus in the provision of lifelong learning opportunities. In the UK, Denmark, the Netherlands and Sweden, enterprises spend nearly 3% of labour costs on continuing vocational training. In Greece, Portugal and Austria, however, only around 1%. In acceding countries between 0.5% and 1.9% of labour costs is spent on continuing vocational training courses[46].

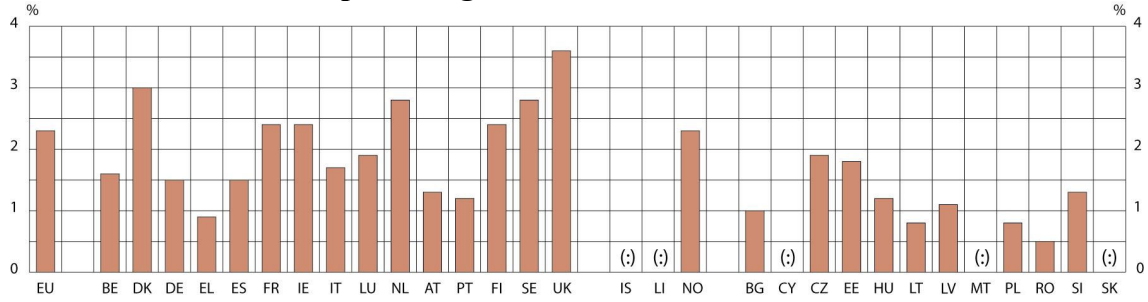
[43] OECD "Education at a Glance 2003" page 207 op. cit.

[44] When analysing these data, it has to be taken into account that private investments are likely to be underestimated in many countries because of incomplete data coverage. Not all countries are able to provide data on private schools or expenditures on educational goods and services of private households, enterprise expenditures of initial training of the dual system type etc.

[45] Total expenditure on CVT courses is the sum of direct costs, staff time costs and the balance of contributions to national or regional training funds and receipts from national or other funding arrangements.

[46] See also chapter IV "making learning more attractive" where number of course hours per 1000 working hours is analysed.

Enterprise expenditure on continuing vocational training courses as a percentage of total labour costs, 1999



EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
2.3		1.6	3.0	1.5	0.9	1.5	2.4	2.4	1.7	1.9	2.8	1.3	1.2	2.4	2.8	3.6

EU+ACC	ACC	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
2.3	1.5	(:)	(:)	2.3	1.0	(:)	1.9	1.8	1.2	0.8	1.1	(:)	0.8	0.5	1.3	(:)

Data source: CVTS2, 1999.

Additional notes

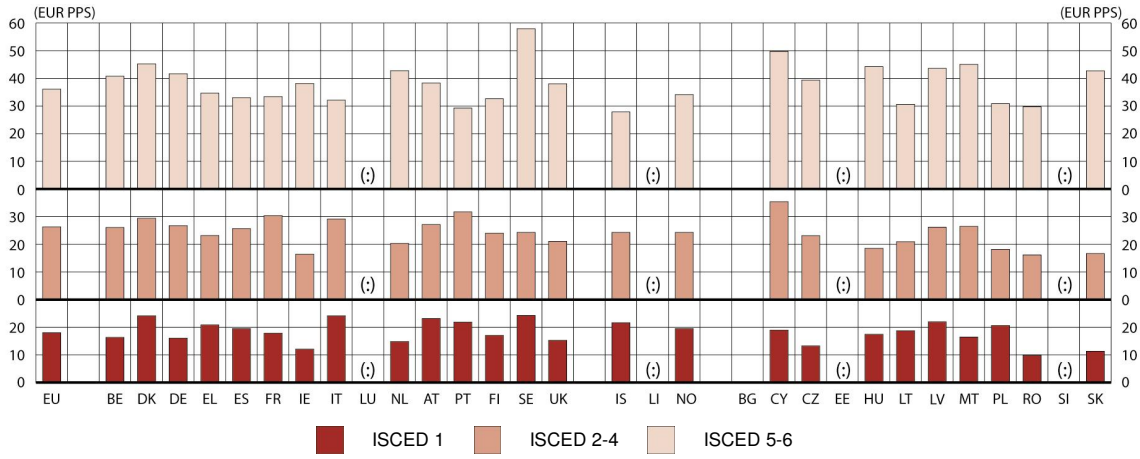
United Kingdom: The UK figure is not comparable with other countries as the labour cost includes the direct labour cost only.
Poland: Pomorskie region only.

In almost all countries total expenditure on continuing vocational training courses (CVT) as a percentage of labour costs was higher in large enterprises than in small ones. And in almost one third of the countries the highest level of cost as a percentage of labour costs was in the "Post and Telecommunications" sector.

Total expenditures on education per pupil/student by level of education (PPS)

Total expenditure per student at primary, secondary and tertiary level measures how much all levels of government, firms, non-profit organisations and private households spend on education in public and private institutions. It includes expenditure for personnel, other current and capital expenditure.

Total expenditure on educational institutions per pupil/student in public and private institutions (PPS), by level of education



(x 1000)

	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
	8.2		9.9	12.0	10.0	5.1	6.1	7.7	9.9	7.4	(:)	10.7	10.0	4.5	7.6	13.9	8.8
	5.9		6.3	7.8	6.4	3.4	4.7	7.0	4.3	6.7	(:)	5.1	7.1	4.9	5.6	5.8	4.9
	4.1		4.0	6.4	3.9	3.1	3.6	4.1	3.1	5.6	(:)	3.7	6.0	3.4	4.0	5.8	3.5

	IS	LI	NO	EU+ACC	ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
	7.2	(:)	11.4	7.5	3.6	(:)	8.5	5.0	(:)	5.0	2.4	3.0	5.3	2.8	1.6	(:)	4.6
	6.3	(:)	8.1	5.4	2.0	(:)	6.1	2.9	(:)	2.1	1.7	1.8	3.1	1.7	0.9	(:)	1.8
	5.6	(:)	6.5	3.6	1.8	(:)	3.2	1.7	(:)	2.0	1.5	1.5	1.9	1.9	0.5	(:)	1.2

Data source: Eurostat, UOE., 2000

Additional note
- Public institutions (Greece, Italy, Poland, Romania, Turkey)
- Public funds for public and private institutions (Lithuania)

An average EU tertiary student cost 8 200 EUROs per year while the average cost in the acceding countries is 3 600 EUROs per year. Five EU countries (Denmark, Germany, The Netherlands, Austria and Sweden) are spending more than 10 000 EUROs per student at the tertiary level. Among the Acceding countries only four countries (Cyprus, The Czech Republic, Hungary and Malta) spend more than 5 000 EUROs per student at tertiary education per year.

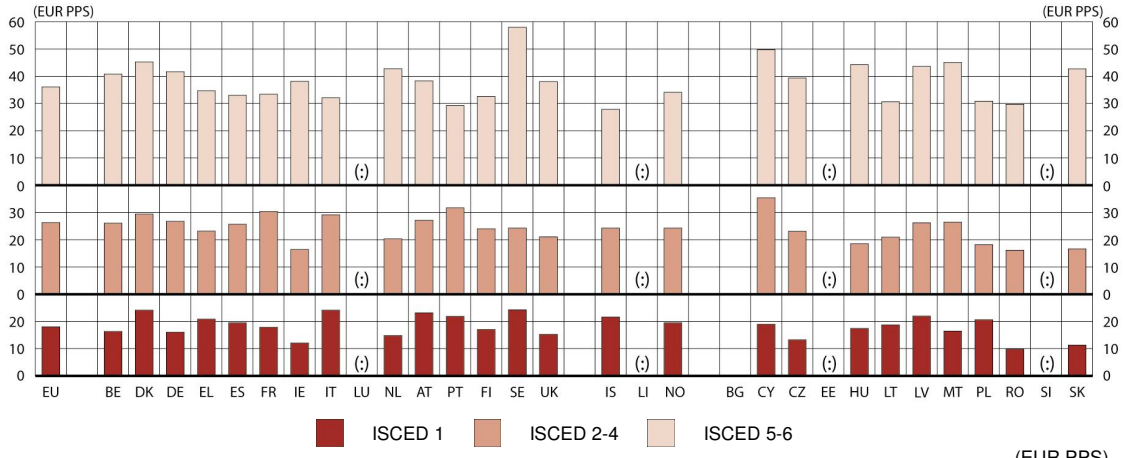
The EU averages are 5 900 and 4 100 EUROs per student/pupil respectively for secondary and primary education. The acceding countries spend only 1/3 of the Member States on secondary education, and less than half on primary education.

Total expenditure per pupil/student in public and private institutions compared to GDP per capita, by level of education.

The European Council call for a substantial annual increase in per capita investment in human resources could be seen as addressed by the following indicator:

- *"Total expenditures on education per pupil/student by level of education (GDP per capita)".*

Total expenditure on educational institutions per pupil/student by level of education relative to GDP per capita (2000).



(EUR PPS)

	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
	36.1		40.8	45.3	41.7	34.7	33.0	33.3	38.1	32.2	:	42.8	38.3	29.3	32.6	57.8	38.0
	26.3		26.1	29.5	26.8	23.2	25.7	30.3	16.4	29.2	:	20.3	27.1	31.7	24.0	24.2	21.0
	18.0		16.3	24.2	16.1	20.9	19.5	17.8	12.1	24.2	:	14.8	23.1	21.9	17.1	24.2	15.2

	IS	LI	NO	EU+ACC	ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
	27.9	(:)	34.2	36.6	35.4	(:)	49.9	39.4	(:)	44.1	30.6	43.6	45.0	30.8	29.7	(:)	42.7
	24.3	(:)	24.3	26.1	20.1	(:)	35.5	23.1	(:)	18.5	20.9	26.2	26.4	18.1	16.2	(:)	16.6
	21.6	(:)	19.5	17.4	18.3	(:)	19.0	13.2	(:)	17.4	18.7	22.0	16.4	20.6	9.9	(:)	11.3

Data source: Eurostat, UOE.

However, no time series are available so it is not yet possible to analyse whether the Lisbon conclusions have had any impact on Member States priorities.

The indicator demonstrates that the acceding countries when it comes to total expenditure per pupil/student relative to GDP per capita are performing at almost the same level as the EU Member States.

In Belgium, Denmark, Germany, the Netherlands and Sweden, total expenditure per pupil/student compared to GDP per capita accounts in tertiary education for more than 40%. The same can be observed in the acceding countries Cyprus, Hungary, Latvia, Malta and Slovakia.

The highest total expenditure per pupil/student compared to GDP per capita in secondary education are measured in France and Portugal with 30%. The same can be observed in the acceding country Cyprus. The total expenditure per pupil/student compared to GDP per capita in primary education amount to more than 20% in Denmark, Greece, Italy, Austria, Portugal, Sweden and the acceding countries Latvia and Poland.

3. Conclusion

In Spring 2000 in Lisbon, the Heads of State and government called for "a substantial annual increase in per capita investment in human resources". Can we conclude that the Union is on track to respond to this request? Present indicators and available data (EU-15 average figures) do not yet permit us to draw any clear conclusions in the field.

Public education expenditures as a % of GDP have in overall terms been slightly falling in recent years in the EU. Moreover, at present the rates of private investments in education and training are in almost all Member States very modest compared to the more performing countries in the World. Therefore, these trends would have to be reversed if the Lisbon strategy is to be fulfilled in this area.

While in 1999/2000 high economic growth rates meant that education expenditures in aggregated terms and per capita increased, the slow economic growth since 2001 together with a slightly falling share of education spending in GDP implies a slow growth of total and per capita education spending in recent years.

It is clear that the above analysis concentrates on the input side of the objective "making best use of resources". Even though investment in education and training is a very important issue with implications for all 13 objectives and most key issues within the Detailed Work Programme, it does not address the issue of "making best use of resources". Moreover, it does not address the two other key issues emphasised

under this Objective in the Detailed Work Programme: “quality assurance systems” and “public-private partnership”.

As concerns needs for improvements and developments of indicators in the area of investments in education and training, a lot of improvements could be achieved on the basis of already available data. However in the field of private investments the completeness and validity of the data needs clearly further attention. New indicators should be furthermore developed on the subject of efficiency of investment in education and training.

V. OPEN LEARNING ENVIRONMENT

1. Introduction

In order to progress towards a knowledge society, learning environments must be opened up to improve access for all throughout life to education and training. To monitor this process the level of participation in any kind of education and training must be analysed.

The key issues within this area were identified as follows:

1. Broadening access to lifelong learning by providing information, advice and guidance, on the full range of learning opportunities available
2. Delivering education and training so that adults can effectively participate and combine their participation in learning with other responsibilities and activities
3. Ensuring that learning is accessible for all, in order to better respond to the challenges of the knowledge society
4. Promoting flexible learning paths for all
5. Promoting networks of education and training institutions at various levels in the context of lifelong learning

Indicators for monitoring Performance and Progress

The indicator chosen for this area should be analysed taking into account the benchmark set by the Council, which covers participation in lifelong learning:

– *Percentage of the population between 25 and 64 participating in education and training in the 4 weeks prior to the survey, by educational attainment*

This indicator covers only in part subject matters related to "open learning environment" and "participation in lifelong learning", which are highlighted in two of the key issues. Areas like access, guidance, efficient delivery of education and training, provision for flexible learning and the promotion of lifelong learning networks are not covered.

Quality and availability of data and indicators

The indicator mentioned above cannot be considered ideal to measure the open learning environment. It should be considered mainly as an indicator of trends in participation in education and training, as it underestimates the absolute level of participation in adult learning, because of the short reference period. The data available refer to persons aged 25 to 64 who answered that they received education or training in the four weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding no answers to the question 'participation in education and training'. Both the numerator and the denominator come from the European Community Labour Force Survey (LFS). The LFS covers the entire population living in private households.

2. Performance and Progress towards lifelong learning

"Participation in lifelong learning" was among the five areas chosen by the Council when setting European Benchmarks.

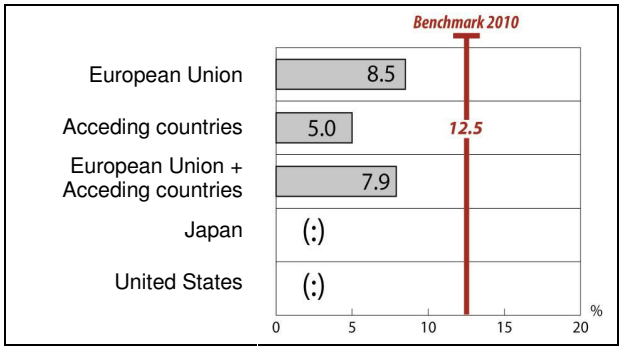
European Benchmark for 2010

By 2010, the European Union average level of participation in Lifelong Learning should be at least 12.5% of the adult working age population (25-64 age group)[47]

This benchmark, as all five benchmarks adopted by the Council in May 2003, was defined as an "average level of European performance". It is not, therefore, a target set for individual countries but a common European target in average performance.

Participation in Lifelong Learning

Indicator: Percentage of population aged 25-64 participating in education and training in 4 weeks prior to the survey, 2002



Data source: Eurostat, Labour force survey, 2002.

Additional note

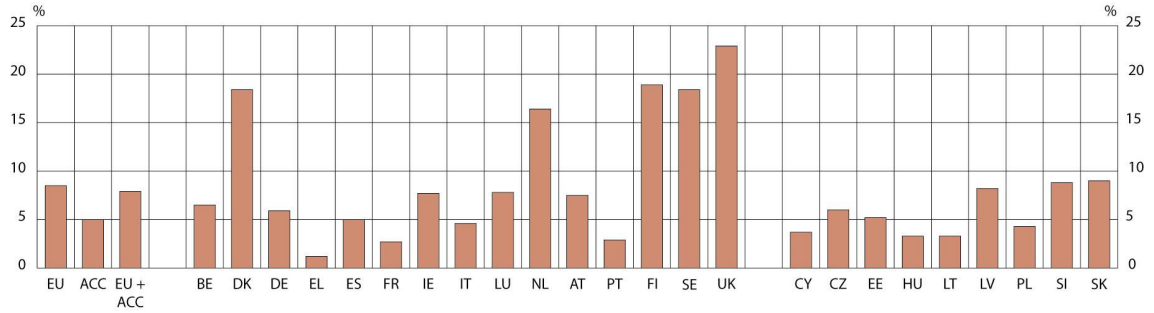
Malta: Data not available.

As can be read from the figure above, in a period of four weeks, on average 8-9 out of 100 people in the Union (EU-15) will have participated in education and training. This average has been steady for the last four years. It will however be lowered with enlargement, as the estimated average for the acceding countries for 2002 is 5%. The advantage of the three best performing countries will therefore become even sharper, while contributing to meeting this European benchmark "average performance" will be challenging for a number of countries, as shown by the indicator below.

[47] Indicator: *Percentage of population aged 25-64 participating in education and training in 4 weeks prior to the survey.*

Percentage of population aged 25-64 participating in education and training in 4 weeks prior to the survey, 2002

ISCED 1-6



	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
Total	6.5	18.4	5.9	1.2	5.0	2.7	7.7	4.6	7.8	16.4	7.5	2.9	18.9	18.4	22.9
Females	6.3	20.7	5.6	1.1	5.4	3.0	8.8	4.7	6.6	15.9	7.4	3.3	21.4	21.2	26.8
Males	6.8	16.1	6.2	1.2	4.5	2.4	6.5	4.5	9.1	16.9	7.6	2.4	16.5	15.6	19.3

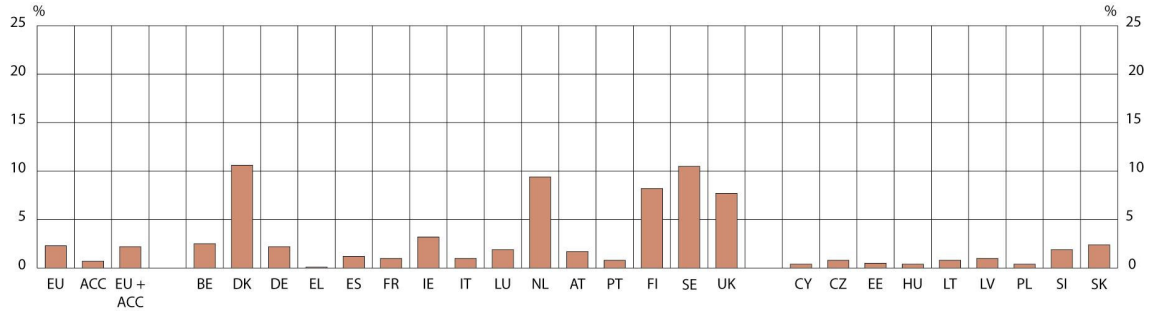
	EU	ACC	EU + ACC	CY	CZ	EE	HU	LT	LV	PL	SI	SK
Total	8.5	5.0	7.9	3.7	6.0	5.2	3.3	3.3	8.2	4.3	8.8	9.0
Females	9.1	5.4	8.5	3.8	5.8	6.7	3.7	4.2	10.9	4.7	9.2	9.4
Males	7.9	4.5	7.3	3.6	6.2	3.6	2.9	2.3	5.2	3.9	8.4	8.7

Data source: Eurostat, Labour force survey, 2002.

One observes in fact a very high variation between countries. The four best performing countries are the UK, Finland, Sweden and Denmark, followed closely by the Netherlands. The average level of the three best performing countries is above 20% while much lower levels are registered in a number of Member States and of acceding countries. In most of the countries and also for the average of the EU and the ACC countries, women participate more in training and education than men.

Percentage of population aged 25-64, with less than upper secondary education, participating in education and training in 4 weeks prior to the survey, 2002

ISCED 0-2



	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
Total	2.5	10.6	2.2	0.1	1.2	1.0	3.2	1.0	1.9	9.4	1.7	0.8	8.2	10.5	7.7
Females	2.2	11.6	1.9	0.1	1.5	1.1	3.6	1.0	1.9	8.5	1.7	1.0	9.4	12.4	8.6
Males	2.8	9.4	2.7	0.1	1.0	0.9	2.7	1.1	2.0	10.4	1.8	0.5	7.1	9.1	6.7

	EU	ACC	EU + ACC	CY	CZ	EE	HU	LT	LV	PL	SI	SK
Total	2.3	0.7	2.2	0.4	0.8	0.5	0.4	0.8	1.0	0.4	1.9	2.4
Females	2.4	0.7	2.2	0.6	0.6	1.0	0.5	0.6	1.6	0.5	1.1	2.7
Males	2.2	0.6	2.1	0.1	1.1	0.0	0.3	1.0	0.6	0.4	3.0	1.8

Data source: Eurostat, Labour force survey, 2002.

When investigating only the part of the population with less than upper secondary education (ISCED 0-2), the same trend among the countries can be found as for the population with all levels of education. The same five countries, Denmark, Sweden, Finland, UK and the Netherlands stand out with a much higher participation rate than the rest of the countries raging from 10,6 in Denmark to 7,7 in the UK. Of the remaining countries only Ireland exceeds 3%.

3. Conclusion

Reaching the European Benchmark on participation in lifelong learning demands major efforts and implies a significant challenge for many European countries. Present trends in the field tell us that participation rates are indeed increasing.

Increasing further the participation of the population in lifelong learning would imply, in countries performing well at present, an increased investment in, and the promotion of, already existing initiatives and institutions. In other countries such increases in lifelong learning activities would demand the introduction of new initiatives and even the setting up of new institutions. Through the data we therefore identify two groups of countries within which good experience and good policy practices can be identified. On the one hand, the experience and good practices adopted in the best-performing countries should be analysed (what makes countries like the UK, Finland, Sweden and Denmark perform so well?). On the other hand, the countries that perform less well in this field, but are active in taking initiatives to set up the necessary infrastructure for increasing participation in lifelong learning, should likewise be looked at.

Reaching the European Benchmark of 12.5% of 25 to 64 year olds participating in lifelong learning activities will require full benefit to be drawn from the good practices in the participating countries.

The real challenge, however, is not only to increase the participation rate indicated by the Labour Force Survey, but to ensure that a lifelong learning approach is adopted throughout Europe. The key issues in which the “Open learning environment” area is articulated mention some of the core elements of lifelong learning, such as access, guidance and the flexibility of learning systems. No appropriate indicators are available in these areas. Much is expected from the Adult Education Survey which is currently being designed by an ad hoc Task Force coordinated by Eurostat.

VI. MAKING LEARNING MORE ATTRACTIVE

1. Introduction

Making learning attractive throughout life means first of all making learning relevant for the individual. Everyone needs to understand, from an early age, the importance of education and training throughout life. Education and training systems have a major role to play here, but families, local communities and employers must play an important role too if learning is to become part of everyone's activity. Learning needs to be made attractive if the higher employment rates sought are to be combined with the higher skills levels needed. If people do not appreciate the advantages of continuing learning, they will never make the effort needed to rise their skills levels as required by the Lisbon European Council[48].

A first building block is, as the Council (Ministers of Education) underlined[49] a minimum knowledge base. This is required in order to take part in today's knowledge-based society. Those without qualifications are consequently less likely to participate effectively in lifelong learning and are in danger of being left by the wayside in today's increasingly competitive societies. Hence, diminishing the percentage of early school leavers is essential to ensure full employment and greater social cohesion.

European Benchmark for 2010

By 2010, an EU average rate of no more than 10% early school leavers should be achieved.[50]

The early school leavers might not only leave school early. Chances are that there is a high correlation between early school leavers and students performing at proficiency level 1[51] and lower, as explained under the objective area "developing skills for the knowledge society". The group of early school leavers might therefore experience serious difficulties when dealing with written information and thus with taking part in lifelong learning in the knowledge society[52].

[48] The Detailed Work Programme on the follow-up of the objectives of education and training systems in Europe page 29.

[49] Council Conclusions of 5 May 2003 - Official Journal of the European Union C 134/4 (7.6.2003)

[50] Indicator: *Share of the population aged 18-24 with only lower secondary education and not in education or training"* Labour Force Survey.

[51] OECD "Knowledge and Skills for Life – First Results from PISA 2000", Paris, 2001.

[52] See the for a very comprehensive survey on the issue of equity and the educational system: Groupe européen de recherche sur l'equité des systèmes educatifs "L'équité des systèmes éducatifs européens – un ensemble d'indicateurs". Survey co-financed by the European Commission, Socrates programme, Liège, 2003.

However, learning in schools and universities is not enough. Securing learning in a lifelong perspective requires opportunities for learning in informal context[53] and the active participation of private enterprises. As a matter of fact, private enterprises are among the main beneficiaries of a skilled work force. And training organised by private enterprises is very relevant for the participating workers.

The key issues that should be addressed within this area were identified as follows in the detailed work programme[54]:

1. Encouraging young people to remain in education or training after the end of compulsory education; and motivating and enabling adults to participate in learning through later life
2. Developing ways for the official validation of non-formal learning experiences
3. Finding ways of making learning more attractive, both within the formal education and training systems and outside them,
4. Fostering a culture of learning for all and raising the awareness of potential learners of the social and economic benefits of learning
5. Promoting close co-operation between education and training systems and society at large
6. Establishing partnerships between all types of education and training institutions, firms and research facilities for their mutual benefit
7. Promoting the role of relevant stakeholders in developing training, including initial training, and learning at the work place

Indicators for Monitoring Performance and Progress

Four indicators are used for measuring progress in this area:

- *Hours in continuing vocational training (CVT) courses per 1000 working hours (only enterprises with CVT courses), by NACE.*
- *Hours in continuing vocational training CVT courses per 1000 working hours (all enterprises), by NACE*
- *Participation rates in education by age and by level of education.*
- *Share of the population aged 18-24 with only lower secondary education and not in education or training*

These four indicators are of particular relevance for key issue 1: "*encouraging young people to remain in education or training after the end of compulsory education, and motivating and enabling adults to participate in learning through later life*", key issue 3 "*finding ways of making learning more attractive, both within the formal education and training systems and outside them" a*nd key issue 6 *"establishing partnerships between all types of education and training institutions, firms and research facilities for their mutual benefit".*

[53] Informal context (e.g. being at home, getting together with other people, leisure activities) come first in the list of settings where European citizens have learned something in the past 12 months, see EUROBAROMETER "Lifelong learning: Citizens' views", 2003.

[54] Key issues enumerated corresponds to objective 2.2 "making learning more attractive" and objective 3.1 "strengthening the links with working life and research and society at large"

Quality and availability of data and indicators

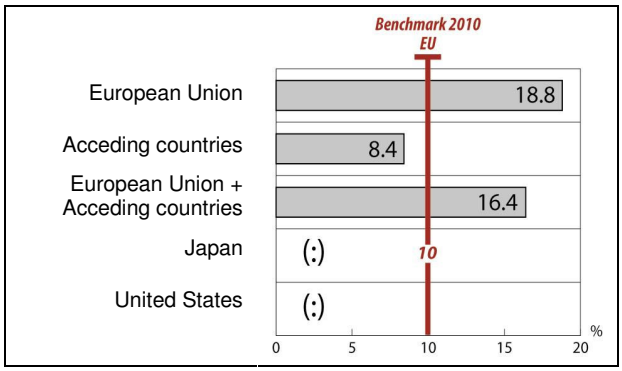
It is particularly pertinent to make a few remarks regarding CVTS 2[55]. A total of some 50000 enterprises in EU countries and Norway and 26000 enterprises in acceding countries took part in the survey. They provided comparable statistical data on continuing training at work, the supply of and demand for vocational know-how and skills, the need for continuing training on the one hand and the forms, contents and scope of continuing training on the other, own training resources and the use of external training providers and the costs of continuing training[56].

2. Performance and Progress in the field of making learning more attractive.

The current EU average rate of early school leavers is 18.8. In acceding countries only 8.4% of the population aged 18-24 leave school with only lower secondary education. Acceding countries accordingly perform better than EU-countries when it comes to the percentage of early school leavers.

Early school leavers

Indicator: Share of the population aged 18-24 with only lower secondary education and not in education or training, 2002



Data source: Eurostat, Labour force survey, 2002.

Additional notes

Malta: Data not available.
UK is not included. A definition of upper secondary school completion has still to be agreed

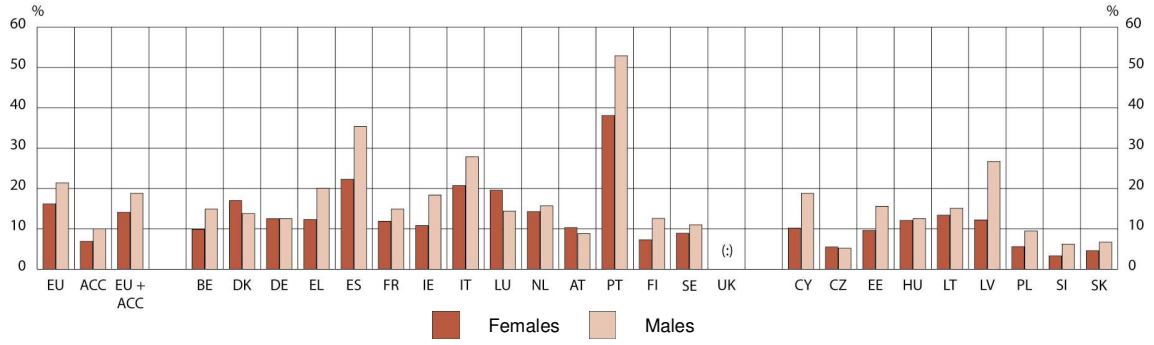
In a number of countries the percentage of early school leavers has been decreasing steadily since the early 1990s. This is the case in for instance Greece, Spain, Italy, France, and Luxembourg. In Denmark, however, a downward trend in the beginning of the 90s has been reversed from the mid-90s, so the rate of early school leavers is close to the level of the beginning of the 90s[57].

[55] CVTS 2 is the second survey on continuing vocational training conducted in 2000/2001 in all Member States, Norway and nine acceding countries. The first survey was conducted in 1994 in the then twelve Member States of the European Union.

[56] The CVTS 2 survey covered enterprises with 10 and more employees in a series of the NACE sections C to K and O. The survey included continuos vocational training measures that enterprises financed wholly or partly for their employees who have a working contract. It is intended to carry out the survey in the future every five years.

[57] Communication from the European Commission on European benchmarks in education and training op.cit.

Share of the population aged 18-24 with only lower secondary education and not in education or training, 2002



	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
Total	12.4	15.4	12.5	16.1	29.0	13.4	14.7	24.3	17.0	15.0	9.5	45.5	9.9	10.0	(:)
Females	9.9	17.0	12.5	12.3	22.3	11.9	10.8	20.7	19.6	14.3	10.3	38.1	7.3	8.9	(:)
Males	14.9	13.8	12.5	20.1	35.4	14.9	18.4	27.9	14.4	15.7	8.8	52.9	12.6	11.0	(:)

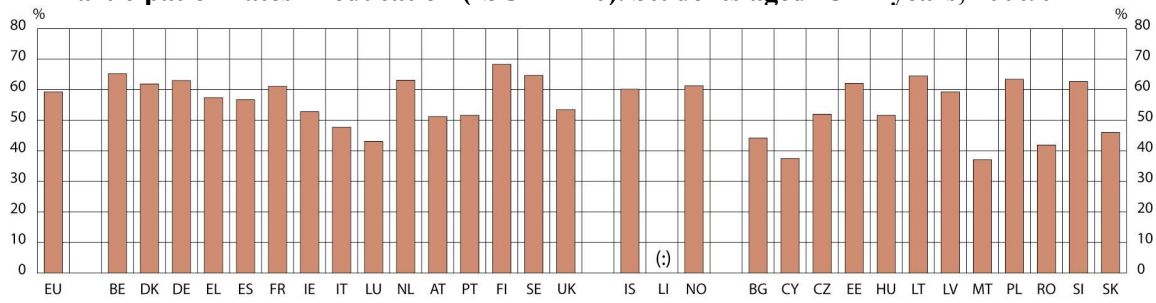
	EU	ACC	EU + ACC		CY	CZ	EE	HU	LT	LV	PL	SI	SK
Total	18.8	8.4	16.4		14.0	5.4	12.6	12.3	14.3	19.5	7.6	4.8	5.6
Females	16.2	6.9	14.1		10.2	5.5	9.6	12.1	13.4	12.2	5.6	3.3	4.6
Males	21.4	10	18.8		18.8	5.2	15.6	12.5	15.1	26.7	9.5	6.2	6.7

Data source: Eurostat, Labour force survey, 2002.

It is clear that achieving the benchmark on early school leavers will require substantial political action and sustained commitment. However, experiences in the better-performing countries like for instance in the acceding countries might serve as inspiration for new and innovative actions in this field.

When analysing participation rates in post-compulsory education it becomes clear however that a substantial proportion of 15-24 year olds participate in education. The EU average participation is 59,3%, however females have higher participation rates than men.[58]

Participation rates in education (ISCED 1-6). Students aged 15-24 years, 2000/01



EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
59.3	65.3	61.9	63.0	57.4	56.7	61.1	52.8	47.7	43.1	63.1	51.2	51.6	68.3	64.7	53.5

IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
60.2	(:)	61.3		44.2	37.5	52.0	62.1	51.6	64.5	59.3	37.1	63.4	41.9	62.7	46.0

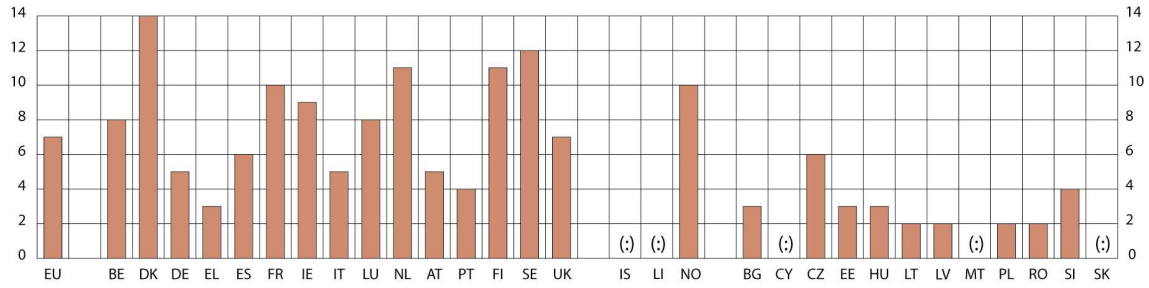
Data source: Eurostat,UOE, 2001.

[58] Please see statistical annex.

There are quite significant differences between the EU countries, where Belgium, Denmark, Germany, France, the Netherlands, Finland, and Sweden perform above the average. Five acceding countries - Estonia, Latvia, Lithuania, Poland and Slovenia - perform above the EU average, while the rest of the acceding countries perform at somewhat lower levels than the EU average.

However, participation in education is also of paramount importance at later stages in life. One way of acquiring relevant training is through vocational training courses organised by the enterprises. Therefore, hours spent in continuing training courses as a proportion of total working hours in all enterprises (course hours per 1000 working hours) is an important indicator for assessing the overall effort devoted to continuing vocational training in enterprises.[59]

Hours in CVT courses per 1000 working hours (all enterprises), all NACE, 1999



EU+ACC	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
7	7	8	14	5	3	6	10	9	5	8	11	5	4	11	12	7

IS	LI	NO	ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
(:)	(:)	10	4	3		6	3	3	2	2	(:)	2	2	4	(:)

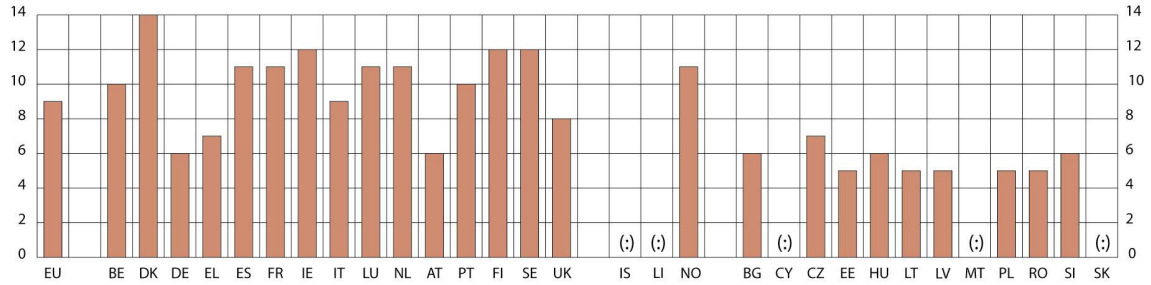
Data source: EUROSTAT CVTS, 1999.

It is clear from the above presentation that there are wide variations in the number of hours spent in continuing training courses in different countries. In the Scandinavian countries, in the Netherlands and in France, 10 or more hours per 1000 working hours is spent on continuing training courses (the training countries). At the other end of the scale enterprises in Germany, Greece, Italy, Austria, Portugal and the acceding countries (except the Czech Republic) spend 5 or less course hours per 1000 working hours.

However, this conclusion is somewhat modified when only enterprises providing training courses are considered (see below). Here countries like Portugal, Spain and Italy are performing more or less at the same level as the best performing countries i.e. indicating that when enterprises are actually providing CVT courses the situation is acceptable.

[59] See Eurostat "Statistics in focus" theme 3, Luxembourg, 2003

Hours in CVT courses per 1000 working hours
(only enterprises with CVT courses), all NACE, 1999



EU+ACC	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
8	9	10	14	6	7	11	11	12	9	11	11	6	10	12	12	8

IS	LI	NO	ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
(:)	(:)	11	6	6	(:)	7	5	6	5	5	(:)	5	5	6	(:)

Data source: EUROSTAT CVTS, 1999.

Additional note

Poland: Pomorskie region only.

3. Conclusion

Achieving the benchmark on early school leavers will require substantial political action and sustained commitment. At European level an initiative like the "second-chance school project" has already served as inspiration for policy development. However, lessons can certainly also be learnt from experiences in countries with a good performance, such as the acceding countries, Sweden, Finland and Austria, which are all performing close to the 2010 benchmark adopted by the Council.

When enterprises are considered it is clear that in a number of countries enterprises should increase the offer of continuing and vocational training courses and thereby the opportunity for their employees to take part in lifelong learning. The north-south divide is very visible when analysing the totality of enterprises, so in this case there might be good policy practice in the northern European countries that could serve as inspiration.

Finally, there is a need to review existing data collection with a view to determining whether vocational education and training is adequately covered.

VII. IMPROVING FOREIGN LANGUAGE LEARNING

1. Introduction

"Language skills are unevenly spread across countries and social groups. The range of foreign languages spoken by Europeans is narrow, being limited mainly to English, French, German, and Spanish. Learning one lingua franca alone is not enough. Every European citizen should have meaningful communicative competence in at least two other languages in addition to his or her mother tongue."[60]

Since 1995 the Community has repeatedly promoted the objectives concerning the learning of languages apart from the mother tongue. Knowledge of languages is now recognised as part of the key competencies (see chapter on "Developing skills for the knowledge society") that the Europe of the knowledge society requires. Everyone should, as a general rule, be able to speak two foreign languages.

The key issues within this area were identified as follows in the Detailed Work Programme:

1. Encouraging everyone to learn two, or where appropriate, more languages in addition to their mother tongues, and increasing awareness of the importance of foreign language learning at all ages

2. Encouraging schools and training institutions in using efficient teaching and training methods and motivating continuation of language learning at a later stage of life

Indicators for monitoring Performance and Progress

In this area two indicators will presently be applied for monitoring progress:

- *Distribution of lower/upper secondary pupils learning foreign languages*
- *Average number of foreign languages learned per pupil in upper secondary education*

Both indicators address one aspect of the first key issue of "encouraging everyone to learn two or, where appropriate, more languages in addition to their mother tongues". The indicators do not however relate to part two of the same key issue "increasing awareness of the importance of foreign language learning at all ages" and, finally, they do not cover the second key issue "encouraging schools and training institutions in using efficient teaching and training methods and motivating continuation of language learning at a later stage".

The Barcelona European Council took note of the fact that no comprehensive data exist on the level of language competence of Europeans and invited the Commission to develop an appropriate indicator in this field.[61]

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[60] Communication from the European Commission "Promoting Language Learning and Linguistic Diversity: An Action Plan 2004 – 2006", COM (2003) 449 final (24.07.2003).

[61] See Detailed Work Programme op.cit.

In recent reports from the Commission services based on indicators, such as the "European Report on Quality of School Education" [62] and the "European Report on Quality Indicators of Lifelong Learning" [63], the analysis was either based on the reported opinion of young people on their own foreign language skills (Eurobarometer) or on existing and on-going development work aimed at improving the availability of valid data in the field, such as: the Dialang project [64]; and the project on the "Effectiveness of Teaching of English as a foreign language" covering eight countries.

In order to answer directly the message from the Barcelona Summit to develop an appropriate indicator in the field, the Commission services, advised by the Working Group on "Foreign language teaching" are presently preparing a proposal for an initiative to be taken in the field.

2. Performance and Progress of improving foreign language learning

Number of foreign languages learned by pupils

The indicator used in this area gives the average number of foreign languages studied per pupil in general secondary education and is therefore of direct relevance to the most central message from the Union in the field of "learning at least two other languages in addition to the mother tongue". It should, however, immediately be stressed that the data presented below relate to "languages taught" and do not directly inform us on foreign language competencies.

The distribution of language learning in lower secondary education ranges from approximately one foreign language learned in Belgium (French Community), Ireland, Italy, Austria, Bulgaria, the Czech Republic, Slovenia and Slovakia to two or more in Luxembourg, the Netherlands, Finland, Iceland, Estonia, Cyprus and Malta.

The EU average number of foreign languages studied per pupil in general lower secondary education is for 2000 estimated to be 1.4. A slight increase can be registered in comparison with the EU average of 1.2 two years earlier.

In most European countries the teaching of a minimum of two foreign languages for at least one year during full time compulsory education is either compulsory or offered as an option. The general policy trend is one in which this provision is becoming compulsory for an increasing number of years.

In most of the countries more foreign languages are learned in general upper secondary education than in general lower secondary education and the EU average is 1.5 for 2000. In Belgium, Denmark, Luxembourg, Finland, Sweden, Cyprus, Czech

[62] European Commission, Dg Education and Culture "European Report on Quality of School Education – Report based on the Work of the Working Committee on Quality Indicators", May 2000.

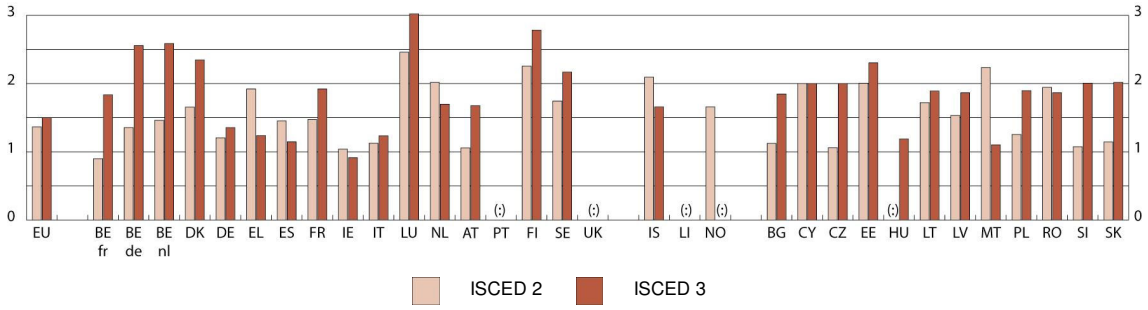
[63] European Commission, Dg Education and Culture "European Report on Quality Indicators of Lifelong Learning - Report based on the Work of the Working Committee on Quality Indicators" June 2002.

[64] See www.DIALANG.org.

Republic, Estonia, Slovenia and Slovakia two or more languages are thaught per pupil. However, in Greece, Spain, Ireland, the Netherlands, Iceland and Malta fewer languages are learned in upper secondary education than in lower secondary education.

Much remains to be done to reach the goal recently reiterated by the Barcelona European Council that all Europeans should master at least two foreign languages. In spite of the growing trend towards making the teaching of at least two foreign languages compulsory at school level, the gap between the EU average of 1.4 and 1.5 in respectively lower and upper secondary education, languages shown by this indicator and the 2 languages goal represents a significant challenge.

Average number of foreign languages learned per pupil in general lower/upper secondary education, 1999/2000



	EU	BE fr	BE de	BE nl	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
ISCED 2	1.4	0.9	1.4	1.5	1.7	1.2	1.9	1.5	1.5	1.0	1.1	2.5	2.0	1.1	(:)	2.3	1.7	(:)
ISCED 3	1.5	1.8	2.6	2.6	2.3	1.4	1.2	1.1	1.9	0.9	1.2	3.0	1.7	1.7	(:)	2.8	2.2	(:)

	IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
ISCED 2	2.1	(:)	1.7		1.1	2.0	1.1	2.0	(:)	1.7	1.5	2.2	1.3	1.9	1.1	1.1
ISCED 3	1.7	(:)	(:)		1.8	2.0	2.0	2.3	1.2	1.9	1.9	1.1	1.9	1.9	2.0	2.0

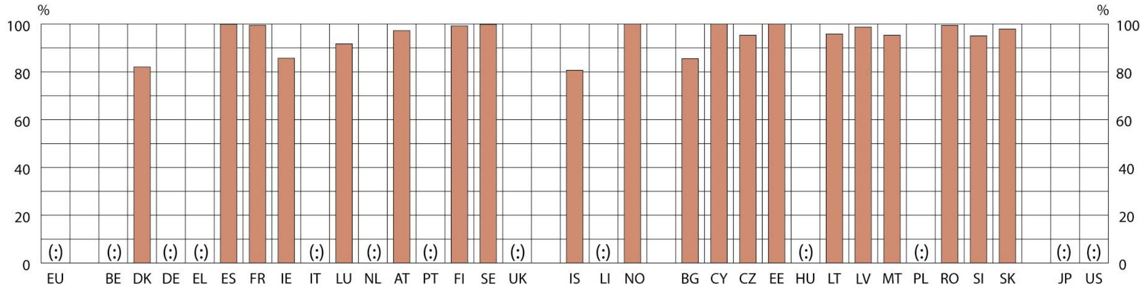
Data source: Eurostat, UOE; in *Key data on education in Europe –2002* European Commission/Eurydice/Eurostat.

According to this indicator, on average, almost every young person enrolled in general secondary education learns at least one foreign language.

Much needs to be done also to ensure a differentiation of the foreign languages: among taught foreign languages, English is the dominant language. On average throughout the EU, 42% of pupils in primary education and 90% of pupils in general secondary education learn English. In 13 countries, the central education authorities stipulate that the teaching of this language is compulsory.

As regards the second most commonly taught language, a clear distinction is to be noted between the EU and acceding countries. Whereas French is most widespread among the EU countries, German is much more common in the acceding countries. In the EU countries, on average, 3% of children learn French in primary education and almost 24% in general secondary education. Among the acceding the percentage of pupils learning German stands at 12% and 30% for primary and general secondary levels respectively.

Distribution of lower/upper secondary pupils (general and vocational) learning at least one foreign language, 2000



EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
(:)		(:)	82.0	(:)	(:)	99.9	99.5	85.7	(:)	91.7	(:)	97.3	(:)	99.3	99.8	(:)

IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
80.6	(:)	100	85.5	100	95.3	100	(:)	95.8	98.7	95.3	(:)	99.4	95.0	97.9	(:)	(:)

Data source: Eurostat, UOE, 2000.

3. Conclusion

The available indicators on foreign language teaching in Europe are related mainly to language teaching in schools. These descriptive indicators give a partial picture of the language teaching situation and say less on the language competence of pupils, students, and Europeans in general.

At present (2000) only an average of 1.4 and 1.5 foreign languages are taught per pupil in the Member States in respectively general lower and general upper secondary education. Major efforts will have to be made by most countries in order to reach the objective that at least two foreign languages should be learned by all.

In 2000 seven countries, among which three present Member States, have reached the objective on average for general lower secondary education: Luxembourg, the Netherlands, Finland, Iceland, Estonia, Cyprus and Malta. In general upper secondary education the present situation is a little better: in Belgium, Denmark, Luxembourg, Finland, Sweden, Estonia, Cyprus, Czech Republic, Slovakia and Slovenia the two languages target has been reached, but still the average of 1.5 in the Union clearly announces the challenges ahead. The number of pupils who are taught foreign languages will have to be increased by some 25% to reach the European average of two foreign languages taught per pupil.

Foreign language learning is one of the main priorities within the EU education and training policies. The available information needs to be completed through ad hoc surveys. In this framework the development of an indicator on language competencies in Europe is one of the first priorities within the Objectives process.

The present orientations about the development of this indicator expressed by the working group on languages are that the indicator should assess all four competencies (reading, listening, speaking and writing) in two or more languages other than the mother tongue or principal language of instruction, according to different levels of proficiency. Rather than linking the indicator to pupils of a given age it is considered that the test should be administered at the end of compulsory education, since the main objective is to assess the efficiency of national educational systems in equipping

pupils with the skills they need. The preparation of the tests and the interpretation of the results will have to take into account the actual age of pupils tested.

The pupils' skills should be reported on the scales of the Council of Europe's Common European Framework of Reference for Languages, which are already widely accepted and are used by several Member States for determining their own benchmarks in this context. A new test delivery system will have to be developed. Although none of the existing systems (such as ALTE, DIALANG and PISA) could be used without modification for gathering data on language skills, the valuable expertise of these and other organisations, at international and national level, will be taken into account.

VIII. INCREASING MOBILITY AND EXCHANGE

1. Introduction

Advanced economies are becoming increasingly intertwined through the free circulation of goods, services and capital. In the EU, the Single European Act (which was signed in February 1986 and came into force on 1 July 1987) revised the Treaty of Rome. It had as one of its principle objectives the incorporation of a specific concept of the internal market in the Treaty defining it as "an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured". Moreover, the Single European Act set a precise deadline for the completion of this internal market, namely: 31 December 1992 [Article 18 (8a)].

However, the free circulation of people is still lagging behind the free circulation of goods, capital and services. Cultural barriers, different languages and labour markets make it more difficult for people to move freely within the Union.

The internationalisation of the education system plays a major role for realising this part of a truly internal market. Mobile pupils, trainees, students and teaching staff are more likely to draw the full benefits of an increasingly international or European labour market. This is also the reason why European co-operation in the area of education and training is focussing on mobility programmes like Erasmus and Leonardo Da Vinci.

As underlined in a Recommendation on mobility[65]: "The transnational mobility of people contributes to enriching different national cultures and enables those concerned to enhance their own cultural and professional knowledge and European society as a whole to benefit from those effects. Such experience is proving to be increasingly necessary given the current limited employment prospects and an employment market which requires more flexibility and a greater ability to adapt to change".

The Detailed Work Programme enumerates the following key issues, which should be addressed within this area:

1. Providing the widest access to mobility to individuals and to education and training organisations, including those serving a less privileged public and reducing the remaining obstacles to mobility.

2. Monitoring the volume, directions, participation rates as well as qualitative aspects of mobility flows across Europe.

3. Facilitating validation and recognition of competencies acquired during mobility

4. Promoting the presence and recognition of European education and training in the world as well as their attractiveness to students, academics and researchers from other world regions.

[65] Recommendation of the European Parliament and the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

Indicators for Monitoring Performance and Progress

In this area the following indicators have been selected which are all analysing physical mobility:

- *Foreign students enrolled in tertiary education (ISCED 5 and 6) as a percentage of all students enrolled in the country of destination, by nationality (European country or other countries)*
- *Percentage of students (ISCED 5-6) of the country of origin enrolled abroad (in a European country or other countries)*
- *Inward and outward mobility of teachers and trainers within the Socrates (Erasmus, Comenius, Lingua and Grundtvig) and Leonardo da Vinci programmes*
- *Inward and outward mobility of Erasmus students and Leonardo da Vinci trainees*

The indicators selected are particularly relevant for the key issue on "Monitoring the volume, directions, participation rates as well as qualitative aspects of mobility flows across Europe".

Quality and availability of data and indicators

It is clear that the indicators selected suffer from a number of deficiencies. The two first indicators focus on tertiary students with foreign citizenship using the UOE data collection (data collection on education statistics administered jointly by UNESCO, OECD and Eurostat). This is, however, not the same as mobile students. First, many tertiary students with foreign citizenship are no longer mobile students, since they may have lived all their life in the country where they study. Secondly, a growing number of families live outside the country of which they are citizens; therefore students with home citizenship can now also be incoming and thus mobile students[66].

The two last indicators selected are focussing on mobility undertaken through the European mobility programmes, and these data obviously do not cover the full scope of mobility.

2. Performance and Progress in the field of Mobility

Enrolment of foreign students in tertiary education

The United States receives the most foreign students (in absolute terms) with 28% of all foreign students followed by the United Kingdom and Germany (14 and 12 per cent respectively), France and Australia (8 and 7 percent respectively)[67]. These five host countries account for about 70 per cent of all foreign students.

Looking at Europe there are clear differences in the percentage of foreign students enrolled in tertiary education. The EU average number of foreign students is 6.2%.

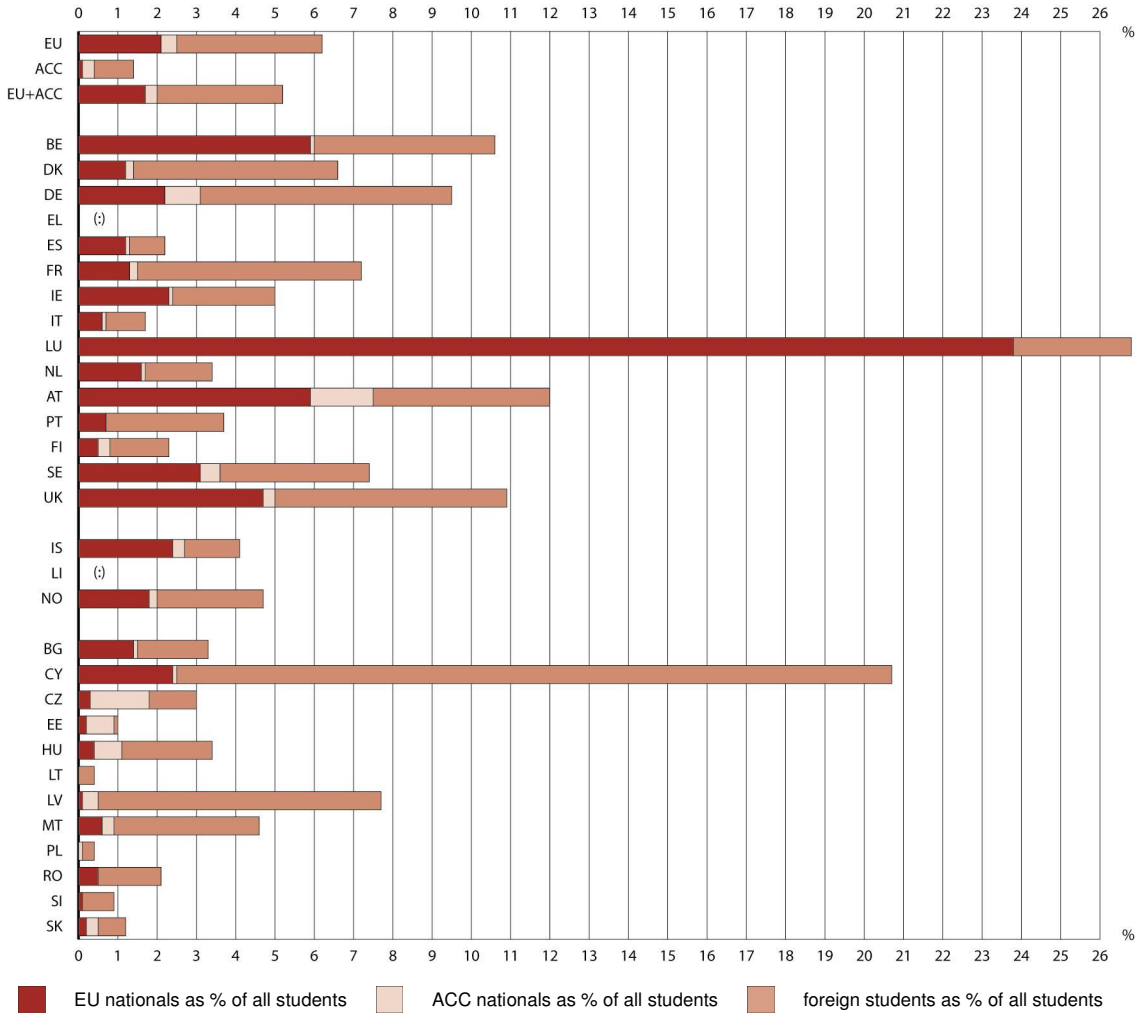
[66] For a comprehensive overview of the present state of mobility statistics please see "Statistics on Student Mobility within the European Union" Final report to the European Parliament prepared by Kassel University October 2002.

[67] See OECD "Education at Glance 2003" page 275 op.cit.

This average figure covers important differences between countries. Austria, the UK and Belgium have the highest share with more than 10% foreign students while in Italy, Spain and Finland the same share is less than 2,2%. In the acceding countries the share of foreign students is even lower at 1.4%.

60% of the foreign students in the EU and acceding countries are from countries outside EU and acceding countries. In Denmark[68], France and Portugal only about 20% of the foreign students are coming from EU or the acceding countries, while this share is around 60% in Austria, Spain and Belgium.

Foreign students in tertiary education as a percentage of all students (2000/01)



Foreign students as % OF ALL STUDENTS

EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
6.21	10.62	6.60	9.56	(:)	2.18	7.25	4.93	1.61	26.75	3.29	11.97	3.66	2.25	7.35	10.92

EU+ACC	ACC	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
5.31	1.38	4.13	(:)	4.66	3.29	20.71	2.98	1.05	3.40	0.46	7.70	4.58	0.38	2.19	0.94	1.17

[68] In Denmark there is however quite a high percentage of students from the EEA countries Iceland and Norway.

EU nationals, ACC nationals and EU+ACC nationals as % of ALL FOREIGN STUDENTS

	Reporting country (host)															
	EU	**BE**	**DK**	**DE**	**EL**	**ES**	**FR**	**IE**	**IT**	**LU**	**NL**	**AT**	**PT**	**FI**	**SE**	**UK**
EU	34.02	55.64	17.96	23.28	(:)	56.42	18.44	46.87	37.20	88.96	47.25	49.12	17.77	23.51	42.02	43.21
ACC	5.66	1.24	2.92	9.33	(:)	3.17	2.45	1.02	3.43	0.00	2.06	13.53	0.59	11.83	6.55	2.70
EU+ACC	39.69	56.88	20.88	32.62	(:)	59.59	20.89	47.90	40.63	88.96	49.32	62.65	18.36	35.34	48.57	45.92

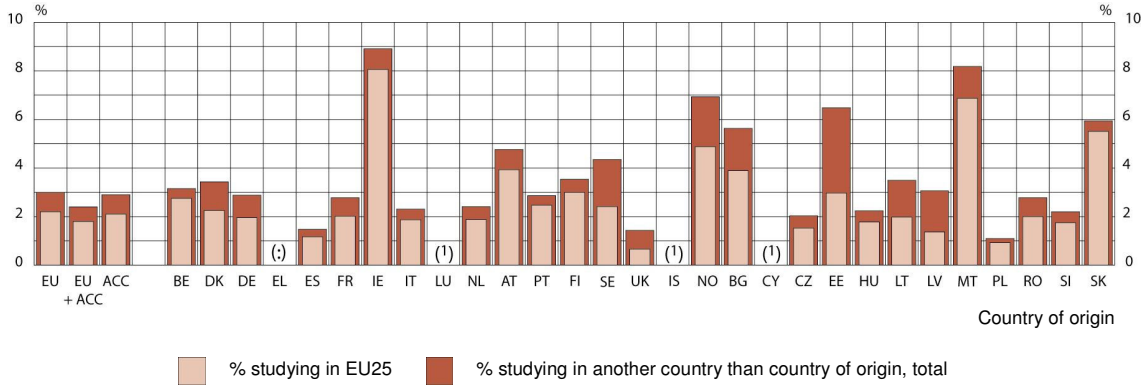
	Reporting country (host)															
	EU+ACC	**ACC**	**IS**	**LI**	**NO**	**BG**	**CY**	**CZ**	**EE**	**HU**	**LT**	**LV**	**MT**	**PL**	**RO**	**SI**	**SK**
EU	32.80	8.63	57.48	(:)	37.60	41.91	11.65	10.34	16.03	11.38	7.32	1.05	13.53	6.56	25.10	11.92	16.92
ACC	6.42	21.42	7.84	(:)	3.61	3.79	0.44	50.17	71.40	20.19	9.24	5.75	5.88	16.22	1.23	2.08	21.89
EU+ACC	39.23	30.04	65.32	(:)	41.21	45.69	12.10	60.50	87.44	31.57	16.56	6.80	19.41	22.78	26.33	14.00	38.82

Source: Eurostat, UOE, 2001

Percentage of students (ISCED 5-6) enrolled outside their country of origin.

It is also interesting to analyse students enrolled outside their country of origin. Here it is actually Asia that represents the region with the most mobile students. However, Europe is a not too distant second[69]. On average 3% of EU students study abroad. There are big differences between countries in terms of the share of students enrolled outside their country of origin[70]. For instance, 8.9% of Irish students are studying abroad. Austria is second with 4.8%, while less than 1.5% of UK and Spanish students study outside their country of origin.

Students (ISCED 5 and 6) enrolled outside their country of origin – 2000/01



(1) Data: see table.

	EU		**BE**	**DK**	**DE**	**EL**	**ES**	**FR**	**IE**	**IT**	**LU**	**NL**	**AT**	**PT**	**FI**	**SE**	**UK**
	2.21		2.75	2.25	1.96	(:)	1.17	2.02	8.06	1.87	72.69	1.88	3.93	2.47	3.00	2.41	0.66
	2.95		3.15	3.43	2.88	(:)	1.48	2.78	8.91	2.31	76.63	2.41	4.76	2.86	3.54	4.35	1.43

	IS	**LI**	**NO**	**EU + ACC**	**ACC**	**BG**	**CY**	**CZ**	**EE**	**HU**	**LT**	**LV**	**MT**	**PL**	**RO**	**SI**	**SK**
	13.47	(:)	4.88	2.14	1.82	3.89	43.15	1.53	2.97	1.78	1.98	1.37	6.87	0.93	2.00	1.75	5.51
	20.18	(:)	6.93	2.85	2.43	5.63	62.83	2.03	6.48	2.24	3.49	3.06	8.18	1.10	2.78	2.20	5.94

Data source: Eurostat., UIS (UNESCO Institute for Statistics, UOE, 2001.

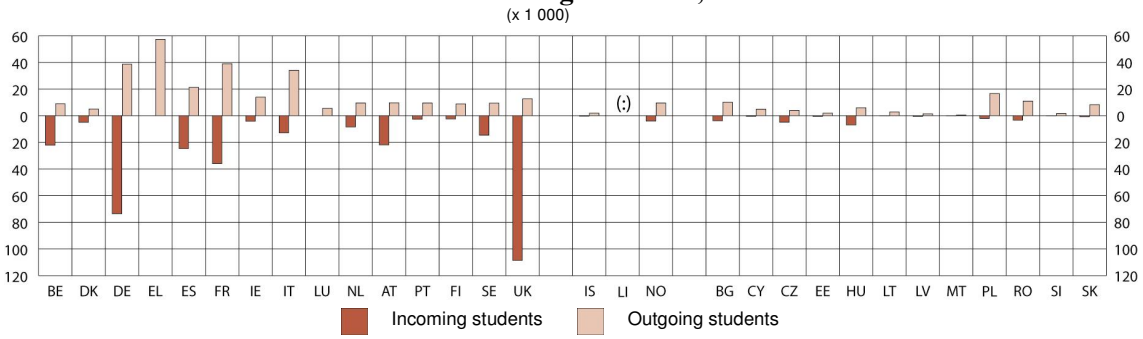
Also among acceding countries there are great differences between the share of students enrolled abroad. In Cyprus more than 60% of tertiary level students study abroad. This compares to below 2% in Poland.

[69] See OECD "Education at a Glance 2003" page 281 op.cit.

[70] Luxembourg is a special case with more than 70% of its students enrolled abroad. This stems from the fact that Luxembourg has no universities at present.

When analysing the flow of tertiary students, within the EU/EEA and the acceding countries, it becomes clear that some countries receive many more incoming students than they themselves "send abroad". This is the case for Belgium, Germany, Austria, Sweden and the UK. The opposite is the case for example for Ireland, Italy, Portugal and Finland.

Flow of EU/EEA/Acceding country tertiary students (ISCED 5-6) in EU/EEA/Acceding countries, 2000/01



	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
	336.6	22.1	5.0	73.6	(:)	24.6	35.9	4.1	12.8	(:)	8.4	21.9	2.6	2.4	14.6	108.6
	295.2	9.0	5.0	38.6	57.3	21.3	39.0	14.0	34.1	5.5	9.5	9.6	9.5	8.8	9.4	12.7

	IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
	0.3	(:)	4.0		3.8	0.4	4.8	0.5	6.9	0.1	0.5	0.1	2.0	3.3	0.1	0.8
	1.9	(:)	9.5		10.1	4.9	4.0	1.9	5.9	2.8	1.4	0.5	16.6	10.9	1.6	8.3

Data source: Eurostat, UOE, 2001.

It is also interesting to note that countries of comparable size "send" vastly different numbers of students abroad. Only 12.7 thousand students sent abroad to EU, EEA and acceding countries come from the UK for instance, while 39 thousand come from France and 34 thousands from Italy.

Regarding the acceding countries, the number of mobile students is lower than in comparable EU countries. The Czech Republic and Hungary attract more foreign students than they themselves send abroad to EU, EEA and acceding countries. The opposite is the case for the rest of the acceding countries.

Mobility within the Erasmus programme

Part of the overall mobility is supported through Community programmes like Erasmus. There are a number of interesting observations when analysing mobility within these programmes[71].

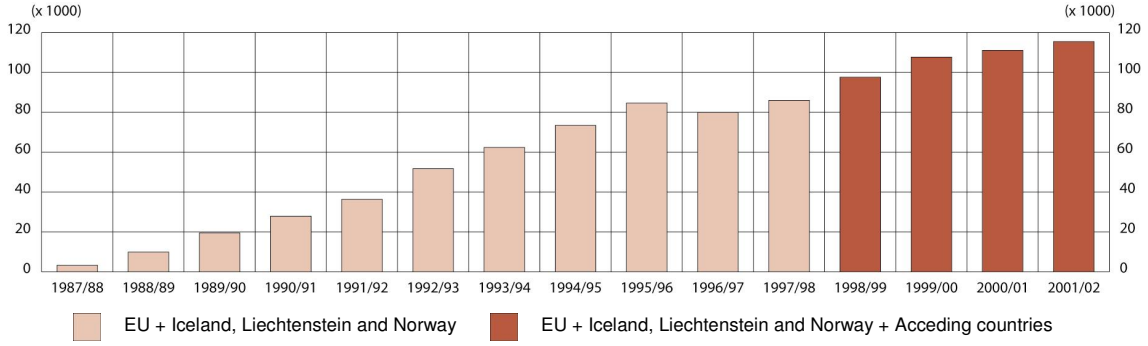
First, the number of Erasmus students continues to raise – the total number of students increased by 4% from 2000/01 to 2001/02, compared to an increase of 3% from 1999/2000 to 2000/01. Erasmus mobility affects 0,8% of the student population in the EU and EEA countries per year. To reach the target of a 10% participation rate[72],

[71] Main conclusions are taken from European Commission "Student and teacher mobility 2001/2002 – Overview of the National Agencies' final reports 2001/2002".

[72] Specified in the Socrates decision n°253/200/EC of the European Parliament and of the Council of 24 January 2000.

Erasmus mobility would have to more than double i.e. affect 2% per year (implying that during a formal study period of 5 years 10% of the student population would be affected).

Erasmus student mobility: 1987/88 to 2001/2002



	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95
Total	3 244	9 914	19 456	27 906	36 314	51 694	62 362	73 407
EU + Iceland, Liechtenstein and Norway	3 244	9 914	19 456	27 906	36 314	51 694	62 362	73 407
Acceding Countries								

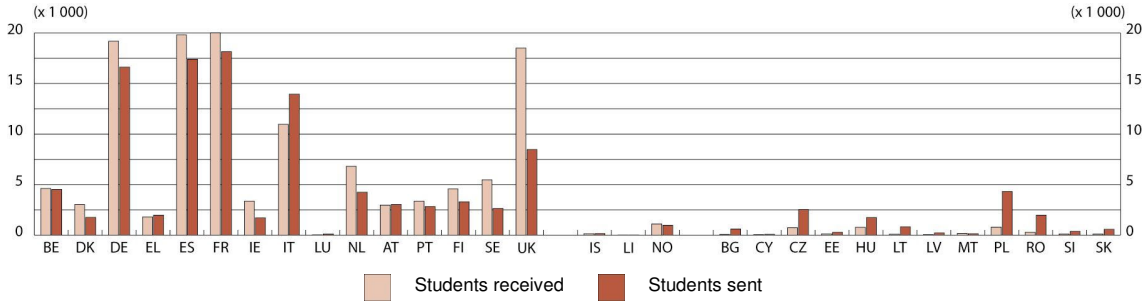
	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	Total
Total	84 642	79 874	85 999	97 601	107 652	111 082	115 432	966 579
EU + Iceland, Liechtenstein and Norway	84 642	79 874	85 999	93 096	98 828	99 207	101 823	927 766
Acceding Countries				4 505	8 824	11 875	13 610	38 814

Data source: Erasmus.

From 1987/88 to 2001/02, a total of 966 576 students (3200 in 87/88 – 115 429 in 2001/2002) have studied abroad under the auspices of the Erasmus programme.

Second, the UK is by far the biggest net importer of students – it receives more than the double number of students it sends. Other big net importers are Ireland, Sweden, Denmark and the Netherlands.

Inward and outward mobility of Erasmus students, 2001/02



	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
	4 622	3 035	19 188	1 792	19 818	20 024	3 359	10 965	28	6 804	2 969	3 361	4 565	5 473	18 502
	4 521	1 752	16 626	1 974	17 403	18 149	1 707	13 950	104	4 244	3 024	2 825	3 291	2 633	8 475

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
	132	3	1 100	51	37	732	115	769	91	48	173	792	275	108	111
	147	17	970	605	72	2.533	274	1 736	823	209	129	4.323	1 964	364	578

Data source: Erasmus.

Third, France, Spain and Germany, have overtaken the UK as the most popular destination for incoming Erasmus students. Concerning students from the acceding countries, Germany is the most popular destination (60% of the Erasmus students from acceding countries go to Germany).

Fourth, 58% of Erasmus students study Business Management/Social Sciences and Art/Humanities/Languages.

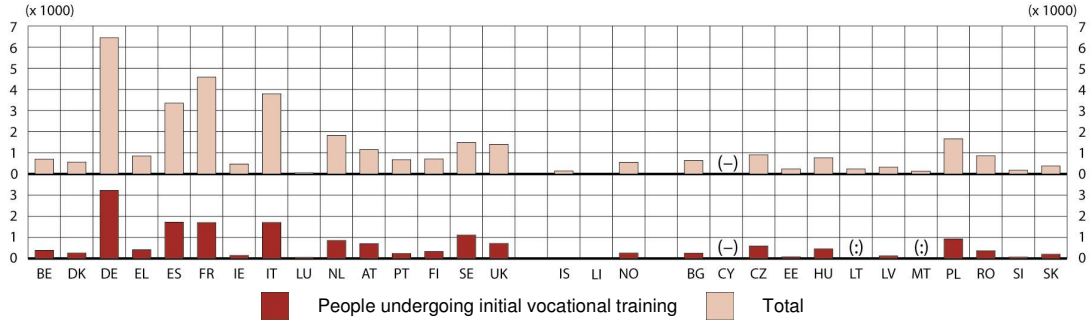
Fifth, the average duration of an Erasmus study abroad is 7 months for EU+EEA. The average for acceding countries is somewhat lower at 5 months .

The number of Erasmus teachers has steadily increased over the last five years (7 800 in 1997/98 – 16 000 in 2001/2002). The most popular host countries are Germany, France, Italy and the UK, which account for 53% of all incoming teacher mobility.

Mobility within the Leonardo da Vinci programme

Also the Leonardo da Vinci programme ensures a substantial mobility within the EU amounting to approximately 35 000 persons per year. People undergoing initial vocational training account for approximately 50% of the total mobility within the programme while the mobility of students amounts to approximately 20%. It is, moreover, interesting to note that 80% of the mobile people undergoing initial vocational training are less than 21 years old.

Mobility within the Leonardo da Vinci programme, 2000



	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
PLACEMENTS															
People undergoing initial vocational training	390	265	3 222	417	1 718	1 701	147	1 709	55	858	698	241	336	1 110	716
Students	157	125	1 334	100	316	1 910	269	339	(:)	682	213	147	151	55	137
Young workers and recent graduates	109	24	1 124	212	711	651	20	1 200	2	74	86	188	124	164	285
EXCHANGES	45	146	758	126	608	323	34	542	2	219	154	99	102	158	270
TOTAL	701	560	6 438	855	3 353	4 585	470	3 790	59	1 833	1151	675	713	1 487	1 408

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
PLACEMENTS															
People undergoing initial vocational training	25	11	264	257	(–)	596	75	460	(:)	129	(:)	931	369	68	202
Students	10	3	61	132	(–)	52	29	70	(:)	16	68	335	174	29	95
Young workers and recent graduates	52	19	141	131	(–)	94	30	32	(:)	47	25	260	133	21	38
EXCHANGES	57	(:)	90	119	(–)	167	105	206	239	130	46	136	186	64	45
TOTAL	144	33	556	639	(–)	909	239	768	239	322	139	1 662	862	182	380

Data source: European Commission - DG Education and Culture.

3. Conclusion

The analysis shows clear differences in countries' capacities to attract foreign students. Obviously, the UK is one of the countries with a great capacity to attract foreign students. Maybe more surprising Sweden, Belgium and Austria are also capable of attracting relatively many foreign students.

Regarding the data, it is however clear that there is a need for improvement in order to identify truly mobile students as opposed to foreign students and for the development of indicators that can provide a comprehensive picture of trans-national mobility inside Europe as well as outside of the Union.

APPENDIX

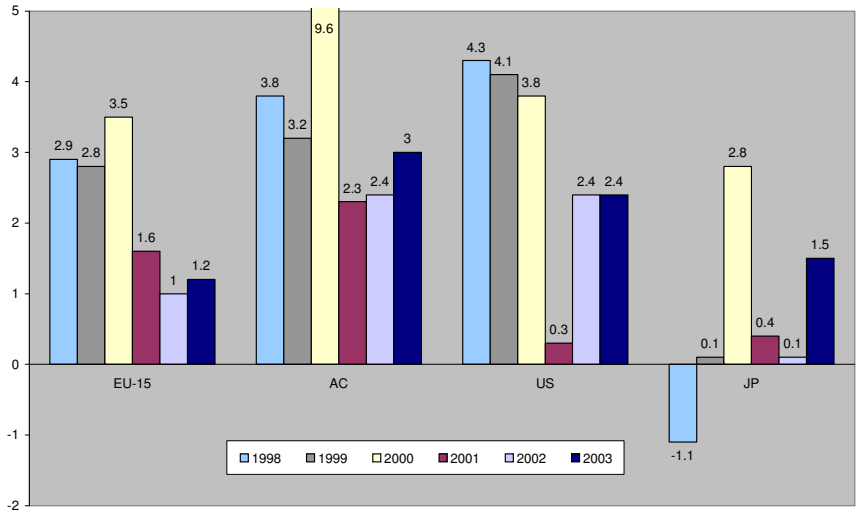
COMPOSITE INDICATORS ON THE PROGRESS IN EUROPE, US AND JAPAN TOWARDS THE KNOWLEDGE BASED ECONOMY

COMPOSITE INDICATORS ON THE PROGRESS IN EUROPE, US AND JAPAN TOWARDS THE KNOWLEDGE BASED ECONOMY[73]

In the last two years, Europe's overall economic performance experienced a significant weakening, after years of exceptional growth by European standards. The Gross Domestic Product (GDP) of the European Union grew by 1.6% in 2001, a reduction of nearly 2% in comparison with 2000, when the highest growth rates of the decade were recorded. Economic growth gradually slowed down in 2002 and more or less stagnated in the first half of 2003. Most of the world's other main economies also experienced a slowdown and some of them even showed negative growth rates (i.e. real GDP actually declined). The US economy, after years of vigorous growth well ahead of the figures registered in the European Union, encountered near-stagnation in 2001. Japan, which had hardly recovered from the weak years before, reported economic growth very closed to zero for the last two years (see graph below).

Although the EU's main competitors also show a weakening economic performance, the outlook for growth in the mid-term is bleak in Europe and there are downside risks. The public balance is deteriorating everywhere. Since 2001, most Member States have been facing a trend reversal, with rising unemployment, increasing deficits and public indebtedness, after years of sustained improvement of their public finances.

Figure 1 Real GDP Growth in the EU-15, the Acceding countries, US and Japan, 1998-2003, in % change on previous year (1995=100)



Source: Commission Services Key Figures 2003-2004

Data: Eurostat

Notes: Figures for 2003 are forecasts

The transition to the knowledge-based economy should not be allowed to slow down in this context of sluggish economic performance and political uncertainty. Therefore, the Lisbon

[73] The indicators presented in this appendix are not based on the indicators used in the main body of the present document but are given as an example for future work.

strategy becomes all the more important (Spring Report: European Commission (2003d), p.29). As decided by the Heads of State and Government at the Lisbon Summit in 2000, this strategy aims at transforming the European Union by 2010 into *"the most competitive and dynamic knowledge based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion*". The set of measures and decisions taken then, better known as 'the Lisbon strategy', entail reforms in three main dimensions: a) further consolidation and unification of the European economic environment; b) improvement of the creation, absorption, diffusion and exploitation of knowledge; and c) modernisation of the social model.

Thus not only does the Lisbon strategy remain Europe's overall roadmap to higher and sustainable economic growth, but also European policy-makers acknowledge that the progress needs to be accelerated for growth recovery. This year's Spring Report, for instance, stated that *"The Union's priority for the next 12 months must be to stimulate investment in knowledge and innovation alongside faster structural changes in order to boost productivity and employment"* (European Commission (2003d)). More recently, the European Council of Thessaloniki (European Council, 2003) asked the European Commission to launch an initiative in co-operation with the Investment Bank to support growth by increasing overall investment and private sector involvement in infrastructures and in research and development (European Council (2003), p.17; European Commission, 2003e; European Commission (2003f)).

Enlargement too reinforces the case for accelerating the process. Integrating new Member States does not imply a re-writing of the Lisbon strategy: the targets for the whole of the Union remain the same for the EU-25. The Lisbon strategy forms a common basis for reforms needed in the new Member States as well as in the EU-15, and therefore is a sound tool for integration. However, enlargement also means that additional efforts are needed from Member States to keep the Union on track in its transition to a knowledge-based economy.

1. Education, Research and Innovation for Competitiveness and Growth

Education, research and innovation are one of the main means to achieve the overall Lisbon objective. Recognising the pivotal role of education and training, the European Council invited Ministers of Education "to reflect on the concrete future objectives of education systems" and to concentrate on "common concerns and priorities". Hereby the Lisbon Council launched an unprecedented process in the area of education and training helping Member States to develop their own policies progressively by spreading best practice and achieving greater convergence towards the main EU goals.

The European Council of Barcelona (March 2002) emphasised the importance of research and innovation by setting the goal of increasing the level of expenditure in research and development to 3% of GDP by 2010. While investing more in R&D is one part of the equation, another is better co-ordination of European research. This has been initiated through the creation of the European Research Area (ERA) and related policy actions, such as the 'benchmarking of national research policies'. The European Research Area is the broad heading for a range of linked policies that attempt to ensure consistency of European research

and facilitate the research policies of individual Member States in order to improve the efficiency of European research capabilities.

Both from a theoretical and empirical point of view, there is a broad recognition among economists and policy-makers of the impact of human capital, R&D, technological progress and innovation on productivity and economic growth. Work recently carried out for the European Commission suggests that one additional year of schooling can increase the aggregate productivity by 6.2% for a typical European country (European Commission, 2002). Countries where R&D expenditure by the business sector in relation to GDP has increased most from the 1980s to the 1990s have typically experienced the largest increase in the growth of multi-factor productivity (MFP) (OECD 2001b).

Europe is, however, still under-investing in knowledge and skills. Compared to its main competitors, the EU-25 is still lagging far behind the US and Japan in R&D investment and the exploitation of technological innovations, and in many domains the gap is still widening. If we are to consolidate economic recovery and enhance long-term competitiveness, efforts should therefore be maintained and increased.

2. The competitive knowledge-based economy: how far are we?

A/ Two Composite Indicators of the Knowledge-Based Economy

Speeding up the transition to the Knowledge-Based Economy has been an important objective of all European policies during the last years. But how far has Europe been able to progress in recent years? Furthermore, on the eve of enlargement, what is the position of the new Acceding countries and how fast is their transition to the knowledge economy?

This section provides an overview of progress towards this important target using two "composite indicators"[74]. These indicators attempt to capture the complex, multidimensional nature of the knowledge-based economy by aggregating a number of key variables, and expressing the result in the form of an overall index. The two composite indicators used here refer to the overall investment and performance in the transition to the knowledge-based economy. They focus on the 'knowledge dimension' of that transition and, therefore, do not take into account the other dimensions (e.g. employment, sustainable development etc) of the Lisbon Agenda.

In order to advance effectively towards the knowledge-based economy, countries need to invest in both the creation and the diffusion of new knowledge. The composite indicator of investment in the knowledge-based economy addresses these two crucial dimensions of investment. It includes key indicators relating to R&D effort, investment in highly-skilled human capital (researchers and PhDs), the capacity and quality of education systems (education spending and life-long learning), purchase of new capital equipment that may

[74] These composite indicators are the result of cooperation between DG Research of the European Commission and the Joint Research Centre in Ispra, Italy. The latter were responsible for calculating the composite indicators and carrying out sensitivity analyses.

contain new technology, and the modernisation of public services (e-government). The table below shows the sub-indicators of this composite indicator.

Table 1 Component indicators for the composite indicator of investment in the knowledge-based economy

Sub-indicators	Type of knowledge indicator
Total R&D expenditure per capita	Knowledge *creation*
Number of researchers per capita	Knowledge *creation*
New S&T PhDs per capita	Knowledge *creation*
Total Education Spending per capita	Knowledge *creation* and *diffusion*
Life-long learning	Knowledge *diffusion* : human capital
E-government	Knowledge *diffusion* : information infrastructure
Gross fixed capital formation (excluding construction)	Knowledge *diffusion* : new embedded technology

Source: European Commission, DG Research Key Figures 2003-2004

Investing more in knowledge is, however, only half the story. Investment also needs to be allocated in the most effective way in order to increase productivity, competitiveness and economic growth. For this to happen, and to be sustainable, investment in knowledge thus has to induce a higher performance in research and innovation and increased labour productivity, an effective use of the information infrastructure and a successful implementation of the education system. This relationship between investment and performance, however, is very complex and certainly not linear. It depends in part on favourable framework conditions and policies. Moreover, there is always a time-lag between investment and a recorded increase in performance.

The second composite indicator, presented here, regroups the four most important elements of the 'performance in the transition to the knowledge-based economy': overall labour productivity, scientific and technological performance, usage of the information infrastructure and effectiveness of the education system (see table below).

Table 2 Component indicators for the composite indicator of performance in the knowledge-based economy

Sub-indicators	Type of knowledge indicator
GDP per hours worked	Productivity
European and US patents per capita	S&T performance
Scientific publications per capita	S&T performance
E-commerce	Output of the information infrastructure
Schooling success rate	Effectiveness of the education system

Source: European Commission, DG Research Key Figures 2003-2004

The following text presents the latest updated composite indicators for both the investment and the performance in the transition to the knowledge-based economy. The data now go up to 2001 and show the recent progress made by the EU-15. Moreover, they reveal for the first

time the position of the Acceding countries and the Candidate countries in their transition. Finally, a comparison of the US, Japan, the EU-15 and its largest Member States is presented.

B/ Recent Progress made by the EU-15

As shown in Figure 2, investment growth slowed down in 2000-2001. All Member States except Sweden registered a declining growth rate in this period compared with 1995-2000. In Germany, investment growth even became negative in 2001. The investment level, nevertheless, increased for all countries except Germany. Sweden, with its much stronger growth, showed a significant improvement of its position in 2000-2001.

The relative position of countries remains more or less unchanged since the mid-nineties. One can broadly distinguish 3 groups within the EU-15 in terms of efforts made to speed up the transition to the knowledge-based economy:

Greece, Portugal, Spain and Italy were still lagging behind in 2001. These four countries had an investment level below EU average and a growth of investment comparable to the average growth in 2000-2001 (Greece being slightly above average in terms of investment growth). However, compared to the second half of the nineties, their catching up with the rest of Europe appeared to have slowed down in 2001.

A second group consisting of France, United Kingdom, Germany, Austria, Ireland, Belgium and The Netherlands occupied an average position in terms of both their investment level and growth in 2001, although the cohesion of this group is less obvious than in the 1995-2000 period. The striking exception here is the drastic drop of Germany's investment growth rate, which was negative for the period 2000-2001. This decrease was due to relatively low growth rates in all fields of the composite indicator except for life-long learning. Belgium, The Netherlands and Ireland, on the other hand, had above-average growth rates.

Although less cohesive than in the previous years, the third group consisting of Finland, Denmark and Sweden was still far ahead in 2001, with clear above-average investment levels and, especially for Sweden, above-average growth rates. The decline of Finnish investment growth in 2000-2001 seems to be due to relatively low growth scores in overall research investment, PhD's and information infrastructure (e-government), whereas Denmark underscored particularly in training (life-long learning) and the production of new PhD's.

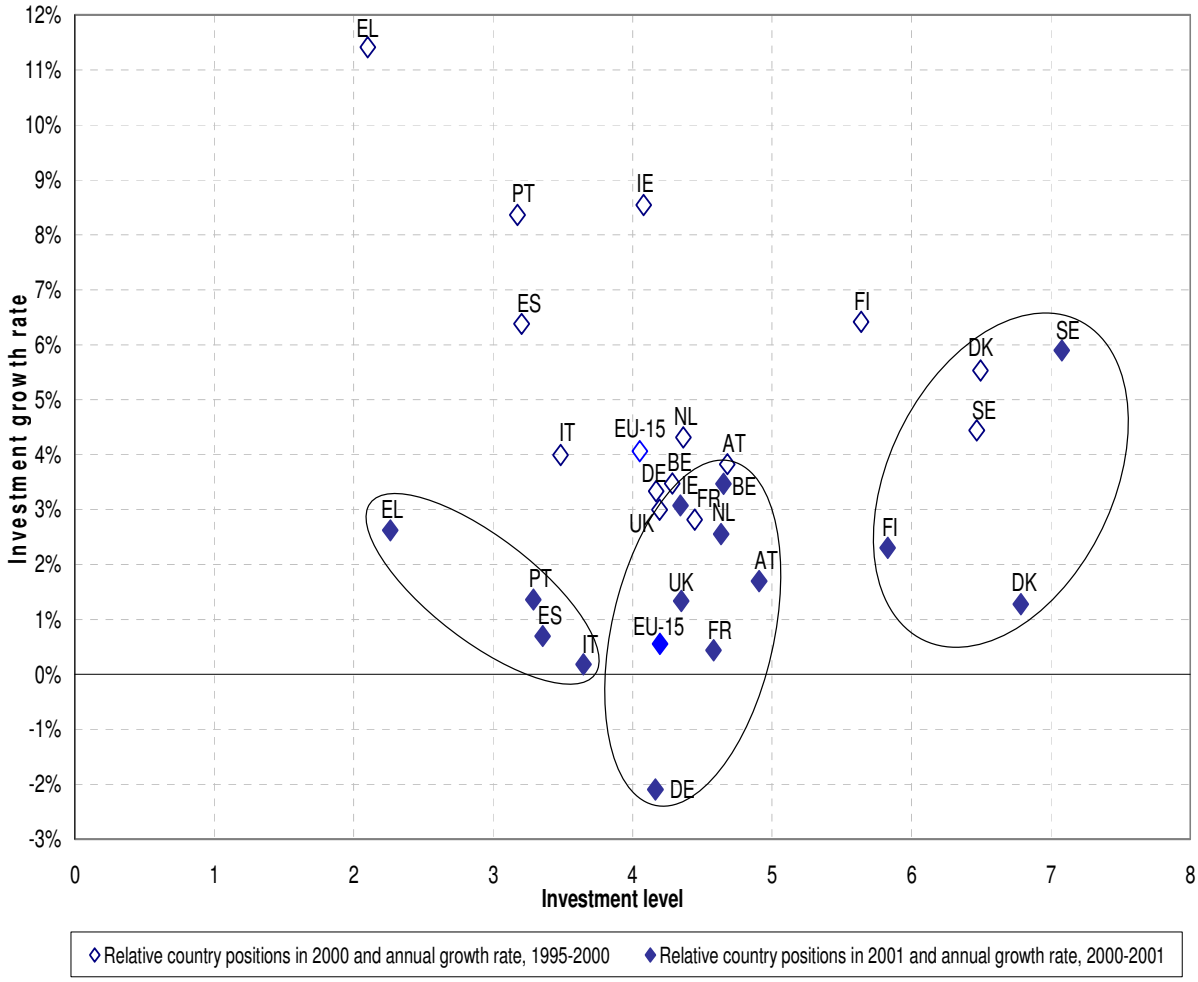
Turning to the EU's performance in the knowledge-based economy (see Figure 3), growth was also lower, but the slowdown was less pronounced than for investment. While EU growth in 2001 was positive, its progress was not as fast as in the second half of the 1990s. This deceleration in performance growth occurred for all EU countries except United Kingdom, The Netherlands and Greece. Greece had a relatively high growth rate in all fields of the performance indicator in 2000-2001. The United Kingdom's improved growth was due to a relatively high growth in overall productivity (GDP/hour worked) whereas The Netherlands showed a high growth in technological performance (patents). The performance level (horizontal scale) nevertheless increased between 2000 and 2001 for most countries - albeit at a slower pace.

The differences between groups of countries are much less marked than they were for investment, which shows the complexity of the relationship between knowledge investment and a country's performance. However, two broad groups can be distinguished:

Portugal, Spain, Greece and Italy were below the EU average. Greece and Spain improved their positions, but Italy and Portugal registered a decline in their performance level in 2001.

The second group, consisting of the remaining 10 EU countries (Luxemburg is not included on the graph), was slightly above-average in terms of performance level (especially Sweden and Finland) in 2001 and around average in terms of growth rate. During the period in question Ireland caught up with the European average.

Figure 2 Composite indicator of investment in the knowledge-based economy: EU Member States

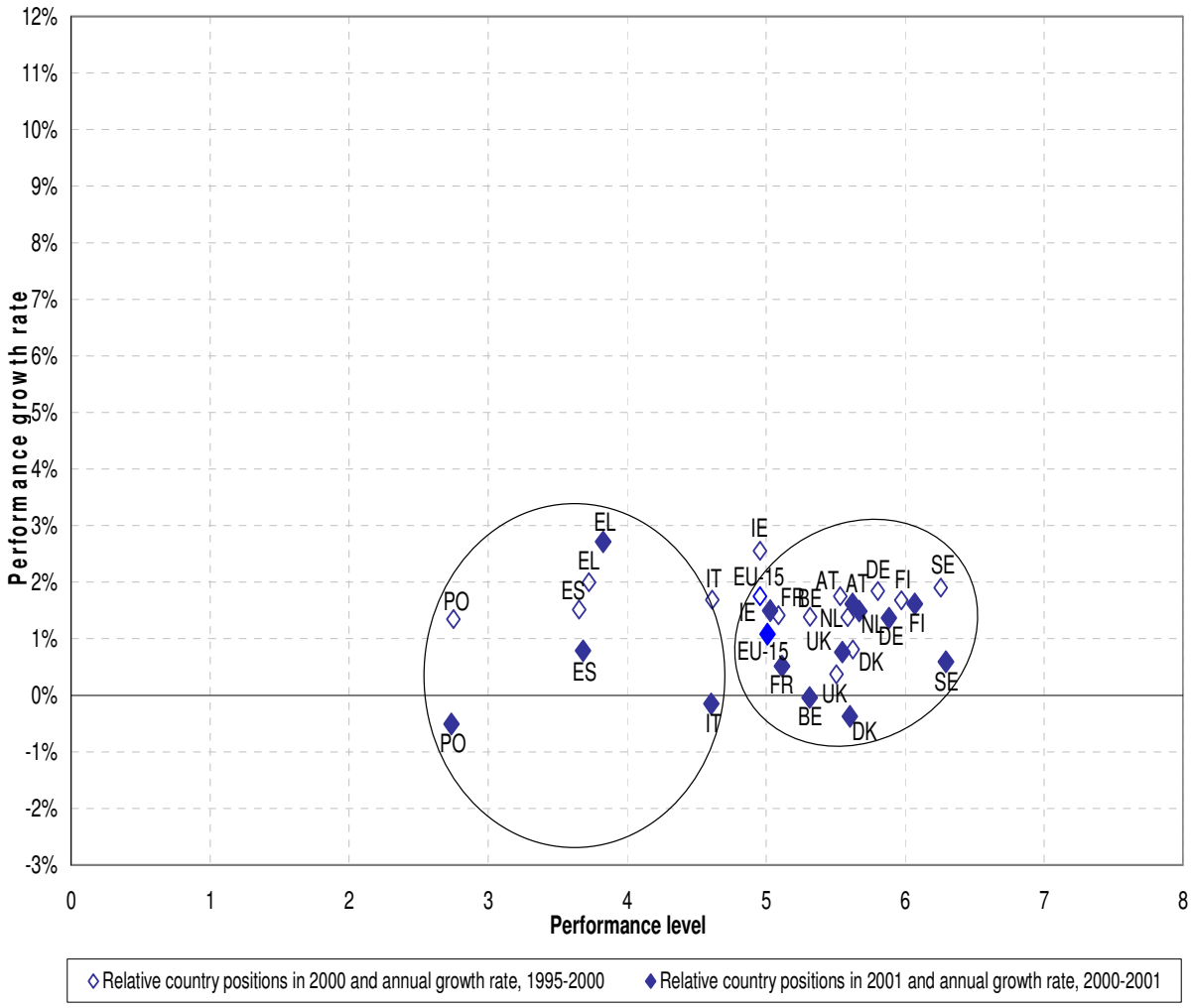


Source: European Commission, DG Research/JRC

Data: Eurostat, DG Information Society

Notes : All 7 sub-indicators were included for the investment levels (horizontal axis), but the indicator on e-government could not be included in the comparison of the growth rates (no data available on e-government for 1995). L is not included (no data for most of indicators).

Figure 3 Composite indicator of performance in the knowledge-based economy: EU Member States



Source: European Commission, DG Research/JRC

Data: Eurostat, EPO, USPTO, ISI/CWTS, DG Information Society

Notes: All 5 sub-indicators were included. The data for the UK's schooling success rate are partial and not completely harmonised. To allow calculations, UK growth from 1999 to 2001 has therefore been taken as 0, which may lead to a marginal underestimation overall of the performance growth for UK and EU-15. L not included.

C. Current position and progress of the Acceding and Candidate countries

As shown in Figure 4, all Acceding countries were lagging behind the European average in 2001 with regard to overall investment level. Their relatively low position was common to all

types of investment covered by the composite indicator, although it was more marked in research expenditure.

However, in 2000-2001 they were all catching up with the rest of Europe, albeit at a different pace:

A first group consisting of Slovakia, Latvia and Estonia was catching up very rapidly. These countries recorded growth rates well above the EU-15 average in 2000-2001 in both education spending and overall investment (capital formation). In addition to this, Estonia also made significant efforts to increase research investment, while Slovakia's production of new PhD's grew faster than the European Union average.

Lithuania, Hungary, Cyprus, the Czech Republic and Poland form a second group with a somewhat lower – although, with exception of Poland, still clearly above average – growth rate in 2000-2001. Hungary and Lithuania were catching up thanks to their relatively high growth in research investment, capital formation and education spending compared with the EU-15, while Cyprus recorded higher growth in research investment, education spending and in the number of researchers. The Czech Republic had higher growth scores than EU-15 in overall investment, education spending and in human resources (both for the production of new PhD's and the number of researchers). Finally, Poland recorded well-below average growth in 2000-2001 for R&D expenditure and capital formation, whereas its human resources in S&T (both PhD's and the number of researchers) grew close to the EU-15 average.

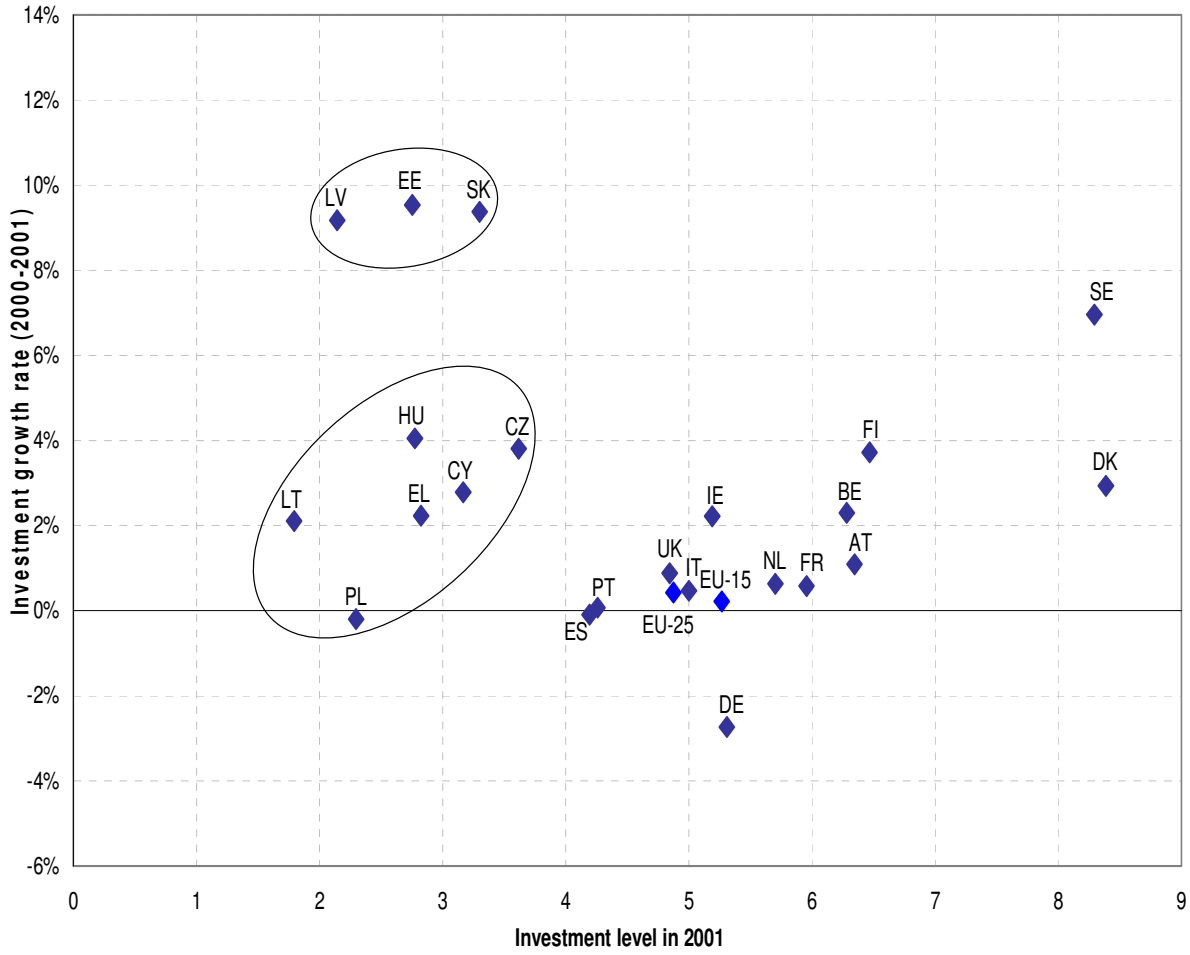
Similarly in terms of performance in the knowledge-based economy (see Figure 5), the Acceding and Candidate countries were all below the EU-15 average performance level in 2001. This was especially pronounced for technological performance (patents), but when one looks only at scientific performance or overall productivity growth, the picture was less negative for these countries, although they were still far below the average EU level.

If one compares the growth in performance of these countries with the EU average, one can make a distinction between two groups:

Bulgaria, Turkey, Cyprus, Estonia, and to a lesser extent Slovakia and Slovenia all had a performance growth below the EU average and were falling further behind compared with the rest of the EU-25. In 2000-2001, Bulgaria recorded below-EU-average growth rates for all the sub-indicators of the performance indicator, whereas Turkey had a low growth of overall productivity. Estonia and Cyprus recorded under-average growth rates in scientific and technological performance, but had an average growth of overall productivity. Slovenia had above-average growth in technological performance in 2000-2001, but underscored notably in scientific performance. Slovakia, finally, recorded low growth rates in technological performance, whereas its overall productivity grew at a slightly faster pace than the EU average.

A second group - consisting of Lithuania, Latvia, Hungary, the Czech Republic, Malta, Romania and, to a lesser extent, Poland - were catching up with the EU in 2001.

Figure 4 **Provisional composite indicator of investment in the knowledge-based economy for comparison between the EU-15 and the Acceding countries**



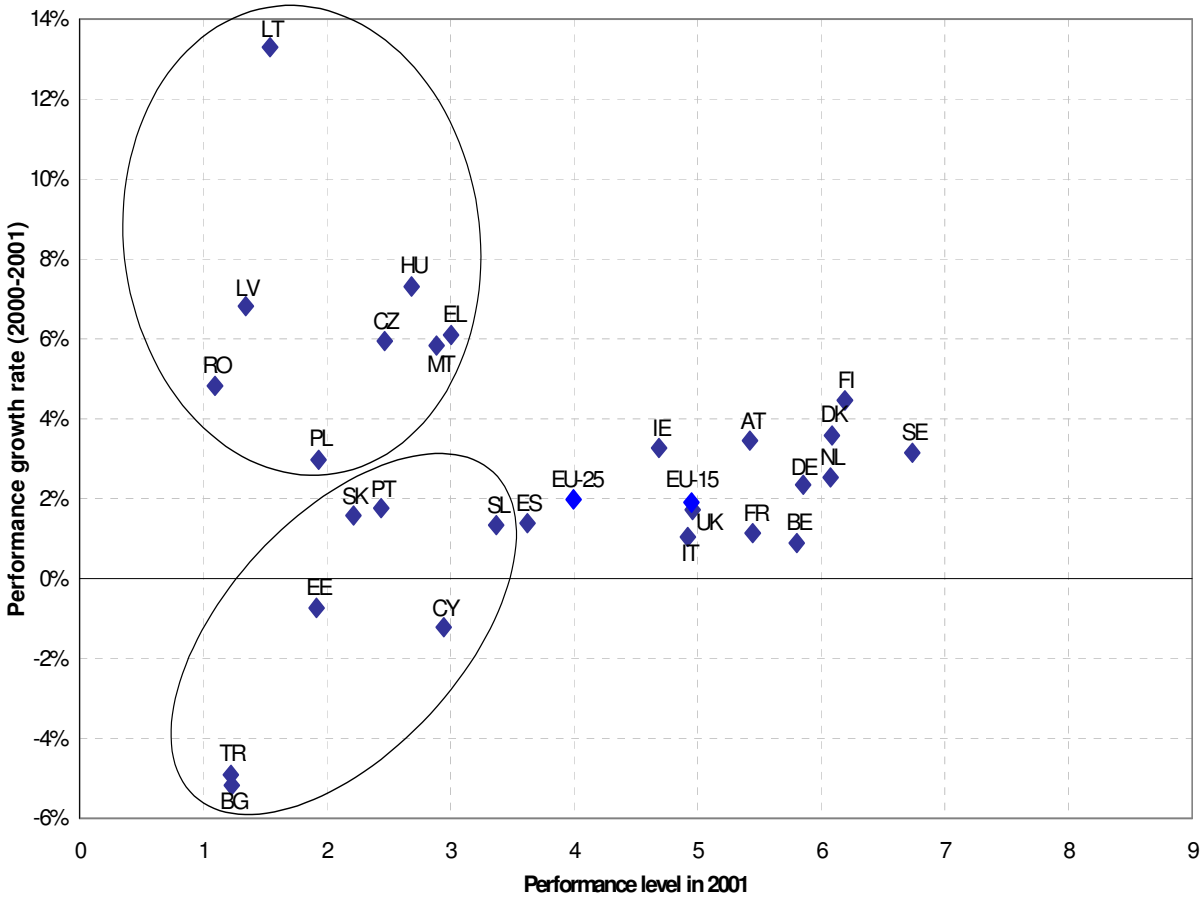
Source: European Commission, DG Research/JRC

Data: Eurostat

Notes : Only 5 sub-indicators were included : R&D expenditure (GERD per capita), PhDs (number of new S&T PhDs per capita), Researchers (number of researchers per capita), gross fixed capital formation (GFCF (excluding building) per capita), and e-government. The other two sub-indicators (educational spending and life-long-learning) are not available for all countries. L, MT, SL are not included (no data for most of indicators).

All countries of this group experienced an above-average growth of overall productivity. In addition, Hungary, Lithuania, Malta and Poland also recorded a higher growth of both technological and scientific performance than the EU-15. For the Czech Republic, the high growth of overall productivity in 2000-2001 was combined with a above-average growth in scientific performance, although technological performance grew at a slower pace than the EU-15 average.

Figure 5 **Provisional composite indicator of performance in the knowledge-based economy for comparison between the EU-15, the Acceding and Candidate countries**



Source: European Commission, DG Research/JRC

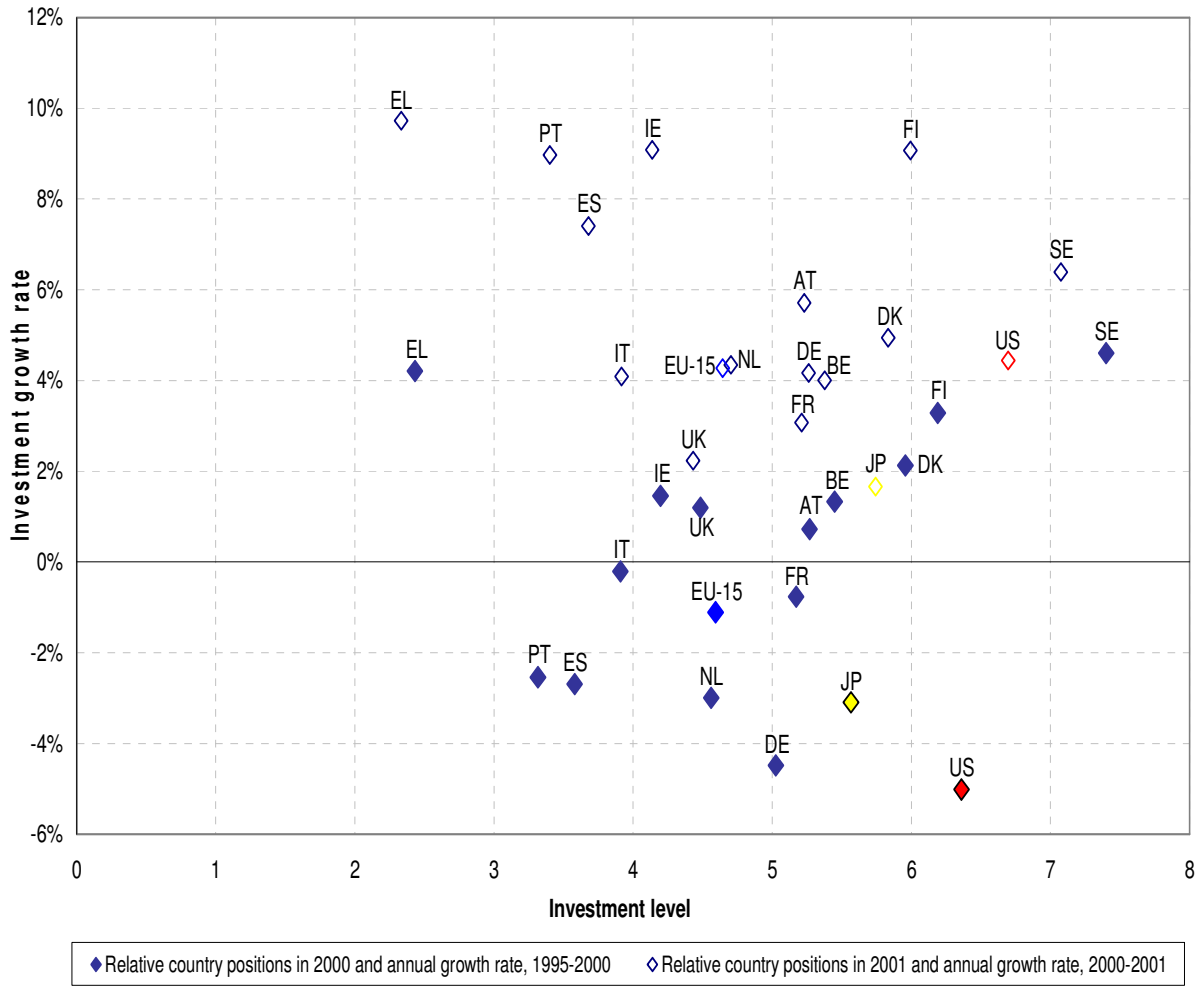
Data: Eurostat, EPO, USPTO, ISI/CWTS

Notes : Only 3 sub-indicators were included: overall productivity (GDP per hour worked), patents (share of EPO and USPTO patents) and scientific publications per capita. Data on e-commerce and schooling success rate were not available for all countries. L is not included.

D. The EU-15 compared with the US and Japan

The EU-15 as a whole had a lower level of overall investment in the knowledge-based economy in 2001 than the US and Japan (see Figure 6). However, some EU Member States, like Sweden, had levels similar or superior to that of the US. The US had more researchers per capita than EU-15, and a much higher level of research expenditure, whereas their production of new PhD's and capital formation were close to the EU levels. The same was true for Japan, although Japan's higher level investment here came more from a higher number of researchers than from a higher level of research expenditure.

Figure 6 **Provisional composite indicator of investment in the knowledge-based economy for comparison between the EU-15, Japan and US**



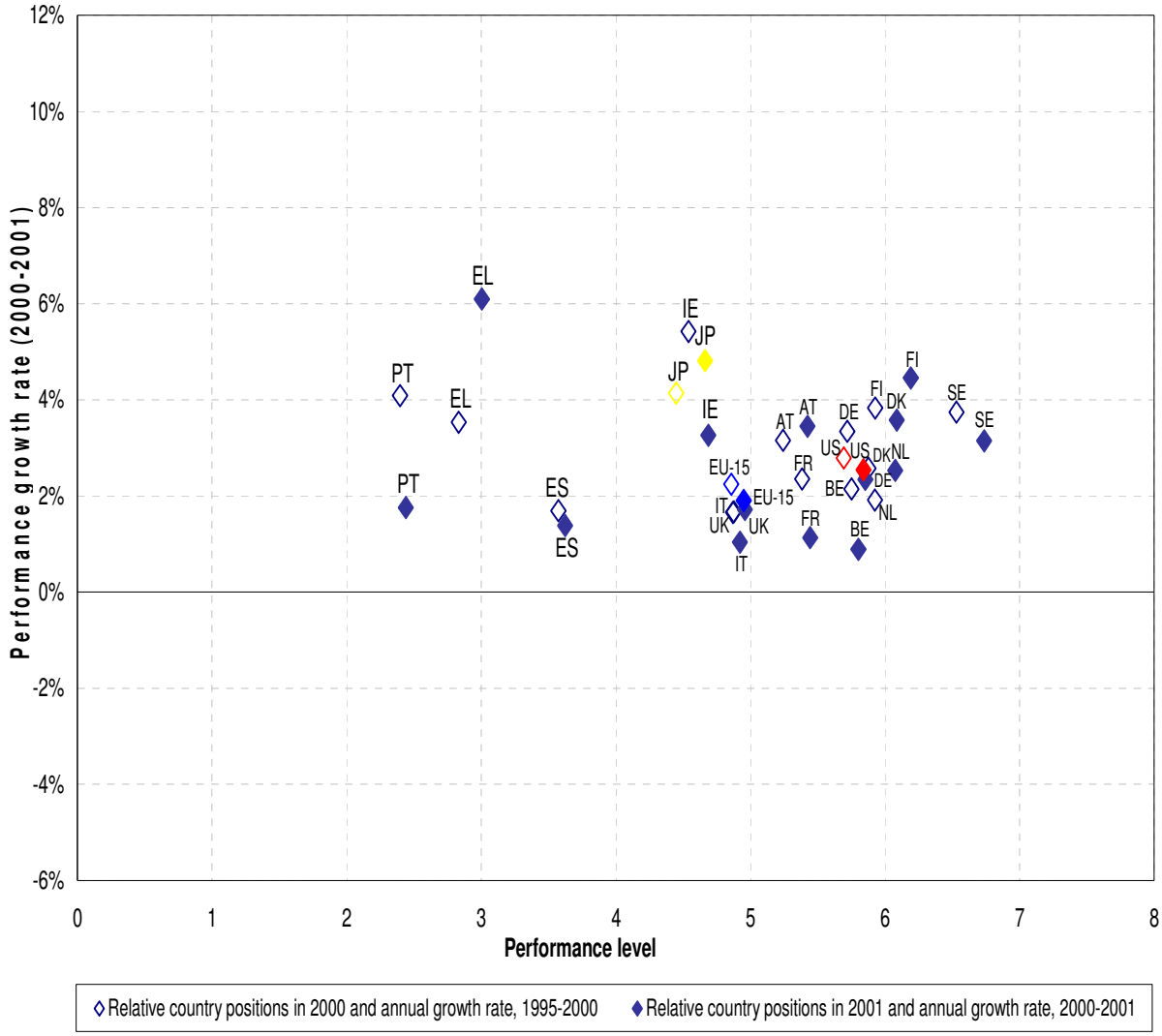
Source: European Commission, DG Research/JRC

Data: Eurostat

Notes : Only 4 sub-indicators were included : R&D expenditure (GERD per capita), PhDs (number of new S&T PhDs per capita), Researchers (number of researchers per capita) and gross fixed capital formation (GFCF (excluding building) per capita). The other three sub-indicators (e-government, educational spending and life-long-learning) are not available for the US and JP. L is not included.

The decrease in investment growth during the 2000-2001 period was much stronger for the US than for the EU-15 or Japan. The fall in investment growth for both the US and Japan was due mainly to a sharp decrease in capital formation in 2000-2001. In addition, the US also recorded lower growth than EU-15 in the number of researchers, however, the growth of US research spending was close to that of the EU.

Figure 7 **Provisional composite indicator of performance in the knowledge-based economy for comparison between the EU-15, Japan and US**



Source: European Commission, DG Research/JRC

Data: Eurostat, EPO, USPTO, ISI/CWTS

Notes : Only 3 sub-indicators were included: overall productivity (GDP per hour worked), patents (share of EPO and USPTO patents) and scientific publications per capita. No data were available on e-commerce and schooling success rate for the US and Japan. L is not included.

The composite indicator of performance in the knowledge-based economy was lower for EU-15 than for the US in 2001, although Germany's position was marginally above that of the US (see Figure 7). More specifically, the US still had a higher level of technological performance than the EU-15, whereas their overall productivity and scientific performance in 2001 were very close to the EU level. In terms of performance growth, one can observe a similar small decrease in both the EU and the US.

E. Conclusions

The slowing down of EU-15 investment in the knowledge-based economy is likely to be reflected sooner or later in a significant decline in its performance. This trend underlines the urgency of implementing the Lisbon Strategy. In particular, the EU needs to increase its efforts, so as to give renewed impetus to the catching up of some countries with the rest of the EU-15 and to close the gap as soon as possible with the US.

Most Acceding countries are catching up with the EU-15. However, since their current investment and performance levels are far below the EU-15 average, they must continue to increase their efforts if they are to accelerate the catching-up process.

A striking new element is the drastic decrease of US overall investment growth in 2000-2001. This decrease was much stronger than in the EU-15. It was due mainly to a sharp decrease in US capital formation in 2000-2001, although the growth of US research spending was similar to that of the EU. Nevertheless, the EU will only close the gap with the US if it manages to boost its investment substantially in the next few years.

ANNEXES

1. **FULL TITLE OF THE 29 INDICATORS FOR MONITORING PERFORMANCE AND PROGRESS OF EDUCATION AND TRAINING SYSTEMS IN EUROPE (Technical definitions)**

2. **STATISTICS AND GRAPHICS (Prepared by Eurydice European Unit)**

ANNEX 1

FULL TITLE OF THE 29 INDICATORS FOR MONITORING PERFORMANCE AND PROGRESS OF EDUCATION AND TRAINING SYSTEMS IN EUROPE (Technical definitions)

Teachers and Trainers

- Age distribution of teachers together with upper and lower retirement age.
- Number of young people in the 0-14 and 15-19 age groups and as percentage of total population.
- Ratio of pupils to teaching staff by education level.

Skills for the Knowledge Society

- Percentage of those aged 22 who have successfully completed at least upper secondary education (Isced 3) .
- Percentage of pupils with reading literacy proficiency "level 1" and lower on the PISA reading literacy scale.
- Distribution and mean performance of students, per country, on the PISA reading literacy scale.
- Distribution and mean performance of students, per country, on the PISA mathematical literacy scale.
- Distribution and mean performance of students, per country, on the PISA science literacy scale.
- Percentage of adults with less than upper secondary education who have participated in any form of education or training, in the last 4 weeks by age group (25-34, 35-54 and 55-64).

Mathematics, Science and Technology

- Students enrolled in mathematics, science and technology as a proportion of all students in tertiary education (ISCED 5A, 5B and 6).
- Graduates in mathematics, science and technology (ISCED 5A, 5B and 6) as percentage of all graduates (ISCED 5A, 5B and 6).
- Total number of tertiary (ISCED 5A, 5B and 6) graduates from mathematics, science and technology fields.
- Number of tertiary graduates in mathematics, science and technology per 1000 inhabitants aged 20-29 - Broken down by ISCED levels 5A, 5B and 6.

Investments in Education and Training

- Public expenditure on education as a percentage of GDP
- Private expenditure on educational institutions as a percentage of GDP
- Enterprise expenditure on continuing vocational training courses as a percentage of total labour costs.
- Total expenditure on education per pupil/student (PPS), by level of education
- Total expenditure on education per pupil/student (GDP per capita).

Open Learning Environment

- Percentage of population aged 25-64 participating in education and training in 4 weeks prior to the survey by level of educational attainment.

Making Learning more Attractive

- Hours in continuing vocational training (CVT) courses per 1000 working hours worked (only enterprises with CVT courses), by NACE.
- Hours in continuing vocational training (CVT) courses per 1000 working hours (all enterprises), by NACE
- Participation rates in education by age and by level of education.
- Share of the population aged 18-24 with only lower secondary education and not in education or training

Foreign Language Learning

- Distribution of lower/ upper secondary pupils learning foreign languages.
- Average number of foreign languages learned per pupil in upper secondary education.

Mobility

- Inward and outward mobility of teachers and trainers within the Socrates (Erasmus, Comenius, Lingua and Grundtvig) and Leonardo da Vinci programmes
- Inward and outward mobility of Erasmus students and Leonardo da Vinci trainees
- Foreign students enrolled in tertiary education (ISCED 5 and 6) as a percentage of all students enrolled in the country of destination, by nationality (European country or other countries)
- Percentage of students (ISCED 5-6) of the country of origin enrolled abroad (in a European country or other countries)

ANNEX 2

STATISTICS AND GRAPHICS (Prepared by Eurydice European Unit)

1.1.A: Distribution of teachers teaching in public and private institutions by ISCED level and age group, 2000/01

ISCED 1

Age group	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
< 30	(:)	21.5	(:)	6.1	(:)	(:)	13.5	18.1	2.5	26.0	18.4	(:)	13.8	13.2	12.7	21.9
30 - 39	(:)	29.5	(:)	15.3	(:)	(:)	28.1	25.9	21.8	22.5	21.1	(:)	25.8	32.9	17.3	21.3
40 - 49	(:)	27.7	(:)	33.7	(:)	(:)	34.7	34.1	34.7	27.0	37.4	(:)	41.2	29.3	28.2	30.8
> = 50	(:)	21.4	(:)	44.9	(:)	(:)	23.6	22.0	30.6	24.5	23.1	(:)	19.2	24.6	41.7	26.0

Age group	IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
< 30	15.4	(:)	(:)		13.0	46.6	(:)	(:)	(:)	17.9	20.0	36.2	13.9	(:)	17.0	22.1
30 - 39	29.2	(:)	(:)		41.0	36.7	(:)	(:)	(:)	33.0	32.0	14.9	36.9	(:)	37.5	24.9
40 - 49	30.2	(:)	(:)		31.5	11.5	(:)	(:)	(:)	28.4	27.0	15.6	25.5	(:)	28.2	24.8
> = 50	25.1	(:)	(:)		14.5	5.1	(:)	(:)	(:)	20.7	21.0	33.3	14.6	(:)	17.1	28.3

Source: Eurostat, UOE.

ISCED 2 and 3

Age group	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
< 30	(:)	12.7	(:)	4.0	(:)	(:)	17.1	10.5	0.1	13.1	8.3	(:)	23.8	7.5	11.7	17.7
30 - 39	(:)	21.8	(:)	14.0	(:)	(:)	24.6	31.3	8.7	26.8	17.2	(:)	38.8	25.4	19.1	22.8
40 - 49	(:)	35.6	(:)	35.4	(:)	(:)	27.1	29.2	42.5	29.5	37.5	(:)	25.3	31.1	24.6	33.4
> = 50	(:)	29.8	(:)	46.6	(:)	(:)	31.1	28.9	48.7	30.7	37.1	(:)	12.1	36.1	44.6	26.0

Age group	IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
< 30	7.7	(:)	12.9		13.1	5.7	(:)	(:)	(:)	15.5	17.2	31.4	19.0	27.9	12.9	18.7
30 - 39	21.9	(:)	22.1		28.2	21.0	(:)	(:)	(:)	29.3	25.6	22.5	29.7	20.5	35.3	24.2
40 - 49	32.8	(:)	28.7		36.7	47.2	(:)	(:)	(:)	32.3	29.6	21.5	30.1	26.5	32.7	28.8
> = 50	37.6	(:)	36.3		22.0	26.1	(:)	(:)	(:)	22.9	27.6	24.7	21.1	25.1	19.1	28.3

Source: Eurostat, UOE.

Additional notes

Belgium: Data exclude the German-speaking Community.
Belgium, Ireland and **Netherlands**: ISCED levels 2-3 include ISCED level 4.
Luxembourg: Data refer only to public institutions.
Netherlands: ISCED level 1 includes ISCED level 0.
Finland: ISCED level 3 includes some teachers from ISCED level 4 and 5.
United Kingdom: Data exclude teachers of ISCED 3 vocational.
Norway : ISCED level 2-3 includes ISCED 1 and 4

1.1.B: Change in the numbers of young people in the 0-14 and 15-19 age groups in the European Union, from 1975 to 1999

0-14 age group

	1975	1980	1985	1990	1995	1999	2000	2001
EU	82 775 542	76 787 747	69 996 578	66 454 443	65 162 416	63 506 357	(:)	(:)
BE	2 177 163	1 982 317	1 848 657	1 806 216	1 821 921	1 805 018*	1 804 938	1 805 168
DK	1 143 432	1 068 151	942 923	877 094	910 299	974 396	987 831	999 779
DE	16 927 626	14 470 781	12 435 401	12 786 584	13 266 410	12 938 529	12 837 128	12 698 044
EL	2 160 453	2 199 884	2 114 608	1 960 853	1 761 136	1 611 237	(:)	(:)
ES	9 673 592	9 683 908	8 927 158	7 714 734	6 499 847	5 939 567*	5 894 921	5 886 624
FR	12 611 749	12 056 156	11 739 665	11 393 529	11 288 138	11 078 027	11 088 777	11 107 441
IE	985 650	1 037 895	1 022 031	951 735	873 590	828 164*	823 946*	822 242
IT	13 436 739	12 569 866	10 964 028	9 387 856	8 634 455	8 337 266	8 315 316	(:)
LU	71 730	68 337	63 100	66 264	75 426	81 634	82 842	83 246
NL	3 463 210	3 159 172	2 819 220	2 726 601	2 843 095	2 930 727	2 961 541	2 987 894

0-14 age group (continued)

	1975	1980	1985	1990	1995	1999	2000	2001
AT	1 760 725	1 541 401	1 385 714	1 347 043	1 412 708	1 369 780	1 357 770	1 343 689
PT	2 507 745	2 519 570	2 366 555	2 002 284	1 779 280	1 651 766	1 642 034	1 645 821
FI	1 037 085	970 609	951 519	963 236	972 007	947 073*	939 668	933 961
SE	1 695 268	1 628 350	1 516 566	1 535 024	1 664 014	1 644 082	1 635 250	1 625 537
UK	13 123 375	11 831 350	10 899 433	10 935 390	11 360 090	11 369 091	11 349 669	(:)
IS	65 524	62 763	63 246	63 578	65 319	64 893	65 472	66 054
LI	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
NO	953 482	905 687	830 732	803 313	849 262	888 563	898 575	904 367
BG	1 941 505	1 961 710	1 936 433	1 772 157	1 504 732	1 320 818	1 258 874	1 199 098
CY	(:)	(:)	(:)	(:)	183 450	176 900	173 750	(:)
CZ	(:)	(:)	(:)	2 223 196	1 920 643	1 729 339	1 685 821	1 648 103
EE	311 061	319 934	339 950	349 719	304 148	259 669	246 456	(:)
HU	(:)	(:)	(:)	2 099 271	1 875 275	1 745 847	1 710 624	1 676 056
LT	(:)	(:)	(:)	841 568	808 305	742 314	705 713	669 772
LV	(:)	(:)	(:)	573 735	516 863	438 043	416 935	400 120
MT	(:)	(:)	(:)	(:)	81 518	78 134	77 399	76 633
PL	(:)	(:)	(:)	9 567 827	8 800 334	7 709 332	7 415 301	7 146 164
RO	(:)	(:)	(:)	5 452 223	4 652 040	4 210 689	4 103 512	(:)
SI	(:)	(:)	(:)	414 657	364 525	324 502	316 891	310 064
SK	1 234 914	1 299 949	1 363 447	1 332 648	1 210 639	1 085 609	1 052 900	1 025 960

15-19 age group

	1975	1980	1985	1990	1995	1999	2000	2001
EU	26 915 220	29 431 949	28 759 135	25 794 481	23 409 285	22 992 161	(:)	(:)
BE	777 945	796 579	724 176	659 332	615 704	617 773*	611 157	605 416
DK	369 725	395 539	391 805	367 475	322 261	284 452	280 152	280 761
DE	5 840 978	6 642 819	6 129 718	4 491 686	4 323 747	4 618 341	4 622 769	4 626 530
EL	704 654	724 816	764 769	760 565	764 859	707 885	(:)	(:)
ES	2 994 008	3 212 824	3 280 834	3 320 133	3 139 573	2 672 185*	2 558 959*	2 454 000
FR	4 236 890	4 343 015	4 305 942	4 269 024	3 783 157	3 938 253	3 919 977	3 889 530
IE	293 950	322 865	332 582	330 708	336 308	340 009	332 042	324 115
IT	4 057 680	4 569 470	4 605 403	4 344 306	3 611 810	3 128 517	3 070 041	(:)
LU	27 232	27 919	25 984	22 220	22 310	23 796	24 329	24 827
NL	1 171 962	1 254 620	1 232 349	1 077 584	922 789	925 698	928 990	936 452
AT	583 005	657 322	626 244	519 087	458 655	484 071	486 136	482 814
PT	794 920	853 830	842 360	846 688	804 111	716 096	696 725	673 654
FI	398 790	381 771	350 851	302 334	327 510	331 240*	331 992	330 499
SE	535 531	569 010	585 463	564 884	509 490	504 354	506 636	513 821
UK	4 127 950	4 679 550	4 560 655	3 918 455	3 467 001	3 699 491	3 701 156	(:)
IS	22 443	22 551	21 029	21 201	21 019	21 874	21 458	20 940
LI	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
NO	308 585	313 895	334 589	315 230	269 197	265 305	265 675	267 082
BG	648 109	621 966	615 709	633 176	624 792	569 996	550 645	535 957
CY	(:)	(:)	(:)	(:)	53 000	60 100	61 300	(:)
CZ	(:)	(:)	(:)	843 272	869 858	716 390	690 933	680 052
EE	104 859	103 919	102 528	109 415	105 142	104 808	104 045	(:)
HU	(:)	(:)	(:)	788 704	831 546	695 967	675 321	661 769
LT	(:)	(:)	(:)	272 626	260 557	267 795	267 956	268 650
LV	(:)	(:)	(:)	181 872	165 439	176 690	179 572	182 346
MT	(:)	(:)	(:)	(:)	28 681	28 944	28 983	29 061
PL	(:)	(:)	(:)	2 848 513	3 215 812	3 354 423	3 361 239	3 339 571
RO	(:)	(:)	(:)	1 889 607	1 960 810	1 711 751	1 663 549	(:)
SI	(:)	(:)	(:)	145 125	151 322	142 667	138 801	134 730
SK	443 911	410 104	379 189	431 737	475 368	451 799	445 792	441 911

Source: Eurostat, population statistics.

Additional notes

*: Estimate.
DE: Including ex-GDR from 1991.

1.1.C: Ratio of pupils to teaching staff in primary education (ISCED 1)

2001

	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
ISCED 1	(:)		13.4	10.2	19.4	12.7	14.7	19.5	20.3	10.8	11.0	17.2	14.3	11.6	16.1	12.4	20.8
ISCED 2	(:)		(:)	10.3	15.7	9.8	(:)	13.9	15.2	9.9	9.1	(:)	9.8	9.9	10.9	12.4	17.5
ISCED 3	(:)		9.8	13.3	19.8	11.3	11.0	10.9	(:)	10.4	(:)	17.1	9.9	8.0	17.0	16.6	18.9

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
ISCED 1	12.6	(:)	(:)	17.7	21.1	19.4	14.7	11.3	16.9	17.6	19.0	12.5	(:)	13.1	20.7	20.4	(:)
ISCED 2	(:)	(:)	10.9	13.0	15.1	14.5	11.2	11.2	12.0	13.2	9.9	13.1	14.8	13.3	14.5	15.8	(:)
ISCED 3	10.9	(:)	9.2	11.3	13.6	13.1	10.3	12.5	(:)	13.2	18.1	16.8	13.3	13.8	12.9	12.4	(:)

2000

	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
ISCED 1	(:)		(:)	10.7	19.8	13.4	14.9	19.5	21.5	11.0	(:)	16.8	(:)	12.1	16.9	12.8	21.2
ISCED 2	(:)		(:)	10.6	15.7	10.8	13.7	14.5	15.9	10.4	(:)	(:)	(:)	10.5	10.7	12.8	17.6
ISCED 3	(:)		(:)	12.1	19.7	10.5	9.7	10.6	(:)	10.5	(:)	17.1	(:)	8.0	17.0	15.2	19.3

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
ISCED 1	12.7	(:)	(:)	16.8	18.1	21.0	14.9	10.9	16.7	18.0	19.1	12.7	(:)	13.4	18.3	(:)	(:)
ISCED 2	(:)	(:)	11.6	12.1	(:)	15.6	11.2	10.9	11.4	12.7	9.0	11.5	15.0	13.8	13.5	(:)	(:)
ISCED 3	9.7	(:)	9.7	11.6	12.7	13.4	10.1	9.9	(:)	13.3	16.2	16.9	12.8	13.1	12.8	(:)	(:)

1999

	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
ISCED 1	(:)		(:)	10.6	21.0	13.5	15.4	19.6	21.6	11.3	12.0	16.6	14.5	(:)	17.4	13.3	22.5
ISCED 2	(:)		(:)	11.0	16.4	10.6	(:)	12.9	16.0	10.3	9.6	(:)	9.6	(:)	10.6	13.3	17.4
ISCED 3	(:)		(:)	11.7	19.7	10.7	12.9	12.7	(:)	10.2	(:)	17.7	10.0	(:)	16.6	15.5	18.7

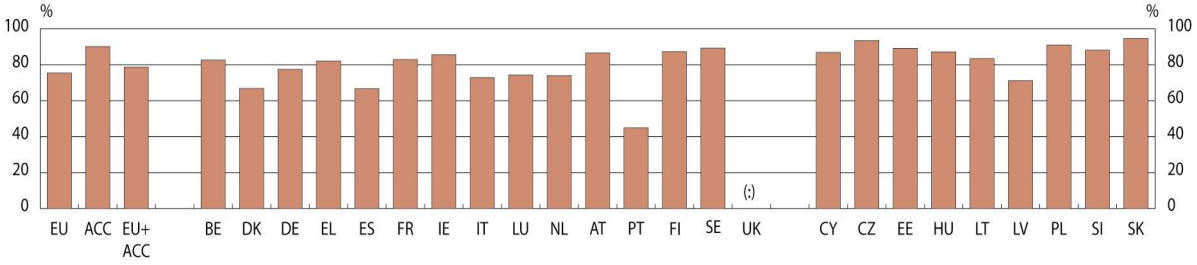
	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
ISCED 1	13.3	(:)	(:)	17.9	18.4	19.8	16.0	10.9	16.7	18.2	19.6	(:)	18.7	14.2	19.6	(:)	(:)
ISCED 2	(:)	(:)	(:)	13.4	(:)	19.1	12.1	10.9	11.7	12.0	8.7	(:)	12.2	14.1	13.5	(:)	(:)
ISCED 3	13.5	(:)	(:)	11.6	13.0	13.1	10.6	10.3	(:)	11.9	(:)	(:)	12.9	12.9	13.8	(:)	(:)

Source: Eurostat, UOE.

Additional notes (Table 1.1.C)

Belgium: ISCED0 included in ISCED1 in 2000 and 1999; ISCED2 and ISCED 4 included in ISCED3
Spain: ISCED2 included in ISCED3 2001 and 1999; ISCED4 included in ISCED3
Ireland: ISCED 3 and ISCED 4 included in ISCED2
Luxembourg: ISCED 3 included in ISCED2; Public institutions only
Netherlands: ISCED0 included in ISCED1; ISCED2 and ISCED4 included in ISCED3
Iceland: ISCED2 included in ISCED1
Norway: ISCED1 included in ISCED2; ISCED4 included in ISCED3
Cyprus: ISCED2 included in ISCED3
Lithuania: ISCED3 included in ISCED2
Romania: ISCED1 included in ISCED2

1.2.A: Percentage of those aged 22 who have successfully completed at least upper secondary education (ISCED 3), 2002

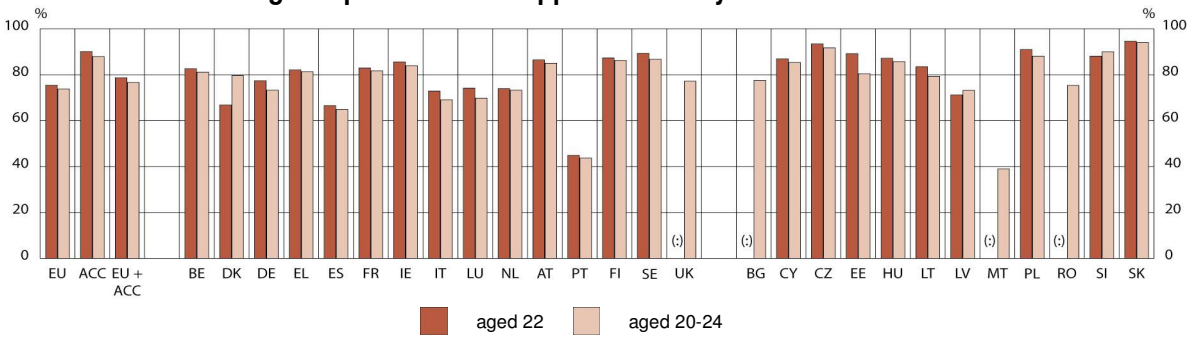


BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
82.6	66.8	77.4	82.1	66.6	82.9	85.6	72.9	74.2	73.9	86.5	44.9	87.3	89.3	(:)

EU	ACC	EU + ACC		CY	CZ	EE	HU	LT	LV	PL	SI	SK
75.4	90.1	78.7		86.9	93.4	89.2	87.2	83.5	71.2	91.0	88.1	94.6

Data source: Eurostat, Labour force survey, 2002.

Youth education attainment level - Total - Percentage of the population aged 22 and 20 to 24 having completed at least upper secondary education



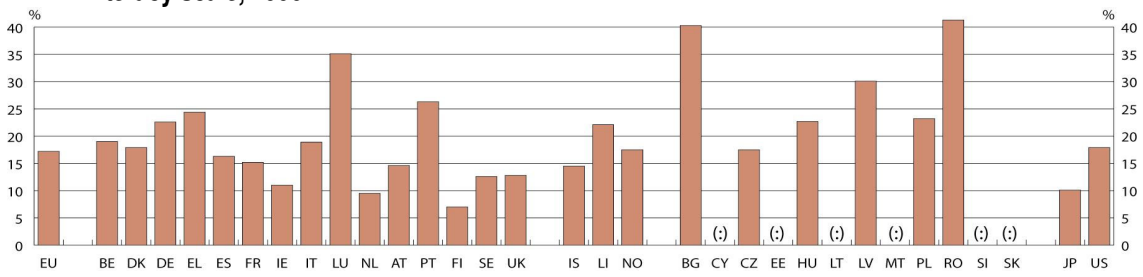
	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
	82,6	66,8	77,4	82,1	66,6	82,9	85,6	72,9	74,2	73,9	86,5	44,9	87,3	89,3	(:)
	81,1	79,6	73,3	81,3	64,9	81,7	83,9	69,1	69,8	73,3	85	43,7	86,2	86,7	77,2*

	UE	ACC	UE+ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
	75,4	90,1	78,7	(:)	86,9	93,4	89,2	87,2	83,5	71,2	(:)	91	(:)	88,1	94,6
	73,8*	87,9	76,6*	77,5	85,3	91,7	80,4	85,7	79,3	73,2**	39**	88,1	75,3	90	94

Data source: Eurostat, Labour force survey, 2002.

Additional notes :
* *: Provisional data*
** *: Break in series*

1.2.B: Percentage of pupils with reading literacy proficiency level 1 and lower in the PISA reading literacy scale, 2000

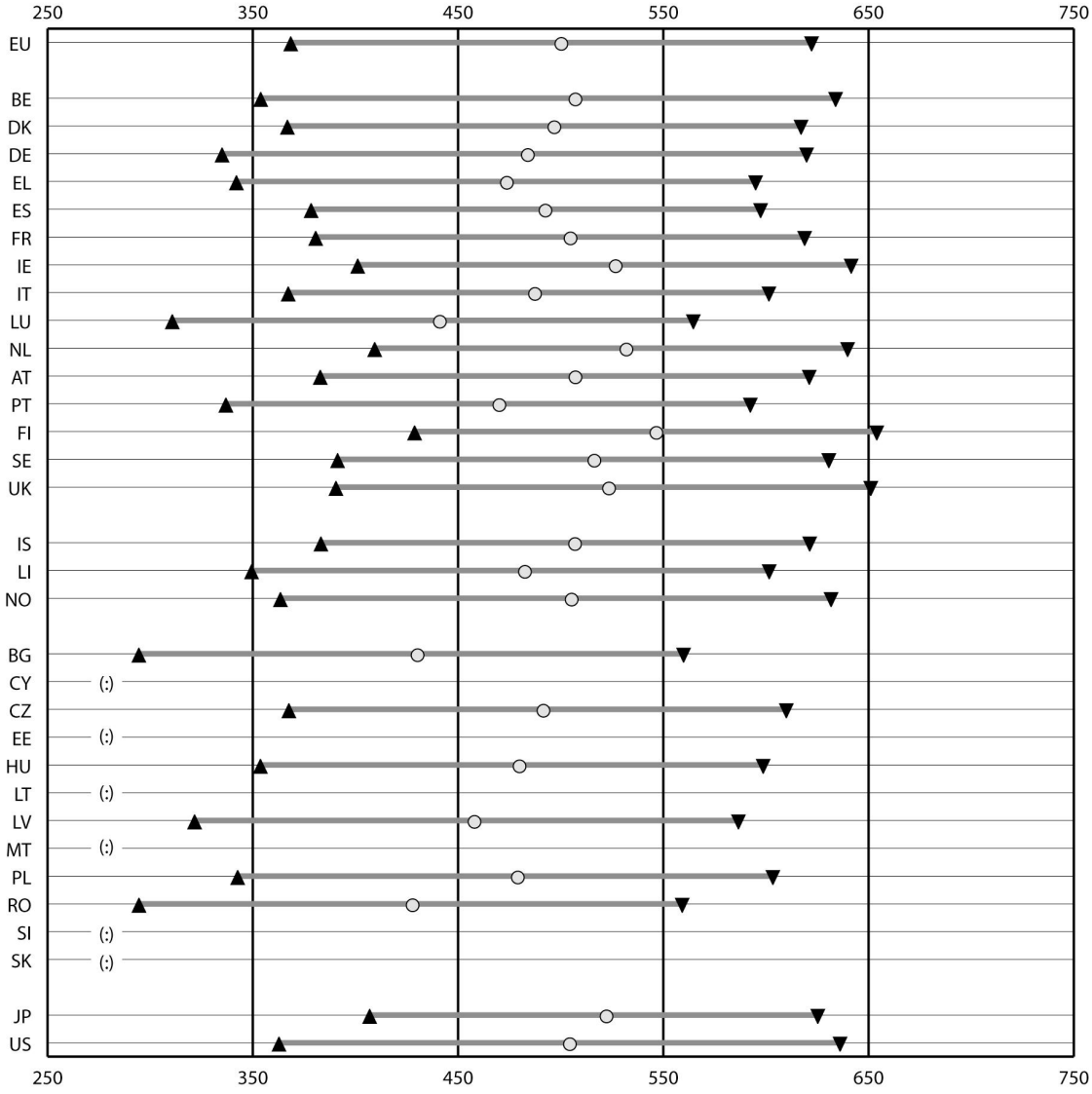


	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
%	17.2	19.0	17.9	22.6	24.4	16.3	15.2	11.0	18.9	35.1	9.5	14.6	26.3	7.0	12.6	12.8
SE	(0.4)	(1.3)	(0.9)	(1.0)	(2.1)	(1.1)	(1.1)	(1.0)	(1.1)	(0.8)	(1.3)	(0.7)	(1.9)	(0.7)	(0.7)	(0.7)

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
%	14.5	22.1	17.5	40.3	(:)	17.5	(:)	22.7	(:)	30.1	(:)	23.2	41.3	(:)	(:)	10.1	17.9
SE	(0.7)	(2.1)	(1.1)	(2.1)	(:)	(0.8)	(:)	(1.5)	(:)	(2.0)	(:)	(1.4)	(:)	(:)	(:)	(1.6)	(2.2)

Source: OECD, PISA 2000 database.

1.2.C: Distribution and mean performance of students, per country, on the PISA reading literacy scale, 2000



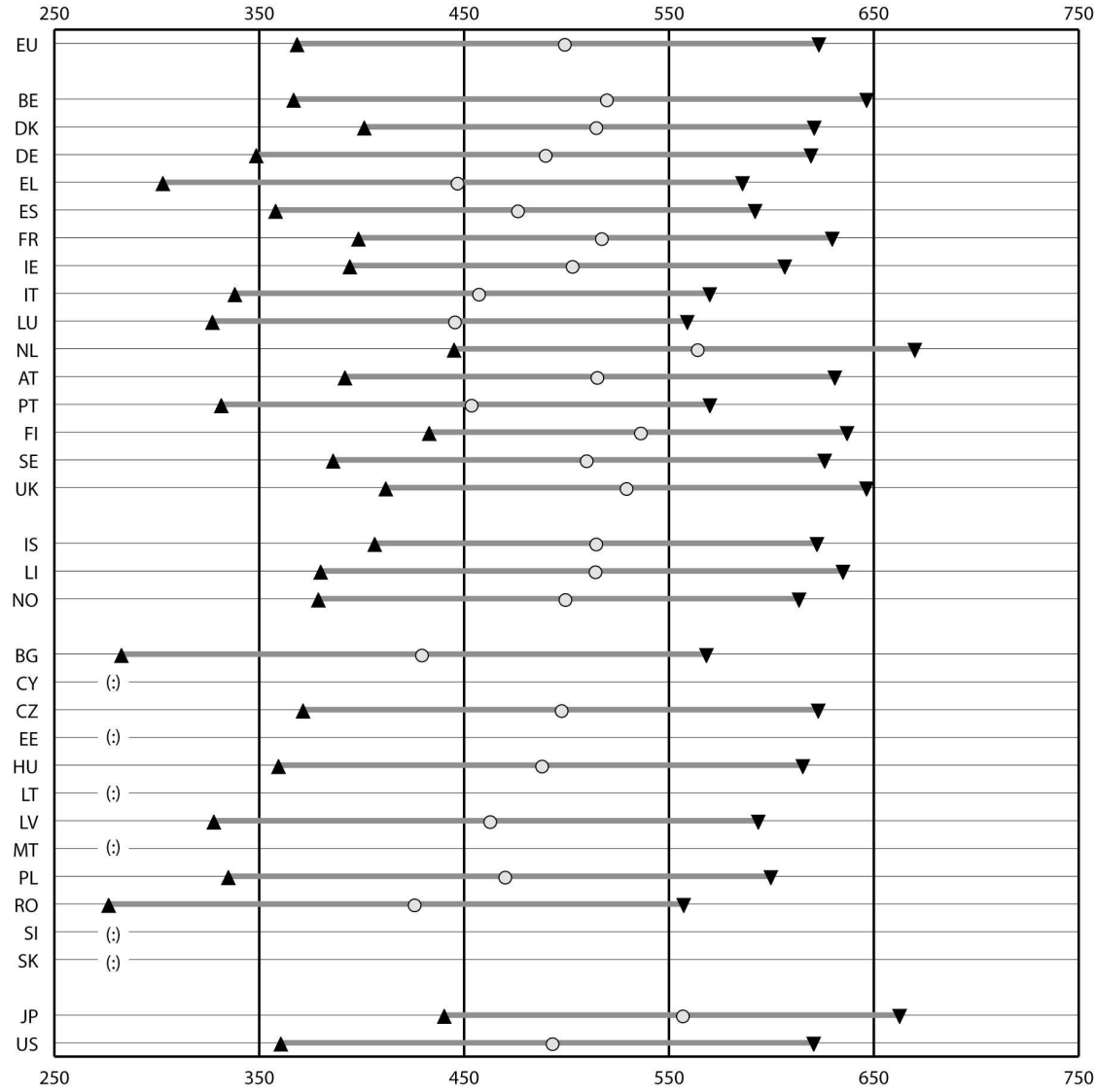
σ Percentile 10 μ Mean τ Percentile 90

	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
mean	500		507	497	484	474	493	505	527	487	441	532	507	470	546	516	523
SE	(1.0)		(3.6)	(2.4)	(2.5)	(5.0)	(2.7)	(2.7)	(3.2)	(2.9)	(1.6)	(3.4)	(2.4)	(4.5)	(2.6)	(2.2)	(2.6)
P10	369		354	367	335	342	379	381	401	368	311	410	383	337	429	392	391
SE	(2.0)		(8.9)	(5.0)	(6.3)	(8.4)	(5.0)	(5.2)	(6.4)	(5.8)	(4.4)	(8.1)	(4.2)	(6.2)	(5.1)	(4.0)	(4.1)
P90	622		634	617	619	595	597	619	641	601	564	639	621	592	654	630	651
SE	(1.1)		(2.5)	(2.9)	(2.8)	(5.1)	(2.6)	(2.9)	(4.0)	(2.7)	(2.8)	(3.7)	(3.2)	(4.2)	(2.8)	(2.9)	(4.3)

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
mean	507	483	505	430	(:)	492	(:)	480	(:)	458	(:)	479	428	(:)	(:)	522	504
SE	(1.5)	(4.1)	(2.8)	(4.9)	(:)	(2.4)	(:)	(4.0)	(:)	(5.3)	(:)	(4.5)	(3.5)	(:)	(:)	(5.2)	(7.1)
P10	383	350	364	295	(:)	368	(:)	354	(:)	322	(:)	343	295	(:)	(:)	407	363
SE	(3.6)	(11.8)	(5.5)	(6.6)	(:)	(4.9)	(:)	(5.5)	(:)	(8.2)	(:)	(6.8)	(6.1)	(:)	(:)	(9.8)	(11.4)
P90	621	601	631	560	(:)	610	(:)	598	(:)	586	(:)	603	559	(:)	(:)	625	636
SE	(3.5)	(7.1)	(3.1)	(7.4)	(:)	(3.2)	(:)	(4.4)	(:)	(5.8)	(:)	(6.6)	(3.5)	(:)	(:)	(4.6)	(6.5)

Source: OECD, PISA 2000 database.

1.2.D: Distribution and mean performance of students, per country, on the PISA mathematic literacy scale, 2000



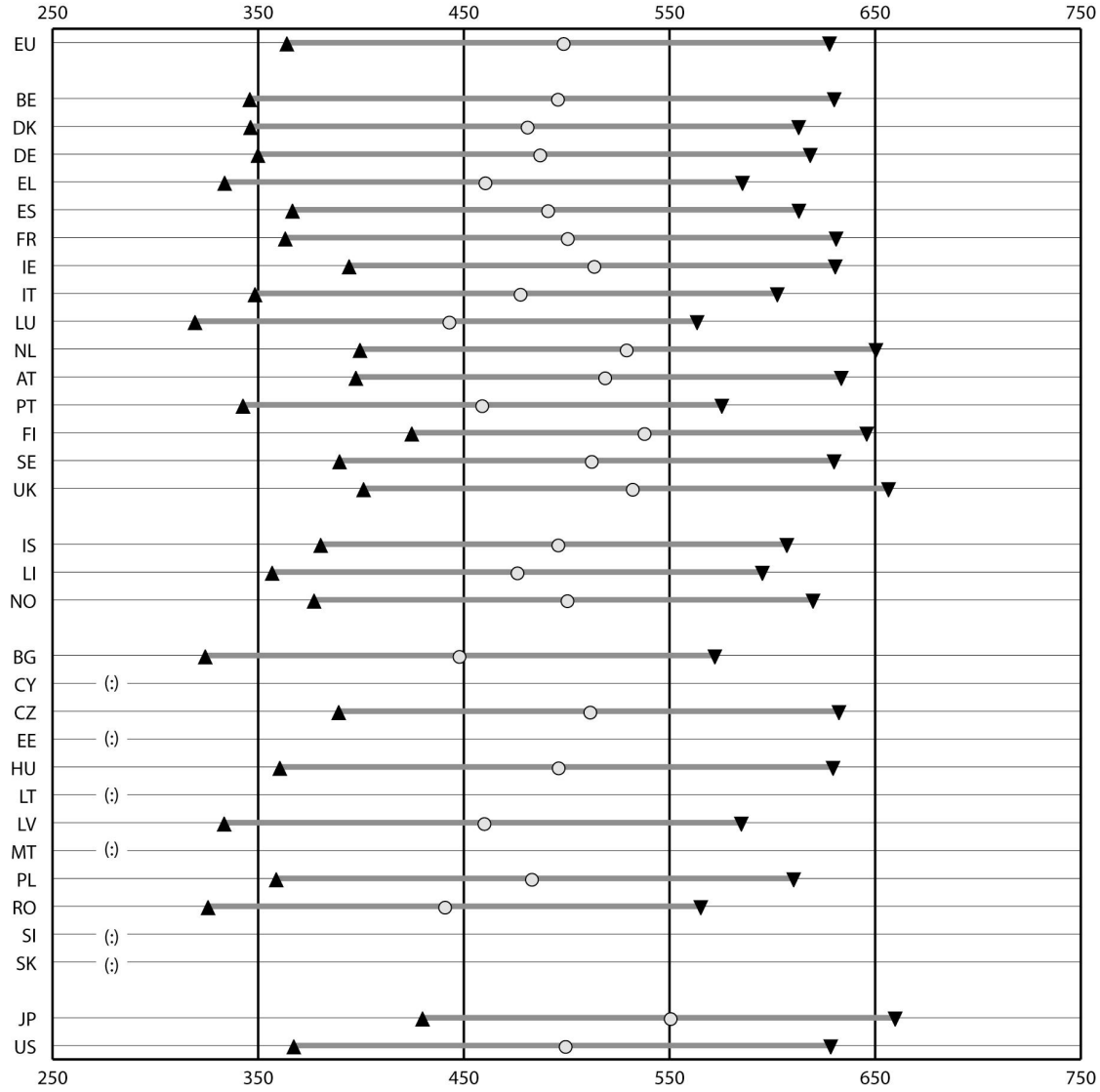
σ Percentile 10 μ Mean τ Percentile 90

	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
mean	499		520	514	490	447	476	517	503	457	446	564	515	454	536	510	529
SE	(1.1)		(3.9)	(2.4)	(2.5)	(5.6)	(3.1)	(2.7)	(2.7)	(2.9)	(2.0)	(3.6)	(2.5)	(4.1)	(2.2)	(2.5)	(2.5)
P10	369		367	401	349	303	358	399	394	338	328	445	392	332	433	386	412
SE	(2.4)		(8.6)	(5.1)	(6.9)	(8.1)	(4.3)	(5.4)	(4.7)	(5.5)	(4.2)	(8.1)	(4.6)	(6.1)	(3.6)	(4.0)	(3.6)
P90	623		646	621	619	586	592	629	606	570	559	670	631	570	637	626	646
SE	(1.5)		(3.9)	(3.7)	(3.6)	(7.8)	(3.9)	(3.2)	(4.3)	(4.4)	(3.2)	(5.1)	(3.6)	(4.3)	(3.2)	(3.3)	(4.3)

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
mean	514	514	499	430	(:)	498	(:)	488	(:)	463	(:)	470	426	(:)	(:)	557	493
SE	(2.3)	(7.0)	(2.8)	(5.7)	(:)	(2.8)	(:)	(4.0)	(:)	(4.5)	(:)	(5.5)	(4.3)	(:)	(:)	(5.5)	(7.6)
P10	407	380	379	283	(:)	372	(:)	360	(:)	328	(:)	335	277	(:)	(:)	440	361
SE	(4.7)	(18.9)	(5.2)	(8.2)	(:)	(4.2)	(:)	(5.7)	(:)	(8.9)	(:)	(9.2)	(6.9)	(:)	(:)	(9.1)	(9.6)
P90	622	635	613	568	(:)	623	(:)	615	(:)	593	(:)	599	557	(:)	(:)	662	620
SE	(3.1)	(16.9)	(4.5)	(8.3)	(:)	(4.8)	(:)	(6.4)	(:)	(5.6)	(:)	(7.7)	(5.7)	(:)	(:)	(4.9)	(7.7)

Source: OECD, PISA 2000 database.

1.2.E: Distribution and mean performance of students, per country, on the PISA science literacy scale, 2000



σ Percentile 10 μ Mean τ Percentile 90

	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
mean	499		496	481	487	461	491	500	513	478	443	529	519	459	538	512	532
SE	(1.1)		(4.3)	(2.8)	(2.4)	(4.9)	(3.0)	(3.2)	(3.2)	(3.1)	(2.3)	(4.0)	(2.6)	(4.0)	(2.5)	(2.5)	(2.7)
P10	364		346	347	350	334	367	363	394	349	320	400	398	343	425	390	401
SE	(2.4)		(10.2)	(5.3)	(6.0)	(8.3)	(4.3)	(5.4)	(5.7)	(6.2)	(6.8)	(8.3)	(4.0)	(5.1)	(4.2)	(4.6)	(6.0)
P90	627		630	613	618	585	613	631	630	602	563	650	633	575	645	630	656
SE	(1.5)		(2.6)	(4.4)	(3.5)	(5.3)	(3.9)	(4.2)	(4.6)	(4.0)	(4.4)	(4.8)	(4.1)	(5.0)	(4.3)	(3.4)	(4.7)

	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
mean	496	476	500	448	(:)	511	(:)	496	(:)	460	(:)	483	441	(:)	(:)	550	499
SE	(2.2)	(7.1)	(2.8)	(4.6)	(:)	(2.4)	(:)	(4.2)	(:)	(5.6)	(:)	(5.1)	(3.4)	(:)	(:)	(5.5)	(7.3)
P10	381	357	377	325	(:)	389	(:)	361	(:)	334	(:)	359	326	(:)	(:)	430	368
SE	(4.3)	(20.0)	(6.6)	(7.3)	(:)	(4.0)	(:)	(4.9)	(:)	(8.8)	(:)	(5.8)	(5.7)	(:)	(:)	(9.9)	(10.0)
P90	607	595	619	572	(:)	632	(:)	629	(:)	585	(:)	610	565	(:)	(:)	659	628
SE	(4.1)	(12.4)	(3.9)	(6.7)	(:)	(4.1)	(:)	(5.1)	(:)	(7.2)	(:)	(7.6)	(4.0)	(:)	(:)	(4.7)	(7.0)

Source: OECD, PISA 2000 database.

1.2.F: Percentage of adults with less than upper secondary education who have participated in any form of education or training, in the last 4 weeks by age group (25-34, 35-54 and 55-64), from 1995 to 2002

	EU			BE			DK			DE		
	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64
1995	(:)	(:)	(:)	1.54	0.72	0.99	15.88	7.85	1.76	(:)	(:)	(:)
1996	4.48	1.65	0.47	1.63	0.77	0.70	17.30	9.89	2.56	5.50	1.78	0.27
1997	4.67	1.67	0.49	2.25	0.74	0.13	24.86	11.76	1.84	5.14	1.76	0.28
1998	(:)	(:)	(:)	3.67	1.73	0.22	2.32	11.54	3.60	(:)	(:)	(:)
1999	4.63	2.35	1.00	4.47	2.82	0.13	24.69	11.80	4.37	5.64	1.57	0.29
2000	4.90	2.34	1.26	3.92	2.82	0.64	24.12	1.88	4.87	5.15	1.59	0.22
2001	4.99	2.23	1.19	4.72	2.95	0.42	22.47	9.91	4.46	5.49	1.47	0.35
2002	4.28	2.28	1.28	4.97	2.84	1.12	24.94	9.17	4.83	6.41	1.88	0.29
	EL			ES			FR			IE		
	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64
1995	0.35	0.31	(:)	2.19	0.84	0.39	2.66	0.83	0.21	2.89	1.49	0.47
1996	0.33	0.92	0.19	2.13	0.88	0.33	3.19	0.85	0.48	3.13	1.78	0.55
1997	0.24	0.58	0.74	2.35	0.78	0.36	3.54	0.96	0.96	3.95	1.98	0.65
1998	0.49	0.54	0.17	2.16	0.70	0.24	2.35	0.86	0.14	(:)	(:)	(:)
1999	0.37	0.14	0.28	2.31	1.13	0.59	2.24	0.88	0.36	(:)	(:)	(:)
2000	0.38	0.98	0.18	2.49	0.95	0.63	2.45	1.43	0.15	(:)	(:)	(:)
2001	0.42	0.84	0.11	2.43	0.99	0.62	2.47	0.84	0.72	(:)	(:)	(:)
2002	0.37	0.83	(:)	2.38	1.12	0.57	2.23	1.14	0.95	4.57	3.56	1.52
	IT			LU			NL			AT		
	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64
1995	4.27	0.71	0.29	1.93	0.95	0.36	(:)	(:)	(:)	7.29	3.67	1.17
1996	4.65	0.87	0.26	1.59	0.97	0.30	12.85	5.96	2.43	8.47	3.98	1.80
1997	4.76	0.87	0.32	1.79	0.91	0.31	12.75	6.38	2.57	9.76	3.68	0.81
1998	3.93	1.52	0.43	(:)	(:)	(:)	13.35	6.13	2.52	(:)	(:)	(:)
1999	4.20	1.56	0.57	2.89	1.14	0.42	14.32	6.69	2.23	6.64	3.95	1.40
2000	4.58	1.19	0.39	1.36	1.45	0.18	17.35	8.59	3.27	5.25	2.38	1.89
2001	4.98	1.62	0.32	1.12	1.89	0.79	16.79	9.36	3.38	5.14	2.78	0.72
2002	2.46	0.91	0.30	4.37	1.72	0.62	16.17	9.98	3.33	3.25	2.13	0.31
	PT			FI			SE			UK		
	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64
1995	2.52	0.64	0.69	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
1996	2.76	0.66	0.18	12.45	8.36	2.26	23.75	18.84	8.55	(:)	(:)	(:)
1997	2.99	0.65	0.14	1.91	8.65	1.75	24.42	17.42	8.62	(:)	(:)	(:)
1998	2.35	0.54	0.99	16.32	8.88	2.54	(:)	(:)	(:)	(:)	(:)	(:)
1999	2.73	0.64	0.16	13.57	1.13	2.30	3.22	17.52	9.50	7.49	6.25	4.37
2000	2.37	0.95	0.26	13.26	11.25	3.36	26.65	14.69	7.59	9.99	7.27	5.34
2001	2.66	0.69	0.12	13.38	1.24	3.99	19.76	1.49	6.32	11.27	7.57	5.72
2002	2.46	0.49	0.17	18.60	9.82	4.24	18.89	11.49	6.29	11.62	7.77	5.73
	CY			CZ			EE			HU		
	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64
1995	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
1996	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
1997	(:)	(:)	(:)	(:)	(:)	(:)	3.36	(:)	0.32	1.36	0.51	0.26
1998	(:)	(:)	(:)	(:)	(:)	(:)	2.47	0.74	0.30	1.93	0.57	0.20
1999	1.13	0.51	0.18	(:)	(:)	(:)	1.47	0.67	(:)	1.53	0.37	(:)
2000	2.20	0.44	(:)	(:)	(:)	(:)	(:)	(:)	(:)	1.98	0.52	0.12
2001	2.16	0.94	(:)	(:)	(:)	(:)	1.95	2.53	(:)	1.84	0.18	0.16
2002	1.18	0.44	(:)	2.23	0.74	0.17	0.88	0.79	(:)	1.16	0.39	0.27
	LT			LV			PL			SI		
	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64	25-34	35-54	55-64
1995	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
1996	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	3.76	0.52	0.80
1997	(:)	(:)	(:)	(:)	(:)	(:)	1.00	(:)	(:)	7.82	1.76	(:)
1998	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
1999	2.99	0.64	0.14	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
2000	1.27	0.17	(:)	(:)	(:)	(:)	(:)	(:)	(:)	3.34	0.49	(:)
2001	0.65	(:)	(:)	(:)	(:)	(:)	1.76	0.30	(:)	3.58	0.47	(:)
2002	3.23	0.39	(:)	2.68	1.40	(:)	1.58	0.33	(:)	9.22	0.69	0.22

Source: Eurostat, Labour force survey.
NB: **Bulgaria** and **Romania**: Data not applicable. **Slovakia**: Data not available.

1.4.A: Students enrolled in mathematics, science and technology as a proportion of all students in tertiary education (ISCED 5A, 5B and 6), from 1998 to 2001

	2001			2000			1999			1998		
	Total	Females	Males	Total	Females	Males	Total	Females	Males	Total	Females	Males
EU	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
BE	21.2	9.7	34.1	21	9.4	33.6	(:)	(:)	(:)	(:)	(:)	(:)
DK	20.8	10.9	33.6	20.2	10.9	32.5	19.3	10.9	30.1	13.7	8.1	21.3
DE	29.1	15.1	42.4	28.6	14.6	41.6	28.5	14.4	41.3	28.6	14.1	41.3
EL	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
ES	29.5	17.3	43.1	28.8	16.9	42.1	28.2	16.8	41	27.8	16.8	40.2
FR	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
IE	35.5	22.1	51.6	35.3	22.6	50.1	34.9	23.4	48	34.3	22.6	47.1
IT	24	14.5	36.2	24.5	15	36.4	25	15.3	36.9	27.2	18.1	38.1
LU	16.8	(:)	(:)	17.4	(:)	(:)	15.4	5.1	26	22.7	2.4	54.4
NL	16.5	5.2	28	16.8	5.4	28.3	17.1	5.6	28.2	17.2	5.8	28.1
AT	(:)	(:)	(:)	25.6	13.2	37.2	25.5	12.5	37.5	26.3	13.2	38.2
PT	27.5	16.2	42.6	27.3	16.1	41.9	(:)	(:)	(:)	27.8	17.2	41.4
FI	36.8	17.2	59.6	36.2	16.6	58.9	35.2	15.7	57.7	34.4	15	56.8
SE	30	17.9	47.5	30.6	18.2	47.9	30.2	17.5	47.4	30.3	17.1	47.4
UK	(:)	(:)	(:)	28.8	16.8	43.1	29	16.6	43.1	27.9	15.3	41.9
IS	18.7	10.7	32.2	17.5	9.8	30	16.4	8.7	29.1	16.1	8	28.2
LI	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
NO	19.8	10.1	33.8	16.6	8.1	28.6	17.8	9.2	29.4	17	8.7	27.8
BG	26.2	18.8	35.9	24.7	17.9	33.9	22.8	16.5	32.1	22	15.7	32
CY	17.7	8.7	30.1	17.7	9.4	28.7	18.3	11.3	27.2	(:)	(:)	(:)
CZ	31.3	15.8	46.6	31.7	15.3	47.9	30.5	13.8	46.5	30.8	14.2	45.8
EE	21.3	11.5	36.1	21.3	11.3	35.5	22.4	11.3	37.6	23.1	11.5	38.4
HU	20.4	8.5	34.7	21.5	8.5	37.3	21.8	8.8	37.2	23.1	10.5	38
LT	26.6	14.5	44.5	27.4	15.3	45.6	27.8	16	45.6	28	16	46.4
LV	16.3	8	29.7	16.5	8.9	29.7	20.4	9.8	37.6	22.9	11.5	39.2
MT	11	5.4	17.8	11.5	5.4	18.5	12.6	6.2	19.3	(:)	(:)	(:)
PL	19.9	10.3	32.6	19.6	10	32.5	19.5	9	33.3	21.6	9.8	38.1
RO	26.9	16.9	38.1	28.6	18.2	39.7	28.9	17.7	40.6	28.8	17.7	39.9
SI	22.5	10.5	37.9	23.5	11	39.5	23.6	10.9	39.9	24.2	11.1	40.3
SK	28.3	15.7	41.7	28.1	15.5	40.8	30.1	17	44.2	30.3	17.1	44.1

Source: Eurostat, UOE.

Additional notes

- Germany, Romania, Slovenia : Students in ISCED 6 are not included
- Luxembourg, Cyprus : Many students on tertiary level study abroad and are not included

1.4.B: Graduates in mathematics, science and technology (ISCED 5A, 5B and 6) as percentage of all graduates (ISCED 5A, 5B and 6), from 1998 to 2001

1.4.C: Total number of tertiary (ISCED 5A, 5B and 6) graduates from mathematics, science and technology fields, in thousands, from 1998 to 2001

1.4.D: Number of tertiary (ISCED 5A, 5B and 6) graduates in mathematics, science and technology per 1 000 inhabitants aged 20-29, from 1998 to 2001

	2001			2000			1999			1998		
	1.4.B	1.4.C	1.4.D	1.4.B	1.4.C	1.4.D	1.4.B	1.4.C	1.4.D	1.4.B	1.4.C	1.4.D
EU	(:)	(:)	(:)	26.1	(:)	9.3	(:)	(:)	(:)	(:)	(:)	(:)
BE	18.9	13.2	10.1	18.9	12.9	9.7	(:)	(:)	(:)	(:)	0.0	(:)
DK	(:)	(:)	(:)	21.7	8.5	11.7	18.1	6.0	8.2	19.5	6.0	8.1
DE	25.9	76.6	8.0	26.6	80.1	8.2	27.4	86.2	8.6	28.6	91.8	8.8
EL	(:)	0.0	(:)	(:)	0.0	0.0	(:)	(:)	(:)	(:)	0.0	0.0
ES	26.8	74.3	11.3	25.0	65.1	9.9	23.5	62.7	9.5	21.9	52.8	8.0
FR	(:)	(:)	(:)	30.5	154.8	19.6	30.4	151.4	19.0	30.7	149.1	18.5
IE	31.9	14.0	21.7	34.5	14.5	23.2	(:)	(:)	(:)	32.1	13.0	22.4
IT	(:)	(:)	(:)	23.1	46.6	5.7	23.9	45.5	5.4	24.2	43.5	5.1
LU	(:)	0.0	0.0	14.6	0.1	1.8	(:)	(:)	(:)	21.0	0.1	1.4
NL	15.5	12.7	6.1	15.7	12.5	5.8	16.5	12.8	5.8	17.0	13.6	6.0
AT	27.5	7.4	7.2	30.1	7.5	7.1	29.9	7.4	6.8	33.5	8.8	7.7
PT	16.8	10.3	6.4	17.7	10.3	6.3	(:)	(:)	(:)	(:)	(:)	(:)
FI	(:)	(:)	(:)	28.0	10.1	16.0	29.6	11.3	17.8	26.1	10.2	15.9
SE	32.1	13.7	12.4	30.6	13.0	11.6	28.0	10.9	9.7	26.0	9.1	7.9
UK	0.0	(:)	(:)	27.9	125.6	16.2	25.8	122.8	15.6	26.2	121.9	15.2
IS	19.0	0.4	9.1	19.7	0.4	8.4	15.8	0.3	6.3	19.1	0.3	7.0
LI	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
NO	16.8	5.2	8.6	16.8	4.8	7.9	16.4	4.5	7.2	12.9	4.7	7.5
BG	19.2	9.1	7.9	17.3	9.0	6.6	17.8	8.0	6.5	16.0	6.7	5.5
CY	(:)	(:)	(:)	11.9	0.3	3.7	14.0	0.4	(:)	(:)	(:)	(:)
CZ	23.2	9.6	5.6	24.4	9.4	5.5	24.0	8.3	5.0	24.6	7.5	4.6
EE	18.1	1.4	7.3	18.9	1.3	7.0	18.5	1.2	5.7	10.8	0.6	2.9
HU	10.1	5.9	3.7	12.0	7.2	4.5	16.9	8.1	5.1	18.1	7.9	5.0
LT	25.6	7.0	14.8	26.0	6.6	12.1	26.8	5.9	10.8	24.6	4.7	8.6
LV	12.2	2.5	7.6	15.9	2.4	7.5	17.0	2.1	6.3	19.3	2.0	5.9
MT	9.3	0.2	3.3	10.3	0.2	3.8	4.9	0.1	1.3	(:)	(:)	(:)
PL	14.3	44.8	7.4	14.7	39.2	6.6	14.7	33.1	5.7	15.1	27.7	4.9
RO	24.7	18.4	4.9	26.3	17.1	4.5	25.2	15.6	4.1	24.7	16.3	4.2
SI	20.3	2.4	8.2	22.8	2.6	8.9	23.2	2.5	8.4	23.8	2.3	8.0
SK	25.6	6.7	7.4	20.8	4.7	5.3	21.1	4.5	5.1	21.1	3.7	4.3
JP	22.7	233.4	12.7	25.2	236.7	12.6	25.2	239.7	12.6	24.9	234.8	12.3
US	(:)	(:)	(:)	17.2	369.4	9.6	17.1	352.9	9.2	17.0	348.6	9.2

Source: Eurostat, UOE.

Additional notes

- Luxembourg, Cyprus : Many students study abroad. Graduates abroad are not included.- Poland : ISCED level 6 graduates are not included years 1998-2000.
- Romania : ISCED level 6 graduates are not included.

1.5.A: Public expenditure on education as a percentage of GDP, 2000

EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
4.94		5.21	8.38	4.53	3.79	4.43	5.83	4.36	4.58	(:)	4.87	5.75	5.74	5.99	7.39	4.41

EU+ACC	ACC	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
4.94	4.86	6.04	(:)	6.84	4.41	5.6	4.38	6.66	4.54	5.78	5.86	4.91	5.06	2.89	(:)	4.15

Source: Eurostat, UOE, 2000.

1.5.B: Private expenditure on educational institutions as a percentage of GDP, 2000

EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
0.62		0.43	0.27	0.99	0.25	0.62	0.48	0.43	0.45	(:)	0.45	0.33	0.08	0.11	0.2	0.75

EU+ACC	ACC	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
(:)	(:)	0.56	(:)	0.08	(:)	1.16	0.46	(:)	0.59	(:)	0.8	0.51	(:)	0.25	(:)	0.15

Source: Eurostat, UOE, 2000.

1.5.C: Enterprise expenditure on continuing vocational training courses as a percentage of total labour costs, 1999

EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
2.3		1.6	3.0	1.5	0.9	1.5	2.4	2.4	1.7	1.9	2.8	1.3	1.2	2.4	2.8	3.6

IS	LI	NO	EU+ACC	ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
(:)	(:)	2.3	2.3	1.5	1.0	(:)	1.9	1.8	1.2	0.8	1.1	(:)	0.8	0.5	1.3	(:)

Source: CVTS2, 1999.

Additional notes

United Kingdom: The UK figure is not comparable with other countries as the labour cost include the direct labour cost only.
Poland:Pomorskie region only.

1.5.D: Total expenditure on educational institutions per pupil/student by level of education (and ISCED total all levels) (PPS)

(x 1000)

ISCED	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
1	4.1		4.0	6.4	3.9	3.1	3.6	4.1	3.1	5.6	(:)	3.7	6.0	3.4	4.0	5.8	3.5
2-4	5.9		6.3	7.8	6.4	3.4	5.0	7.0	4.3	6.7	(:)	5.1	7.1	4.9	5.6	5.8	4.9
5-6	8.2		9.9	12.0	10.0	5.1	6.1	7.7	9.9	7.4	(:)	10.7	10.0	4.5	7.6	13.9	8.8
Total	5.5		5.6	7.5	6.2	3.4	4.5	5.8	4.7	6.3	(:)	5.1	7.1	4.1	5.3	6.4	4.9

ISCED	IS	LI	NO	EU+ACC	ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
1	5.6	(:)	6.5	3.6	1.8	(:)	3.2	1.7	(:)	2.0	1.5	1.5	1.9	1.9	0.5	(:)	1.2
2-4	6.3	(:)	8.1	5.4	2.0	(:)	6.1	2.9	(:)	2.1	1.7	1.8	3.1	1.7	0.9	(:)	1.8
5-6	7.2	(:)	11.4	7.5	3.6	(:)	8.5	5.0	(:)	5.0	2.4	3.0	5.3	2.8	1.6	(:)	4.6
Total	6.7	(:)	8.2	5.0	2.2	(:)	4.8	2.8	(:)	2.5	1.8	2.0	2.7	2.0	0.8	(:)	1.9

Data source: Eurostat, UOE, 2000.

1.5.E: Total expenditure on educational institutions per pupil/student by level of education (and ISCED total all levels) relative to GDP per capita.

(EUR PPS)

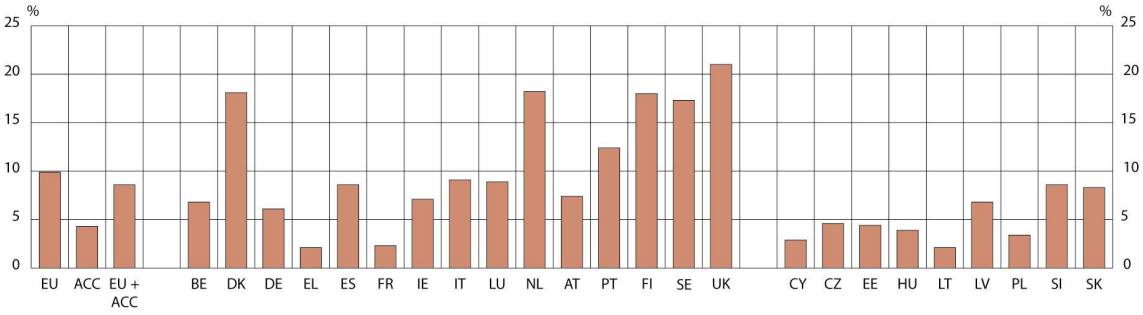
ISCED	EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
1	18.0		16.3	24.2	16.1	20.9	19.5	17.8	12.1	24.2	:	14.8	23.1	21.9	17.1	24.2	15.2
2-4	26.3		26.1	29.5	26.8	23.2	27.0	30.3	16.4	29.2	:	20.3	27.1	31.7	24.0	24.2	21.0
5-6	36.1		40.8	45.3	41.7	34.7	33.0	33.3	38.1	32.2	:	42.8	38.3	29.3	32.6	57.8	38.0
Total	24.5		23.0	28.4	25.7	23.2	24.3	25.2	18.0	27.5	:	20.4	27.3	26.7	22.9	26.4	21.3

ISCED	IS	LI	NO	EU+ACC	ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
1	21.6	(:)	19.5	17.4	18.3	(:)	19.0	13.2	(:)	17.4	18.7	22.0	16.4	20.6	9.9	(:)	11.3
2-4	24.3	(:)	24.3	26.1	20.1	(:)	35.5	23.1	(:)	18.5	20.9	26.2	26.4	18.1	16.2	(:)	16.6
5-6	27.9	(:)	34.2	36.6	35.4	(:)	49.9	39.4	(:)	44.1	30.6	43.6	45.0	30.8	29.7	(:)	42.7
Total	25.8	(:)	24.5	24.2	21.8	(:)	28.4	21.8	(:)	22.3	23.0	28.3	22.8	22.0	15.8	(:)	17.9

Data source: Eurostat, UOE, 2000.

2.1.B: Percentage of population aged 25-64 participating in education and training in 4 weeks prior to the survey, by level of educational attainment, 2002

ISCED 3-4 – Total

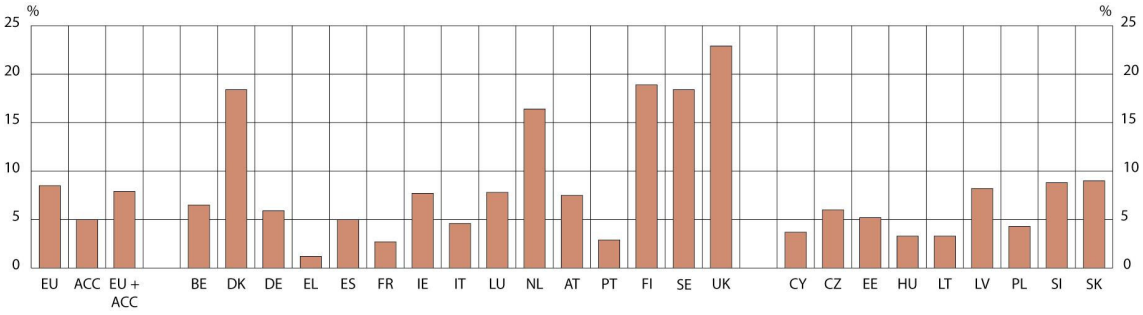


	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
Total	6.8	18.1	6.1	2.1	8.6	2.3	7.1	9.1	8.9	18.2	7.4	12.4	18.0	17.3	21.0
Females	6.5	21.5	5.6	2.1	8.8	2.6	7.8	9.5	7.4	17.5	7.2	13.3	20.0	20.0	25.4
Males	7.0	15.3	6.5	2.1	8.5	2.0	6.4	8.7	10.2	18.8	7.5	11.6	16.3	14.8	17.2

	EU	ACC	EU + ACC	CY	CZ	EE	HU	LT	LV	PL	SI	SK
Total	9.9	4.3	8.6	2.9	4.6	4.4	3.9	2.1	6.8	3.4	8.6	8.3
Females	10.6	4.7	9.3	3.2	4.9	5.6	4.8	2.5	8.4	3.5	9.7	9.1
Males	9.2	3.9	7.9	2.5	4.4	3.2	3.1	1.7	5.0	3.2	7.7	7.6

Data source: Eurostat, Labour force survey, 2002.

ISCED 5-6 – Total



	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
Total	6.5	18.4	5.9	1.2	5.0	2.7	7.7	4.6	7.8	16.4	7.5	2.9	18.9	18.4	22.9
Females	6.3	20.7	5.6	1.1	5.4	3.0	8.8	4.7	6.6	15.9	7.4	3.3	21.4	21.2	26.8
Males	6.8	16.1	6.2	1.2	4.5	2.4	6.5	4.5	9.1	16.9	7.6	2.4	16.5	15.6	19.3

	EU	ACC	EU + ACC	CY	CZ	EE	HU	LT	LV	PL	SI	SK
Total	8.5	5.0	7.9	3.7	6.0	5.2	3.3	3.3	8.2	4.3	8.8	9.0
Females	9.1	5.4	8.5	3.8	5.8	6.7	3.7	4.2	10.9	4.7	9.2	9.4
Males	7.9	4.5	7.3	3.6	6.2	3.6	2.9	2.3	5.2	3.9	8.4	8.7

Data source: Eurostat, Labour force survey, 2002.

2.2 Hours in CVT courses per 1000 working hours by NACE, 1999

Key of NACE categories for the following tables

C to K, O	**All NACE branches covered by CVTS (Continuing Vocational Training)**
C, E, F, H, I	**Mining and quarrying; electricity, gas and water supply; construction; hotels and restaurants; transport, storage and communication**
C	**Mining and quarrying**
D	**Manufacturing**
DA	Manufacture of food products; beverages and tobacco
DB, DC	Manufacture of textiles and textile products; manufacture of leather and leather products
DD, DN	Manufacture of wood and wood products; manufacturing n.e.c.
DE	Manufacture of pulp, paper and paper products; publishing and printing
DF to DI	Manufacture of coke, refined petroleum products and nuclear fuel; chemicals, chemical products and man-made fibres; rubber and plastic products; other non-metallic mineral products
DJ	Manufacture of basic metals and fabricated metal products
DK, DL	Manufacture of machinery and equipment n.e.c.; manufacture of electrical and optical equipment
DM	Manufacture of transport equipment
E	**Electricity, gas and water supply**
F	**Construction**
G	**Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods**
G50	Sale, maintenance and repair of motor vehicles
G51	Wholesale trade and commission trade, except of motor and motorcycles
G52	Retail trade, except of motor vehicles, motorcycles; repair of personal and household goods
H	**Hotels and restaurants**
I	
I60 to I63	Land transport; transport via pipelines; water transport; air transport; supporting and auxiliary transport activities; activities of travel agencies
I64	Post and telecommunications
J	**Financial intermediation**
J65, J66	Financial intermediation, except insurance and pension funding; insurance and pension funding, except compulsory social security
J67	Activities auxiliary to financial intermediation
K, O	**Real estate, renting and business activities; other community, social, personal service activities**
K	**Real estate, renting and business activities**
O	**Other community, social, personal service activities**

2.2.A: Hours in CVT courses per 1000 working hours (only enterprises with CVT courses), by NACE, 1999

	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
C to K, O	9	10	14	6	7	11	11	12	9	11	11	6	10	12	12	8	(:)	(:)	11	6	(:)	7	5	6	5	5	(:)	5	5	6	(:)
C, E, F, H, I	9	9	14	4	5	9	16	13	11	5	11	5	8	14	11	8	(:)	(:)	9	8	(:)	6	4	7	5	5	(:)	4	6	7	(:)
C	10	2	21	2	5	16	8	3	11	(:)	11	4	23	16	16	22	(:)	(:)	15	2	(:)	4	0	4	5	3	(:)	-	5	5	(:)
D	8	10	13	6	8	12	9	10	7	12	11	5	11	11	14	7	(:)	(:)	9	3	(:)	6	3	5	4	3	(:)	4	4	6	(:)
DA	8	8	8	3	7	9	8	10	6	(:)	10	4	9	6	7	10	(:)	(:)	9	2	(:)	5	2	4	2	3	(:)	2	2	4	(:)
DB, DC	5	6	17	2	8	7	6	3	7	(:)	7	2	10	12	12	4	(:)	(:)	5	2	(:)	4	3	2	5	1	(:)	2	4	5	(:)
DD, DN	7	7	9	3	7	8	6	9	6	(:)	7	4	8	7	7	12	(:)	(:)	5	1	(:)	5	2	2	2	3	(:)	1	4	3	(:)
DE	8	8	11	4	8	11	8	8	6	(:)	8	6	18	11	13	9	(:)	(:)	6	3	(:)	4	5	4	3	3	(:)	15	8	4	(:)
DF to DI	8	8	17	7	6	13	11	10	9	(:)	15	5	9	10	11	4	(:)	(:)	9	3	(:)	5	3	8	5	16	(:)	3	4	6	(:)
DJ	7	8	11	5	5	12	7	8	5	(:)	11	4	5	14	12	6	(:)	(:)	9	2	(:)	5	1	4	5	2	(:)	4	2	6	(:)
DK, DL	8	16	14	7	8	12	10	13	8	(:)	13	6	13	12	14	7	(:)	(:)	10	3	(:)	10	5	5	6	2	(:)	8	6	6	(:)
DM	13	10	9 r	14	23	17	12	12	6	(:)	7	5	17	10	27	11	(:)	(:)	12	3	(:)	7	10	2	1	2	(:)	4	3	16	(:)
E	11	10	16	10	3	16	11	15	10	(:)	14	6	12	15	22	9	(:)	(:)	15	4	(:)	7	6	10	7	6	(:)	8	5	21	(:)
F	9	6	18	3	4	7	6	6	10	(:)	13	4	4	7	9	12	(:)	(:)	6	4	(:)	5	4	4	3	3	(:)	3	8	2	(:)
G	7	9	11	4	6	10	8	10	8	7	11	6	8	8	9	6	(:)	(:)	9	5	(:)	5	8	5	6	4	(:)	5	3	3	(:)
G50	7	8	10	6	6	12	8	4	13	(:)	13	7	9	9	8	5	(:)	(:)	8	4	(:)	6	4	9	8	6	(:)	5	5	6	(:)
G51	7	9	18	3	8	10	9	6	8	(:)	11	6	9	9	9	7	(:)	(:)	9	7	(:)	6	11	4	6	5	(:)	6	1	5	(:)
G52	6	10	6	3	5	9	7	16	6	(:)	11	6	7	7	10	4	(:)	(:)	11	3	(:)	4	8	5	4	2	(:)	3	4	2	(:)
H	4	10	28	2	11	8	9	21	7	(:)	9	2	6	9	7	3	(:)	(:)	7	4	(:)	5	2	9	2	3	(:)	8	6	7	(:)
I																	(:)	(:)			(:)						(:)				(:)
I60 to I63	10	9	9	2	3	12	20	11	10	(:)	11	5	6	15	9	8	(:)	(:)	6	14	(:)	6	4	5	2	4	(:)	3	6	7	(:)
I64	12	22	11	12	1	6	18	5	14	(:)	8	7	13	44	13	13	(:)	(:)	28	6	(:)	6	5	6	13	8	(:)	10	5	6	(:)
J	9	13	17	9	10	17	16	9	13	14	21	15	18	12	12	6	(:)	(:)	14	6	(:)	16	19	6	6	8	(:)	12	2	10	(:)
J65, J66	9	13	16	9	10	17	16	10	13	(:)	22	15	18	12	10	5	(:)	(:)	15	6	(:)	16	20	6	6	8	(:)	12	2	10	(:)
J67	11	13	23	11	4	14	9	5	12	(:)	18	4	24	7	21	10	(:)	(:)	7	10	(:)	15	6	-	6	10	(:)	2	22	8	(:)
K, O	10	13	21	8	5	10	12	14	13	(:) c	11	5	8	14	14	10	(:)	(:)	19	9	(:)	10	3	6	5	5	(:)	7	7	9	(:)
K	12	14	21	11	5	10	12	11	13	27	11	6	10	16	15	13	(:)	(:)	20	7	(:)	11	3	8	7	7	(:)	8	7	11	(:)
O	5	11	16	4	5	12	11	24	11	10	8	2	5	10	9	3	(:)	(:)	13	11	(:)	4	2	3	2	3	(:)	2	9	4	(:)

Source: CVTS, 1999.

	Total	NACE D	NACE G	NACE J	NACE K	NACE O	Others
EU	9	8	7	9	12	5	9
EU+ACC	8	8	6	9	12	5	9
ACC	6	6	5	12	10	3	6

Source: Eurostat, CVTS2; enterprises with 10 and more employees in the NACE sections C to K and O.

Additional notes

Cyprus, Malta and **Slovak Republik**: did not participate in CVTS2.

Poland: Pomorskie region only.

2.2.B. Hours in CVT courses per 1000 hours worked (all enterprises), by NACE, 1999

	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
C to K, O	7	8	14	5	3	6	10	9	5	8	11	5	4	11	12	7	(:)	(:)	10	3		6	3	3	2	2	(:)	2	2	4	(:)
C, E, F, H, I	7	5	13	4	2	5	14	11	7	3	10	4	3	12	10	8	(:)	(:)	8	5		5	3	4	3	3	(:)	2	3	5	(:)
C	9	2	18	2	4	8	7	3	6	(:)	11	4	5	14	15	22	(:)	(:)	15	2		4	0	2	2	2	(:)	-	4	4	(:)
D	6	8	12	5	3	7	8	9	4	10	10	4	3	10	13	7	(:)	(:)	8	1		6	2	2	2	2	(:)	2	1	4	(:)
DA	6	7	8	2	3	5	7	9	3	(:)	9	3	2	6	7	10	(:)	(:)	8	1		4	1	2	1	2	(:)	1	0	2	(:)
DB, DC	3	3	16	1	2	2	5	2	2	(:)	5	1	2	9	10	3	(:)	(:)	3	1		3	2	0	2	1	(:)	0	1	4	(:)
DD, DN	4	2	8	2	2	2	5	8	1	(:)	6	3	1	6	6	10	(:)	(:)	4	0		3	1	1	1	1	(:)	1	1	2	(:)
DE	6	7	10	3	2	6	7	8	3	(:)	7	5	6	10	12	7	(:)	(:)	6	1		3	4	2	1	2	(:)	8	1	3	(:)
DF to DI	7	7	17	6	3	8	10	9	5	(:)	14	5	3	9	10	4	(:)	(:)	9	2		5	2	5	3	7	(:)	2	2	5	(:)
DJ	5	6	10	4	2	7	6	5	3	(:)	10	4	2	12	11	6	(:)	(:)	8	2		5	1	2	2	1	(:)	1	1	4	(:)
DK, DL	7	15	13	6	4	8	10	12	5	(:)	13	6	8	12	13	7	(:)	(:)	10	1		9	3	3	4	1	(:)	5	4	5	(:)
DM	12	9	9	13	12	15	12	11	5	(:)	7	5	13	8	26	11	(:)	(:)	11	2		7	8	1	0	2	(:)	4	2	14	(:)
E	10	10	16	10	1	14	11	15	10	(:)	14	6	10	15	22	9	(:)	(:)	15	3		7	6	8	6	6	(:)	6	3	16	(:)
F	6	3	16	2	0	2	5	4	4	(:)	12	3	1	6	9	12	(:)	(:)	5	1		4	3	1	1	1	(:)	2	2	1	(:)
G	6	6	10	3	2	6	7	6	4	6	10	5	3	7	9	5	(:)	(:)	8	1		3	5	2	1	1	(:)	2	0	2	(:)
G50	6	6	9	6	2	7	7	2	6	(:)	13	6	3	8	7	5	(:)	(:)	7	1		5	3	3	2	2	(:)	2	0	4	(:)
G51	6	5	17	3	2	5	7	4	3	(:)	9	5	3	8	8	6	(:)	(:)	8	2		4	6	1	2	2	(:)	2	0	2	(:)
G52	5	7	6	3	2	6	7	8	3	(:)	10	5	3	7	9	4	(:)	(:)	10	0		3	5	2	1	1	(:)	1	0	1	(:)
H	3	5	25	1	2	4	7	21	2	(:)	8	1	1	8	6	3	(:)	(:)	5	1		3	1	5	0	1	(:)	2	2	4	(:)
I																	(:)	(:)									(:)				(:)
I60 to I63	9	5	9	2	1	8	19	7	6	(:)	10	5	3	14	8	8	(:)	(:)	5	10		5	3	3	1	2	(:)	1	4	6	(:)
I64	12	22	11	12	1	6	17	5	13	(:)	8	7	12	40	13	13	(:)	(:)	27	6		6	5	4	12	8	(:)	10	3	5	(:)
J	9	13	16	9	9	16	16	8	12	13	21	15	16	12	12	6	(:)	(:)	14	4		16	18	5	5	7	(:)	8	2	9	(:)
J65, J66	9	13	16	9	9	17	16	9	12	(:)	21	15	16	12	10	5	(:)	(:)	14	4		16	19	5	5	7	(:)	9	2	10	(:)
J67	10	13	22	11	2	12	8	4	5	(:)	17	3	9	6	21	9	(:)	(:)	6	2		8	6	-	3	6	(:)	0	4	2	(:)
K, O	9	12	21	7	2	6	11	11	7	(:)	10	4	3	13	13	9	(:)	(:)	18	2		8	2	2	2	3	(:)	4	2	5	(:)
K	11	13	21	8	3	6	11	10	7	19	10	5	3	15	15	13	(:)	(:)	19	2		9	2	3	3	3	(:)	5	2	7	(:)
O	4	9	16	4	2	6	10	13	4	4	7	2	3	10	9	3	(:)	(:)	13	3		3	1	1	1	1	(:)	1	2	2	(:)

Source: CVTS, 1999.

	Total	NACE D	NACE G	NACE J	NACE K	NACE O	Others
EU	7	6	6	9	11	4	7
EU+ACC	7	6	5	9	11	4	7
ACC	4	4	2	11	6	2	4

Source: Eurostat, CVTS2; enterprises with 10 and more employees in the NACE sections C to K and O.

Additional notes

Cyprus, Malta and **Slovak Republik**: did not participate in CVTS2.
Poland: Pomorskie region only.

2.2.C. Participation rates in education (ISCED 1-6)

C.1: Pupils and students (ISCED 1-6) aged 5-29 years, as % of population aged 5-29 years, 2000/01

EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
59.3	63.8	58.2	60.9	55.7	55.9	61.0	60.8	51.9	49.3	61.7	56.0	56.8	64.8	63.2	63.7

IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
64.0	(:)	62.7		50.5	54.4	52.9	62.3	53.4	62.5	59.1	54.6	59.7	47.2	58.3	52.3

Source: Eurostat, UOE.

Additional notes

Germany: Data exclude ISCED level 6.
Greece: 1999/2000
Luxembourg: Luxembourg does not have a complete university system. Most tertiary students study abroad.
Cyprus: Most tertiary students study abroad.
Romania and **Slovenia**: Data exclude ISCED level 6.

C2: Students (ISCED levels 1-6) aged 15-24 years as % of corresponding age population, by sex, 2000/01

	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
Total	57.5	65.3	61.9	63.0	55.5	56.7	61.1	52.8	47.7	43.1	63.1	51.2	51.6	68.3	64.7	53.5
Females	59.4	68.1	63.4	63.2	58.6	60.3	62.6	56.1	50.7	43.6	62.1	51.6	54.5	71.8	68.9	55.9
Males	55.6	62.7	60.3	62.8	52.6	53.3	59.5	49.7	44.9	42.6	64.1	50.8	48.8	65.0	60.6	51.1

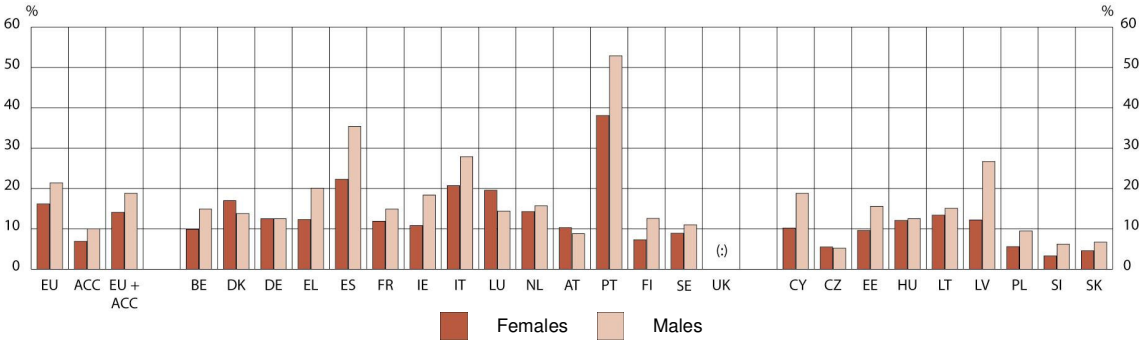
	IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
Total	60.2	(:)	61.3		44.2	39.8	52.0	62.1	51.6	64.5	59.3	37.1	63.4	41.9	62.7	46.0
Females	62.5	(:)	63.7		46.7	42.9	53.0	66.7	53.3	68.2	63.7	36.8	65.7	44.0	67.5	71.3
Males	57.9	(:)	58.9		41.9	37.0	51.1	57.6	49.9	60.9	55.2	37.5	61.2	39.8	58.1	68.3

Source: Eurostat, UOE.

Additional notes

Greece: Reference date for population is 1 January 2000.
Germany and **Italia**: Data exclude ISCED level 6.
Luxembourg: Luxembourg does not have a complete university system. Most tertiary students study abroad.
Austria: Breakdown by age within the 25-29 age group is not available.
Cyprus: Data exclude tertiary students studying abroad.
Poland: About 10% of students in ISCED levels 5 are not allocated by age and therefore not included. 18-year-olds include 17-year-olds. 26 and 28 year-olds students refer to students in ISCED level 5A only.
Poland, Romania and **Slovenia**: Data exclude ISCED level 6.

2.2.D: Share of the population aged 18-24 with only lower secondary education and not in education or training, 2002



	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
Total	12.4	15.4	12.5	16.1	29.0	13.4	14.7	24.3	17.0	15.0	9.5	45.5	9.9	10.0	(:)
Females	9.9	17.0	12.5	12.3	22.3	11.9	10.8	20.7	19.6	14.3	10.3	38.1	7.3	8.9	(:)
Males	14.9	13.8	12.5	20.1	35.4	14.9	18.4	27.9	14.4	15.7	8.8	52.9	12.6	11.0	(:)

	EU	ACC	EU + ACC		CY	CZ	EE	HU	LT	LV	PL	SI	SK
Total	18.8	8.4	16.4		14.0	5.4	12.6	12.3	14.3	19.5	7.6	4.8	5.6
Females	16.2	6.9	14.1		10.2	5.5	9.6	12.1	13.4	12.2	5.6	3.3	4.6
Males	21.4	10	18.8		18.8	5.2	15.6	12.5	15.1	26.7	9.5	6.2	6.7

Data source: Eurostat, Labour force survey, 2002.

3.3.A: Foreign languages in general secondary education (ISCED 2 and 3) as percentages of corresponding students enrolled, 1999, 2000 and 2001

	NO foreign language learned			ONE foreign language learned		
	1999	2000	2001	1999	2000	2001
EU	(:)	(:)	(:)	(:)	(:)	(:)
BE	(:)	(:)	17.0	(:)	(:)	48.2
DK	17.3	18.0	4.6	13.2	13.3	27.9
DE	(:)	(:)	(:)	(:)	(:)	(:)
EL	1.1	(:)	2.1	43.7	(:)	47.3
ES	9.7	0.1	0.1	61.1	63.6	63.7
FR	0.0	0.5	0.0	49.0	48.0	44.8
IE	13.9	14.3	13.8	73.9	74.3	75.1
IT	4.8	(:)	0.0	68.3	(:)	70.0
LU	7.6	8.3	5.4	6.9	5.8	8.6
NL	(:)	(:)	(:)	(:)	(:)	27.0
AT	3.2	2.7	0.0	76.2	76.4	0.0
PT	(:)	(:)	(:)	(:)	(:)	(:)
FI	0.7	0.8	0.7	1.9	2.6	2.6
SE	0.2	0.2	0.1	30.9	31.0	30.6
UK	(:)	(:)	(:)	(:)	(:)	(:)
IS	18.9	19.4	19.6	15.2	15.8	17.2
LI	(:)	(:)	(:)	(:)	(:)	(:)
NO	0.0	0.0	0.0	(:)	(:)	(:)
BG	15.2	14.5	9.0	58.2	52.2	51.7
CY	0.0	0.0	0.0	0.0	(:)	(:)
CZ	4.2	4.7	4.0	77.6	73.7	74.6
EE	0.0	0.0	0.0	(:)	27.2	17.5
HU	(:)	(:)	(:)	(:)	(:)	(:)
LT	5.1	4.2	4.0	23.4	22.5	25.9
LV	(:)	1.3	0.8	(:)	28.3	29.1
MT	5.9	4.7	13.9	60.5	12.6	11.3
PL	(:)	(:)	(:)	(:)	(:)	(:)
RO	10.4	0.6	5.9	31.3	(:)	(:)
SI	7.2	5.0	6.7	22.7	22.3	64.9
SK	(:)	2.1	1.6	(:)	70.8	71.4

Source: Eurostat, UOE.

3.3.B : Number of students learning foreign languages in general secondary education (ISCED 2 and 3). Corresponding number of students enrolled, 1999/2000

ISCED 2 AND 3 (1 000)

	EU	BE fr	BE nl	BE de	DK	DE	EL	ES	FR	IE	IT
Pupils learning languages	30 337.2	312.6	480.8	6.9	575.1	8 050.4	1 086.1	3 812.5	7 479.7	324.8	4 454.7
Enrolled pupils	21 584.3	225.7	244.5	3.5	306.3	6 563.4	669.5	2 794.3	4 630.3	330.3	3 768.3

	LU	NL	AT	PT	FI	SE	UK	IS	LI	NO	BG
Pupils learning languages	58.0	1 677.5	575.8	(:)	800.2	642.1	(:)	47.5	(:)	262.4	678.0
Pupils enrolled	22.1	860.9	483.3	(:)	324.3	357.7	(:)	25.6	(:)	249.4	510.3

	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
Pupils learning languages	117.3	712.2	210.4	528.1	654.8	367.8	66.8	2 388.7	3 142.4	173.9	564.6
Enrolled pupils	58.7	600.9	99.3	948.1	374.7	226.5	32.7	1 463.3	1 630.7	133.7	452.4

ISCED 2

	EU	BE fr	BE nl	BE de	DK	DE	EL	ES	FR	IE	IT
Pupils learning languages	20 637.9	97.3	196.8	2.3	342.3	6 682.2	724.7	2 899.4	4 667.7	191.0	2 040.8
Enrolled pupils	15 123.0	108.4	134.7	1.7	207.0	5 552.2	377.5	1 997.9	3 165.7	183.9	1 813.7

	LU	NL	AT	PT	FI	SE	UK	IS	LI	NO	BG
Pupils learning languages	39.1	1 367.5	399.6	(:)	436.8	547.6	(:)	24.6	(:)	262.4	409.0
Pupils enrolled	15.9	678.3	378.2	(:)	193.6	314.1	(:)	11.7	(:)	158.3	364.7

	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
Pupils learning languages	65.2	552.2	124.0	(:)	542.6	251.4	60.9	752.7	2 501.9	108.9	454.9
Enrolled pupils	32.6	520.9	61.8	503.9	315.4	164.1	27.3	600.4	1 287.2	101.3	398.0

ISCED 3

	EU	BE fr	BE nl	BE de	DK	DE	EL	ES	FR	IE	IT
Pupils learning languages	9 697.1	215.3	284.0	4.6	232.8	1 368.2	361.4	913.1	2 812.0	133.8	2 413.9
Enrolled pupils	6 460.1	117.3	109.8	1.8	99.3	1 011.2	292.0	796.4	1 464.6	146.4	1 954.5

	LU	NL	AT	PT	FI	SE	UK	IS	LI	NO	BG
Pupils learning languages	18.9	310.1	176.2	(:)	363.4	94.5	(:)	22.9	(:)	(:)	269.0
Pupils enrolled	6.2	182.6	105.1	(:)	130.6	43.6	(:)	13.8	(:)	91.1	145.6

	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
Pupils learning languages	52.2	160.0	86.4	528.1	112.2	116.4	5.9	1 636.0	640.5	65.0	109.7
Enrolled pupils	26.1	80.0	37.5	444.2	59.3	62.4	5.4	862.9	343.5	32.4	54.4

Source: Eurostat, UOE; in *Key data on education in Europe – 2002* European Commission/EURYDICE/Eurostat.

Additional notes

Greece and **Austria**: 1998/99.
Ireland, Netherlands, Hungary and **Slovakia**: The data refers to full-time pupils only.
Ireland: All pupils in secondary education study the Irish language (Gaeilge) at school. While this could not be considered to be a foreign language, it is not the mother tongue of the vast majority of the population. Therefore, when considering 'language learning' in the Irish Education system, this factor should be taken into account.
Netherlands: Data does not include pupils in special schools; Data on ISCED level 2 are missing.
Finland, Estonia and **Hungary**: The national language taught in schools where it is not the teaching language is counted as a foreign language.
Finland: ISCED level 2 excludes pupils in comprehensive schools *(perusopetus/grundläggande utbildning)* receiving supplementary education. ISCED level 3 includes adult education.
Sweden: At ISCED level 3, only graduate pupils (from *gymnasieskola*) are included.
United Kingdom: All pupils at secondary education level in England, Wales and Northern Ireland learn at least one foreign language, but there is no data on the number of pupils who learn more than one. Although Welsh is not the mother tongue for the majority of pupils, all pupils in Wales learn Welsh, either as a first or as a second language.
Czech Republic: The data refers to full-time pupils only.
Poland: Full-time pupils only. Pupils in special schools are excluded. In the 1999/2000 school year, a six-year primary school programme was introduced to gradually replace the former eight-year programme, grade 8 of which however still remained in existence in that year.
Slovenia: The data includes pupils learning foreign languages in primary and lower secondary education in provision within school outside the regular timetable.

Explanatory note

The average number of foreign languages learned in general secondary education is obtained by dividing the total number of pupils learning foreign languages by the number of pupils at that level.

Irish, Letzeburgesch and regional languages are excluded, although provision may be made for them in certain Member States.
Allowing for exceptions, when one of the national languages is taught in schools where it is not the teaching language, it is not considered as a foreign language.Explanatory note

The number of pupils learning foreign languages may be higher than the number enrolled as those who learn more than one language are counted several times.

Average number of foreign languages learned per pupil in general upper secondary education, 2001

EU		BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
(:)		2.18	2.22	1.36	1.11	1.21	1.94	0.92	1.18	3.05	1.57	(:)	(:)	2.82	2.16	(:)

IS	LI	NO	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	JP	US
1.6	(:)	(:)	1.81	1.61	1.94	2.32	1.23	1.71	1.88	1.11	1.89	1.88	1.98	2	1.6	(:)

Source: Eurostat, UOE.

3.4.A: Inward and outward mobility of Erasmus students. Total number of TEACHERS by country, 2001/02

Host country

Country of home institution	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	IS	LI	NO	BG	CZ	EE	CY	LV	LT	HU	MT	PL	RO	SI	SK	Total
EU-18	452	196	1253	410	1424	1416	210	1215	10	431	344	531	703	348	1104	34	4	172	125	448	80	44	76	167	451	19	618	548	85	98	13016
BE		12	38	36	101	106	21	66	0	54	14	54	53	24	61	0	1	2	6	25	2	3	7	13	20	1	45	45	7	8	825
BE fr		3	9	10	34	65	4	24	0	3	3	15	6	3	15	0	0	0	1	4	0	1	2	0	2	0	9	23	0	2	238
BE nl		9	29	26	67	41	17	42	0	51	11	39	47	21	46	0	1	2	5	21	2	2	5	13	18	1	36	22	7	6	587
DK	7		34	8	28	21	5	15	0	11	3	7	10	11	49	6	0	13	1	8	2	0	0	8	3	3	11	1	1	0	266
DE	30	33		72	223	271	32	179	4	58	79	50	153	54	203	4	1	32	35	91	19	3	29	46	122	1	156	88	15	34	2117
EL	12	2	48		22	38	1	29	0	10	14	8	12	6	25	1	0	0	9	10	0	13	0	0	4	0	5	8	1	1	279
ES	94	19	164	33		262	21	327	0	36	28	132	42	40	145	4	0	9	4	30	6	0	0	4	16	0	37	24	5	6	1488
FR	72	16	201	58	260		33	255	0	28	21	58	30	19	150	2	0	14	24	68	6	4	6	16	76	0	118	213	9	9	1766
IE	9	4	30	3	22	29		7	0	4	6	4	12	2	6	0	0	0	0	2	0	0	0	2	1	0	6	2	0	0	151
IT	44	6	87	40	211	182	9		0	17	33	50	23	10	47	4	0	6	8	18	0	2	1	9	32	2	31	37	5	8	922
LU	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL	48	19	91	9	56	28	9	31	0		20	14	72	25	69	0	0	19	7	25	2	4	3	5	38	1	23	17	1	3	639
AT	11	7	71	17	41	31	12	37	4	18		19	44	24	40	3	1	15	10	30	6	0	2	9	27	0	16	19	14	5	533
PT	29	5	39	21	84	65	5	46	2	3	8		17	10	32	0	0	8	4	17	1	2	5	3	8	0	22	15	6	3	460
FI	31	8	108	24	54	37	17	27	0	42	40	23		8	104	1	0	2	2	28	26	3	11	19	40	1	31	3	4	7	701
SE	18	3	34	11	53	20	7	15	0	15	17	14	14		67	4	0	12	0	12	1	1	3	12	15	2	9	4	4	0	367
UK	34	37	222	38	144	199	13	98	0	64	32	34	155	69		5	0	38	9	59	7	6	2	8	29	7	63	27	6	6	1411
IS	1	7	4	2	3	3	0	6	0	0	0	0	4	1	4																35
LI	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0																2
NO	12	6	43	2	21	18	4	11	0	17	14	10	9	21	41																229
BG	11	0	61	28	6	32	0	18	0	5	1	3	3	2	30																200
CY	0	0	5	11	1	1	0	0	0	0	0	1	4	0	2																25
CZ	32	10	243	20	53	92	7	58	0	34	51	25	43	16	98																782
EE	6	2	11	3	6	4	0	3	0	1	4	0	26	3	8																77
HU	11	24	62	6	9	18	4	13	0	7	10	4	38	27	13																246
LT	5	2	14	1	1	4	0	3	0	0	5	0	11	2	2																50
LV	25	8	131	9	27	86	1	77	0	29	31	13	57	9	30																533
MT	1	0	5	0	0	4	0	13	0	5	0	0	1	2	13																44
PL	41	19	248	29	69	109	8	50	0	34	22	42	34	25	70																800
RO	59	12	112	53	35	278	4	86	0	19	14	23	4	2	33																734
SI	2	0	10	0	5	10	0	11	0	0	13	10	3	3	3																70
SK	3	0	35	3	7	11	1	12	0	2	7	6	10	1	18																116
CC12	196	77	937	163	219	649	25	344	0	136	158	127	234	92	320																3677
Total	648	273	2190	573	1643	2065	235	1559	10	567	502	658	937	440	1424	34	4	172	125	448	80	44	76	167	451	19	618	548	85	98	16693

Source: Erasmus.

Erasmus TEACHER mobility 1997/98 - 2001/02

	1997/88	1998/99	1999/00	2000/01	2001/02	Total
Total number of teachers	7 797	10 605	12 465	14 356	15 872	61 095
EU + Iceland, Liechtenstein and Norway	7 797	9 202	10 102	11 328	12 195	50 624
Acceding countries	(:)	1 403	2 363	3 028	3 677	10 471
Average grant (in €)	842	763	724	615	594	
Average duration (days)	(:)	(:)	(:)	7	7	

3.4.B: Inward and outward mobility of Erasmus students. Total number of STUDENTS by country, 2001/02

Host country

Country of home institution	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	IS	LI	NO	BG	CZ	EE	CY	LV	LT	HU	MT	PL	RO	SI	SK	Total
EU-18	3168	2075	11818	1034	17834	15590	3103	8763	16	5478	1997	2405	2945	4323	16736	132	3	1100	51	732	115	37	48	91	769	173	792	275	108	111	101822
BE		103	356	79	1053	771	115	404	0	422	95	169	181	156	409	3	0	42	8	28	10	4	7	6	34	2	44	14	4	2	4521
BE fr		47	142	27	470	212	62	192	0	177	39	44	58	58	200	0	0	14	0	14	2	4	0	2	8	0	11	9	0	1	1793
BE nl		56	214	52	583	559	53	212	0	245	56	125	123	98	209	3	0	28	8	14	8	0	7	4	26	2	33	5	4	1	2728
DK	65		282	22	251	283	43	90	0	121	75	13	17	20	386	9	0	30	0	10	2	3	0	2	6	12	7	2	1	0	1752
DE	285	268	0	133	3291	3243	738	1360	1	818	263	231	684	1154	3229	28	0	299	6	139	14	4	10	24	139	28	193	21	11	12	16626
EL	127	34	294		293	341	30	213	1	122	70	59	63	70	155	0	0	22	5	32	1	2	0	0	21	0	14	3	1	1	1974
ES	870	472	2438	157		3046	427	3130	0	1115	260	821	426	589	3154	18	0	135	7	84	11	1	2	11	66	6	80	30	9	38	17403
FR	315	348	2779	166	3893		1019	1242	14	806	248	228	478	829	5052	15	0	171	8	107	12	11	3	6	135	24	137	77	12	14	18149
IE	67	18	363	8	270	553		90	0	80	42	11	33	57	68	0	0	7	0	14	2	1	0	1	6	2	6	0	8	0	1707
IT	586	279	1811	163	4340	2325	198		0	505	309	551	298	383	1605	18	0	115	9	50	14	5	1	21	122	47	98	64	17	16	13950
LU	2	1	29	0	10	32	2	8		1	5	3	2	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104
NL	215	121	417	42	752	560	105	213	0		108	89	245	377	729	7	0	120	2	35	4	0	4	2	37	19	26	11	4	0	4244
AT	76	80	257	32	492	474	121	362	0	191		52	140	225	371	15	2	57	1	24	3	1	0	4	15	8	13	2	5	1	3024
PT	158	46	303	51	619	373	28	498	0	148	38		70	60	209	1	0	26	2	44	2	2	2	4	27	0	62	31	13	8	2825
FI	122	26	559	71	325	347	115	156	0	326	181	32		89	609	8	0	14	1	62	30	2	5	10	120	9	47	10	4	11	3291
SE	58	11	469	28	299	465	89	121	0	228	131	23	15		585	2	1	8	0	30	3	0	4	0	20	7	19	6	10	1	2633
UK	188	178	1312	69	1732	2633	39	814	0	468	142	101	278	270		8	0	54	2	73	7	1	10	0	21	9	46	4	9	7	8475
IS	5	33	19	0	19	11	2	17	0	9	7	2	5	8	10																147
LI	0	2	0	0	1	1	0	2	0	5	0	0	1	3	2																17
NO	29	55	130	13	194	128	32	43	0	112	23	20	9	28	154																970
BG	46	4	191	70	24	121	4	33	0	12	18	18	9	3	52																605
CY	4	0	1	27	8	17	0	2	0	0	0	0	7	2	4																72
CZ	93	56	739	49	196	334	29	118	2	128	143	114	155	103	274																2533
EE	5	13	41	5	8	31	3	12	0	15	15	3	89	23	11																274
HU	94	43	460	37	120	223	7	189	0	121	94	34	152	50	112																1736
LT	43	95	207	8	40	44	10	51	0	23	24	40	110	109	19																823
LV	14	10	82	1	5	9	3	2	0	10	4	4	22	28	15																209
MT	7	6	10	0	1	10	5	49	0	10	2	2	3	3	21																129
PL	230	197	1393	96	319	624	50	304	0	243	73	152	188	192	262																4323
RO	127	38	297	61	187	694	13	253	0	60	28	78	18	34	76																1964
SI	22	14	89	6	28	40	3	46	0	15	42	15	12	18	14																364
SK	42	4	175	19	56	70	1	42	4	26	43	18	45	10	23																578
CC12	727	480	3685	379	992	2217	128	1101	6	663	486	478	810	575	883																13610
Total	3895	2555	15503	1413	18826	17807	3231	9864	22	6141	2483	2883	3755	4898	17619	132	3	1100	51	732	115	37	48	91	769	173	792	275	108	111	115432

Source: Erasmus.

3.4.C: Flow from EU/EEA countries, tertiary education (ISCED 5-6) - as percentages of all students

%

	EU	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
2001	2.3	6.2	2.5	2.5	0	1.3	1.4	2.5	0.6	(:)	1.6	6.3	0.7	0.6	3.7	5.2
2000	2.3	6.2	2.3	2.5	(:)	1.2	1.5	2.4	0.6	25	1.3	6.4	0.6	0.5	3.6	5.5
1999	2.2	5.9	2.3	2.4	0	1	1.5	2.3	0.6	22	1.2	6.3	0	0.4	3.6	5.6
1998	1.9	(:)	2.1	2.4	(:)	1	1.5	2.5	0.8	27	(:)	6.2	0	0.4	2.4	5.4

	IS	LI	NO		BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
2001	2.8	(:)	1.9		1.4	3	0.3	0.2	0.6	0	0.1	0.8	0	0.6	0.1	0.2
2000	2.8	0	1.8		1.5	3.2	0.4	0.6	(:)	0	0.1	0.7	0	0.9	0.1	0.2
1999	1.7	(:)	1.5		1.8	2.3	0.4	0.7	0.7	0	0	1.2	0	1.1	0.1	(:)
1998	1.6	(:)	1.4		1.9	(:)	0.5	0.7	0.7	0	0	(:)	0	1.4	0.1	(:)

Source: Eurostat, 2001.

Foreign students enrolled at (ISCED 5-6) - as percentages of all students in the host country, 1999, 2000 and 2001

	EU/EEA foreign students			Non-EU/EEA foreign students		
Host country	**1999**	**2000**	**2001**	**1999**	**2000**	**2001**
EU	(:)	6.04	6.11	(:)	3.82	3.92
BE	10.27	10.9	10.62	4.66	4.97	4.7
DK	6.49	6.8	6.6	4.28	4.63	4.24
DE	8.54	9.1	9.56	6.25	6.79	7.28
EL	0	(:)	0	0	(:)	0
ES	1.84	2.22	2.18	0.81	1.04	0.93
FR	6.51	6.8	7.25	5.11	5.38	5.9
IE	4.75	4.62	4.93	2.54	2.29	2.52
IT	1.31	1.41	1.61	0.7	0.85	1.01
LU	24	26.75	(:)	2.65	2.95	(:)
NL	2.9	2.87	3.29	1.71	1.61	1.72
AT	11.79	11.63	11.97	5.82	5.62	6.02
PT	0	2.99	3.66	0	2.41	3.01
FI	1.84	2.06	2.25	1.43	1.54	1.69
SE	7.28	7.37	7.35	3.87	3.86	3.83
UK	11.17	11.01	10.92	5.86	5.83	6
IS	2.45	4.17	4.13	0.78	1.42	1.4
LI	(:)	0	(:)	(:)	0	(:)
NO	4.8	4.56	4.66	3.34	2.81	2.77
BG	3.11	3.11	3.29	1.38	1.6	1.91
CY	17.16	19.44	20.71	15.23	16.8	18.28
CZ	1.98	2.25	2.98	1.54	1.88	2.65
EE	1.63	1.61	1.05	0.92	0.99	0.88
HU	3.17	3.23	3.4	2.5	2.67	2.84
LT	0.44	0.44	0.46	0.43	0.43	0.43
LV	2.25	6.57	7.7	2.24	6.52	7.62
MT	5.24	5.56	4.58	4.04	4.85	3.79
PL	0.41	0.39	0.38	0.36	0.34	0.33
RO	3.26	2.78	2.19	2.15	1.93	1.64
SI	0.83	0.93	0.94	0.73	0.82	0.83
SK	1.3	1.16	1.17	(:)	0.95	0.97
JP	(:)	(:)	1.6	(:)	(:)	1.57
US	(:)	(:)	(:)	(:)	(:)	(:)

Source: Eurostat, UIS (UNESCO Institute of Statistics), UOE.

Additional notes
- GE, RO, SI: Students in ISCED 6 are excluded
- LU: Data for 2000

Students in the EU and ACC-countries studying in their home country (tertiary level, ISCED 5 and 6), in EU, ACC, and in other parts of the world, 2001.

COUNTRY OF ORIGIN:

Students studying	EU	BE	DK	DE	EL	ES	FR	IE
in their home country	12 024 161	321 115	178 205	1 884 813	(:)	1 793 583	1 884 341	158 393
in EU15	270 864	9 098	4 125	37 155	49 844	21 229	39 039	13 997
in ACC	3 466	16	25	844	1 423	42	58	18
in EEA,BG,RO,TR	11 482	28	815	777	7366	79	182	19
in other parts of the world	80 255	1 315	1 359	17 200	3 948	5 575	14 530	1461
Total of students with above country of origin	**12 390 228**	**33 1572**	**184 529**	**194 0789**	**(:)**	**182 0508**	**1 938 150**	**173 888**

Students studying	IT	LU	NL	AT	PT	FI	SE	UK
in their home country	1 783 097	1 785	487 453	232 987	373 501	273 340	331 716	1 841 627
in EU15	33 938	5 553	9 334	9 539	9 482	8 372	8 089	12 070
in ACC	184	0	44	64	26	142	255	325
in EEA,BG,RO,TR	115	1	153	67	29	269	1 061	521
in other parts of the world	7 903	300	2 523	1 963	1440	1 256	5 671	13 811
Total of students with above country of origin	**1 825 237**	**7 639**	**499 507**	**244 620**	**384 478**	**283 379**	**346 792**	**1 868 354**

Students studying	IS	LI	NO	EU+ACC	ACC	BG	CY	CZ	EE
in their home country	9 763	(:)	181 090	14 900 815	2 876 654	238 876	9 462	252 294	57 173
in EU15	1 637	(:)	8 502	315 955	45091	9 492	10 571	3 392	1 676
in ACC	11	(:)	988	12 068	8 602	345	413	536	142
in EEA,BG,RO,TR	268	(:)	40	14940	3 458	951	2 972	38	53
in other parts of the world	553	(:)	3 946	94755	14 500	3 456	2 036	1 265	2 092
Total of students with above country of origin	**12 232**	**(:)**	**194 566**	**15 338 533**	**2 948 305**	**253 120**	**25 454**	**257 525**	**61 136**

Students studying	HU	LT	LV	MT	PL	RO	RO	SI	SK
in their home country	319 307	135 295	94 866	7 082	1 768 326	521 483	521 483	90 630	142 219
in EU15	5 717	1 577	1 029	529	16 262	7 855	7 855	1 566	2 772
in ACC	104	1 193	308	1	294	2 888	2 888	59	5 552
in EEA,BG,RO,TR	129	66	56	4	105	203	203	10	25
in other parts of the world	1 381	2 060	1 603	97	2 938	3 944	3 944	401	627
Total of students with above country of origin	**326 638**	**140 191**	**97 862**	**7 713**	**1 787 925**	**536 373**	**536 373**	**92 666**	**151 195**

Source: Eurostat, UIS (UNESCO Institute of Statistics), UOE.

Additional notes

- For a given nationality the number of students studying abroad is calculated by summing the numbers provided by the receiving countries. The lack of data by nationality or other missing reporting for some countries leads to underestimation of the number of students studying in another country than the country of origin
- GE, RO, SI: Students in ISCED 6 are excluded
- LU: Data for 2000

3.4.B/C : Inward and outward mobility of students at tertiary level (ISCED 5 and 6). Total number of students by nationality reported by the host country, 2000/01

Nationality \ Host country	EU	EU+ACC	ACC	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK	IS	LI	NO	BG	CZ	EE	CY	LV	LT	HU	MT	PL	RO	SI	SK
BE	9 098	9 114	16		24	984	(:)	1 250	2 024	74	95	136	1 745	82	75	21	189	2 399	1	(:)	22	1	0	2	3	2		0	3	6	3	0	0
DK	4 125	4 150	25	50		672	(:)	329	276	26	32	1	67	64	4	46	817	1 741	49	(:)	764	0	0	1	1	1	1	1	1	19	1	0	0
DE	37 155	37 999	844	515	577		(:)	4 208	5 287	497	764	34	3 184	6 100	312	240	2 049	13 388	36	(:)	449	26	5	28	4	575	13	36	9	154	170	12	8
EL	49 844	51 267	1 423	616	22	8 017		340	2 566	43	8 874	4	117	310	20	33	242	28 640	0	(:)	14	3 367	226	426	0	457		0	7	43	2 681	2	262
ES	21 229	21 271	42	1 311	87	5 855	(:)		3 749	221	140	7	934	354	452	87	745	7 287	13	(:)	64	0	1	2	2	16	2	0	0	18	2	0	1
FR	39 039	39 097	58	10 586	120	6 488	(:)	4 885		552	458	301	337	425	1 309	108	974	12 496	27	(:)	122	3	5	6	1	9	3	1	2	29	19	1	1
IE	13 997	14 015	18	56	44	541	(:)	326	572		7	1	41	49	12	22	109	12 217	0	(:)	18	0	1	11	0	3		0	1	2	0	0	0
IT	33 938	34 122	184	2 996	79	7 588	(:)	5 071	3 722	135		43	328	7 100	125	88	577	6 086	17	(:)	68	4	49	2	1	15	4	15	4	18	17	74	2
LU	5 553	5 553	0	1 403	0	1 635	(:)	25	1 373	22	24		18	304	48	0	4	697	1	(:)	0	0	0	0	0	0		0	0	0	0	0	0
NL	9 334	9 378	44	2 623	91	1 915	(:)	879	470	55	65	3		117	56	56	536	2 468	7	(:)	142	0	0	2	3	21		1	5	9	0	3	0
AT	9 539	9 603	64	44	28	6 588	(:)	629	418	53	90	0	95		11	24	318	1 241	13	(:)	33	2	0	6	3	31	1	1	0	8	7	8	6
PT	9 482	9 508	26	661	15	1 778	(:)	1 455	2 845	54	32	47	138	40		18	119	2 280	0	(:)	27	0	0	12	0	0		0	3	9	2	1	1
FI	8 372	8 514	142	88	112	1 014	(:)	336	297	95	53	0	87	164	5		3 582	2 539	30	(:)	234	1	1	9	74	19	18	7	4	9	1	1	0
SE	8 089	8 344	255	47	673	895	(:)	441	861	81	95	0	100	238	11	588		4 059	32	(:)	1 000	2	0	53	5	84	1	16	1	92	23	1	2
UK	12 070	12 395	325	231	388	2 397	(:)	2 363	2 721	1 939	145	3	648	214	83	147	791		16	(:)	373	1	0	241	0	46	3	5	6	21	3	0	3
IS	1 637	1 648	11	6	757	167	(:)	18	41	4	5	0	21	24	1	34	336	223		(:)	268	0	1	3	0	6		0	0	1	0	0	0
LI	(:)	(:)		(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)		(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)	(:)
NO	8 502	9 490	988	22	1 473	927	(:)	262	334	154	34	0	83	69	5	60	1 200	3 879	36	(:)		0	1	51	0	575		2	13	343	4	0	3
BG	9 492	9 837	345	140	37	5 055	(:)	163	1 869	12	215	0	67	1 437	12	33	86	366	8	(:)	36		80	42	0	41		1	21	136	206	7	17
CY	10 571	10 984	413	9	1	184	6 415	3	112	13	47	0	2	38	0	4	6	3 737	0	(:)	3	284		73	0	302	1	0	11	10	40	0	16
CZ	3 392	3 928	536	29	9	1 714	(:)	172	371	17	104	0	44	393	0	25	102	412	4	(:)	30	4	0		0	6		5	1	229	0	8	287
EE	1 676	1 818	142	6	30	448	(:)	341	69	1	8	0	6	13	0	474	197	83	2	(:)	51	0	0	3		3	2	113	2	19	0	0	0
HU	5 717	5 821	104	92	22	2 867	(:)	138	520	6	114	0	69	1 203	7	82	206	391	0	(:)	25	6	1	10	1			0	1	57	95	6	28
LT	1 577	2 770	1 193	13	56	972	(:)	23	114	5	17	0	10	41	4	54	174	94	8	(:)	56	0	2	7	216	1		330	0	634	2	1	2
LV	1 029	1 337	308	19	19	614	(:)	9	64	1	8	0	8	21	0	26	134	106	3	(:)	52	0	2	7	214	1	27		3	54	1	0	0
MT	529	530	1	1	0	53	(:)	56	23	1	14	0	3	4	0	2	0	372	0	(:)	3	1	1	0	0	0		0		0	0	0	0
PL	16 262	16 556	294	251	220	10 137	(:)	439	2 034	33	433	0	179	923	66	60	840	647	13	(:)	80	4	4	78	1	142	28	7	1		4	3	30
RO	7 855	10 743	2 888	271	61	2 454	(:)	346	2 825	47	634	0	89	414	0	74	183	457	1	(:)	63	87	7	14	0	2 737		0	1	45		2	82
SI	1 566	1 625	59	9	3	564	(:)	14	40	2	184	0	3	571	5	3	35	133	1	(:)	4	4	0	15	0	32		0	1	4	0		7
SK	2 772	8 324	5 552	44	8	1 033	(:)	72	263	5	73	0	18	1 081	2	14	29	130	2	(:)	16	5	1	3 695	0	1 783		0	0	73	2	0	
Other	452 647	23 867	476 514	16 011	7 630	125 576	(:)	15 351	111 542	4 059	16 464	72	8 148	9 889	11 577	3 865	11 724	117 154	101	(:)	4 840	4 328	2 084	2 951	76	4 334	524	7 376	239	4 617	8 386	734	932
Total	796 088	40 167	836 255	38 150	12 586	199 132	(:)	39 944	147 402	8 207	29 228	652	16 589	31 682	14 202	6 288	26 304	225 722	421	(:)	8 857	8 130	2 472	7 750	605	11 242	628	7 917	340	6 659	11 669	864	1 690

Source: Eurostat, UIS (UNESCO Institute of Statistics), UOE.

Additional notes

- For a given nationality the number of students studying abroad is calculated by summing the numbers provided by the receiving countries. The lack of data by nationality or other missing reporting for some countries leads to underestimation of the number of students studying in another country than the country of origin
- GE, RO, SI: Students in ISCED 6 are excluded / LU: Data for 2000

LINGUA

Lingua B / Comenius 2.2.1:
Grants to language teachers to follow an in-service training course abroad (last 2-3 weeks each)

Socrates 1				Socrates 2	
1997	**1998**	**1999**	**2000**	**2001**	**2002**
5 684	6 500	6 800	5 004	4 440	3 651

Lingua C - Comenius 2.2.2:
Language assistantships (last 3 - 8 months each)

Socrates 1				Socrates 2	
1997	**1998**	**1999**	**2000**	**2001**	**2002**
582	650	875	681	854	905

Lingua E - Comenius 1.2:
(joint language projects, which end with a class exchange lasting 2 weeks)

	Socrates 1				Socrates 2	
	1997	**1998**	**1999**	**2000**	**2001**	**2002**
APPROVED GRANTS	394	1 282	1 359	1 470	830	903
SELECTED PROJECTS				735	415	451
Pupils moved	25 592	23 076	24 462	26 460	14 940	16 254
Teachers moved	3 025	2 728	2 891	2 940	1 660	1 806
total participants	28 617	25 804	27 353	29 400	16 600	18 060

Source: Lingua.

NB: For 2001 and 2002 data are estimates calculated on 70% of the total grants made under Comenius 2