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**COMMISSION STAFF WORKING PAPER**  
**NEW INDICATORS ON EDUCATION AND TRAINING**

## 1. INTRODUCTION

1. The Lisbon strategy adopted at the European Council Spring Summit in 2000 set a new strategic goal for the European Union: to become, by 2010, *“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.”*<sup>1</sup>
2. The Lisbon conclusions suggested that the attainment of the strategic goal could best be facilitated by applying a new method of coordination to promote good practice and achieve greater convergence towards the main EU goals. This Open Method of Coordination (OMC) accorded a central role to indicators and benchmarks.
3. The Lisbon conclusions contained a number of benchmarks and guidelines in the area of education and training, as well as in other policy areas.<sup>2</sup> The European Council also invited the Commission to draw up an annual synthesis report on the basis of the Structural Indicators,<sup>3</sup> which should provide the means for an objective assessment of the progress made towards the Lisbon objectives and support the key recommendations of the report. The European Council thereby made it clear that indicators play an important role in monitoring progress towards the achievement of agreed objectives. The development of indicators in the field of education and training is an important contribution to the benchmarking exercise of the Lisbon strategy as a whole, as well as within the OMC on education and training. Therefore the OMC indicators on education and training usefully complement the structural indicators database.
4. Furthermore, the structural indicators and the indicators used in the open method of coordination have the additional function of helping to identify Member States which perform well, thereby making possible the identification of successful policy. In this sense indicators can be used as an instrument for stimulating the exchange of expertise, supporting good practice and inspiring new policy approaches.
5. In the area of education and training, the policy demand for using indicators to measure progress towards the common objectives has been increasing since Lisbon. The Education Council has clearly confirmed its intention to monitor and measure the contribution of education and training to the overall Lisbon strategy through the use of indicators and benchmarks. Consequently, the Detailed Work Programme presented jointly by the Commission and the Council<sup>4</sup> to the European Council meeting in Barcelona in 2002 included an indicative list of 33 indicators for measuring progress towards the agreed 13 concrete objectives of the education and training programme. In Barcelona, the European Council welcomed the Detailed

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<sup>1</sup> Presidency Conclusions – Lisbon European Council 23/24 March 2000, paragraph 5.

<sup>2</sup> For instance, Heads of State and Government called for “a substantial annual increase in per capita investment in human resources” and for “halving, by 2010, the number of 18-24 year olds with only lower-secondary education who are not in education and training”.

<sup>3</sup> <http://europa.eu.int/comm/eurostat>

<sup>4</sup> Presidency Conclusions – Stockholm European Council 23/24 March 2001, paragraph 11.

Work Programme for 2010<sup>5</sup> and added a further objective, namely that of “making [European] education and training systems a world quality reference by 2010.”<sup>6</sup>

6. The Education Council strengthened the role of indicators and benchmarks when, on the basis of a Communication<sup>7</sup> from the Commission, it adopted a list of five reference levels of European average performance (“benchmarks”).<sup>8</sup> In its conclusions the Council reaffirmed the central role of indicators and benchmarks in setting objectives and measuring progress towards the Lisbon goals.
7. In response to these requests, and with the assistance of a Standing Group on Indicators and Benchmarks (SGIB) and of Objective Working Groups composed of experts from all Member States, the Commission established a framework of 29 indicators for measuring progress towards the Common Objectives. A first report, *Progress towards the Common Objectives in Education and Training*, was published in January 2004.<sup>9</sup>

## 2. DEVELOPMENT OF NEW INDICATORS

### 2.1. Request from the Joint Interim Report

8. The Joint Interim Report from the Council and the Commission of February 2004<sup>10</sup> underlined the need to improve the quality and comparability of existing indicators, particularly in the field of lifelong learning. Consequently, it requested the Standing Group on Indicators and Benchmarks and all existing Working Groups to propose, by the end of 2004, a limited list of new indicators for development.
9. The Joint Interim Report suggested that “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 and comparability of the existing indicators need to be improved, particularly in the field of lifelong learning, and regularly reviewed. 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. The Standing Group on Indicators and all the working groups in place are invited to propose by the end of 2004 a limited list of new indicators and their modalities of development. On that basis, the Commission will submit a list of new indicators for consideration to the Council. The following areas should come in for particular attention: key

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<sup>5</sup> *Detailed work programme on the follow-up of the objectives of education and training systems in Europe*, jointly adopted by the Council and Commission on 14 February 2002. (OJ of the European Communities C 142 of 14 June 2002).

<sup>6</sup> Presidency Conclusions - Barcelona European Council 15/16 March 2002, paragraph 43.

<sup>7</sup> European benchmarks in education and training: follow-up to the Lisbon European Council (COM (2002) 629).

<sup>8</sup> Council Conclusions of 5 May 2003 - Official Journal of the European Union C 134/4 (7 June 2003). The five benchmarks adopted cover: early school leavers; graduates in mathematics, science and technology; population having completed upper secondary education; key competencies; and lifelong learning.

<sup>9</sup> [http://europa.eu.int/comm/education/policies/2010/doc/progress\\_towards\\_common\\_objectives\\_en.pdf](http://europa.eu.int/comm/education/policies/2010/doc/progress_towards_common_objectives_en.pdf)

<sup>10</sup> “Education and training 2010”- *The Success of the Lisbon Strategy Hinges on Urgent Reforms*, adopted jointly by the Council and the Commission on 26 February 2004.

competencies, and particularly learning-to-learn; investment efficiency; ICT; mobility and adult education and vocational education and training.”

## **2.2. Strategies to respond to the policy request**

10. To be able to *fulfil* their twin roles of monitoring progress towards agreed objectives and functioning as a means for identifying good practice, indicators have to meet some basic quality criteria: they should be based on pertinent, valid, and comparable data, and they should furthermore be accepted by users as reasonably accurate measures of the matter they address.
11. In order to make best use of existing information and to use resources efficiently, priority should be given to data already available to the Commission or to data from forthcoming EU-level surveys.
12. If underlying data is not available, the development of new indicators is a long-term process. Yet there is a need for monitoring performance and progress in the areas to be covered by new indicators. To address these demands, short-, medium- and long-term activities are proposed.
13. Short-term activities (up to 1 year): These strategies give priority to using existing data sets available on an international level. Indicators based on such data can be prepared in the short term and at low cost.
14. Medium-term activities (1 to 3 years): In some cases data is available on a national or other level but has not yet been examined or processed on an international level. In other cases medium-term action involves adding questions to already existing survey vehicles or launching pilot projects. Medium-term strategies are developed when data availability and quality is assessed as a first step to preparing international data collection. The Commission has initiated studies in some areas to assess data availability and comparability and to develop strategies for collecting data.
15. Long-term activities (3 or more years): If data is needed which is available neither on a national nor an international level, and which cannot be collected administratively, long-term strategies are required: in this case the developmental process will take at least three years. In most long-term strategies data must be generated via surveys.

## **3. ACTION PLAN FOR THE DEVELOPMENT OF NEW INDICATORS**

16. Chapter 3 responds to the request in the Joint Interim Report and to the indicator areas explicitly mentioned there by suggesting strategies in the following fields:
  1. Key competencies, and particularly learning-to-learn
  2. Investment efficiency
  3. Information and Communication Technology (ICT)
  4. Mobility
  5. Adult education
  6. Vocational education and training

An additional three areas are considered of central importance to the Lisbon strategy and for creating a coherent framework of indicators for monitoring progress towards the objectives. Corresponding strategies are therefore proposed in these areas:

7. Languages (requested by the Barcelona Council in 2002.<sup>11</sup>)
8. Professional development of teachers and trainers (a concern which was underlined in the joint interim report as essential for the success of the reform efforts.<sup>12</sup>)
9. Social inclusion and active citizenship (issues which were reinforced within the Lisbon strategy through the new strategy on social inclusion initiated by the Laeken European Council.<sup>13</sup>)

The areas selected for the development of new indicators have been discussed in the respective Working Groups.

### 3.1. Key competencies, and particularly learning-to-learn

17. The Lisbon conclusions had already referred to the concept of key competencies and, in particular, basic skills in the subject of information technologies, while calling more specifically for *“a European framework [that should] define the new basic skills to be provided through lifelong learning.”*<sup>14</sup> This call was repeated in the Stockholm European Council, which stated that, *“improving basic skills, particularly IT and digital skills is a top priority to make the Union the most competitive and dynamic knowledge-based economy in the world.”*<sup>15</sup> Moreover, the Barcelona European Council called for further action in a number of fields, including the *“mastery of basic skills, in particular by teaching at least two foreign languages from a very early age: establishment of a linguistic competence indicator in 2003; development of digital literacy: generalisation of an Internet and computer user’s certificate for secondary school pupils.”*<sup>16</sup>
18. Consequently, the area of basic skills was identified as a priority objective in 2001.<sup>17</sup> An expert group was formed to discuss and define the concept. Reflecting the work of the expert group, the Detailed Work Programme has now adopted the term **‘key competencies’** to refer to the competencies seen to be indispensable for the European citizenry in the attainment of personal fulfilment and development and of social inclusion and employability. The Detailed Work Programme mentions a number of key competencies. Since then a framework of key competencies has been developed, comprising the following: communication in the mother tongue, communication in foreign languages, mathematical literacy and basic competence in

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<sup>11</sup> Presidency Conclusions – Barcelona 15/16 March 2002, paragraph 44.

<sup>12</sup> See *“Education and training 2010” - The Success of the Lisbon Strategy Hinges on Urgent Reforms*, p. 24.

<sup>13</sup> Presidency Conclusions- Laeken 14/15 December 2001, paragraphs 25-30.

<sup>14</sup> Presidency Conclusions, Lisbon European Council, paragraphs 25 and 26.

<sup>15</sup> Presidency Conclusion, Stockholm European Council, paragraph 10.

<sup>16</sup> Presidency Conclusions, Barcelona European Council, paragraph 44.

<sup>17</sup> The concrete future objectives of education and training systems, 5980/01 14 February 2001.

science and technology, ICT, learning-to-learn, interpersonal and civic competence, entrepreneurship, and cultural awareness.<sup>18</sup>

19. The special role of ‘learning-to-learn’ among the key competencies is obvious, as the ability and the desire to learn are fundamental to the acquisition of all other competencies. Moreover, sustaining the ability to learn, and hence the curiosity about and interest in new skills and developments, is essential for lifelong learning. An indicator assessing learning-to-learn might then function as a gauge of the capacity to acquire the other key competencies and of the potential for lifelong learning. Consequently, learning-to-learn has already been prioritised in the Detailed Work Programme as an area requiring the development of a new indicator.

#### Indicator availability at present

20. The European Commission’s interest in being able to measure learning-to-learn competencies stretches back to the end of the 1990s. Based on theoretical and empirical research in learning-to-learn conducted in Finland since 1996, the European Commission funded a two-conference project in 1999 in an effort to find a consensus on a common indicator for learning-to-learn competencies. The conferences centred on the methodology developed by the University of Helsinki Centre for Educational Assessment (CEA) and on the prospects this new mode of assessment offered for educational evaluation.
21. In May 2002 another meeting was arranged in Brussels by the Commission to bring together the partners of the 1999 project to review the Finnish experience in learning-to-learn assessment in the light of the Detailed Work Programme and possible new educational indicators. Further to this, a new transnational partnership was formed to prepare a strategic paper summarizing the current situation and outlining a European indicator for learning-to-learn for the Commission’s Standing Group on Indicators and Benchmarks, supported by the Detailed Work Programme and the work of the Commission expert group.
22. In the Standing Group on Indicators and Benchmarks a first discussion of the development of a common European indicator based on the Finnish methodology<sup>19</sup> for learning-to-learn took place in a workshop in Frascati in October 2003.

#### Activities for developing new indicators

23. Short term

On the basis of the discussions in the Standing Group, the Commission suggests launching a pilot project in 2005 based on previous experiences. A first step would be to agree on a conceptual framework and a structure to be piloted. This structure

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<sup>18</sup> Working Group B (Basic Skills) has revised the list of key competencies in the Detailed Work Programme and come up with this framework of key competencies. For details see Working Group B’s progress report (November 2003) on [http://europa.eu.int/comm/education/policies/2010/doc/basic-skills\\_en.pdf](http://europa.eu.int/comm/education/policies/2010/doc/basic-skills_en.pdf).

<sup>19</sup> The framework has been translated and used in Sweden and the Netherlands. Austria has also shown an interest in implementing this framework in evaluation of the performance of schools.

should then be piloted in a limited number of European schools. Please see chapter 4 for a description of the organisational matters entailed.

24. Medium term

- Evaluation in 2006 of the pilot project carried out in 2005.
- Conclusion and recommendation regarding the feasibility of a European-wide indicator on learning-to-learn.
- Report to the Council on conclusions of the pilot project, including recommendations for next steps.

25. Long term

If a decision to launch a Europe-wide survey on learning-to-learn skills were taken by the Commission and the Council, such a survey could be prepared and carried out between 2007 and 2009.

### 3.2. Investment efficiency

26. Education and training are very resource-intensive in terms of time and money. Achieving the ambitious objective of providing life-wide and lifelong learning opportunities in an increasingly knowledge-based society will require increased investment in education and training. The Lisbon Council conclusions therefore called for a substantial annual increase in per capita investment in human resources.

27. However, since means are scarce, it is important to invest efficiently in human capital. ‘Making best use of resources’ is thus listed as one of the 13 objectives in the Detailed Work Programme, which states that “*the education and training sector must use the pressure on finance to encourage an as efficient as possible distribution and use of resources, and to achieve the highest levels of quality.*”<sup>20</sup> This imperative has been reiterated many times: the Communication on efficient investment in education and training illustrated the need to increase the efficiency of spending;<sup>21</sup> the Joint Interim Report of February 2004 named the concentration of reforms and investment on key areas as one of the three levers for success;<sup>22</sup> and the Conclusions of the European Council of 25/26 March 2004<sup>23</sup> stressed that investing more, and more effectively, in human capital is critical to growth and productivity as well as to the promotion of social integration and inclusion.

28. All resources spent on education and training can be considered investment, since they yield returns in the future. However, the relationship between the investment and the return is extremely difficult to define. The lack of consensus on indicators for

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<sup>20</sup> See p.24 in the *Detailed Work Programme on the follow-up of the objectives of education and training systems in Europe*, jointly adopted by the Council and Commission on 14 February 2002.

<sup>21</sup> Commission Communication: ‘Investing efficiently in education and training: an imperative for Europe’, COM(2002) 779 final, 10 January 2003.

<sup>22</sup> See “*Education and Training 2010: The Success of the Lisbon Strategy hinges on Urgent Reforms*”, February 2004, p.22.

<sup>23</sup> Presidency Conclusions, Brussels European Council 25/26 March 2004, paragraph 39.

the efficiency of education and training systems meant that the five expenditure-related indicators used in the first issue of the report *Progress towards the Common Objectives in Education and Training* covered the financial input into education and training, but not its actual effectiveness (in the sense of the ratio between input and output).

#### Indicator availability at present

29. It is evident that efficiency of education and training systems is a complex issue and cannot be covered by a single indicator. The Standing Group has proposed that, as a short-term strategy, new indicators would be based on existing data, but that new data sets would be developed in the long term.

#### Activities for developing new indicators

##### *Short term*

30. The following additional indicator is proposed for inclusion in future issues of the progress report:

- Costs per graduate

Two further indicators will be developed for the analysis of efficiency:

- Dropout rates in tertiary education
- Average duration of tertiary studies

31. These indicators either compare a standard input (start of a study) to variable outputs (completion/dropout rates) or a standard output (graduate) to a variable input (duration, costs of studies). While the costs in the short term will refer just to public spending, in the long term they should also include private spending.

32. A study has been put out to tender in 2004 and will be carried out in 2005, to explore ways in which to improve the availability and quality of data on private household spending on education and training.

##### *Medium term*

33. Data for the indicators covering dropout rates in tertiary education and average duration of tertiary studies is not available from Eurostat, but rather from a once-off collection of data by OECD, and only for less than half of EU member states. These data sets must therefore be included in the medium term in the Eurostat education data collection. Efforts are required on the part of member states to improve the availability and quality of these data sets, which could be obtained to a large extent from administrative sources.

34. It is further proposed to assemble a set of indicators that could be used as the basis for a composite indicator on efficiency in education and training. A study will be launched to improve data collection on enterprise spending via the Continuing Vocational Training Survey (CVTS).

### *Long term*

35. Based on the findings of the study on private household spending and the outcome of the third CVTS, which will be carried out in 2006, private investment data will be improved as an indicator of its own and to provide more complete input into an efficiency indicator. Based on data produced by the forthcoming third CVTS, additional indicators on efficiency in vocational education and training (VET) will be developed.

### **3.3. Information and Communication Technology**

36. The European Council in Lisbon emphasized that every citizen should be equipped with the skills needed to live and work in the new information society.<sup>24</sup> In later European Councils, (i.e. Stockholm<sup>25</sup>, Barcelona<sup>26</sup> and Brussels<sup>27</sup>) this goal was reiterated, with particular stress on the significance of Information and Communication Technology (ICT) skills in avoiding exclusion from the labour market. Consequently, the educational use of ICT plays a central role in the Commission's e-learning strategy, as set out in its e-learning action plan<sup>28</sup> and in the eLearning Programme<sup>29</sup>, one of whose four action lines is fostering digital literacy.
37. However, the working group on ICT insisted that current ICT indicators did not adequately monitor the advance of information technology use, and so the report *Progress towards the common objectives in education and training – indicators and benchmarks* in 2004 did not include any indicators to measure progress in this area. Accordingly, to ensure adequate monitoring of progress in developing ICT-literacy, it will be necessary to develop appropriate indicators for inclusion and analysis in subsequent reports.

#### Indicator availability at present

38. The working group on ICT has suggested that the current indicators in this field suffer from an over-emphasis on infrastructure at the expense of quality of use of ICT. The group warns that indicators that focus exclusively on infrastructure may interfere with the creation of appropriate investment policies in this area. The working group stressed the importance not only of “searching where there is light” but also of focussing on what should be learnt from the use, impact and efficiency of ICT in education and training. Accordingly, indicators should focus on the learning outcomes from ICT and the integration of ICT in teaching and learning programmes.

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<sup>24</sup> Presidency Conclusions, Lisbon European Council 23/24 March 2000, paragraph 9.

<sup>25</sup> Presidency Conclusions, Stockholm 23/24 March 2001, paragraph 10: “Improving basic skills, particularly IT and digital skills, is a top priority to make the Union the most competitive and dynamic knowledge-based economy in the world.”

<sup>26</sup> Presidency Conclusions, Barcelona 15/16 March 2002, paragraph 33: “Ensuring that all citizens, and in particular groups such as unemployed women, are well equipped with basic qualifications, especially those linked with ICTs”.

<sup>27</sup> Presidency Conclusions, Brussels 20/21 March 2003, paragraph 40, where the European Council calls for the development of digital literacy and lifelong learning.

<sup>28</sup> *The e-Learning Action Plan, designing tomorrow's education*, March 2001

<sup>29</sup> eLearning Programme Decision No 2318/2003/EC of the European Parliament and of the Council of 5 December 2003

## Activities for developing new indicators

### *Short term*

39. The Commission will use currently available data from TIMSS, PISA, PIRLS, and the Annual Household Survey on ICT use (Eurostat). The use of sources with a reference year earlier than 2001 should be avoided as ICT is a fast-moving field and data becomes obsolete very fast.
40. In the context of the benchmarking of the eEurope2005 Action Plan, an e-learning survey (head teachers and teachers, with two years coverage) will be carried out, probably at the beginning of 2005. Its first objective is the benchmarking of the two eLearning indicators (percentage of schools connected to Internet, and with broadband connection; ratio pupils/PC), continuing the series of two similar surveys carried out in 2001 and 2002, but it will also include questions on attitude and usage. Furthermore, the study will look at how ICTs are used in schools.

### *Medium term*

41. Where possible, the Commission will ensure that surveys that are currently being developed will provide better information on areas that are not covered today by existing data, such as the learning outcomes from ICT, and the integration of ICT in teaching and learning programmes. A number of surveys will be analysed:
  - Eurostat (the Adult Education Survey): the questionnaire is currently being developed in co-operation with a group on national experts led by Eurostat. The final version should be adopted in the beginning of 2005. The ICT content of the first draft of the questionnaire should be examined.
  - Eurostat survey on ICT usage by household and especially the implementation of variables on e-skills and on the use of ICT for educational purposes.
  - IEA<sup>30</sup> is currently planning a study (SITES 2006) focusing on the quantitative evaluation and observation of the impact that emerging methods of using the ICT in instruction have on knowledge and skills of students.
42. The Joint Research Centre will be asked to examine each of these sources in more detail, and to prepare proposals on which source to give preference and what data to develop in the future. The JRC should also examine alternative ways of developing indicators on the learning outcomes and curriculum integration of ICT.

### *Long term*

The Commission will consider the development of indicators to identify the impact of ICT in education and training in terms of learning outcomes, and in terms of the integration of ICT in teaching and learning programmes.

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<sup>30</sup> The International Association for the Evaluation of Educational Achievement

### 3.4. Mobility

43. The promotion of transnational mobility for learning purposes is assuming ever greater importance in the political priorities of the European Union. Such mobility contributes to the feeling of belonging to a European community and to the development of a European consciousness; it enhances the professional and personal skills of its citizenry; and it consequently increases the competitiveness of the European economy in relation to the rest of the world. Mobility also has the potential to equip people with the confidence and skills to live together in multi-ethnic and multi-lingual societies – both in Europe as a whole and within their own countries.
44. However, it is not possible at present to keep track of progress towards the objective of “increasing mobility and exchanges” as spelled out in the Detailed Work Programme. Two perspectives on mobility appear to be needed:
- Mobility within the European Union. The internationalisation of education and training systems and the mobility of teachers, students and trainees play a major role in establishing a true internal market, i.e. ensuring that the free movement of persons is added to the free movement of goods, services and capital.
  - Mobility to and from the European Union – to chart Europe’s progress towards its goal of becoming the most favoured destination of students and scholars from all over the world (the objective of the Erasmus Mundus programme).

#### Indicator availability at present

45. Current statistics on international mobility outside established mobility programmes (like Erasmus) do not fully cover data needs. As a recent study<sup>31</sup> on statistics on student mobility in the EU showed, the UOE data collection in its present form can not provide the information required.<sup>32</sup> Moreover, there is no regular (i.e. annual) and easily accessible international data source on the movement of students.

#### Activities for developing new indicators

##### *Short-term*

46. In 2005 a study launched in 2004 by DG EAC will provide (for 32 European countries):
- a quantitative overview on foreign students based on existing UOE data collections.

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<sup>31</sup> *Statistics on Student Mobility in Europe (SSME)*, which was carried out by the University of Kassel in co-operation with Eurostat for the European Parliament in 2002.

<sup>31</sup> The focus of the UOE data collection is tertiary students with foreign citizenship. 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 studied. 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.

- a quantitative overview of mobile students.
- detailed information on student mobility in five countries (DE, NL, FI, CZ, UK) with advanced systems of data collection.
- up-to-date information on mobility in Community and national programmes.
- proposals for improving official data collection.

*Medium term*

47. Contribution to the 2005 revision of the UOE (UNESCO, OECD, Eurostat) data collection. The revision should allow the identification of mobile students on the basis of prior education level or main residence status, instead of their citizenship, which is currently the case for most EU countries. First data according to the definitions should be available in April 2006.

*Long term*

48. It is suggested that specific surveys be launched on mobile students, to analyse, for example, the labour market outcomes of mobility or the socio-economic background of mobile students. Survey could also be launched to analyse mobility within Vocational Education and Training.

The planned OECD/EUROSTAT/UNESCO survey on the Careers of Doctorate Holders (CDH) is an example. It could be extended to cover all graduates and could provide valuable input in this long-term strategy.

**3.5. Adult Education**

49. In the light of continuously increasing life-expectancy, later retirement in the future, higher educational attainment levels and a decreasing half-life of acquired knowledge, the importance of adult education is set to increase. However, policy development and monitoring, including the Grundtvig activities, is hampered by a severe lack of internationally comparable data sets. There is thus a need to develop indicators on adult education for inclusion in future updates of the progress report.

Indicator availability at present

50. Data availability for adult education strongly lags behind that for formal education, even though the importance of adult education is increasing. No specific surveys exist yet, but some of the existing enquiries, like the Labour Force survey, provide some general data.

Activities for the development of new indicators

*Short term*

51. The indicator proposed for the short term is “adult participation in lifelong learning.” Data from the Labour Force Survey will be used to better cover adult lifelong

learning. A detailed analysis of the Labour Force Survey (LFS) 2003 ad hoc module on lifelong learning will be completed within a study by autumn 2005.

#### *Medium term*

52. Preparation of the Eurostat survey on Adult Education.<sup>33</sup> Specification of the survey questionnaire to better cover current data needs in the field of participation of adults in learning.
53. Launching of the first survey round in 2006.

#### *Long term*

54. Based on the results of a recent Commission study on adult skills assessment the need to develop a direct adult skills assessment survey for the EU will be assessed. Such a survey would not be implemented before 2008, taking also into account the outcomes of relevant international projects which are currently under development by the OECD (proposal for a Programme for International Assessment of Adult Competencies) or by the UNESCO Institute for Statistics (Literacy Assessment and Monitoring Programme).<sup>34</sup>

### **3.6. Vocational education and training**

55. Although training is a very complex, broad and multi-faceted field of activity, much less statistical data, especially on an international level, is available for monitoring or for policy development, in comparison with school level education. There is thus a need to develop more data sets and indicators on vocational education and training and to integrate them better in Commission reporting. However, as it seems questionable to extend the collection of data from each country for new indicators on vocational education and training, efforts will be focussed on issues which are fundamental to the progress towards the Lisbon goals. Hence, improvements to existing indicators and data collections should be made a priority.
56. There is a need for the improvement of the scope, precision and reliability of VET statistics in order to enable benchmarking of progress in making VET efficient, effective and attractive, as the study Achieving the Lisbon goals: the contribution of VET (Maastricht study) points out. Adequate data and indicators are the key to understanding what is happening in VET and what additional interventions and decision-making are required by all parties involved.

#### Indicator availability at present

57. Existing Eurostat surveys, especially the five-yearly Continuing Vocational Training Survey (CVTS) and the annual UOE collection (covering amongst others initial vocational training) already provide a substantial amount of good quality data. However, there are still many gaps and problems of coverage in this area, where data

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<sup>33</sup> Eurostat survey on Adult Education.  
[http://forum.europa.eu.int/Public/irc/dsis/edtcslibrary?l=/public/measuring\\_lifelong/education\\_survey](http://forum.europa.eu.int/Public/irc/dsis/edtcslibrary?l=/public/measuring_lifelong/education_survey)

<sup>34</sup> [http://www.uis.unesco.org/ec.php?ID=5243\\_2011&ID2=DO\\_TOPIC](http://www.uis.unesco.org/ec.php?ID=5243_2011&ID2=DO_TOPIC)

needs are manifold. Information on participation (including graduation figures) and public and private expenditure in initial and continuing vocational education and training should be further developed. There is, moreover, a lack of information on the outcomes of vocational education and training.

#### Activities for developing new indicators

58. As a basis for indicator development new statistical data should be prepared via new surveys or the modification and better use of existing surveys.

#### *Short term*

59. Analysis of the results of the LFS ad hoc module on Lifelong Learning carried out in 2003.
60. Eurobarometer survey on Continuing Vocational Education and Training to be carried out in November 2004 as a source of complementary data on: attitudes to past and future training, investment, relevance of training to skills requirements, use of information and guidance services.

#### *Medium term*

61. Contribution to the improvement of data coverage of the next Continuing Vocational Training Survey, which is planned for 2006, particularly in the areas of initial training in companies, other forms of continuing vocational training outside courses and costs of training. Moreover, additional data will be available through the new Adult Education Survey. Data from these surveys is expected to be available in 2007.
62. In addition, a proposal will be developed to improve the coverage of public and private expenditure, as well as the current data on learners in initial vocational education and training (IVET) through the Eurostat administrative data collections on education and training systems.
63. As regards data on expenditure in vocational education and training, a strategy to collect more information will be developed on the basis of a study that is currently being carried out.

#### *Long term*

64. In the longer term, data collection on the training of VET trainers and teachers and on the mobility of trainees and trainers will be prepared.

### **3.7. Languages**

65. Improving language learning in the European Union is a key component of the Lisbon strategy and plays a role in many departments, from economic efficiency and the creation of more and better jobs in an increasingly globalised economy to mobility, social inclusion and cohesion. Equally importantly, language learning is considered the key to mutual understanding and respect between ethnic and cultural communities.

66. In the wake of the European Year of Languages in 2001, the Council Resolution of 14 February 2002<sup>35</sup> asked the Commission to draw up proposals for action in the promotion of linguistic diversity and language learning, while ensuring consistency with the implementation of the report on concrete future objectives of education and training systems. The Commission's response was the Action Plan 'Promoting Language Learning and Linguistic Diversity', published in July 2003.
67. The Barcelona European Council of March 2002 called for further action to improve the mastery of basic skills, in particular by teaching at least two foreign languages from a very early age, asking that a linguistic competence indicator be established in 2003.<sup>36</sup> Such an indicator will provide valuable information for decision-makers in education and training. Since the background data for the indicator has to be created via new surveys, work on its development is still ongoing.

#### Indicator availability at present

68. As regards the monitoring of the teaching of at least two foreign languages at an early stage, this is partly covered by the Eurostat data collection on foreign language teaching in schools.
69. As far as the European Indicator of Language Competence is concerned, the first stage of the development is complete. With the help of experts from Member States, the scope of the indicator has been defined. It should, for example, (1) measure language learners' skills in at least two languages other than mother tongue; (2) measure their skills in reading, listening, speaking and writing; and (3) record those skills on the scales of the Common European Framework of Reference for Languages.

#### Activities for developing new indicators

70. To feed this indicator, data must be gathered in a standard format. No existing language test is suitable for this purpose. It will be necessary to create new tests, to administer them to a sample of language learners in participating countries and then to gather and analyse the test results. The Commission will seek external assistance with this project through an open tendering process.

#### *Short term*

71. The terms of reference for a call to tender for a survey of language skills will be prepared in 2004 and is planned for launch in 2005.

#### *Medium term*

72. Depending on the results of the tendering process, a first survey on language skills is planned for 2006-7. The Commission will consult the Council as appropriate and

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<sup>35</sup> Council Resolution of 14 February 2002-*Official Journal of the European Union* C50 of 23 February 2002.

<sup>36</sup> Presidency Conclusions - Barcelona European Council 15/16 March 2002, paragraph 44

ensure that Member States are fully involved during the preparation and implementation of the survey.

*Long term*

73. On the basis of the outcome of the first language survey, a long-term strategy to produce the required data will be implemented.

**3.8. Professional development of teachers**

74. Teachers and trainers play a key role in the transmission of knowledge and the creation of a knowledge-based society. In order for this process to work efficiently, the knowledge of teachers and trainers must be up-to-date. Information on the professional development of teachers is needed within the objectives framework “Education and Training 2010”. There is currently, however, a lack of appropriate indicators for measuring progress in this area. Consequently, new indicators have to be developed.

Indicator availability at present

75. In the objective area of teachers and trainers, the lack of appropriate indicators for measuring progress is apparent, as explained in the Commission Staff Working Paper *Progress towards the common objectives in education and training*.<sup>37</sup> The three indicators selected in this area measure solely issues that relate to shortages/surpluses of teachers and do not address the strategically important area of the quality and content of teaching.

Activities for developing new indicators

*Short term*

76. Eurydice plans to undertake a survey on evaluation practices for teacher education in Member States in 2005. This analysis, which would be qualitative in nature, should look at the kind of internal (self-evaluation) and external evaluation system established in Member States with regard to teacher and trainer education. The analysis should also look at the link between educational reform (for instance curricula reform) and reform of teacher and trainer education as well as gathering information on how individual countries use indicators for supporting policy development in the area of professional development of teachers.

*Medium term*

77. The Commission will examine the possibility of using international instruments covering an adequate number of member states in order to collect information on teachers at school level. An example is the teacher survey that the OECD is aiming to launch. The survey aims to describe the learning environment of students and teachers and teaching effectiveness, and could possibly be linked to PISA 2006.

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<sup>37</sup> [http://europa.eu.int/comm/education/policies/2010/doc/progress\\_towards\\_common\\_objectives\\_en.pdf](http://europa.eu.int/comm/education/policies/2010/doc/progress_towards_common_objectives_en.pdf)

### 3.9. Social inclusion and active citizenship

78. Social inclusion and active citizenship are important policy objectives and crucial to the achievement of the Lisbon goals, namely becoming “*the most competitive and dynamic knowledge-based economy in the world capable of sustaining economic growth with more and better jobs and greater social cohesion.*”<sup>38</sup>
79. It is notable that there is a particular focus in this statement on increasing social cohesion – reinforced by later Councils, especially the Laeken Council in December 2001 and its follow-up – which stipulates that the benefits of increased economic growth should not be confined to a small section of society. This is a particularly important statement in the context of education. While education has the potential to mitigate social disparities, unequal access can widen the social divide, particularly if people from disadvantaged groups participate below the average in education and training or receive low-quality education. Hence, ensuring equal access to lifelong learning is vital, particularly given the large amounts of public spending in this area. Corresponding indicators to develop and monitor policies are thus required.

#### Indicator availability at present

80. Much of the data needed is either already available from existing surveys, like the quarterly EU Labour Force Survey and the OECD PISA-study, or will be available from surveys currently being launched, like the annual EU-SILC (Statistics on Income and Living Conditions) survey. The gender dimension is especially well covered by the data available. There are still, however, considerable gaps as regards learners with special needs and in relation to indicators on active citizenship.

#### Activities for developing new indicators

81. Because of the many dimensions of this subject, data needs are complex and manifold, and short, medium and long term strategies are required to cover all needs.

#### *Short term*

82. Full use will be made of available data to produce indicators on social inclusion. Gender is an important dimension and data by gender are available for most of the 29 indicators currently used. This means that in future updates of the progress report, breakdowns by gender will be presented wherever relevant and the need to extend existing age limits to better cover older learners will be assessed. In some cases additional breakdowns by age will also be introduced. As regards the performance of migrants, LFS data on educational attainment of non-nationals will be included in the next update of the report. PISA data on learning outcomes by socio-economic groups will also be used.

#### *Medium term*

83. The Labour Force Survey, the EU-SILC survey and the ad hoc modules of these surveys (for example LFS 2002 on disabled people, EU-SILC 2006 intergenerational

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<sup>38</sup> See Lisbon Conclusions, paragraph 4

transfer of poverty) will be further exploited to improve data availability for these indicators:

- *Attainment level of disabled people compared to total population*
- *Educational attainment of non-EU nationals*
- *Parental background of tertiary students*

84. Furthermore, results of the OECD PISA survey will be used to assess the performance of 15-year old pupils from migrant or other specific socio-economic backgrounds. Based on the above-mentioned and additional components, a composite indicator on social inclusion in education and training will be developed.
85. The study on active citizenship indicators, which will be launched at the end of 2004, will develop additional indicators on active citizenship based on existing data and will analyse the feasibility of using existing Eurobarometer and IEA data.

#### *Long term*

86. The indicator “social background of tertiary students” is of importance for monitoring social inclusion and for analysing the impact of a policy of increasing private household contributions to the financing of higher education. An analysis of existing national data has shown that the indicator can only be included in the long term, through the inclusion of the underlying data sets in surveys. The possibility of using data from the EU-SILC survey as well as of its 2005 ad hoc module on intergenerational transfer of poverty will be also evaluated.

The possibility to introduce active-citizenship related questions in future rounds of existing international student achievement surveys will be explored.

#### **4. ORGANISATIONAL ASPECTS**

87. The development of relevant, analytically sound and universally accepted indicators, and especially of the underlying statistical data, is a long and complex exercise and demands technical expertise and political support. The Commission will make best use of Eurostat data and expertise to benefit from the quality standards of the European Statistical System for the preparation of indicators based on internationally comparable statistics.
88. In this context a legal basis for the production of education and training statistics, which is under discussion, would improve the sustainable production of relevant and comparable data. Data for education and training specific surveys is currently still submitted by countries on a voluntary basis following a Council resolution of 1994, according to the Statistical Work Programme of the European Commission.<sup>39</sup>
89. The implementation of short-term strategies will generally take place through the announcement of calls for proposals, through the mapping of existing data in

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<sup>39</sup> Council Resolution of 5 December 1994 on the promotion of education and training statistics in the European Union (94/C 374/02), OJ L 22 February 1997, p. 61

Member States, or by consulting specific experts in a field of inquiry. Short-term strategies might also involve combining existing data in new and innovative ways.

90. The implementation of medium-term strategies in some areas will involve the launch of pilot surveys in a number of countries. This requires the establishment of a participative management approach and the full involvement of participating Member States, which may be achieved by creating advisory groups comprising members nominated by the individual states. Medium-term strategies can involve the introduction of new questions in existing surveys like the Labour Force Survey (LFS) or the Continuing Vocational Education and Training Survey (CVTS), either in the core questions or within the ad hoc modules. Medium-term strategies might involve previously planned surveys like the Adult Education Survey (AES).
91. Long-term strategies generally build on short and medium term strategies – implementing conclusions drawn by the Council during earlier phases of projects and launching European-wide surveys. The full involvement and commitment of Member States in long-term strategies is essential, supported by participative management structures.
92. To ensure sound and valid analysis on the basis of reliable and comparable data, but also to provide additional scientific underpinning for possible methodologies to be used for the production of statistics and indicators, the Commission is extending its research capacity in statistics and indicators in the area of lifelong learning by establishing a “research unit on lifelong learning” at the Joint Research Centre at ISPRA. The unit will, among other tasks, issue research-based recommendations regarding methodologies, data development and handling strategies in indicator areas where there are specific requests from the Council. The unit should contribute to the scientific basis for Commission proposals on the development of new indicators.
93. The Standing Group on Indicators and Benchmarks will support the Commission in monitoring the overall implementation of this strategy on the proposed action plan for developing new indicators. This will ensure that Member States are fully informed on the developmental work.
94. When the Commission has concrete proposals for the launching of specific Europe-wide surveys on education and training carried out outside the European Statistical System, the Council will be informed and invited to decide on the modalities of development through a specific Commission Communication. The production of specific official Community statistics (i.e. using the European Statistical System sources) is governed by the rules set out in Council Regulation (EC) N° 322/97 of 17 February 1997 on Community Statistics.<sup>40</sup>
95. The Commission will work closely with inter-government organisations like OECD and UNESCO, and with those non-governmental organisations which are currently developing surveys which can satisfy some of the data needs of the objectives process. Furthermore the EURYDICE network will play an important role, particularly in the collection of qualitative information that can support the development of new indicators and enrich their analysis in the area of education systems.

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OJ L 52, of 22 February 1997, page 61

## ANNEX 1 – OVERVIEW OF PROPOSED ACTIVITIES

INDICATOR AREA	INDICATOR PROPOSED	ACTIVITY	CALENDAR
<b>KEY COMPETENCIES</b>	<b>Learning-to-learn</b>	<u>Pilot Project</u> on measuring learning-to-learn skills. (Commission, Member States)	2005
<b>INVESTMENT EFFICIENCY</b>	<b>Cost per graduate (and background indicators on duration and dropout rates in higher education)</b>	<u>Improvement of data basis</u> Inclusion in UOE collection. (Commission-Eurostat)	2004-2006
	<b>Composite indicators</b>	<u>Commission study</u> to improve data availability on private spending.	2004-2005
		Preparation of a composite indicator on efficiency based on improved input data (JRC).	2005
<b>ICT</b>	<b>ICT skills</b>	Definition of an indicator based on forthcoming data from Adult Education Survey and from the Eurostat ICT Household Survey.	2004
	<b>ICT in teaching</b>	Definition of an indicator and putting together data based on the DG INFSO survey on ICT in education.	2004-2005
<b>MOBILITY</b>	<b>Mobility of learners and teachers</b>	Within the <u>SOCRATES programme</u> a project in the area of mobility statistics (Euro-Data) is co-financed by the Commission.	2004-2005
		Collecting by Eurostat (UOE questionnaire) of more data on mobility.	2004-2005
<b>ADULT EDUCATION</b>	<b>Indicators on provision, participation and outcomes of adult learning</b>	Eurostat is preparing a European <u>Adult Education Survey</u> (AES), which will be carried out in EU countries in 2005-07.	2005-2007
<b>VOCATIONAL EDUCATION AND TRAINING (VET)</b>	<b>Participation in initial and continuing vocational education and training</b>	Collection of more data via the CVTS 3 ( <u>Continuing Vocational Training Survey</u> ), which will be carried out in 2006.	2006-5-2007
		Collection of data via the <u>Adult Education Survey</u> 2006 (Commission) on continuing VT.	2005-2007

		Collection of data via a <u>Eurobarometer survey on VET</u> .	2005
<b>LANGUAGES</b>	<b>Foreign languages</b>	<u>Large-scale survey</u> to assess language skills in the EU. (Commission-Education and Culture)	2005-2007
<b>TEACHERS AND TRAINERS</b>	<b>Training of teachers and trainers</b>	Promotion of the teacher option in <u>PISA 2006</u>	2005-2006
		Collection of qualitative information by <u>EURYDICE</u> .	2005
<b>SOCIAL INCLUSION, ACTIVE CITIZENSHIP</b>	<b>Attainment level and participation of migrants and other disadvantaged learners , and by gender and age</b>	Using existing information from Eurostat (adding breakdowns etc) to cover data needs. Development of additional data in the medium term. Study to valorise non-harmonised data.	2005-2006
	<b>Parental background in tertiary education</b>	Using EU-SILC data for this indicator.	2006-2007
	<b>Active citizenship</b>	Study to assess existing data and possible indicators.  Valorisation of Eurobarometer results.	2005

**ANNEX 2- SOURCE AND DATA AVAILABILITY OF NEW INDICATORS PROPOSED**

<b>Indicator</b>	<b>Source</b>	<b>Availability</b>
<b>1. Key competencies</b>		
1.1 Learning to learn	New Survey	New survey, no data yet
<b>2. Investment Efficiency</b>		
2.1 Cost per graduate	Eurostat (UOE)	Data available, but further work on quality needed
2.2 Dropout rate in tertiary education	Eurostat (UOE)	Partial data available from OECD, Collection via UOE foreseen
2.3 Average duration of tertiary studies	Eurostat (UOE)	Partial data available from OECD, Collection via UOE foreseen
2.4 Composite indicator on efficiency	Eurostat (UOE)	Partial data available from OECD, Input data to be identified
<b>3. ICT</b>		
3.1 ICT skills	Eurostat ICT household survey, SITES-M3	Eurostat household survey results available from 2002
3.2 ICT use in teaching	EURYDICE	Qualitative information available from EURYDICE
<b>4. Mobility</b>		
4.1 Mobility of learners	EURODATA report	Data available based on citizenship. For 5 countries with advanced systems of data of data collection more detailed information will be available.
<b>5. Adult learning</b>		
5.1 Provision of adult learning	Eurostat (UOE)	No data yet, collection through UOE foreseen from 2005
5.2 Participation in adult learning	Eurostat (Adult education survey)	No data yet, AES will provide results from 2007/2008
5.3 Outcomes of adult learning	Eurostat (Adult skills survey)	No data yet. Planned adult skills survey could be data source
<b>6. Vocational Education and Training</b>		
6.1 Participation in initial vocational education and training	CVTS, AES, New Eurobarometer survey	Some data available from UOE. AES will provide data from 2007/2008
6.2 Participation in continuing vocational education and training	CVTS, AES, New Eurobarometer survey	Data from CVTS for 1993, 1999, 2005 results available in 2007

<b>7. Languages</b>		
7.1 Foreign languages	New survey	New survey, no data yet
<b>8. Teachers and trainers</b>		
8.1 Training of teachers and trainers	PISA 2006	No data available yet
<b>9. Social inclusion and active citizenship</b>		
9.1 Educational attainment/participation by gender	Eurostat (LFS, SILC) OECD (PISA)	Data available from LFS and from PISA
9.2 Educational attainment by nationals/non-nationals	Eurostat (LFS)	LFS data available
9.3 Educational attainment/participation by age group	Eurostat (LFS)	LFS data available
9.4 Parental background of tertiary students	Eurostat (EU-SILC)	Data will be available after 2007
9.5 Active citizenship	Eurobarometer, PISA, IEA	IEA and Eurobarometer data available

## **ABBREVIATIONS**

AES	Adult Education Survey
CVTS	Continuing Vocational Training Survey
DG EAC	Directorate General for Education and Culture
ICT	Information and Communication Technology
IEA	International Association for the Evaluation of Educational Achievement
JRC	Joint Research Centre
LFS	Labour Force Survey
OECD	Organisation for Economic Cooperation and Development
OMC	Open Method of Coordination
PISA	Programme for International Student Assessment
SGIB	Standing Group on Indicators and Benchmarks
SILC	Statistics on Income and Living Conditions
TIMSS	Third International Mathematics and Science Study.
UOE	UNESCO, OECD, Eurostat
VET	Vocational Education and Training