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COMMUNICATION FROM THE COMMISSION

A coherent framework of indicators and benchmarks for monitoring progress towards the Lisbon objectives in education and training

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1. Introduction

Policies for Education and Training form an important part of the EU's Lisbon strategy. Heads of States and Government asked for "not only a radical transformation of the European economy, but also a challenging programme [...] for modernisation of social welfare and education systems". In 2002, they set the objective of "making [European] education and training systems a world quality reference by 2010".

As their contribution to the Lisbon Strategy, Ministers for Education adopted common objectives for the improvement of education and training systems and a work programme to achieve these objectives, known as the Education & Training 2010 programme.³ It is implemented through the open method of coordination and indicators and benchmarks play an important monitoring role and provide support to the exchange of experiences and good practices.

Thus a comprehensive set of indicators and benchmarks⁴ has been developed and constantly improved as a basis for the preparation of annual progress reports⁵ as well as the Joint Commission/Council reports to the Spring European Councils.⁶ This set of indicators complement the structural indicators⁷, which monitor progress towards the overall Lisbon objectives.

The Council in May 2005⁸, made the following request to the Commission, with an invitation to report back by the end of 2006:

 "[To] assess progress made towards the establishment of a coherent framework of indicators and benchmarks for following up on the Lisbon objectives in the area of education and training, including a reconsideration of the suitability of existing indicators for monitoring progress." (op. cit.)

The Commission was further invited to report on the development of new indicators in areas such as the impact of ICT on teaching and learning, the labour market outcomes of mobility, and the social background of tertiary students.

¹ Presidency conclusion, Lisbon, paragraph 2.

² Presidency conclusions, Barcelona, paragraph 43.

Joint Interim Report of the Council and the Commission: "Education & Training 2010: the success of the Lisbon strategy hinges on urgent reforms (2004)

⁴ Council Conclusions of 7 May 2003.

⁵ Latest issue was published in May 2006, SEC(2006) 639.

See 2006 Joint Education Council/Commission Report on the implementation of the Education & Training 2010 work programme OJ C79/1 - 1/4/2006.

⁷ SEC(2004)1285-2.

⁸ Council conclusions of 24 May 2005 on New Indicators in Education and Training (2005/C 141/04).

This Communication accordingly proposes a framework of indicators and benchmarks for the follow-up of the Lisbon objectives in the area of education and training, which is coherent and for the first time fully reflects the more detailed objectives within Education & Training 2010 (section 2). In addition, it also covers objectives related to the convergence of higher education structures within the "Bologna process", and the "Copenhagen process" in vocational training. It outlines a statistical infrastructure from which the indicators can be derived (section 3). It invites the Council to adopt the framework as a basis for providing strategic guidance and steering to the Education & Training 2010 strategy (section 4).

2. THE FRAMEWORK OF INDICATORS AND BENCHMARKS FOR MONITORING PROGRESS TOWARDS THE LISBON OBJECTIVES.

Indicators and benchmarks are key elements of evidence-based policy making and the monitoring of progress essential to the Lisbon process. They provide the tools for:

- Statistical underpinning of key policy messages;
- Analysing progress towards Lisbon objectives, both at the EU and national levels;
- Identifying examples of good performance which could be subject to peer review and exchange;
- Comparing EU performance with that of third countries, such as the US and Japan.

The present framework of 29 indicators (annexed below) and 5 benchmarks has served to monitor progress towards 13 detailed objectives during the period 2004 - 2006. However, there have been ongoing changes to the framework, both to improve its quality and to reflect the development of the strategy.

There is now a need to identify a new framework which fully reflects the political priorities of the Education & Training 2010 strategy as it has developed. It is proposed that for the future indicators and benchmarks are structured by reference to eight key policy domains identified within the strategy. These are:

- 2.1. Improving equity in education and training;
- 2.2. Promoting efficiency in education and training;
- 2.3. Making lifelong learning a reality;
- 2.4. Key competencies among young people;
- 2.5. Modernising school education,
- 2.6. Modernising vocational education and training (the Copenhagen process);
- 2.7. Modernising higher education (the Bologna process);
- 2.8. Employability.

This new framework will be supported by a more concentrated set of 20 core indicators and indicator areas (see table at the end of this section) supported, as before, by additional context indicators where necessary. This will mean that the core indicators will in the future operate at a higher level of generalisation than before. However, by using context indicators where needed, there should be no appreciable loss of detail in assessing progress as compared with the existing framework. The proposal draws on the work of the Eurydice European Unit, Cedefop and CRELL of the Joint Research centre in Ispra⁹ as well as the advice of the Standing Group on Indicators and Benchmarks.

2.1. Improving equity in education and training.

The need to ensure that European education and training systems are both efficient and equitable was recently reiterated by the 2006 Spring European Council. As emphasised in the Communication of Efficiency and Equity, to investigate equity in education and training means to analyse the extent to which "individuals can take full advantage of education and training, in terms of opportunities, access, treatment and outcomes." The Council adopted a benchmark on early school leavers, thereby acknowledging the central importance of this equity dimension for the effective participation in lifelong learning and in today's increasingly competitive societies. Moreover, specific issues such as the promotion of gender equality, the integration of ethnic minorities, the inclusion of disabled persons, the reduction of regional disparities etc. need to be monitored.

The <u>core indicators</u> participation in pre-school education (1) ¹², special needs education (2) and early school leavers (3) will be used to monitor progress. Besides this, the equity dimension will be analysed by breaking down data by sex, age and socio-economic background of learners. A composite indicator on stratification of education and training systems (13) based on qualitative data from Eurydice will be used to analyse the impact of the structure and institutional differentiation of education and training systems. ¹³ Work on the development of a composite indicator on equity will be initiated. Core indicators for this policy area: 1, 2, 3, and 13.

2.2. Promoting efficiency in education and training.

The importance of making best use of resources has been expressed in the Communication on investing efficiently in education and training (2003), ¹⁴ the Joint Interim Report (2006) ¹⁵ and the Council Conclusions of March 2006. ¹⁶ Most recently, the Communication "Efficiency and equity in European education and training systems" ¹⁷ showed that improving efficiency does

⁹ Centre for research on lifelong learning – based on indicators and benchmarks (Ispra, I) The Joint Research Centre.

European Council 23-24 March 2006, Presidency Conclusions, par.23

¹¹ Communication from the Commission to the Council and to the European Parliament. Efficiency and Equity in European education and training systems Com (2006) 481

Please refer to table at the end of section 2.

EURYDICE, Key Data on Education in Europe

¹⁴ Com (2002) 779 final of 10 January 2003

Modernising Education and Training in Europe: a vital contribution to prosperity and social cohesion in Europe, Official Journal C 79/1 of 1 April 2006.

Brussels European Council 23/24 March 2006, Presidency Conclusions, http://www.consilium.europa.eu/ueDocs/cms Data/docs/pressData/en/ec/89013.pdf

¹⁷ Op.cit. COM (2006) 481.

not have to compromise the equity of education systems, but that improvements of efficiency and equity can go hand in hand.

The global indicator on *investment in education and training* (19) remains important. Special attention will be paid to private and public investment and to investment in higher education which is relatively under-funded compared to global competitors.

However, investment indicators alone do not cover efficiency of investment, which has to do with the ratio of input to output or outcomes. Methodological and conceptual developments with the aim of creating composite indicators on efficiency of investment will be undertaken in cooperation with CRELL. Core indicator for this policy area: 19.

2.3. Making lifelong learning a reality.

Lifelong learning is crucial, not only for competitiveness, employability and economic prosperity, but also for social inclusion, active citizenship and the personal fulfilment of people living and working in the knowledge-based economy.¹⁸

Participation in education and training takes place in a variety of environments and through a variety of means including ICT. To complete at least upper secondary education is considered indispensable for a professional career and for full participation in lifelong learning. The Council has adopted a benchmark for at least 85% of young people to complete upper secondary education by 2010. Up-dating and improving the skills of adults were also highlighted by the Council by the adoption of a benchmark of 12.5% of the adult population to participate in lifelong learning by 2010. ¹⁹

Monitoring progress in making lifelong learning a reality will be covered by core indicators on *participation of adults in lifelong learning* (16), and on *adult skills* (17), which will allow for the analysis of access and participation levels as well as the skills levels for various age groups of the population. The indicator on *upper secondary completion rates of young people* (9) will monitor the European Benchmark and the preparedness of young people to participate in lifelong learning. Core indicators for this policy area: 9, 16 and 17.

2.4. Key competences among young people.²⁰

In 2000 the Lisbon European Council concluded that a European framework should define the new basic skills as a key measure in Europe's response to globalisation and the shift to knowledge-based economies. The Barcelona European Council²¹ reiterated the need to improve the mastery of basic skills. In 2002 the Council adopted a Resolution on Lifelong Learning²² and "the new basic skills". The Commission has adopted a Recommendation on

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Presidency Conclusions, Lisbon, 23/24 March 2000

Council conclusions of 5/6 May 2003 on Reference Levels of European Average Performance in Education and Training (Benchmarks). (2003/C 134/02).http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/c 134/c 13420030607en00030004.pdf

²⁰ Key competences are here understood as those competences, which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment.

Presidency Conclusions, Barcelona 15/16 March 2002, http://ue.eu.int/ueDocs/cms Data/docs/pressData/en/ec/71025.pdf

²² Council Resolution on lifelong learning of 27 June 2002, Official Journal C163/01 of 9.7.2002

Key Competences for Lifelong Learning²³ which identifies eight competences as most relevant for life and work in a knowledge-based society.²⁴

Acknowledging the importance of acquiring basic skills, the Council adopted a specific benchmark in this field, namely to decrease the percentage of low-achieving 15-year-olds in reading literacy in the European Union by at least 20% compared to the year 2000.

Core indicators cover the following key competences: *literacy in reading, mathematics and science* (4), *language skills* (5), *ICT skills* (6), *civics skills* (7) and *learning to learn skills* (8). Core indicators for this policy area: 4, 5, 6, 7 and 8.

2.5. Modernising school education.

The Lisbon conclusions identified curriculum²⁵ and organisational matters²⁶ as key issues to be addressed within the Lisbon strategy. The Council suggested that tools such as school self-evaluation are important and underlined the need to support training in the management and the use of such instruments.²⁷

Improving the quality of initial Teacher Education and ensuring that all practicing teachers take part in continuous professional development have been identified as key factors in securing the quality of school education.²⁸

Monitoring progress in this field will be covered by core indicators on early school leavers (3), school management (10), schools as multi-purpose local learning centres (11), and the professional development of teachers and trainers (12). Information on organisational structures of school education will be provided by Eurydice.²⁹ Core indicators for this policy area: 3, 10, 11 and 12.

2.6. Modernising vocational education and training.

The Copenhagen process³⁰ for enhanced co-operation in vocational education and training suggests that reform and investment should be focused on (among other issues): improving the image and attractiveness of the vocational route for employers; increasing participation in VET; and improving quality and flexibility of initial vocational education and training.

Proposal for a Recommendation of the European Parliament and of the Council on key competences for lifelong learning; COM(2005) 548 final of 10. 11.2005

²⁴ Communication in the mother tongue, communication in the foreign languages, mathematical competence and basic competences in science and technology, digital competence, learning to learn, interpersonal, intercultural and social competences and civic competence, entrepreneurship and cultural expression

A European framework should define the new basic skills provided through lifelong learning – Presidency Conclusions (Lisbon 2000).

Schools and training centres, all linked to the Internet, should be developed into multi-purpose learning centres accessible to all. Presidency Conclusion Lisbon (2000).

Recommendation of the European Parliament and of the Council of 12 February 2001 on European cooperation in quality evaluation in school education .(Official Journal L 60 of 01.03.2001).

See Common European Principles for Teacher Competences and Qualifications: http://ec.europa.eu/education/policies/2010/doc/principles_en.pdf

See for instance Key Data on Education in Europe 2005.

European Commission Achieving the Lisbon goal: the contribution of VET: Final report to the European Commission 1-11-04 http://europa.eu.int/comm/education/policies/2010/studies/maastricht en.pdf

Monitoring progress in this area will be covered by the core indicator on *upper secondary* completion rates of young people (9) (broken down by the vocational stream). The point at which initial vocational education and training is available within the structure of the education and training system will be analysed through the indicator on *stratification* of education and training systems (13). The context indicator on participation in continuing vocational education and training will allow for the analysis of the role of enterprises as regards the participation of their employees in continuing vocational training and its financing. Core indicators for this policy area: 9 and 13

2.7. Modernising higher education.

Modernising higher education is crucial to the EU's objective of becoming a competitive knowledge-based economy.³¹

The Commission has emphasised that the European higher education sector is relatively under-funded compared with our global competitors.³² Given the important role of universities in European research, the EU's goal of investing 3% of GDP in R&D by 2010 would imply higher investment in university-based research.³³ The Commission has also proposed a benchmark to devote at least 2% of GDP (including both public and private funding) to a modernised higher education sector by 2015."

The Council has set as a European Benchmark an increase of 15% in the number of maths, science and technology graduates by 2010.

The Bologna process plays an important role. The objective of the Bologna process is the creation of a European Higher Education Area (an objective set for 2010) in which the mobility of university students and workers with higher educational attainment levels will be made easier as a consequence of a common Bachelor – Master – PhD degree structure.

Monitoring progress in this field will be covered by <u>core indicators</u> on *higher education* graduates (14), cross-national mobility of students in higher education (15) and investment in education and training (19). Core indicators for this policy area: 14, 15 and 19.

2.8. Employability.

Increasing employment rates is among the most important success criteria within the Lisbon strategy.³⁴ Concrete goals have been set by consecutive European Councils on overall employment rates, employment rates of older workers, and employment rates of women.³⁵ The importance of employment was strengthened in the re-launch of the strategy³⁶ Educational level and key competences, which include entrepreneurship, are the main

Informal European Council in Hampton Court (October 2005); Communication "European values in the globalised world – contribution of the Commission to the October Meeting of Heads of State and Government" COM (2005) 525.

Mobilising the brainpower of Europe: enabling universities to make their full contribution to the Lisbon Strategy" COM (2005) 152.

See "More research and innovation – investing for growth and employment: a common approach", COM (2005) 488 of 12 October 2005. Part of investments in R&D goes to the overall investments in higher education institutions.

³⁴ Presidency Conclusions, Lisbon (2000).

³⁵ See for instance Presidency Conclusions, Lisbon (2000)

³⁶ Presidency Conclusions, Brussels (2006)

determinants of an individual's employability an adaptability throughout life.³⁷ A key indicator for monitoring progress in the field of employability will be *educational attainment* of the population (18) and adult skills (17). These indicators will be analysed in conjunction with returns to education and training (20). Further data are foreseen on entry of young people into the labour market³⁸. Work on the construction of a composite indicator will be initiated. Core indicators for this policy area: 17, 18 and 20.

2.9. Conclusion

The above section of this Communication has led to the identification of 20 core indicators, which are coherent with identified political priorities within the Education & Training 2010 strategy. The Council is invited to adopt these 20 indicators for providing strategic guidance and steering for the strategy.

20 Core indicators for monitoring progress towards the Lisbon objectives in education and training

- 1) Participation in pre-school education
- 2) Special needs education
- 3) Early school leavers
- 4) Literacy in reading, mathematics and science
- 5) Language skills
- 6) ICT skills
- 7) Civic skills
- 8) Learning to learn skills
- 9) Upper secondary completion rates of young people
- 10) School management
- 11) Schools as multi-purpose local learning centres

- 12) Professional development of teachers and trainers
- 13) Stratification of education and training systems
- 14) Higher education graduates
- 15) Cross-national mobility of students in higher education
- 16) Participation of adults in lifelong learning
- 17) Adults' skills
- 18) Educational attainment of the population
- 19) Investment in education and training
- 20) Returns to education and training

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Nine core indicators (1), (3), (4), (9), (14), (15), (16), (18) and (19) already exist and have been used in monitoring the follow-up of the Lisbon objectives in education and training. The remaining 11 core indicators refer to areas where developmental work is ongoing. Consequently, the coherent framework of indicators is still in the process of being set up. This tool is complemented by the following five European benchmarks for 2010 adopted by the

European Higher Education in a world-wide perspective SEC(2005) 518.

³⁸ Ad hoc module of the Labour Force Survey in 2009

Council, which will continue to be essential tools for monitoring progress of the Lisbon objectives in the field of education and training³⁹. Several of these benchmarks play an important role as targets under the EU employment strategy.

- 1) No more than 10% early school leavers
- 2) Decrease of at least 20% of the share of low-achieving pupils in reading literacy
- 3) At least 85% of young people should have completed upper-secondary education
- 4) Increase of at least 15% in the number of graduates in mathematics, science and technology, with a simultaneous decrease in gender imbalance
- 5) 12.5% of the adult population should participate in lifelong learning

3. DATA SOURCES SUPPORTING THE COHERENT FRAMEWORK OF INDICATORS AND BENCHMARKS

Data supporting the above framework of indicators and benchmarks comes from the European Statistical System (ESS) (section 3.1) and, as requested by the Council, from new surveys to be launched or from other international surveys where European data needs have been considered (section 3.2).

The ESS adheres to the European Statistics Code of Practice as referred to in the recommendation of the Commission on the independence, integrity and accountability of the national and Community statistical authorities.⁴⁰ It is desirable that all data used in the coherent framework comply with the provisions in this code.

3.1. Indicators based on data provided by the European Statistical System (ESS)

The statistical infrastructure needed for the production of data within the ESS is a combination of several data sources (surveys and administratively collected data) and common instruments and methodologies (manuals, classifications, registers, definitions, concepts etc.). Appropriate national infrastructures which are able to deliver harmonised data are essential for ensuring comparability as the EU statistical production relies on the national statistical systems.

There are a number of specific sources at EU level which provide information on education and training, which can be divided into two groups.

Firstly, there is the annual UNESCO/OECD/Eurostat (UOE) collection of data related to the formal education systems in the Member States (enrolments, graduations, personnel, education finance, etc.); the 5-yearly Continuous Vocational Training Survey (CVTS) which collects information on training at enterprise level; and the 5-yearly Adult Education Survey (AES) which will provide information on adult learning patterns (household survey) covering

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Op.cit. Council Conclusions (2003). Indicators to support these five benchmarks are integrated in the coherent tool of 20 indicators outlined in the Communication

⁴⁰ Com(2005)217 The European Statistical Code of Practice is based on 15 principles. Government and statistical authorities in the EU commit themselves to adhering to the principles fixed in this code covering the institutional environment, statistical processes and outputs.

the following indicators of the framework: participation in pre-school education (1), ICT skills (6), higher education graduates (14), Cross-national mobility of students in higher education (15), participation of adults in lifelong learning (16) and investment in education and training (19).

Secondly, these specific surveys are complemented by general sources of information such as the Labour Force Survey (LFS) and the EU Survey on Income and Living Conditions (SILC, forthcoming). Such surveys provide information on education and training which can be linked to socio-economic variables. Furthermore, ad-hoc modules linked to the surveys explore information on education but at more irregular intervals. Other specific sources (ICT household and enterprises surveys) provide data on specialised topics or as background elements. These sources provide data for the indicators: *early school leavers* (3), *ICT skills* (6), *upper secondary completion rates of young people* (9), *participation of adults in lifelong learning* (16), *educational attainment of the population* (18) *and returns to education and training* (20). The possibility to collect data on *special needs education* (2) will be explored.

Moreover, ESS sources provide a large number of indicators describing educational systems in terms of inputs, processes, outputs and outcomes. Such contextual indicators give a more detailed and complete picture of country performance and are used for further enhancing the analysis. They are published at regular intervals by Eurostat.

Eurostat and the ESS are always concerned to maintain the quality of statistics, notably through the recognition and identification of fields where improvement and further work are needed. The UOE data collection is currently undergoing a quality review that will lead to a multi-annual planning for improvements.

In order to secure the provision and quality of data for the production and development of statistics on education and lifelong learning the Commission has proposed a regulation.⁴¹ This framework regulation sets out the domains to be covered, quality requirements as well as some implementing measures. As soon as this regulation is adopted, the Commission intends to initiate specific Commission implementing acts covering the UOE data collection and AES.

There is a rapidly increasing interest in getting internationally comparable data at national level. A number of countries are therefore developing statistical infrastructures in terms of register systems and/or longitudinal/panel/cohort survey instruments to be better able to produce information at school and student level including over time.

Such developments are followed at the European level with the objective of eventually being able to use the information coming from such national systems at an aggregate level. At student level, such new developments would allow a better follow up of students' "career", and at the level of educational establishment (including school, universities, etc.) it could improve the possibilities for establishing reliable sampling frames as well as serving as a source for some basic information about school systems which could be used at an aggregate European level. These initiatives within the ESS are to be encouraged by the Commission in the context of the indicators: school management (10), schools as multi-purpose local learning centres (11), professional development of teachers and trainers (12), and stratification of education and training systems (13)].

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Proposal for a Regulation of the European Parliament and the Council concerning the production and development of statistics on education and lifelong learning – COM(2005)625

3.2. Indicators based on data produced outside the European Statistical System

The ESS cannot provide the statistical infrastructure for all the indicators demanded in the Council conclusions of 24 May 2005 or for the framework of indicators and benchmarks presented in this Communication. 42

The Eurydice⁴³ action and Cedefop produce contextual data and indicators supporting the framework presented in this communication. This data is produced in cooperation with Eurostat.

OECD is constructing indicators on *literacy in reading, mathematics and science* **(4)** through the PISA survey⁴⁴ and is co-ordinating developmental work on a number of new indicators (see below).

Specific surveys are presently being prepared by the Commission in two distinct areas: *foreign language skills* and *learning to learn skills* of young people. In both cases the Council requested detailed survey proposals to be presented to the Council. ⁴⁵

- In the area of language skills (5), the Commission has proposed the modalities for the development of tools to gather data to feed the European Indicator of Language Competence.⁴⁶ On the basis of this Communication and the Conclusions of the Council (May 2006)⁴⁷, the Commission has set up an Advisory Board of national representatives.
- In the area of learning to learn skills (8), the "European Network of Policy-Makers for the Evaluation of Education Systems" has evaluated the feasibility of implementing existing methodologies in a cross-country pilot survey. A Recommendation on the development of a survey instrument has been submitted to the Commission. The Commission will now set up the appropriate management structures for the development of the survey instrument and for the pilot project, expected to take place in 2007.

As requested by the Council in its Conclusions of May 2005, the Commission has set up cooperation arrangements with international organisations in a number of areas.

- In the area of the professional development of teachers (12), the Commission is co-operating with the OECD, which is currently preparing a survey on teachers, which will cover their professional development.
- In the area of adults' skills (17), the Commission has, in close co-operation with Member States identified EU data needs. At present it is being examined whether these data needs could be covered by a survey focused on adults' skills measurement which is under preparation by the OECD, or whether a new EU survey should be developed.

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⁴² OJ (2005/C 141/04) 10.6. 2005.

The European Eurydice unit and the network of national Eurydice units.

⁴⁴ Programme for International Student Assessment.

⁴⁵ Op. cit. Council conclusion (May 2005).

^{46 &}quot;The European Indicator of Language Competence" COM (2005) 356 1/8 2005.

⁴⁷ Council conclusions on the European Indicator of Language Competence (2006/C 172/01).

In the area of civic skills (7), the Commission is co-operating with Member States to identify data needs and to prepare a European module in the forthcoming International Civics and Citizenship Education Study (ICCS), which will be carried out in 2008/09 to cover the needs relating to education for active citizenship.

It is clear that the coherence of the statistical infrastructure and the possibility of ensuring comparable data across countries depend on the participation of all Member States in surveys co-ordinated by other international organisations. Insofar as feasible, the Commission will ensure that data are produced in accordance with the European Statistics Code of Practice guidelines that will also be used in assessing the resulting data quality.

4. CONCLUSIONS

The Council is invited to:

- Endorse the framework of indicators for measuring progress towards the Lisbon objectives and in particular
- To express a continuing full support to the development of the new indicators needed within the coherent framework
- To encourage the improvement of the ESS data collections which should continue in close cooperation with Member States through the relevant statistical working groups.

Member States are invited to:

 Participate fully in surveys for the development of new indicators identified within this framework and to cooperate with the Commission to ensure the implementation of these surveys.

The Commission will:

- Present detailed survey proposals to the Council before the launch of major new surveys.
- Report back to the Council in early 2007 on progress made in preparing for a European survey on Foreign Language competences of young people in view of a Council conclusion on next steps.
- Report back to the Council in 2008 on the implementation of the coherent framework of indicators and on the participation of Member States in the development of new indicators to satisfy EU data needs.
- Launch work in co-operation with Member States on the feasibility of defining a EU benchmark on devoting at least 2 % of GDP to a modernised higher education sector by 2015.

 Report back to the Council before 2010 on the follow-up in the EU and by the Member States of the five European benchmarks for 2010 together with proposals on the role of benchmarks beyond 2010.

ANNEX

LIST OF 29 INDICATORS USED FOR MONITORING PROGRESS IN THE FIELD OF EDUCATION AND TRAINING UP TILL NOW (2003-2006)

(The indicators for measuring the 5 education benchmarks are in bold)

- 1. Age of teachers (% of teachers aged over 50 by primary, secondary)
- 2. Number of young people
- 3. Ratio of pupils to teaching staff
- 4. Completion of upper secondary education
- 5. % of students with low reading literacy proficiency (PISA)
- 6. Performance in reading of 15 year olds (PISA)
- 7. Performance in mathematics of 15 year olds (PISA)
- 8. Performance in science of 15 year olds (PISA)
- 9. Participation in education and training of initially low qualified people
- 10. Students enrolled in MST as a proportion of all students
- 11. Graduates in MST as a % of all graduates
- 12. Total number of tertiary MST graduates (growth)
- 13. Number of graduates in MST per 1000 inhabitants
- 14. Public expenditure on education
- 15. Private expenditure on educational institutions
- 16. Enterprise expenditure on continuing vocational training
- 17. Total expenditure on educational institutions per pupil, in PPS
- 18. Total expenditure on educational institutions per pupil, compared to GDP
- 19. Participation in lifelong learning, population 25-64, all, low
- 20. Participation in continuing vocational training, all enterprises
- 21. Participation in continuing vocational training, training enterprises
- 22. Participation rates in education, students aged 15-24

23. Share of early school leavers in population 18-24

- 24. Distribution of pupils by number of foreign languages learned
- 25. Average number of foreign languages learned per pupil
- 26. Inward/outward mobility of teachers and trainers, Erasmus+ Leonardo
- 27. Inward/outward mobility of Erasmus students and Leonardo trainees
- 28. Foreign tertiary students as a % of all students enrolled, by nationality
- 29. Percentage of the students of the country of origin enrolled abroad