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**"EDUCATION & TRAINING 2010"  
THE SUCCESS OF THE LISBON STRATEGY HINGES ON URGENT REFORMS**

**(Draft joint interim report  
on the implementation of the detailed work programme  
on the follow-up of the objectives of education and training systems in Europe)**

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## SUMMARY

At the Lisbon European Council held in March 2000, the Heads of State and Government acknowledged that *"the European Union is confronted with a quantum shift resulting from globalisation and the challenges of a new knowledge-driven economy"* and set the Union a major strategic goal for 2010 *"to 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"*. It stressed that this would require not only a *"radical transformation of the European economy"*, but also a *"challenging programme for the modernisation of social welfare and education systems"*. Never before had the European Council acknowledged to this extent the role played by education and training systems in the economic and social strategy and the future of the Union.

In March 2001, the European Council adopted three strategic goals (and 13 associated concrete objectives) to be attained by 2010: education and training systems should be organised around quality, access, and openness to the world. A year later, it approved a detailed work programme ("Education & Training 2010") for the attainment of these goals and supported the ambition of the Ministers for Education to make education and training systems in Europe *"a worldwide quality reference by 2010"*.

How much progress has been made towards the attainment of these aims, ambitious but at the same time realistic, which are now those of the enlarged Union? Is the Union in a position to attain them by 2010 and catch up with its main competitors in the international arena? The (Education) Council and the Commission must answer these questions in the joint report they will forward to the European Council scheduled for the spring of 2004. The Commission intends to make a contribution via the present Communication which takes stock of progress made and suggests urgent steps which are indispensable.

The "Education & Training 2010" work programme has been implemented in stages since 2001 and the follow-up to the Copenhagen Declaration is at an early stage. While some developments have been recorded, it would be premature for the time being to attempt to measure progress. The Commission has nevertheless to hand the reports of the different working groups set up, national reports on the development of lifelong learning and mobility, and also indicators and recent analyses backed up by figures. Worryingly, these sources all point to a situation in which **efforts are being made in all the European countries to adapt the education and training systems to the knowledge-driven society and economy, but the reforms undertaken are not up to the challenges and their current pace will not enable the Union to attain the objectives set.**

The five European benchmarks adopted by the (Education) Council in May 2003 will for the most part be difficult to achieve by 2010. In particular, the level of take-up by Europeans of lifelong learning is low and the levels of failure at school and of social exclusion, which have a high individual, social and economic cost, remain too high. In addition to this there are no signs of any substantial increase in overall investment (be it public or private) in human resources. The European Union is still well behind in this area compared with its main competitors in the international arena and in particular suffers from a level of private sector investment which is too low in higher education and continuing training. At the same time, there is no evidence of any great headway being made in more effective use of available resources.

In addition, due to lack of quality and attractiveness, vocational training is not up to the new requirements of the knowledge-based economy and the European labour market. The Union also faces an increasing risk of a teacher shortage. Equally, it is experiencing the greatest difficulty in regaining its place as first choice for students from non-Community countries, the number one spot having been taken over by the USA.

These continuing weaknesses are all the more worrying as the effects of investments and reforms on the systems are felt only in the medium and even long term, and as the date of 2010 is getting closer and closer. **A wake-up call is therefore essential at all levels if there is still to be a chance of making the Lisbon strategy a success.** In order to get there, the Commission feels it is essential to act simultaneously, and right away, on four priority levers:

- **Concentrate reforms and investment on the key points in each country, in view of the situation of each and of the common objectives; at the Community level, this requires structured and continuous cooperation to develop and make the best use of human resources and achieve maximum investment efficiency;**
- define truly coherent and comprehensive lifelong learning strategies, ensuring effective interaction between all the links of the learning chain and setting national reforms within the European context;
- at last create a Europe of education and training, particularly by rapid introduction of a European reference framework for qualifications in higher education and vocational training; such a framework is essential for creating a genuine European labour market, to facilitate mobility and make European systems more transparent;
- give "Education & Training 2010" its rightful place so that it becomes a more effective tool for formulating and following up national and Community policies, including beyond the current decade; the urgent nature of the challenges to be faced means we have to use the open method of coordination to the full - while fully complying with the principle of subsidiarity. In particular, the Commission feels that as from 2004 a mechanism should be put in place to monitor progress achieved on the basis of annual reports forwarded to the Commission by the Member States.

**If these steps are all taken quickly, there is still a chance that the objectives set by the Member States can be attained. Otherwise, the likelihood is that the gap between the Union and its main competitors will become even wider and, what is more serious, that the success of the Lisbon strategy overall would be seriously jeopardised.**

## INTRODUCTION: A DETERMINING ROLE IN THE LISBON STRATEGY

One of the main contributions of the Lisbon strategy is to have speeded up the Union's transition to a knowledge-driven economy and society. This strategy is based on a large gamut of coherent and complementary actions (e.g. reform of the markets for goods, services and capital, adapting employment and labour market policies, reshaping social security systems), which seek to improve the economic and social performance of the Union and guarantee sustainable development.

Education and training policies are central to the creation and transmission of knowledge and are a determining factor in each society's potential for innovation. They are therefore central to this new dynamic situation, complementing and acting in synergy with other areas of Community action, including employment, research and innovation, enterprise policy, the information society, economic policy and the internal market. Education and training benefit from developments in these domains and in return contribute to strengthening their impact. What this means is recognition of the role of education and training systems which goes hand in hand with greater responsibility and an increasingly pressing need to modernise and transform, particularly in view of the Union's enlargement.

Human resources are the Union's main asset and it is now acknowledged that investment in this area is a determining factor of growth and productivity, in the same way as investment in capital and equipment. It has been calculated that raising the average level of education of the population by one year represents a 5% increase in growth in the short term and a further 2.5% in the long term<sup>1</sup>. In addition, the positive impact of education on employment<sup>2</sup>, health, social inclusion and active citizenship have already been extensively shown.

**If the Union as a whole is currently under-performing in the knowledge-driven economy in relation to some of its main competitors, this is due partly to an overall level of investment which is comparatively too low in human resources.** This observation is all the more worrying as the new requirements stemming from the knowledge-driven society and economy are set to further intensify in the years ahead. Confronted with a likely extension of the average length of working life and ever more rapidly occurring economic and technological changes, people will have to update their competences and qualifications increasingly often. At the same time, the knowledge society generates new needs in terms of social cohesion, active citizenship and personal fulfilment, and the answer to this lies solely in education and training.

Against this background, the Stockholm European Council of March 2001 adopted three strategic goals for the education and training systems (and 13 associated concrete objectives), focusing on quality, access and openness to the wider world<sup>3</sup>. The year after, the Barcelona European Council approved the programme of work to implement these goals ("Education & Training 2010")<sup>4</sup>. This constitutes the strategic reference framework for the development of education and training policies at the Community level in order to make education and training systems in Europe *"a world reference for quality by 2010"*.

This Communication takes stock of the situation, pinpoints the challenges to be faced and proposes urgent measures to be taken if the objectives set are to be attained. It will form the basis for the joint report from the Commission and the (Education) Council on the implementation of the work programme on the objectives which will be forwarded to the European Council scheduled for March 2004<sup>5</sup>. It is backed up by a Commission staff paper which gives an account of the work achieved to date and looks at the Union's position in relation to the indicators and reference levels selected<sup>6</sup>.

Given the need to integrate education and training policies which help towards the attainment of the Lisbon objectives, this Communication also deals with the implementation of the Recommendation and the Action Plan on mobility<sup>7</sup>, of the Council Resolution (Education) on lifelong learning<sup>8</sup> and of the Copenhagen Ministerial Declaration on "enhanced cooperation in vocational education and training"<sup>9</sup>. It is also informed by the follow-up of a number of Commission Communications, particularly those relating to the urgent need to invest more and more effectively in human resources<sup>10</sup>, the role of the universities in the Europe of knowledge<sup>11</sup>, the necessity to raise the profile of the researcher in Europe<sup>12</sup>, and the comparison of performance in education across the Union with the rest of the world.

#### **SECTION I: MUCH STILL TO BE DONE AND TIME IS RUNNING OUT**

As highlighted recently by the Brussels European Council in October 2003<sup>13</sup>, the development of human capital is a prerequisite for the promotion of growth in the EU, notably through increased investment in education and a better integration with social policies and employment. Similarly, the employment guidelines adopted by the European Council in June 2003<sup>14</sup> place emphasis on the development of human capital and lifelong learning.

Education and training systems reflect to a very large extent the structures peculiar to each country and the trends apparent in that society. Transforming these systems is a medium or even long term process. The debates and the reforms already undertaken in the (current and future) Member States of the European Union show that those in charge of education and training are getting organised to tackle the problems facing them: they have set about, albeit from starting points and at a pace which differ substantially, adjusting their systems to the challenges of the knowledge-driven society and economy.

It is only two years since the work programme was adopted and that is too short a period to measure exactly how much progress has been made. On the other hand, it is possible and very important at this stage to assess how much remains to be done in order to reach the ambitious but realistic objectives established jointly. The available reports and indicators all point to the same conclusion, which is that **if reform proceeds at the current rate, the Union will be unable to attain its objectives in education and training**. There are still too many shortcomings which restrict the potential for development in the Union, a situation which is all the more worrying as the impact of the reforms on the system takes time to filter through and the target date of 2010 is not all that far away. Further, the future Member States must make up their delays in developing a knowledge-based economy and society. This situation is all the more worrying in so far as the effects of reforms on the systems are not immediate, and as the 2010 deadline is fast approaching.

## **1.1 Insufficient headway**

### *1.1.1 The platform for cooperation does exist*

The work programme on the objectives of the education and training systems sets up, in a way which is more structured than hitherto, an area of cooperation between 31 European countries<sup>15</sup> and involves the actors concerned (representatives of civil society and European social partners) and international organisations (such as the OECD, UNESCO and the Council of Europe). It covers all systems and levels of education and training and takes account of new policy initiatives, particularly as regards the development of *e-learning*<sup>16</sup>, promoting foreign language learning and language diversity<sup>17</sup>, and making European higher education systems more attractive<sup>18</sup>.

In line with the time frame established, working groups have been set up in successive waves since the second half of 2001 in order to implement the common objectives. This first phase was necessary in order to identify the priority themes, make an inventory of existing experience, define a preliminary list of indicators for monitoring progress and to secure the consensus needed between all the interested parties. On this basis, most of the working groups have collected and selected examples of best practice with regard to policy and strategy implemented in the different countries. These will be examined at a later stage. All the working groups stress in their reports the need to step up national action in the key areas of "Education & Training 2010" and for stronger Community action to support national efforts<sup>19</sup>.

The follow-up to the Copenhagen Declaration has yielded concrete preliminary results. A proposal for a single European framework for transparency of qualifications and competences (the new "Europass"), which rationalises existing tools, will be presented by the Commission before the end of the year. A common reference framework for improving quality in vocational training, including criteria and key indicators for quality assurance, has also been established. Lastly, the way has been paved for the creation of a European credit transfer system with a view to giving a boost to mobility in vocational education and training.

### *1.1.2 Too few coherent lifelong learning strategies*

Following the Feira European Council of June 2000, the Commission and the Member States set about defining and implementing comprehensive coherent strategies for lifelong learning. An analysis of the national contributions received in follow-up to the (Education) Council Resolution on this subject<sup>20</sup> corroborates the progress and the shortcomings already observed in the context of the analysis of the national action plans for employment<sup>21</sup>. In many countries, certain links in the lifelong learning chain are insufficiently developed<sup>22</sup>.

The shortcomings to be made good stem frequently from a vision overly concerned with the requirements of employability or an over-exclusive emphasis on rescuing those who slipped through the initial education nets. This is perfectly justifiable, but does not on its own constitute a lifelong learning strategy which is genuinely integrated, coherent and accessible to everyone.

### *1.1.3 There can be no Europe of knowledge without a Europe of higher education*

Higher education has not to date found in "Education & Training 2010" the place it warrants. There are a number of key points on which substantial progress has been made or is in preparation under the Bologna process. At their recent meeting in Berlin<sup>23</sup>, the Ministers gave a fresh commitment to the creation of a European reference framework for university level qualifications and asked that the necessary reforms to the architecture of diplomas, quality assurance systems and mutual recognition of qualifications be stepped up. They also underlined the importance of strengthening synergies between the European higher education area and the European research area. Finally, they introduced a procedure to monitor progress in all the participating countries.

Significant though it may be, this progress must not cause us to forget that the place of higher education in the overall Lisbon strategy goes far beyond the programme of structural reform initiated by the Bologna Declaration. The role of the universities covers areas as diverse and as vital as the training of teachers and that of future researchers; their mobility within the Union; the place of culture, science and European values in the world; an outward-looking approach to the business sector, the regions and society in general; the incorporation of the social and citizen-focused dimensions in courses. With its Communication on "The role of the universities in the Europe of knowledge"<sup>24</sup>, the Commission launched a consultation of all the players in the university community on the key issues of funding, the diversity of institutions in terms of functions and priorities, the setting up of centres of excellence, the attractiveness of careers, and work in networks. The comments and proposals collected stress the European dimension of these issues and show that action in all these areas must be carried out in close conjunction with the Lisbon objectives. The Commission will communicate its conclusions and proposals for higher education in Europe in Spring 2004.

### *1.1.4 Vocational education and training: insufficient quality and not attractive enough*

Vocational training and education systems have a vital role to play in providing people with the competences and qualifications which respond to labour market requirements. Yet the quality of vocational education remains very variable throughout Europe and few countries have really undertaken to make the vocational pathway and in-company training as attractive an alternative as general education. At the same time, many sectors are faced with a shortage of qualified employees, in particular high level engineers and specialist technicians. Much more needs to be done to remedy this situation in the years ahead, particularly by stepping up cooperation at European level as part of the Copenhagen Declaration.

### *1.1.5 The level of mobility in education and training is still inadequate*

The national reports sent in as part of the implementation of the Recommendation on mobility<sup>25</sup> illustrate the efforts undertaken by countries to promote mobility, including the removal of (administrative or legal) obstacles. They show that despite progress reported in many areas in most Member States, there are no real strategies to facilitate and promote mobility.

The lack of funding and motivation (stemming particularly from the difficulties involved in academic and professional recognition) continue to obstruct the mobility of students and even more so that of young people in training. Mobility in the enlarged Union involves every year only 120 000 Erasmus students (0.8% of the total) and 45 000 young people in training (under the Leonardo da Vinci programme). These figures reflect a steady improvement, but remain well below what the Commission considers necessary: by 2010, the number of participants in Erasmus should significantly be raised, as should mobility in vocational education and training.

## **1.2 The Union still lags behind its main competitors**

The European Union as a whole lags behind the United States and Japan as regards the level of investment in the knowledge-driven economy and society, although certain Member States have levels which are comparable or better than those two countries. Things did improve in the second half of the 1990s, but not enough to suggest that the gap can be closed by 2010. Part of the Union's being behind stems from certain weaknesses in the education and training systems in comparison with its main competitors.

### **– A lack of investment in human resources**

The Lisbon European Council called upon the Member States to bring about "*a substantial annual increase in the per capita investment in human resources*". In 2000, public sector investment in education measured as a proportion of GDP was 4.9% in the European Union, a figure comparable to that of the United States (4.8%) and higher than that of Japan (3.6%). During the period 1995–2000, the public sector effort dwindled in most of the Member States. What is more, the Union is suffering from under-investment from the private sector, particularly in higher education and continuing training. In comparison to the Union, the private sector effort is five times higher in the United States (2.2% of GDP compared with 0.4%) and three times higher in Japan (1.2%). In addition, the expenditure per student in the United States is higher than that of the quasi-total of countries in the Union at all levels of the education system. The biggest difference is in higher education: the United States spends between two and five times more per student than the countries of the Union.

### **– Not enough people qualifying through higher education**

If it is to be competitive in the knowledge-driven economy, the Union also needs a sufficiently high number of higher education graduates with qualifications suitably adapted to European labour market requirements. The fact that secondary education is lagging behind has a knock-on effect at the higher education level. On average in the Union, 23% of males and 20% of females in the 25–64 age range hold a higher education qualification, a figure well below that for Japan (36% of males and 32% of females) and the United States (37% for the overall population).

### **– The Union attracts less talent than its competitors**

The Ministers of Education set the objective of turning the Union into the "*the most-favoured destination of students, scholars and researchers from other world regions*".

This central objective will also be put to the test: if the Union succeeds in attracting students, it could also better promote its specificities and values, thus assuring itself a greater profile and ultimately greater competitiveness. Even if the Union, together with the United States, is the only region of the world to be a net beneficiary in terms of mobility, most Asiatic and South American students prefer to go to the United States. Furthermore, there are now twice as many European students in the United States as American students coming to Europe for their studies. The former are generally seeking a full qualification at the host university, usually at advanced levels or in scientific and technological areas. The latter come to Europe generally for a short period as part of the course of their university of origin, usually at an early stage of their syllabus and more often than not for human or social sciences.

The Union "produces" more university qualified persons and doctors in sciences and technology than the USA or Japan (25.7% of the total number of higher education graduates for the Union compared with 21.9% and 17.2% respectively for Japan and the USA). At the same time, the percentage of researchers in the active population is much lower in the Union (5.4 researchers per 1 000 in 1999) than in the USA (8.7) or Japan (9.7), and particularly in private companies. The European labour market is much more limited for researchers, who often leave the Union to pursue their careers elsewhere (mainly in the USA where they have better working conditions) or decide to change profession<sup>26</sup>.

### **1.3 Many warning lights are still on red**

Indicators and European benchmarks are essential instruments of the open method of coordination, without which the "Education & Training 2010" programme would lose much of its relevance<sup>27</sup>. The Ministers of Education took a decisive step in May 2003 by agreeing on five quantified objectives to be attained by 2010<sup>28</sup>. **An analysis of the Union's current position nonetheless highlights major deficits which have to be made good if the common objectives are to be attained<sup>29</sup>:**

#### **– Rates of early school leavers remain too high**

The Union has made tackling the problem of early school leavers one of its priorities. In 2002, almost 20% of young people aged 18–24 in the EU prematurely dropped out of school and were on the fringes of the knowledge society. The Ministers of Education have agreed on a target to bring this rate down to 10% by 2010. A big effort will be needed in most Member States, even if the arrival of the acceding countries will substantially improve the European average.

#### **– A shortage of qualified teachers and trainers threatens**

On average, 27% of primary school teachers and 34% of secondary school teachers in the Union are over 50. By 2015 over a million primary and secondary school teachers will have to be recruited and therefore trained. This massive regeneration of teaching staff levels in most countries is simultaneously a considerable challenge and an opportunity. But people are not queuing up to join the profession and the Union could well be faced with a major shortage of qualified teachers and trainers, as was recently stressed by the OECD<sup>30</sup>. This alarming situation prompts questions as regards the ability of the profession to attract and hold on to the best talent and the high quality continuing training needed to prepare teachers for their new roles.

– **Too few women in scientific and technological fields**

The March 2001 Stockholm European Council pointed up the need to encourage young people, particularly young women, to become interested in scientific and technological fields and careers. A substantial part of the Union's research and innovation capacity depends on this. The (Education) Council has set two objectives: to bring about a 15% increase by 2010 in the number of students in these fields and redress the imbalance between women and men. While the first objective is more likely to be attained, the second will require considerable effort: in the EU countries there are currently 2-4 times more men than women in the scientific and technological disciplines.

– **Nearly 20% of young people fail to acquire key competences**

Everyone needs to acquire a minimum set of competences in order to learn, work and achieve fulfilment in a knowledge-driven society and economy. They include traditional key competences (reading, writing and numbers) and the newer ones (comprising foreign languages, entrepreneurship, interpersonal and civic competences, and competences in the new information and communication technologies). However, in the fundamental domain of reading, 17.2% of young Europeans aged under 15 do not have the minimum competence required and the Union is still far from the objective set by the Member States of reducing this percentage by 20% by 2010.

As for foreign language learning, there is still no language proficiency indicator<sup>31</sup>. However, a slight increase has been observed in the number of foreign languages learned per pupil in secondary education, the figure having risen from 1.2 foreign languages per pupil at the start of the 1990s to an average of 1.5 in 2000. But this result is still well short of the objective set by the Barcelona European Council held in March 2002 of guaranteeing that all pupils/students learn at least two foreign languages.

– **Too few adults participating in further learning**

In a knowledge-based society people must update and improve their competences and qualifications continuously. Despite the progress made, the objective of achieving a 12.5% rate of adult participation in continuing training calls for special attention in most Member States, particularly in the acceding countries. The rate of participation in the Union in 2002 has been estimated at 8.5%, i.e. a mere 0.1% higher than in 2001. What is more, that figure, which had been steadily rising since the mid-1990s, has been stable over the last years.

## **SECTION II: THE FOUR LEVERS OF SUCCESS**

The foregoing observations sound the alarm as regards the situation of the education and training systems in Europe and their structural shortcomings. They highlight the urgent need for reforms and to carry forward the Lisbon strategy much more resolutely. If bolder reforms and more sustained investment are not forthcoming, the deficits observed today, rather than decreasing, are likely to become further exacerbated and could prevent the Union from attaining the objectives it has set, thus putting those responsible for education and training, as well as the European Council itself, in a difficult position.

In order to support the efforts of the Member States, the Commission proposes that future action be built around the following four linchpins which, provided they are acted upon in concert and in good time, still offer a chance of success:

- concentrate reforms and investment on the key areas;
- make lifelong learning a concrete reality;
- establish at last a Europe of education and training;
- give "Education & Training 2010" its rightful place.

These proposals are based in particular on the conclusions of the working groups established in the framework of "Education & Training 2010" and the analysis of the national reports on lifelong learning and mobility.

## **2.1 Focus reform and investment on the key areas**

At the informal ministerial meeting in Milan, Ministers for Education from the Union and acceding countries (meeting jointly with the Ministers for Employment and Social Affairs) underlined the importance of "structured cooperation that will support the development of human capital as well as regular monitoring of the progress achieved, seen as part of the work programme on the follow up to the common objectives of education and training systems in Europe to reach the Lisbon goals"<sup>32</sup>.

The resources needed in education and training and their effectiveness should be a matter of discussion between ministers at the Community level. The Commission also feels that **a high level group should as from 2004 be instructed to review national policies in this area and define the most urgent areas for cooperation**. The action taken under the project "Economics of education" launched by the Commission will help to sustain this reflection, particularly as regards the identification of the areas and groups where investment will be most fruitful. There is also a useful body of studies and analyses from international organisations (such as the OCDE) that should also be fully exploited to enable the Union to draw inspiration from international best practice.

### *2.1.1 Define national policies as a function of the Lisbon objectives*

The move to a knowledge-driven society and economy and the new requirements with regard to lifelong learning call for radical changes in education and training systems. It is not possible to do everything at the same time in such a vast area of reform. The priorities guiding the reforms and the action will be defined by each country as a function of the conditions and constraints specific to it. It is essential for this reflection and the national choices to take full account of the common objectives set at the European level under the Lisbon strategy.

In order to strengthen the coherence between national and Community action and allow more structured cooperation between the Member States, the Commission proposes that **each country should make known its national policy priorities on investment and reform in education and training, for the short and medium term, as well as the contribution to the attainment of the European objectives for 2010 it anticipates on this basis**.

This exercise should make it possible to identify from the point of view of the Lisbon strategy, the key areas which most directly condition the success of each country and that of its citizens in the knowledge-driven economy and society and those which require a more sustained campaign of reform and investment.

### *2.1.2 Mobilise the necessary resources effectively*

In the current economic and budgetary climate, the case for a "substantial increase" in investment in human resources sought by the Lisbon European Council remains stronger than ever, particularly as it conditions future growth. In compliance with the Broad Economic Policy Guidelines for the period 2003 to 2005<sup>33</sup> and the Guidelines for Employment Policies, the Member States must take active measures to promote investment in knowledge, including by improving the quality and efficiency of education and training systems. The priority given in the new guidelines for the employment policies of the Member States to promoting development of human capital and of lifelong learning goes in the same direction<sup>34</sup>. The necessary increase in resources should come from a combination of sources.

- **A higher level of public sector investment in certain key areas:** the Commission has already stressed<sup>35</sup> that targeted increases in public investment can be achieved within the current budgetary constraints; at the national level this can be done by reducing pockets of inefficiency and by rechanelling towards education and training existing resources allocated to other sectors where the economic and social return is more limited;
- **A bigger contribution from the private sector,** particularly in higher education, adult education and continuing training; in these areas where public authorities must preserve their role, the private sector contribution is nevertheless indispensable (given the demands of the knowledge society and the constraints of public budgets) and more justified than in compulsory education; incentive measures to boost investment by the business sector (especially in SMEs) and individuals have for this reason become necessary;
- **At the Community level,** the Structural Funds and the European Investment Bank<sup>36</sup> also play their part in supporting the development of human capital. The Member States should make greater use of them for investments in education and training, taking due account of the objectives set by the Lisbon strategy.

The increase in resources must of course be applied into real terms, that is to say an increase in the number of beneficiaries, in their level of qualifications and in the quality of learning. These factors related to greater efficiency of the actions taken are as crucial as the levels of investment spending themselves.

### *2.1.3 Make the profession of teacher/trainer more attractive*

The success of the reforms undertaken hinges directly on the motivation and the quality of the training of education and training staff. In order to rise to the challenge of replenishing the staffing levels in teaching in the years ahead and of a worsening situation as regards shortage of recruits, steps must be taken to attract the best talent to the teacher/trainer profession, to keep them there (including by encouraging and rewarding good performance<sup>37</sup>) – a question which is even more acute in the acceding

countries. They must also be prepared for their new roles in the knowledge-based society and in transforming the education and training systems.

**Each country should by 2005 put in place an action plan on continuing training for educational staff which is up to these challenges: this training should be substantially consolidated, as has already stressed by the experts of the relevant working group, but it should also be free, organised during working time (as in many other professions) and have a positive impact on career progression.**

## **2.2 Make lifelong learning a concrete reality**

### *2.2.1 Put in place comprehensive, coherent and concerted strategies*

The new requirements of lifelong learning call for radical reform and the implementation of national strategies which are truly global, coherent and concerted, and in step with the European context. The Commission stresses the very precise guidance in this connection defined in its Communication of November 2001 and in the (Education) Council Resolution of June 2002.

**In 2005 by the latest, all countries should have defined a strategy of this kind involving all the actors concerned, as well as a coherent action plan for its implementation covering all the dimensions of the systems (be they formal or non-formal).**

### *2.2.2 Target efforts at the disadvantaged groups*

Young adults, highly qualified workers, the active groups are those best placed with regard to lifelong learning. They are aware of the advantages of updating their competences and are therefore more motivated. Conversely, people with low levels of education and qualification, older workers, marginalised population groups or those living in disadvantaged areas or outlying regions, and people with learning difficulties are often comparatively unacquainted with the opportunities that exist through education and training. They consider institutions and programmes of low relevance in relation to their needs. **One of the fundamental challenges will be to increase the awareness of the disadvantaged groups of the advantages of education and training and to make the systems more attractive, more accessible and tailored more closely to their needs.** The Community follow-up to the implementation of national lifelong learning strategies will pay particular attention to this aspect.

### *2.2.3 Apply common European references and principles*

National strategies must be rooted in the European context. This is a precondition if they are to be fully effective nationally and coherent at European level. Common European references and principles are very useful for developing mutual trust between the key players and thus encouraging reform. These common references are being developed or adopted with regard to a number of major aspects of lifelong learning. They relate to: the single framework for transparency (the new "Europass"); common principles for the validation of non-formal and informal learning<sup>38</sup>; the definition of the key competences everyone must acquire and on which the successful outcome of any further learning depends<sup>39</sup>; the definition of the competences and qualifications needed by teachers and trainers in order to fulfil their new roles<sup>40</sup>; and the basic principles to be observed for good quality mobility<sup>41</sup>.

**These common references should be in place by 2005 and their systematic use in all countries is a matter of priority.**

## **2.3 Establish a Europe of education and training**

### *2.3.1 The need for a European qualifications framework*

The European labour market cannot function effectively and smoothly without a European framework to stand as a common reference for the recognition of qualifications. It is a matter which has also significant implications for every member of society and society itself: equal opportunities on the European labour market and the development of European citizenship also depend on the extent to which the people of Europe will really be able to have their diplomas and certificates recognised everywhere in the European Union.

A framework of this kind in Europe must naturally be based on the national frameworks which themselves must be coherent and cover the various levels of initial and continuing training. The necessary mutual trust can only stem from quality assurance instruments which are appropriately compatible and credible so that they can be mutually validated. In this connection, the "common framework" for the development of quality vocational training (as part of the follow-up to the Copenhagen Declaration) and the creation of a platform for quality assurance or accreditation in higher education (in conjunction with the Bologna process) should be top priorities for Europe. **The Commission is determined to make all necessary efforts to achieve this by 2005 and expects the Member States to do likewise.**

### *2.3.2 Consolidate the European dimension of education*

Fifty years after its launch, the European project still has not succeeded in attracting the appropriate level of interest and the full support of the people of the Union. Progress has been made, particularly thanks to the impact of Community actions and programmes in the areas of education, training and youth, but despite that surveys regularly bring confirmation that there is an urgent need to strengthen the people-focused basis of the European Union<sup>42</sup>. This aspect was a focal point of the work of the Convention on the future of Europe<sup>43</sup>, one of the central ambitions of which was to get the people of Europe more firmly behind the idea of European integration. School has a fundamental role to play allowing everyone to be informed and understand the meaning of European integration.

**By 2010, all education systems should ensure that their pupils have by the end of their secondary education the knowledge and competences they need** to prepare them for their role as a future citizen in Europe. This entails amongst other things stepping up language teaching at all levels and strengthening the European dimension in the training of teachers and in the primary and secondary curriculum.

While there are many interesting initiatives being undertaken at national level, they often suffer from a lack of coordination and effectiveness. **The definition by 2005 of a Community reference regarding a profile of European knowledge and competences to be acquired by pupils should make it possible to support and facilitate national action in this area**, both on the legislative front and in terms of the production of appropriate materials and instruments.

## 2.4 Give "Education & Training 2010" its rightful place

### 2.4.1 *Raise the profile of the European work programme*

"Education and Training 2010" will succeed at the national and Community levels only if it is given its rightful place in the overall Lisbon strategy. The objectives set for education and training remain fully valid for the years ahead. They must naturally be flexible enough to adapt to the variable events of reality and to changing needs.

The experience of the first two years of its implementation shows the need to raise the profile and status of the European work programme at all levels. If they are to be a driving force for the Lisbon strategy, **the essential role of education and training must be reasserted in the European Council conclusions. Similarly, it is vital that "Education and Training 2010" becomes a central element in the formulation of national policies.**

In the future, countries should better harness energies and make good the current deficit as regards the involvement of all the stakeholders and civil society in general, in order to increase at the national level the visibility and impact of the European work programme. Ongoing campaigns to provide information and to make optimum use of it will be needed at national and Community levels alike.

### 2.4.2 *Implement the process more effectively*

- In the future, it is essential to exploit the open method of coordination to the full in order to maximise its effectiveness. "Education & Training 2010" is a complex programme for which considerable human and financial resources have been assembled, making it possible to pave the way for cooperation. For the period ahead, after consultation with the working groups (including those following up the Copenhagen Declaration), the Commission intends to take the steps needed to better define the mandate of the working groups, rationalise methods and enhance synergy. In particular, this means technical debates in greater depth, the meeting of several groups around common issues, and the discussion of the recommendations of the working groups with a wider audience. Direct involvement of the appropriate levels of responsibility will make the activity that much more productive.
- The impact and the visibility of the overall activity also depend on the consistency between the different initiatives taken in education and training. By 2006, the incorporation of actions relating to education and vocational training, lifelong learning and mobility should be a reality. For the 31 countries involved in "Education and Training 2010", there should also be closer coordination with the Bologna process. **Generally speaking, the case for unintegrated parallel action will be increasingly weaker in the future, be it in higher education or in vocational training, unless it is manifestly more ambitious and more effective.**

- The work carried out to date has pinpointed the key areas for which there is a lack of relevant and comparable data for monitoring progress in relation to the objectives set. The quality of the existing indicators needs to be improved and priorities should be established for the development of a restricted number of new indicators, taking due account of the work carried out by other bodies active in this area. On this basis, the Standing Group on Indicators and all the working groups in place will be invited to propose by mid-2004 a limited list of new indicators to be developed and the practicalities they entail<sup>44</sup>.

## **CONCLUSION: STRENGTHEN COOPERATION AND MONITORING OF PROGRESS**

The reality of the current situation and the urgency of the action needed in education and training cannot be ignored by the Heads of State and Government at the next European Council scheduled for Spring 2004. While it is important for the European Council to reassert the central role of education and training policies in the success of the Lisbon strategy, it is essential that it also makes an appeal for an acceleration of national reform and enhanced cooperation in these areas at the European level. All the necessary resources must be utilised, including those stemming from the Structural Funds, the EIB and the future generation of Community education and training programmes so that substantial progress can be made in the years ahead.

Given that time is running out for taking effective action before 2010 and in order to maintain the momentum which has been built up, the Commission feels it is essential to achieve a more structured and more systematic follow-up to progress made. It proposes that the **Member States submit to it each year as from 2004 a consolidated report on all the action they take on education and training which can contribute to the Lisbon strategy in view of the objectives set, results achieved, and the four above-mentioned strategic levers**. Under the integrated approach, this report would replace the specific reports currently asked for on mobility and lifelong learning strategies and could also (as from the Berlin ministerial meeting) include the Bologna process. This is of course without prejudice to the Member States' annual reporting on how they implement the lifelong learning aspect of the Employment Guidelines and country-specific Recommendations through the National Action Plans for Employment. These national reports on the contribution of education and training to the Lisbon strategy should be articulated in a coordinated way, together with those on the European employment and social inclusion policies.

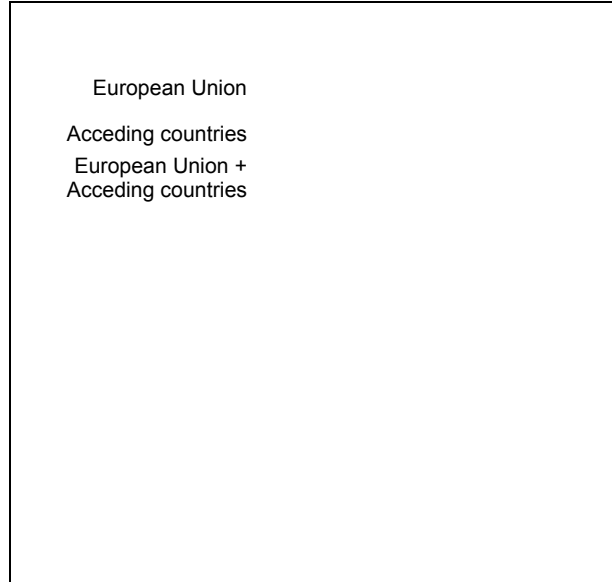
This would represent a considerable step forward in increasing the impact and efficiency of the open coordination method in education and training. The Commission could analyse these reports and produce an annual document containing useful observations for all actors and decision-makers. The document would provide a yearly contribution to the Synthesis Report from the Commission to European Spring Council. It could also serve as a basis for the preparation of a joint report of the Commission and (Education) Council to be presented every two years, starting from 2006, as part of the preparation of the Spring European Council.

In the intervening years (the odd years) the national reports could, in agreement with the Commission and the (Education) Council, develop certain aspects or themes of education and training, particularly relevant to the education, economic and social objectives of Lisbon.

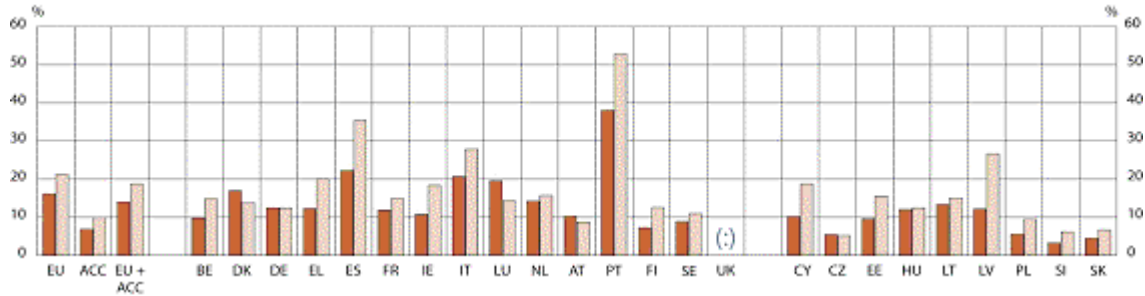
# **STATISTICAL ANNEX**

## EARLY SCHOOL LEAVERS

**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  
Additional notes: EU aggregates without UK, a definition of upper secondary school completion has still not been agreed. Malta: Data not available.



Females Males

	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

The current EU average rate of early school leavers is 18.8%. In acceding countries, only around 8.4 % of the population aged 18-24 leave school with only lower secondary education. These countries thus perform better than EU-countries when it comes to the percentage of early school leavers. In a number of countries the percentage of early school leavers has been decreasing steadily since the early 1990's. This is the case for instance in Greece, France and Luxembourg. In Denmark and Portugal, however, a downward trend in the beginning of the 90's has been reversed from the mid 90's, so the rate of early school leavers is close to the level of the beginning of the 90's. Achieving the European benchmark on early school leavers will require substantial action and sustained commitment. Experiences in the better performing countries - for instance the accession countries - might serve as inspiration for new and innovative actions in this field.

**GRADUATES IN MATHEMATICS, SCIENCE AND TECHNOLOGY**

**Total number of tertiary (ISCED 5A, 5B and 6) graduates  
from mathematic, science and technology fields (2001)**



Data source: Eurostat, UOE

Additional notes: DK, FR, IT, L, FI, UK and CY: data refer to 2000

Greece: Data not available.

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

Females Males

	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

The available data<sup>45</sup> 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 European benchmark is naturally higher and EU-25 will need to increase the total number of graduates in the fields by nearly 100.000 per year.

When studying enrolment rates in mathematics, science and technology at tertiary level, it is clear, as underlined in the Council Conclusion on European Benchmarks, that the gender imbalance is a highly relevant issue. In fact, Ireland is the only country where more than 20 % of the females are enrolled in these fields. By contrast, the Netherlands and Belgium have less than 10%. The situation is similar in a number of acceding countries (Cyprus, Hungary, Latvia and Malta). Improving the gender balance of students in the area of mathematics, science and technology will contribute to the aim of increasing the overall number of graduates in these fields. When analysing the proportion of males enrolled, it appears clearly that these fields of study are most popular among males in Ireland and Finland (more than 50% of male students are enrolled).

These differences in enrolment rates result in variations from one country to another in terms of the proportion of mathematics, science and technology graduates as a percentage of all graduates. In Japan and the US, the share of graduates in mathematics, science and technology is actually below the share in EU-15. Europe “produces” in fact more science graduates (PhDs) than the United States but has fewer researchers on the labour market. The Commission has proposed a range of measures to help prevent Europe’s best scientists abandoning their careers in Europe in favour of more lucrative opportunities in the US and elsewhere<sup>46</sup>. More generally, the environment for the employment of science and technology graduates as researchers, in highly skilled, innovative sectors, needs to be improved in the EU. This will require significant progress in areas such as the functioning of labour markets, innovative capacity and the climate for entrepreneurship.

## COMPLETION OF UPPER SECONDARY EDUCATION

### 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: EU aggregates without UK, a definition of upper secondary school completion has still not been agreed. Malta: data not available

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

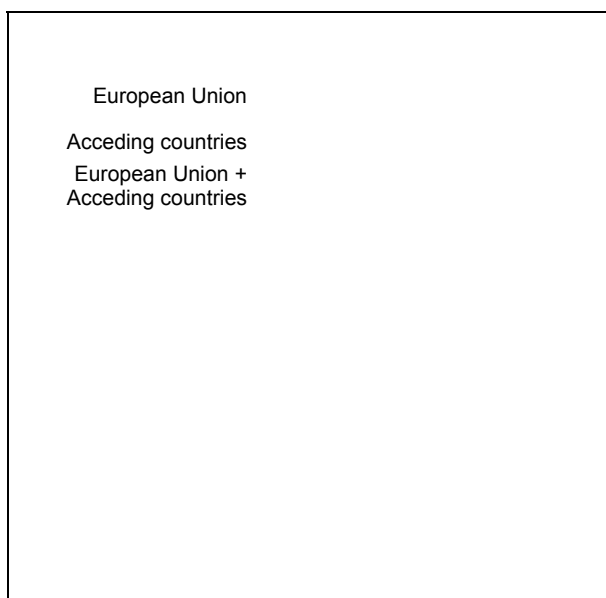
Data source: Eurostat, Labour force survey

The figure 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 Member countries. The current average level in the Union is 75.4%. It should be kept in mind that while several countries have only increased these figures slightly in recent years, others have made significant progress, like, for instance, Portugal. On average, in the Union and the acceding countries, almost 79% of 22-year-olds have successfully completed at least upper secondary education.

Several EU countries are at present achieving completion rates beyond 80% such as Belgium, France, Greece, Ireland, Austria, Finland and Sweden. Conversely, Portugal has the lowest percentage (45 %), a level that should however be seen in the context of its rapid growth during recent years. In all the acceding countries, the completion rate for upper secondary education lies around the EU average figure or even above. 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 in the acceding countries is 90.1 which is already above the target set for the Union for 2010.

## KEY COMPETENCIES

### Percentage of pupils with reading literacy proficiency level 1 and lower (on 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 old in level 1 or below in the European Union (15) is equal to 17.2. Therefore, the benchmark has been fixed at 13.7.

EU	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	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	CZ	EE	CY	LV	LT	HU	MT	PL	RO	SI	SK	JP	US
14.5	22.1	17.5	40.3	17.5	(:)	(:)	30.1	(:)	22.7	(:)	23.2	41.3	(:)	(:)	10.1	17.9

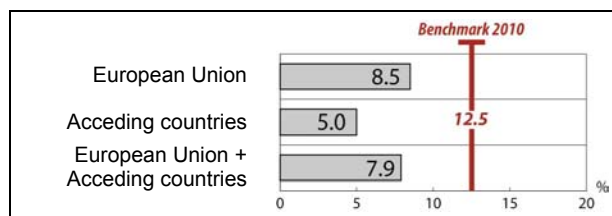
Data source: OECD, Pisa 2000 database

Finland, Netherlands, Ireland, Austria, Sweden and UK all have less than 15% of their 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, Greece and Portugal, 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% must also be underlined.

The table shows that, in average, some 17.2% of the 15 year-olds are low performers in the member countries. According to the European benchmark adopted by the Council, this proportion should decrease by 20% and reach 13.7 % in 2010. To reach such a level 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 years olds. In this field, it is very clear that some countries have very good experience and practices (ex: Finland and the Netherlands) to share to the benefit of others.

## PARTICIPATION IN LIFELONG LEARNING

### 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  
*Additional note:* Malta: Data not available

	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	9.2	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

The average EU-15 percentage is 8,5%, meaning that, for any period of a month, 8-9 out of 100 people will have participated in education and training activities. The average trend across EU-15 has been steady for the last four years. It will be however lowered with the enlargement, as the estimated average for the acceding countries for 2002 is 5.0. There is a very high variation between countries. The four best performing countries are the UK, Sweden, Finland and Denmark, followed closely by the Netherlands. The average level of the best performing countries is above 20% while much lower levels are registered in a number of Member States and of acceding countries. In general, women participate more than men in education and training.

## INVESTMENT IN HUMAN RESOURCES

### Public expenditure on education as a percentage of GDP, 2000

EU-15	EU + ACC	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
4.94	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

IS	LI	NO	ACC	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK
6,04	(:)	6,84	4,86	4,41	5,60	4,38	6,66	4,54	5,78	5,86	4,91	5,06	2,89	(:)	4,15

*Data source:* Eurostat, UOE

In all countries, investment in education is a major spending item in public budgets. The data shows clearly that public expenditure on education and training as a % of GDP differs greatly between individual countries. In Denmark and Sweden, it represents more than 7% of GDP. In a number of countries (Belgium, France, Austria, Portugal, and Finland), expenditure on education accounts for between 5-6% of GDP. In Germany, Greece, Spain, Italy, Ireland, the Netherlands and in the UK, this percentage is lower than 5 %. Education is also an important spending item in the acceding countries. In Estonia and Lithuania, public expenditure on education budget represents more than 6% of GDP, while in Cyprus, Latvia and Poland, it is between 5 and 6% of GDP. It is in the candidate country, Romania, that the lowest level of public expenditure on education relative to GDP is recorded.

During the five years since 1995, public expenditure as a proportion of GDP has tended to fall slightly, rising in only four countries. The only substantial increase has been in the case of Greece while Ireland, Finland and the UK have seen significant reductions<sup>47</sup>. This must of course be seen in the context of demographic development, since the bulk of public expenditure on education is aimed at young people, and the share of the population aged under 25 in the EU declined by more than 1.5 percentage points between 1995 and 2000. At the same time, the data show that the proportion of young people in education and the qualifications they achieve continued to grow. Nevertheless, the data on public expenditure indicate that the public sector cannot be relied upon to

shoulder the entire financial burden of meeting the Lisbon objective of "a substantial annual increase in the per capita investment in human resources". Declining public expenditure on education in relation to GDP indicates that the private sector may have to assume greater responsibility for the investments in education and training required to meet the challenges of the knowledge society.

## NOTES

<sup>1</sup> De la Fuente and Ciccone "*Human Capital in a global and knowledge-based economy*", final report for DG Employment and Social Affairs, European Commission, 2002.

<sup>2</sup> Unemployment rates decrease with higher levels of education. This results in a reduction of the related economic and social costs. Equally, the higher the levels of education, the higher employment rates of the working population are.

<sup>3</sup> "Education" Council report to the European Council on the "concrete future objectives of education and training systems" <http://register.consilium.eu.int/pdf/en/01/st05/05980f1.pdf>

<sup>4</sup> Detailed work programme on the follow-up of the objectives of education and training systems in Europe <http://ue.eu.int/newsroom/related.asp?BID=75&GRP=4280&LANG=1>

<sup>5</sup> Point 43 of the conclusions of the Barcelona European Council held on 15 and 16 March 2002.

<sup>6</sup> Implementation of the work programme on the future objectives of education and training systems, Commission staff services paper, SEC (2003) 1250.

<sup>7</sup> Recommendation of 10 July 2001 of the European Parliament and of the Council "on the mobility within the Community of students, people in training, volunteers, teachers and trainers" (OJ L 215 of 9 August 2001) and the Action plan for mobility (OJ C 371 of 23 December 2000).

<sup>8</sup> Council Resolution of 27.06.2003 on lifelong learning, OJ C 163 of 9 July 2002.

<sup>9</sup> Declaration of the Ministers with responsibility for vocational education and training and of the Commission meeting in Copenhagen on 29-30 November 2002 and concerning enhanced European cooperation in the area of vocational education and training ([http://europa.eu.int/comm/education/copenhagen/index\\_en.html](http://europa.eu.int/comm/education/copenhagen/index_en.html)). It is based on a Resolution of the (Education) Council of 19 December 2002 on the same subject (OJ C 013 of 18 January 2003).

<sup>10</sup> Commission Communication "Investing efficiently in education and training: an imperative for Europe". COM (2002) 779 of 10 January 2003.

<sup>11</sup> Commission Communication on "The role of the universities in Europe of Knowledge" COM (2003) 58 final of 5 February 2003.

<sup>12</sup> Commission Communication on "Researchers in the European Research Area: one profession, multiple careers. COM (2003) 436 of 18 July 2003.

<sup>13</sup> Point 19 of the Conclusion of the Brussels European Council, 16-17 October 2003.

<sup>14</sup> Council Decision of 22 July 2003 on the guidelines for employment policy in the Member States (OJ L 197, 5 August 2003).

<sup>15</sup> The 15 Member States, and, in the wake of the Bratislava ministerial declaration of June 2002, the 10 acceding countries, the three candidate countries and three EFTA/EEA countries (Iceland, Liechtenstein and Norway).

<sup>16</sup> "The e-learning action plan: designing tomorrow's education", COM (2001) 172 of 28 March 2001. Decision of the European Parliament and of the Council adopting a multi-annual programme (2004-2006) for the effective integration of information and communication technologies (ICT) in education and training systems in Europe (e-learning programme), COM (2002) 751 of 19 December 2002.

<sup>17</sup> Promoting language learning and linguistic diversity. An action plan 2004-2006. COM (2003) 449 of 24 July 2003.

<sup>18</sup> Proposal for a European Parliament and Council Decision establishing a programme for the enhancement of quality in higher education and the promotion of intercultural understanding through cooperation with third countries (Erasmus World) (2004-2008). COM (2002) 401 of 17 July 2003.

<sup>19</sup> These are the reports of the working groups set up by the Commission as part of the implementation of the programme of work on the objectives and follow-up of the Copenhagen Declaration. All these reports are available at the following address [http://europa.eu.int/comm/education/index\\_en.html](http://europa.eu.int/comm/education/index_en.html).

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<sup>20</sup> These are national reports on the implementation of the Resolution on lifelong learning. A summary is available at the following address [http://europa.eu.int/comm/education/index\\_en.html](http://europa.eu.int/comm/education/index_en.html).

<sup>21</sup> Joint Employment Report 2002. COM(2002) 621 of 13 November 2002.

<sup>22</sup> This is the case in particular of: coordination between all the parties concerned; the development of flexible learning pathways and bridges between the different systems and learning frameworks; a permanent culture of learning from the earliest possible age; public-private partnerships; and learning at the place of work.

<sup>23</sup> Establishing a European area of higher education. Communiqué from the Conference of European ministers with responsibility for higher education, held in Berlin on 19 September 2003.

<sup>24</sup> Commission Communication: "The role of the universities in Europe of knowledge", COM (2003) 58 final of 5 February 2003.

<sup>25</sup> The Commission, on the basis of the national reports, will submit a report on the implementation of the Recommendation of the European Parliament and of the Council on mobility in December 2003 (in accordance with section III c).

<sup>26</sup> Commission Communication to the Council and the European Parliament "Researchers in the European research area: one profession, multiple careers". COM (2003) 436 of 18 July 2003.

<sup>27</sup> The March 2003 Brussels European Council stressed that it is essential to have « benchmarks to identify best practice and to ensure efficient and effective investment in human resources ».

<sup>28</sup> Council Conclusions of 5 May 2003 on reference levels of European average performance in education and training (benchmarks). OJ C 134 of 7 June 2003.

<sup>29</sup> See the Statistical Annex and, for more comprehensive data, the Commission staff services paper (SEC (2003) 1250).

<sup>30</sup> "Education at a glance: OECD indicators" (2003 edition).

<sup>31</sup> The Commission is continuing its work to define by the end of 2004 a language proficiency indicator in accordance with the conclusions of the March 2002 Barcelona European Council.

<sup>32</sup> Informal meeting of the Ministers of Education on "Human capital" held on 27 & 28 October 2003.

<sup>33</sup> Council Recommendation of 26 June 2003 on the broad guidelines of the economic policies of the Member States and the Community (for the 2003-2005 period). OJ L 195 of 1 August 2003.

<sup>34</sup> Council Decision of 22 July 2003 on guidelines for the employment policies of the Member States. OJ L 197 of 5 August 2003.

<sup>35</sup> Commission Communication: "Invest effectively in education and training: an imperative for Europe" COM (2002) 779 of 10 January 2003.

<sup>36</sup> The EIB's "Innovation 2010" initiative.

<sup>37</sup> "Education at a glance: OECD indicators" (2003 edition), page 375.

<sup>38</sup> European framework for the validation of non-formal and informal learning – Copenhagen Declaration of 30 November 2002.

<sup>39</sup> Development of a common framework of key skills, cf. Conclusions of the Lisbon European Council and the report of the corresponding working group (Working Group B of "Education & Training 2010").

<sup>40</sup> European framework for the skills and qualifications of teachers, Communication on LLL and report of the corresponding working group (Working Group A of "Education & Training 2010").

<sup>41</sup> Charter on the quality of mobility. Cf. conclusions of the corresponding working group "Working Group F of "Education & Training 2010" (Commission staff services paper, section 4.1.7).

<sup>42</sup> "Public Opinion in the European Union". Eurobarometer 59 (June 2003). European Commission, DG Press and Communication.

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<sup>43</sup> Draft Treaty establishing a European constitution, 18 July 2003.

<sup>44</sup> In this context, the following areas should come in for particular attention: key skills, particularly learning to learn; efficient investment in education and training; continuing training of teachers and trainers; social cohesion; information and communication technologies; mobility; initial and continuing vocational training.

<sup>45</sup> Data on graduates, including by gender, presently suffer from a lack of comparability, linked to the double counting of graduates in some countries. They will have to be improved.

<sup>46</sup> Commission Communication to the Council and the European Parliament "Researchers in the European research area: one profession, multiple careers". COM (2003) 436 of 18 July 2003.

<sup>47</sup> 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 while GDP grew by 140% (both in nominal terms). The result is that the ratio fell notwithstanding the fast growth in absolute spending.