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PROGRESS AND OUTPUT RESULTS OF THE PROGRAMME OF WORK 2002 TO 2006

Meeting of OECD Education Chief Executives

Copenhagen, 22 to 23 September 2005

This document presents the progress, output results and planned work to the end of the biennium relative to the activities of the Directorate for Education (EDU) for the period September 2002 to December 2006.

It is provided as background to the discussion on what the OECD has done since the Directorate for Education was set up in September 2002 and the first OECD education chief executives meeting in February 2003.

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PROGRESS AND OUTPUT RESULTS OF THE PROGRAMME OF WORK, 2002 TO 2006

INTRODUCTION

1. This document presents the progress, output results and planned work to the end of the biennium, relative to the activities of the Directorate for Education (EDU) for the period September 2002 to December 2006, when the current mandates of the various committees and governing boards overseeing the OECD's work on education terminate.

2. Since the last meeting of chief executives, held in February 2003, this work has been shaped by the six strategic objectives for OECD work on education to ensure that activities build on the strengths of all the contributing EDU programmes and synergies are achieved:

1. Promoting lifelong learning and improving its linkages with society and the economy
2. Evaluating and improving outcomes of education
3. Promoting quality teaching
4. Rethinking tertiary education in a global economy
5. Building social cohesion through education
6. Building new futures for education.

3. For governance, funding and operational reasons, the work is organised in seven areas which are:

- **Education and Training Policy (ETP):** The work is governed by the Education Committee and undertaken by the Education and Training Policy Division. This work is funded by OECD Part I funds and voluntary contributions
- **Centre for Educational Research and Innovation (CERI):** The work is governed by the CERI Governing Board and undertaken by the Centre for Educational Research and Innovation. This work is funded by OECD CERI Part II funds and voluntary contributions.
- **Indicators of Education Systems (INES):** The work is governed by the Education Committee and the CERI Governing Board meeting in Joint Session and undertaken by the Education Indicators and Analysis Division. This work is funded by OECD Part I, CERI Part II funds and voluntary contributions.
- **Programme for International Student Assessment (PISA):** The work is governed by the PISA Governing Board and undertaken by the Education Indicators and Analysis Division and an international consortium of research agencies contracted to undertake the

test development and data collection. This work is funded by OECD PISA Part II funds and voluntary contributions.

- **Programme on Institutional Management in Higher Education (IMHE):** There are 200 members, including around 130 individual universities. Others include national education ministries or their higher education divisions and conferences of rectors/vice-chancellors. The work is governed by a representative Governing Board and undertaken by the Education Management and Infrastructure Division. This work is funded by OECD IMHE Part II funds and voluntary contributions.
- **Programme on Educational Building (PEB):** The programme has 15 OECD countries as members and 12 associate members (two partner countries and eight regional authorities and two research institutes from four further OECD countries). The work is governed by a representative Governing Board and undertaken by the Education Management and Infrastructure Division. This work is funded by OECD PEB Part II funds and voluntary contributions.
- **Work with non-member economies (NME):** Many partner countries are involved in different parts of the OECD's work on education. Involvement includes full participation in particular activities, a review of some part or all of the partner country's education system and participation in the OECD's Global Forum on Education. The work is governed by the Education Committee in consultation with the OECD Committee on Co-operation with Non-Members and is undertaken by the Directorate for Education's Unit for Co-operation with Non-Member Economies. This work is funded by OECD Part I, CERI Part II funds and voluntary contributions.

4. Overall the Directorate has an annual expenditure of EUR 14 million. The work is carried out by some 80 staff (analysts, economists, statisticians, support and management).

5. For the 2003 and 2004 budget cycle, the OECD moved to output based budgeting for its Part I programmes and the Programme Implementation Reporting (PIR) Survey has been conducted for 2003 and 2004 Part I outputs. Countries are required to assess final Part I outputs in terms of their quality and potential impact. Annex 1 gives further information on the PIR and the ratings. For annual outputs, two ratings are available.

GLOSSARY OF ABBREVIATIONS

CERI	Centre for Educational Research and Innovation
ECEC	Early Childhood Education and Care
ECO	Economics Department
EDRC	Economic and Development Review Committee
EDU	Directorate for Education
ELS	Employment, Labour and Social Affairs Directorate
ETP	Education and Training Policy
GOV	Public Governance and Territorial Development Directorate
ICT	Information and Communications Technology
IMHE	Programme on Institutional Management in Higher Education
INES	Indicators of Education Systems
OER	Open Educational Resources
PAC	Public Affairs and Communications Directorate
PEB	Programme on Educational Building
PIAAC	Programme for the International Assessment of Adult Competencies
PIR	Programme Implementation Reporting
PISA	Programme for International Student Assessment
NME	Non-member economies
SEE	South East Europe
STI	Directorate for Science, Technology and Industry
WEI	World Education Indicators
YEPP	Youth Empowerment Partnership Programme

STRATEGIC OBJECTIVE 1: PROMOTING LIFELONG LEARNING AND IMPROVING ITS LINKAGES WITH SOCIETY AND THE ECONOMY

Introduction

6. Education systems both reflect and influence social and cultural traditions and the social and economic dynamics of society. Fiscally education systems are one of the largest areas of public spending; virtually everyone in society has direct economic and social stakes in the outcomes of education. Consequently, education policies, especially the policies for promoting lifelong learning, must be developed in coordination with external stakeholders and closely linked to a range of other policies. The Directorate for Education's work under this strategic objective seeks to promote lifelong learning and to strengthen the impact of education on society and the economy.

Key issues addressed

7. Notwithstanding expanded opportunities in particular sectors, such as early childhood education and tertiary education, lifelong learning is far from being a reality in all OECD countries. A successful lifelong learning policy implies sustaining and strengthening sectoral progress to reach the least privileged, and confronting the obstacles to progress towards more effective orchestration of the spectrum of government policies and public services that influence opportunities and actual participation.

- The viability of lifelong learning depends on the implementation of policies and institutional arrangements that are beyond the competence of education ministries. What are the means for bringing a whole-of-government perspective to decisions regarding priority setting, budgeting and setting of framework conditions?
- High quality early childhood education and care programmes accessible to all would give young children a strong start in lifelong learning and strengthen social equity. Intervention by governments at this stage is particularly important to overcome the effects of low socio-economic status. What are the main steps needed to sustain progress?
- Many obstacles remain for developing participation and achievement in adult learning including institutional, economic, financial and socio-psychological factors. What are the key priorities to be addressed in overcoming these obstacles?
- Career guidance services, which improve the efficiency of education systems and the labour market, are often inadequate, fragmented and inefficiently organised in OECD countries. How can career guidance be resourced and delivered more effectively?
- National qualifications systems can improve the motivation of people to learn throughout life, foster mobility between learning and work and encourage enterprises to invest more in human capital. These systems can, therefore, play a major role in achieving the lifelong learning objective. What should governments do to improve these systems?
- How can higher education institutions be encouraged to maximise their contribution to the economic, social and cultural development of the regions in which they are situated?

Progress ...

in strengthening the whole of government approach to areas requiring critical attention

8. The OECD's Economic and Development Review Committee (EDRC) carries out economic surveys of each member country every 18 months, and of selected non-member countries on an occasional basis. The surveys, prepared in cooperation with finance ministries in capitals aim to provide an overview of general economic performance and prospects and a targeted analysis of particular policies that are seen as critically influencing overall performance. These surveys increasingly are focusing on issues related to human capital -- the performance of education and training systems in developing human capital and the performance of labour market, regulatory, tax and enterprise policy in influencing its utilisation. During the current cycle, surveys for half of the member countries will include a focus on subjects related to education and training. As the coverage of such issues has increased, the Directorate for Education has been concerned that the surveys take into account relevant work carried out by the various education bodies of the OECD, and that the recommendations made in surveys are aligned with policy recommendations contained in work of the Directorate. EDU also has come to see the surveys as potential vehicles for delivering education policy messages to finance ministries in capitals. The Directorate has increased its input into the surveys by monitoring draft text more systematically, and, in a number of cases has influenced the choice of topics included in the surveys.

9. The goal of achieving lifelong learning aims to engage all citizens in the process of learning. It is complex because it breaks with past education reforms by defining in new ways the content, place, timing and duration of learning. Perhaps more fundamentally, it shifts the focus of policy from institutions to learners. In this context, the answer to the question of how societies will find the resources for lifelong learning will depend on the priority society gives it.

10. Given the severe constraints on resources, however, public authorities are under intense political pressure to limit spending. Enterprises are under intense competitive pressure to reduce costs or otherwise ensure that investments are cost-effective and improve productivity; individuals are constrained by a combination of slow real wage growth, and high and persistent risk of unemployment. The extent to which lifelong learning for all can be made a reality depends in large degree on the extent to which lifelong learning can be made more "affordable". This in turn depends on three issues:

- what is meant by "lifelong learning" and how ambitious or how modest is the vision of lifelong learning to be implemented
- whether lifelong learning can deliver greater value for money, thus strengthening the economic and social incentives to invest in lifelong learning
- whether net new financial resources can be found in the public and private sector, possibly by making it easier to pay out of past savings or future benefits.

11. Work has reviewed the important economic and financial challenges that lifelong learning poses and recent experience with initiatives to facilitate the co-financing of lifelong learning, as well as taking stock of the political debate. This work has highlighted the need for launching a political dialogue around issues of tax policy and investment in lifelong learning, and the role of financing institutions in co-financing mechanisms.

12. *Education at a Glance* reports a range of indicators that have a social dimension, including relative earnings for males and females at different levels of educational attainment and, beginning in 2005, data on the dispersion of earnings for individuals having different levels of education. In recent years

Education at a Glance has also provided a synopsis of OECD and other research on the relationship between education and macro-economic performance, as well as a summary review of research on the linkages between education and outcomes in health and social cohesion (see Indicator A10, OECD 2005a).

13. Work was done on investment and returns using World Education Indicators data.

in early childhood education and care

14. Judged by country participation in the thematic review of early childhood education and care (ECEC) policies, there was a considerable upsurge in policy interest in this area from a low level when the activity was initiated by the Education Committee six years ago. Substantial evidence now confirms the existence of large private and social benefits of early childhood education and care— educational, economic and social -- that last over the long term, especially for the programmes for the disadvantaged. These benefits give a compelling edge to a preventive social policy approach that promises to be less expensive for the society over the long term. Major policy challenges include: low and inequitable access to quality early childhood education and care; low investment, generally; poor quality of provision, especially poor staffing quality; a fragmented approach to policy development and programme delivery, especially a lack of co-ordination between the social welfare and education authorities; and inadequate knowledge base for parents, practitioners and policy makers.

15. Building on work completed in 2001, ten additional countries have been reviewed and second volume will be published early 2006. In addition to this 22 country specific policy recommendations from expert reports have been produced along with papers from four focussed workshops and conference proceedings.

in adult learning

16. Key issues explored under the adult learning thematic review (2000-2005) have been how to improve access to and participation in adult learning in 17 OECD countries (OECD 2005e). The main findings have shown the need to redress significant participation inequities across countries and within countries, especially by improving learning opportunities for low skilled and older adults and those working in small and medium sized enterprises (SMEs). A set of policy levers are recommended:

- Policies to create the appropriate structural conditions to raise the benefits of adult learning, such as strengthening the recognition of acquired skills, improving information on the benefits as well as on provision;
- Promoting well targeted financial support through co financing and economic incentives for low skilled and disadvantaged groups;
- Providing training so that it suits adults' needs in terms of content, scheduling and delivery;
- Improving policy coherence by targeting low skilled adults and possibly through the creation of special adult learning institutions.

17. *Learning a Living: First Results of the ALL Survey* presents data drawn from the adult literacy and life skills surveys in Bermuda, Canada, Italy, the Mexican State of Nuevo León, Norway, Switzerland and the United States. The surveys measured adult skills in four domains: prose literacy (understanding continuous text such as found in books and newspaper articles), document literacy (understanding graphs, charts and other written information of a discontinuous nature), numeracy, including mathematical concepts, and problem-solving or analytical reasoning. Norway obtained the best results in three areas and

Switzerland in one (numeracy). In all seven participating countries, the survey showed that people who use computers consistently scored higher on average on the prose literacy scale than those that do not. The surveys showed that parents' levels of education had a significant impact on the literacy scores of their children. Norway was the country where these differences were the least marked, while they were greatest in the United States. Literacy and numeracy skills help to determine individuals' opportunities in the jobs market. People with good literacy and numeracy skills, in particular, tend to be better at using new information and communication technologies. This in turn improves their ability to access higher-paid jobs. At a broader macro-economic level, higher literacy and numeracy skills help to improve employee productivity and reduce demands on health systems, both valuable outcomes at a time when many governments are struggling to finance the cost of providing health services to ageing populations

in career guidance

18. OECD work reveals large gaps between the goals of public policy and the capacity of national career guidance systems. Among the specific weaknesses identified in national career guidance services:

- Access to services is limited, particularly for adults.
- Inadequate data is available on costs, benefits, client characteristics or outcomes. This limits the ability of governments to manage services and to see if they are meeting their objectives.
- Insufficient use is made of modern information and communication technologies in delivering services and providing cost-effective ways of meeting client needs more flexibly.
- Too often services do not try to develop people's career management skills, but focus only upon immediate decisions.
- Training and qualification systems for those who provide services are often inadequate or inappropriate.
- Co-ordination between key ministries and stakeholders is poor.

19. The resulting study (OECD 2004c) makes a series of recommendations to governments for ways of bridging the gap between career guidance services and public policy goals, including:

- Improved national co-ordination arrangements.
- Greater attention to research and data collection to inform policy.
- The development of improved and more specialised training programmes for practitioners.
- The creation of more specialised career guidance organisations for the delivery of services.

in qualifications systems

20. Qualifications systems are increasingly the focus of policy attention. The activity examined the role of qualifications framework in promoting lifelong learning. It identified nine policy responses and a range of mechanisms through which the qualifications systems can contribute to lifelong learning. It also identified some tools for policy makers that support the evaluation of current policy on lifelong learning and the development of new directions for policy. Some tools have been shown to be especially powerful

in terms of developing lifelong learning. These include developing qualifications frameworks, providing credit transfer and recognising non formal and informal learning.

in higher education and regional development

21. Higher education institutions already contribute to the economic, social and cultural development of the regions in which they are situated, but in the knowledge economy new expectations are placed on them. Most OECD countries are attempting to strengthen the regional role and contribution of the higher education institutions based on close cooperation and partnership with regional actors. This regional mission has been characterised as a part of a “third task” or social obligation of institutions, but there is a growing recognition that it must be integrated with longer-standing teaching and research functions if higher education’s contribution to student learning, to knowledge exploitation by business and to civil society in the region is to be maximised.

22. There can also be real advantages for the institution through stronger engagement with their regional communities. They may find it easier to attract local undergraduate students, enjoy improved funding for both research and teaching, and have greater local support for their actions. If further progress is to be made and if individuals and institutions are to be motivated to develop this role it is clear that they will need the right incentives and encouragement

Plans for the remainder of the biennium

in strengthening the whole of government approach to areas requiring critical attention

23. Finance ministries are well situated to evaluate relative priorities among different policy portfolios, identify those countries where deficiencies in education, training and lifelong learning are serious relative to other problems, and more particularly take into account the full spectrum of policy portfolios that influence the inputs to and outcomes of education and training policy, and to steer governments in such a way as to enhance synergies between education and labour market and tax policy for example. Within the OECD there are two mechanisms for applying this perspective: topics for special treatment in the surveys carried out by the Economic and Development Review Committee (EDRC), and more recently, structural stocktaking. EDU is taking steps to ensure that the process of choosing topics for special treatment in the EDRC surveys is more transparent; that important developments in education and training policy are treated appropriately; and that the Education Committee is informed about policy priorities (including the relative importance of education issues) that emerge from the structural stocktaking exercise EDU also is investigating the feasibility of strengthening the role of education ministries in EDRC surveys.

24. The emergence of the knowledge economy has shifted attention from capital stocks as a key determinant of economic performance and firm competitiveness, to “intellectual assets” such as R&D, intellectual property, and human capital. This shift in focus has highlighted imbalances in institutional arrangements in society, ranging from the availability of statistics that focused on manufacturing, to tax incentives for investment, to enterprise reporting in capital markets and the basis for investment decisions. OECD has launched an inter-directorate activity to suggest strategies for improving the process by which intellectual assets ‘create value’ – for individuals, enterprises, and national economies directorate. Earlier work by the Directorate on measuring and reporting intellectual assets provides much of the foundation for the current new work examining intellectual assets and value creation. Expenditure data collected through INES will provide input for developing a measure of return on human capital developed through formal education and training systems.

25. A new activity on investigating the social outcomes of learning was launched in 2005 with the support of 11 countries. Education has purposes beyond the economic. So measurement of how far and in what respects different types of education deliver results in terms of social outcomes is a significant area. This work brings together CERI and INES Network B Social Outcomes, together with the OECD Employment, Labour and Social Affairs Directorate (ELS). It will map out, conceptually and empirically, what kinds of effects education has, initially on two main domains:

- health (physical and mental)
- civic and social engagement.

Cross-cutting themes are the *distributional* and *intergenerational* patterns of these effects.

26. It is too early as yet to report results. However we expect the activity:

- to broaden policy thinking on how to assess returns to investment in education
- to raise issues, relevant across different policy areas, about the most effective means of achieving social outcomes, including the differential effectiveness of investment in different education sectors.

27. The first results will appear in 2006, with a collection of expert papers and an overall analytical framework. Phase 1 will conclude at the end of 2006. A second phase covering different domains is planned.

in adult learning

28. The OECD Secretariat and an International Expert Group are exploring the development of a data strategy for a Programme for the International Assessment of Adult Competencies (PIAAC), including the policy priorities to be addressed, the competency domains and age groups to assess, and the specification of associated resource requirements and implementation modalities. The assessment of adult competencies in connection with lifelong learning is one of the policy goals stressed by OECD member countries. The skill-intensity bias in labour demand in OECD economies - associated with new technologies, globalisation and organisational change – are among the key reasons why adult competencies and lifelong learning occupy an especially prominent position in today's policy foreground. At the same time, growing fiscal burdens associated with rising payments for pensions and health care – and high levels of economic inactivity in an expanding cohort of older citizens - will require that workers remain economically productive later into life. Accordingly, older workers will need to possess the competencies required for longer careers. And governments will need to have empirical knowledge both of the competencies of older workers and of the policy settings most conducive to lifelong learning.

29. In generating unprecedented internationally comparable data and analyses on adult competencies, PIAAC could facilitate policy development in Ministries of Education in numerous and in some instances unique ways. New insights could be had on specific policy issues that concern many OECD governments. For instance, across a number of assessment cycles, PIAAC could examine: how different policy settings relate to equity in the distribution of adult learning; how the qualifications of labour force entrants affect learning opportunities and skills formation later in life; the competencies that participation in adult learning develops; the patterns of competencies acquisition and erosion throughout the lifecycle; and the ways in which learning behaviour over the life-cycle is related to attitudes, beliefs and values about learning, possibly complementing efforts to develop diagnostic and instructional methods for children and young adults. Over time, PIAAC data would allow exploration of such issues as whether, at the margin, it is

preferable to allocate resources to expanding tertiary education, or whether the economic and social returns to these resources would be higher if allocated to increasing participation in learning among some cohort of older adults.

30. A decision by OECD member countries should be taken before the end of 2005 on whether to implement a proposal for a PIAAC data strategy.

in qualifications systems

31. Work on the role of national qualification systems, along with other OECD activities on lifelong learning, has justified the launch of a new activity that will further investigate *recognition of non-formal and informal learning* and *credit transfer*. With a special focus on non-formal and informal learning, the new activity will help re-scope the mission of the formal and training sector for lifelong learning. It will also envisage critical issues such as governance, link to qualifications framework, assessment, recognition, costs, link to the labour market, democracy and citizenship, internationalisation, new information and technologies, and demographic changes. The work aims at helping countries in evidence-based policy making as well as generating future-oriented policy options.

in higher education and regional development

32. A major comparative study, to take the work on linking higher education and research to economic development forward, led by the IMHE programme and involving the Public Governance and Territorial Development Directorate (GOV) is well under way and report at the end of 2006. Twelve regional studies will be conducted. Recommendations are likely to address issues of policy co-ordination at national and regional level, and how to improve dialogue between higher education and regional actors, as well as more specific issues of institutional management. The outcomes will be brought together in a publication and conference in early 2007.

Key Output Results

Data Sets

- Indicator B1 to B6 (OECD 2002a), Indicator A12, A13, A14, A15, B1 to B6, C4 and C5 (OECD 2003a), Indicator A10, A11, A15, B1 to B6, C4 and C5 (OECD 2004a), Indicator A8, A9, A10, B1 to B6, C4, C5 and C6 (OECD 2005a)
- Adult Literacy and Life Skills Data Base

OECD Policy Briefs

- *Lifelong Learning*, 2004

Publications

- Behringer, Friederike and Coles, Mike (2003), "Towards an Understanding of the Mechanisms that Link Qualifications and Lifelong Learning", *Education Working Paper No 3*, OECD, Paris.
- E-lap (2004), "A Catalogue of Recent Lifelong Learning Co-Financing Initiatives 2004", (Ref. E2367,v1) European Learning Account Partners Network, May 2004
- OECD (2001a), *Starting Strong*, OECD, Paris.

- OECD (2002c), *Strengthening Early Childhood Programmes: A Policy Framework*, OECD, Paris.
- OECD (2002d), *Rethinking Human Capital*, OECD, Paris.
- OECD (2002e), *Reviews of National Policies for Education. Lifelong Learning in Norway*, OECD, Paris
- OECD (2003c), *Career Guidance: New Ways Forward*, OECD, Paris.
- OECD (2003d), *Strategies for Sustainable Investment in Adult Lifelong Learning*, OECD, Paris.
- OECD (2003e), *Beyond Rhetoric: Adult Learning Policies and Practices*, OECD, Paris.
- OECD (2003f), *Financing Education: Investments and Returns Analysis of the World Education Indicators 2002 Edition*, OECD, Paris.
- OECD (2004b), *Career Guidance A Handbook for Policy Makers*, OECD, Paris.
- OECD (2004c), *Career Guidance and Public Policy Bridging the Gap*, OECD, Paris.
- OECD (2004d), *Co-financing Lifelong Learning: Towards a Systemic Approach*, OECD, Paris.
- OECD (2005b), “Taxation and Lifelong Learning”, *Education Policy Analysis 2004*, OECD, Paris.
- OECD (2005c), *From Education to Work: A Difficult Transition for Young Adults with Low Levels of Education*, OECD, Paris.
- OECD (2005d), *Learning a Living: First Results of the Adult Literacy and Life Skills Survey*, OECD, Paris.
- OECD (2005e), *Promoting Adult Learning*, OECD, Paris.

Forthcoming publications (provisional titles)¹

- *Policy Implications of National Qualifications Systems and Their Impact on Lifelong Learning*
- *Starting Strong (II): Early Childhood and Education Care Policy*

Dissemination

33. *Starting Strong* (OECD 2001a) has been translated into six languages and is used as part of curriculum in some universities. The work has contributed to legislative changes and policy discussions in many countries, A second volume, updating the earlier work to include 10 additional countries is in the process of finalisation and is expected to be available by November. In addition to these, there are country-specific policy recommendations from experts’ reports for each of the 22 countries, available on the website. Papers from four focused workshops and one international conference proceedings are also available on the web.

¹ The list of forthcoming publications in this document excludes annual publications and journals.

34. *Beyond Rhetoric Adult Learning Policies and Practices* (OECD 2003e) has been translated into four languages. It triggered interest in many additional countries and a second volume, *Promoting Adult Learning*, was published in September 2005. A dissemination conference for the full activity was organised in Malmo, on 10-11 March 2005, under the auspices of the Swedish Ministry of Education, Research and Culture. The background documentation and the country notes produced after each of the 17 country reviews are available on the web site (www.oecd.org/edu/adultlearning).
35. The Career Guidance Handbook (OECD 2004b) has been translated into three languages.
36. The international synthesis report on the *Policy implications of national qualifications systems and their impact on lifelong learning* will be published in December 2005. Several dissemination activities are planned, especially in conjunction with the European Commission work on the European Qualifications Framework (AQF). A dissemination conference will take place in Dublin on 20-21 October, 2005, co-organised by the OECD and the National Qualifications Authority of Ireland. The background documentation for the 23 countries involved, including thematic groups reports, commissioned papers and the 15 country background reports, are available on the web site (www.oecd.org/edu/lifelonglearning/nqs).

STRATEGIC OBJECTIVE 2: EVALUATING AND IMPROVING OUTCOMES OF EDUCATION

Introduction

37. Compelling incentives for individuals, economies and societies to raise levels of education are a driving force for governments to improve the quality of educational services. The prosperity of countries now derives to a large extent from their human capital and, to succeed in a rapidly changing world, individuals need to advance their knowledge and competencies throughout their lives. Education systems need to lay strong foundations for this, by fostering knowledge and competencies and by strengthening the capacity and motivation of adults to continue learning beyond school.

Key issues addressed

38. Evaluating the outcomes of education, linking successful performance with related educational policies and practices, and developing a better scientific understanding of teaching and learning are major objectives for improving the quality, equity and efficiency of education systems.

- By highlighting areas of relative strengths and weaknesses and by showing what is possible to achieve, what potential sources of advice on best practices for driving quality improvement does the OECD Programme for International Student Assessment (PISA) reveal?
- Should the varied individual and social returns to education imply specific policy responses and should public policy address the declining interest in science, mathematics and technology studies?
- Can brain research and neuroscience provide a better understanding of learning processes and insights for the development of successful teaching and learning strategies?

Progress ...

in lessons from PISA

39. Policies to improve the outcomes of learning depend on reliable information on the human and financial resources invested in education, on how education systems operate and evolve, and on the output of educational institutions. The OECD continues to establish internationally comparable education indicators. Published annually in *Education at a Glance*, these are used extensively in national policy development and debate as well as in OECD work. The basic data collection for this is undertaken jointly with the European Commission and UNESCO, while four country-sponsored networks work on broadening the coverage of the indicators and consolidating their methodology. The OECD also works with the UNESCO Institute of Statistics on *World Education Indicators*.

40. All stakeholders – parents, students, teachers and those who manage education systems, as well as the general public – need to be informed of how well education and learning prepare individuals for life. Many countries monitor student learning in order to provide this information.

41. The OECD's comparative PISA assessments, carried out every three years, seek to extend and enrich the national picture by providing a larger context within which to interpret national results. They examine student knowledge and skills in a broad range of subject areas relevant at age 15 but also look at students' motivation to learn, their perceptions about the role that subject areas such as science play in opening and shaping career and life opportunities, and their beliefs about themselves and their learning

strategies. By highlighting areas of relative strengths and weaknesses and by showing what is possible to achieve, PISA reveals potential sources of advice on best practices for driving quality improvement.

42. The value PISA assessments add to national evaluation and assessment lies in revealing what *can* be achieved. For example, the performance of countries such as Finland, Japan and Korea in PISA 2000 and 2003 reveals that excellence in education is an attainable goal, and at reasonable cost. Equally important is that some countries show that it is possible to combine high performance levels with a socially equitable distribution of learning opportunities. In particular, the examples of Canada, Finland, Japan and Korea underline that poor performance in school does not automatically follow from a disadvantaged socio-economic background of students. Results from these countries demonstrate that the challenge of achieving a high and equitable distribution of learning outcomes can be addressed and so set ambitious goals for others.

43. A widely recognised key to creating knowledge-rich schooling systems lies in the quality of teachers and teaching (see Strategic Objective 3). In addition, to offer quality learning, teachers and schools depend on an appropriate policy framework and institutional context. Effective policy levers in this context lie in formulating educational goals and standards; creating a learning environment and school climate that is characterised by high expectations, the readiness to invest effort, the enjoyment of learning, good teacher-student relations and high teacher morale; systematically monitoring adherence to learning objective and feeding results back to the principal stakeholders; establishing rewards, support systems and consequences that flow from such monitoring; and combining governance structures that devolve responsibility to the front line with an equitable distribution of learning opportunities.

44. With regard to the latter, results from both PISA and other OECD work raise serious questions about educational structures that should not be ignored. The analyses show that, in countries with early selection of students into highly differentiated education systems, not only are differences among schools large as is intended, but overall variation in student performance is generally larger and the relationship between socio-economic background and student and school performance generally stronger than in countries that maintain comprehensive schools, at least to age 15. As a result serious questions about equity in the distribution of learning opportunities in such systems arise and there is a risk that the cognitive potential of large fractions of students is not realised. PISA shows that there are wide variations in the capacity of school systems to overcome the disadvantages of social background, and therefore in their ability to deliver educational equity, alongside quality. This suggests that there is scope for substantial improvement in the equity performance of many school systems, without affecting quality, often by drawing on international experience and best practice. Furthermore, a comparison of the results from PISA with those of other studies shows that performance variation and socio-economic disparities in institutionally highly differentiated systems are much larger at the secondary than the primary level of education. This strengthens the view that differentiated education systems could play an important role in reinforcing rather than moderating inequities. Many of the countries that achieve high levels of quality and equity in their education systems in PISA have embraced the heterogeneity in the student body constructively at school and classroom levels, avoiding early differentiation and focusing on combining comprehensive schooling with highly individualised learning opportunities.

45. A knowledge-rich educational profession in which those responsible for delivering educational services have both the authority to act and the necessary information to do so intelligently, with access to effective support systems to assist them in making choices and implementing change is a prerequisite for improving learning outcomes.

46. PISA will continue its thematic series of analyses that seek to provide insights into factors associated with developing knowledge and skills at home and at school, as well as into how these factors interact and their implications for policy development.

47. Because of a lack of evidence on overall system performance the OECD's reviews of national policies for education sometimes have been limited in the extent to which they have been able to provide robust assessments of overall system performance and targeted suggestions for remedies, and to the extent to which findings and recommendations from one country are of general interest to and impact other countries. PISA has led to a quantum leap in the availability and quality of information for diagnosing the strengths and weaknesses of schooling systems. The Education Committee expressed interest in trying to combine the diagnostic strength of PISA with the expert-based methodology of its policy reviews. The Committee had two objectives: to strengthen the analytical arguments and political relevance of policy advice to the country being examined, even in politically sensitive areas; and, to enhance the interest and relevance of the results of such reviews to other countries. As part of this effort, in 2003 and 2004 the OECD carried out a pilot review of the quality and schooling in Denmark (OECD 2005i). Using PISA 2000 data and information gathered in connection to the review and drawing on their own experience, the examiners were able to draw conclusions about likely causes of under-performance of the system, and to recommend strategies for improving its performance. The conclusions and recommendations were discussed in June 2004 by the Education Committee and the Danish Minister of Education and officials, and later with municipal authorities, and representatives of parents and the teachers trade union. The recommendations provided much of the basis for the strategy subsequently adopted by the governments for improving school outcomes.

48. Work at the OECD in this area extends well beyond PISA, and special focus has been given to a review of formative assessment. Research show that formative assessment can be an effective method for achieving high student performance, improving equity of outcomes and promoting students' skills for learning to learn. Formative assessment refers to frequent, interactive assessments of student understanding and progress and the adjustment of teaching strategies to better meet identified learning needs. In addition, several countries promote formative assessment as a key approach to quality teaching.

49. Between 2002 and 2004, the OECD conducted a study on formative assessment in exemplary lower secondary schools across eight OECD countries [Australia (Queensland), Canada, Denmark, Finland, Italy, New Zealand, and the United Kingdom (England and Scotland)]. The OECD study incorporates analysis, case study research and reviews of English, French and German-language research in this field

50. The OECD study (OECD 2005f) recommends:

- The establishment of classroom cultures that encourage interaction and the use of assessment tools.
- The establishment of learning goals and tracking individual student progress toward goals.
- The use of varied instruction methods to meet diverse student needs.
- The use of varied approaches to assess student understanding.
- The feedback on student performance and adaptation of instruction to meet identified needs.
- The active involvement of students in the learning process.

51. There are major barriers to wider practice of formative assessment, including tensions with accountability demands of national or regional tests of student performance (teachers tend to teach to the test) and a lack of coherence between assessments at classroom, school and policy levels (teachers and school leaders often see information gathered at policy levels as unhelpful; policy officials often see

information gathered in classrooms as irrelevant to policy). The OECD analysis puts forth six policy principles to address these barriers and encourage wider practice:

- Keep the focus on teaching and learning.
- Align summative and formative assessment approaches.
- Ensure classroom, school and system level evaluations are linked and are used formatively to shape improvements at each level
- Invest in training and support for formative assessment.
- Encourage innovation.
- Build stronger bridges between research, policy and practice.

52. The annual publication *Education Policy Analysis* summarises and disseminates the findings and outcomes of the Directorate's work.

in individual and social returns to education and students' interest in science, mathematics and technology

53. Poor educational attainment comes at a high price for individuals and societies. Individuals who have not completed school with an upper secondary qualification face significantly poorer labour-market prospects despite considerable progress over the last generation this group still represents roughly one in five individuals on average across OECD countries.

54. Labour force participation rates rise steeply with educational attainment in most OECD countries. With very few exceptions, the participation rate for graduates of tertiary education is markedly higher than that for upper secondary graduates which, in turn, is markedly higher than that for individuals without an upper secondary qualification. The gap in male participation rates is particularly wide between upper secondary graduates and those without an upper secondary qualification. The labour force participation rate for women with less than upper secondary attainment is particularly low.

55. Similarly, education and earnings are positively linked, with upper secondary education forming a break point in many countries beyond which additional education attracts a particularly high premium. In all countries, graduates of tertiary-level education earn substantially more than upper secondary graduates. It is possible to contrast the advantages of education for individuals in terms of higher average earnings, lower risks of unemployment and the public subsidies they receive during their studies with the costs that individuals incur when studying, in terms of tuition fees, lost earnings during their studies or higher tax payments later in life. Even including public investment in education still yields a positive and significant social return to tertiary education in all countries with comparable data.

56. Finally, international comparisons show a pivotal role that education plays in fostering labour productivity, and by implication economic growth – not just as an input linking aggregate output to the stock of productive inputs, but also as a determinant of the rate of technological progress.

57. Students' early experiences in mathematics and science studies can have an impact on their future career choice and that have implications for future supply of science and technology workforces. EDU is currently collaborating with the Global Science Forum and the Directorate for Science, Technology and Industry to examine how to improve students' interest in and achievement of science, mathematics and

technology studies, to attract, develop and retain teachers of these subjects and to improve the supply of high quality human resources in science and technology at tertiary education level.

58. Motivation and engagement can be regarded as the driving force of learning. They can also affect students' quality of life during their adolescence and can influence whether students will successfully pursue further educational or labour market opportunities.

59. PISA studies show that within each country, students with greater interest in and enjoyment of mathematics tend to achieve better results than those with less interest in and enjoyment of mathematics, although the strength of this relationship varies by country. On the other hand, anxiety in mathematics is negatively related to student performance. In the countries where the difference in instrumental motivation between male and female is largest, the share of women graduating from university-level tertiary programmes in mathematics or computer science is below OECD average.

60. PISA results also show that students have less enthusiasm in mathematics compared to reading. In PISA 2000 students felt generally positive about reading. In contrast, students in PISA 2003 expressed less enthusiasm for mathematics. Females show particularly low levels of interest and enthusiasm and more anxiety in mathematics than male students.

in brain research and neurosciences

61. While the work areas described above seek to obtain policy insights through observing educational phenomena and deriving associations from such observations, the OECD also aims to improve educational outcomes by providing a better understanding of learning processes as informed by brain research and cognitive science. International transdisciplinary networks of researchers and education policy makers have been established to synthesise published and emerging work in learning science and brain research most relevant to literacy, numeracy, lifelong learning and the role of deep emotions in learning outcomes. Efforts are also underway to connect findings with learning outcomes as obtained through the PISA assessments

62. At the outset of the OECD programme on brain research, it was generally recognised that there were limitations on findings in this area to directly enhance teaching/learning processes and that, though such findings provide very useful insights, they cannot yet offer direct solutions to the complex challenges faced by education. As work in this area now reaches the end of its second phase (the outcomes of which will be disseminated in 2006), the fruits of brain science research can provide some direction towards more informed teaching and learning, and better options for education specialists (policy-makers, researchers and practitioners) dealing with students and adults with learning difficulties. Some broad policy lines emerge for educators and policy-makers that are summarised below

63. By studying the brain in dysfunction, it is possible to open an important window into how the healthy brain is structured, how it functions and how this relates to improving learning. Efforts to understand the human brain can be useful in the design of education for all people.

64. Neuroscientists have begun to identify sensitive periods for certain types of learning. While the brain remains plastic throughout the lifespan, it is differentially malleable to certain types of learning across development. Neurobiological knowledge of sensitive periods for learning has clear relevance for the education sector, and could be used to inform key policy issues such as parental education, day care programme content, temporal organisation of the school curriculum and appropriate timing of social transition periods (i.e. transition from home to school, from school to apprenticeship or university, from vocational training to the workplace, from the workplace to retirement, etc.) and socio-cultural transition periods (i.e. from childhood to adolescence, from adolescence to adulthood, etc.).

65. Neuroscientific research suggests that foundations for learning begin in early childhood. This could impact on policy decisions for early childhood learning environments.

66. Examining children with reading difficulties has revealed that one of the big differences between dyslexics and non-dyslexics is that the regions of the brain associated with phonology or processing sound or language are very different in their activity. This provides some basic principles for understanding literacy development.

67. The sense of numerosity in the brain is present in young infants as well as in animals. The exploration of methods and interventions to capitalise on helping infants develop number sense and connect them to the pre-existing quantity of representation in their brains is currently being illuminated through neuroscientific research.

68. External environmental influences impact on the emotional stability of children. The study of how the brain processes emotions such as stress, fear and pleasure; the examination of intrinsic motivation; and, environmental factors such as sleep, nutrition and physical exercise could inform both education and social policies.

69. Incorporating theories about how the brain works into teacher training would provide teachers with an understanding of: how neuronal architecture is constructed and how to capitalise this; brain disorders encountered in the classroom; new technologies for brain enhancement that might help them deal with coercive pressures and neuroethical issues; and, neuromyths (misunderstandings which arise when scientific facts are warped in order to adapt them to an educational context).

70. Neuroscientific research shows that despite age-related cognitive decline, certain types of abilities can remain stable, or increase with age, and that significant learning occurs throughout the lifespan, which could influence adult learning policies for the future. Furthermore, neuroscientific studies examining neurodegenerative diseases and loss of brain function through age show that these can be significantly improved through learning intervention therapies. Neuroscientific research can also assist in the design of effective programs to help delay the onset of and alleviate some of the symptoms of neurodegenerative diseases, and which will serve to increase the wellbeing of the ageing population in the future.

71. Strengthening connections between neuroscientists and educators in a transdisciplinary manner helps to build multiple pathways between the disciplines of neuroscience and education and inform future policy in this area.

Plans for the remainder of the biennium

in lessons from PISA

72. During 2005, member countries will establish a longer-term strategy for PISA. The contribution of PISA to policy making will be strengthened as time series data permits measuring improvement within countries, and analysing factors that contribute to improvement.

73. The Norwegian government is also sponsoring an initiative to review educational “added-value” measures that allow to assess the contribution of schools to the learning and achievement of students. A start-up meeting on this initiative will be held in September 2005.

74. Priorities for further development of INES include: improving measurements of the economic and social outcomes of qualifications; better measurement of the graduate output of educational

institutions; improvements concerning data on the learning environment at school, including first survey-based comparisons on teachers and teaching.

75. In May 2005 national experts met at the OECD to discuss approaches that the EDU might pursue to identify policy lessons from PISA 2003. Options under consideration include single country reviews modelled after what was carried out in Denmark; further in-depth analysis of PISA 2003 data from a limited number of countries to pinpoint critical factors meriting further analysis; and comparative thematic reviews to study particular issues that analysis of PISA 2003 data suggest to be critical

76. The built environment also has an important role to play in providing quality learning environments. Many countries have been developing tools to monitor the quality of the built environment as it relates to achieving educational and other goals. An activity on evaluating quality in educational facilities, which seeks to develop a set of international criteria or principles for assessing quality in educational facilities and to analyse methodologies that have been used to measure these criteria in different countries, is being developed by PEB in 2005-06. PEB will also undertake a pilot study that seeks to collect basic data on educational facilities.

in individual and social returns to education and students' interest in science, mathematics and technology

77. EDU has launched an activity, in collaboration with the Global Science Forum and the Directorate for Science, Technology and Industry (STI), to examine how to improve students' interest in and achievement of science, mathematics and technology studies, to attract, develop and retain teachers of these subjects and to improve the supply of high quality human resources in science and technology at tertiary education level.

in brain research and neurosciences

78. Future joint studies between scientific and educational researchers would provide valuable results towards an increased understanding of both learning processes in the brain and learning difficulties.

Key Output Results

Data Sets

- PISA data sets: www.pisa.oecd.org
- INES data sets: www.oecd.org/edu/eag2002, www.oecd.org/edu/eag2003, www.oecd.org/edu/eag2004, and www.oecd.org/edu/eag2005

OECD Policy Briefs

- *Formative Assessment*, forthcoming
- *Raising the Quality of Educational Performance at School*, 2004

Publications

- OECD (2002a), *Education at a Glance 2002*, OECD, Paris.
- OECD (2002b), *Education Policy Analysis 2002*, OECD, Paris.

- OECD (2002e), *Reviews of National Policies for Education. Lifelong Learning in Norway*, OECD, Paris.
- OECD (2002f), *Improving Both Quality and Equity: Insights from PISA 2000*, OECD, Paris.
- OECD (2002g), *Reading for Change: Performance and Engagement across Countries Results from PISA 2000*, OECD, Paris.
- OECD (2002h), *PISA 2000 Technical Report*, OECD, Paris.
- OECD (2002i), *Understanding the Brain: Towards a New Learning Science*, OECD, Paris.
- OECD (2003a), *Education at a Glance 2003*, OECD, Paris.
- OECD (2003b), *Education Policy Analysis 2003*, OECD, Paris.
- OECD (2003g), *Key Competencies for a Successful Life and a Well-Functioning Society*, OECD, Paris.
- OECD (2003h), *Learners for Life: Student Approaches to Learning Results from PISA 2000*, OECD, Paris.
- OECD (2003i), *Literacy Skills for the World of Tomorrow: Further Results from PISA 2000*, OECD, Paris.
- OECD (2003j), *Student Engagement at School A Sense of Belonging and Participation: Results from PISA 2000*, OECD, Paris.
- OECD (2003k), *Reviews of National Policies for Education. South Eastern Europe Volume 1: Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Kosovo*, OECD, Paris.
- OECD (2003l), *Reviews of National Policies for Education. South Eastern Europe Volume 2: FYROM, Moldova, Montenegro, Romania, Serbia*, OECD, Paris.
- OECD (2003m), *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills*, OECD, Paris.
- OECD (2003n), *Reviews of National Policies for Education. Polytechnic Education in Finland*, OECD, Paris.
- OECD (2003o), *Reviews of National Policies for Education. Tertiary Education in Switzerland*, OECD, Paris.
- OECD (2004a), *Education at a Glance 2004*, OECD, Paris.
- OECD (2004e), *Completing the Foundation for Lifelong Learning. An OECD Survey of Upper Secondary Schools*, OECD, Paris.
- OECD (2004f), *Educational Facilities and Risk Management Natural Disasters*, OECD, Paris.

- OECD (2004g), *Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications*, OECD, Paris.
- OECD (2004h), *Survey of Upper Secondary Schools Technical Report*, OECD, Paris.
- OECD (2004i), *Learning for Tomorrow's World: First Results from PISA 2003*, OECD, Paris.
- OECD (2004j), *Messages from PISA 2000*, OECD, Paris.
- OECD (2004k), *What Makes School Systems Perform? Seeing School Systems through the Prism of PISA*, OECD, Paris.
- OECD (2004l), *Reviews of National Policies for Education. Bulgaria*, OECD, Paris.
- OECD (2004m), *Reviews of National Policies for Education. Bulgaria: Science, Research and Technology*, OECD, Paris.
- OECD (2004n), *Reviews of National Policies for Education. Chile*, OECD, Paris.
- OECD (2004o), *Reviews of National Policies for Education. Denmark Lessons from PISA 2000*, OECD, Paris.
- OECD (2005a), *Education at a Glance 2005*, OECD, Paris.
- OECD (2005b), *Education Policy Analysis 2004*, OECD, Paris.
- OECD (2005f), *Formative Assessment Improving Learning in Secondary Classrooms*, OECD, Paris.
- OECD (2005g), *PISA 2003 Data Analysis Manual SAS*, OECD, Paris.
- OECD (2005h), *PISA 2003 Data Analysis Manual SPSS*, OECD, Paris.
- OECD (2005i), *PISA 2003 Technical Report*, OECD, Paris.
- OECD (2005j), *Problem Solving for Tomorrow's World: First Measures of Cross-Curricular Competencies from PISA 2003*, OECD, Paris.
- OECD (2005k), *School Factors Related to Quality and Equity: Results from PISA 2000*, OECD, Paris.
- OECD (2005l), *Reviews of National Policies for Education. University Education in Denmark*, OECD, Paris.

Forthcoming publications (provisional titles)

- *Reviews of National Policies for Education. Ireland: Higher Education*
- *Reviews of National Policies for Education. Basic Education in Turkey*
- *Mathematical Literacy – Student Performance and Engagement*

- “Formative Assessment: Improving Learning in Secondary Classrooms”, *Education Policy Analysis 2005*, OECD, Paris

Dissemination

79. EDU statistics and indicators are actively disseminated. The PISA and INES data sets are available free of charge on the Internet. Methodological, technical and training manuals are available and training workshops organised to ensure users get the most out of the data. Given the high profile of the publications in this area, launches are carefully planned with the OECD Public Affairs and Communications Directorate and the staff of EDU participate in a wide range of media and stakeholder events to promote the findings. In 2004, the OECD trademarked OECD PISA and PISA.

80. Dissemination of the research findings on formative assessment will continue through 2005, with conferences and seminars, and in published summaries. Several OECD countries have reported that they are using the OECD work to inform their own teaching and assessment policies.

81. An innovative website www.oecd.org/edu/brain provides a platform for interactivity between the scientific community and professionals in education and civil society (including a special forum for teachers); in-depth reports and articles about how brain research can inform educational practice; feature sections with guest brain scientists; and many useful resources for browsers from all walks of life.

STRATEGIC OBJECTIVE 3: PROMOTING QUALITY TEACHING

Introduction

82. The quality of teaching is a key determinant of student learning. It depends on the quality of the people in the teaching profession, their initial teacher education and their continuing professional development, and their work practices and working environment. Teachers constitute the largest component of education expenditure – around 60%, on average, in OECD countries.

Key issues addressed

83. School organisation and teacher policy play a major role in determining quality teaching in the overall objectives of improving student performance and of raising equity of outcomes.

- In general schools have weak networking and knowledge-sharing among teachers; most of the professional knowledge of teachers is tacit and is rarely made explicit or shared with colleagues; schools and classrooms are normally isolated from one another rather than interlinked. This directly impacts effective and quality teaching. How should the organisation of schools as learning organisations and collective practices be changed?
- Many countries have concerns about the teacher workforce in terms of shortages of well-qualified applicants, and whether enough teachers have the knowledge and skills to meet the needs of modern schooling. The ageing of the profession is compounding such concerns. As a result, making teaching an attractive career choice, developing teachers' knowledge and skills and recruiting and retaining effective teachers in schools are challenges facing most countries. What are the most effective teacher policies to reach these objectives and how should these policies be designed and implemented?

Progress ...

in school organisation

84. A focus for reform of the organisation of schooling to improve quality is the starting point that too many of the organisational forms especially in schooling are based on isolation rather than synergy and networking: individual teachers in classes separated from each other, in schools that operate alone - and even in competition with others. The OECD analysis of knowledge management has looked to other sectors to learn from them and stress the importance for education of sharing knowledge and developing networking structures. In work on *Schooling for Tomorrow*, educators themselves have repeatedly confirmed how pressing is the need to move on from the rigid 'bureaucratic' models, and towards schools as dynamic and diverse which calls for root-and-branch reform.

85. Specifically, the main factors inhibiting fundamental change to traditional practices have been:

- Weak networking and knowledge-sharing among teachers.
- Low spending on educational research and development and its application is quite limited.
- Most of the professional knowledge that teachers use in their daily work is tacit: it is rarely made explicit or shared with colleagues.

- Schools and classrooms are normally isolated one from another rather than interlinked.
- Schools still tend to have only rudimentary knowledge management practices, despite knowledge being education's explicit business.

86. The 2004 study on knowledge management identifies four key “pumps of innovation” (OECD 2004p):

- The *science-based innovation pump*: education has not traditionally made much direct use of research knowledge, and the analysis suggests that there may be cultural resistance to doing so.
- The *horizontally organised innovation pump*: there are obvious benefits in terms of teachers pooling their knowledge through networks, but incentives to do so remain underdeveloped.
- The *modular structures pump*: there are tensions between central and devolved control over the content and methods of education.
- The *information and communication technologies pump*. There is a powerful potential for ICT to transform education, but its use in schools remains underdeveloped, partly because the main *modus operandi* of school administration and instruction are resistant to change.

87. A valuable focus can be provided in addressing the issue of how well schooling in general, as well as individual schools, actively contribute to lifelong learning. The analysis of *Education Policy Analysis 2004* suggests that lifelong learning has inspired the post-secondary sector more profoundly than school reform itself, despite the key role of schools to lay lifelong learning's foundation.

in teacher policy

88. Between 2002 and 2005, the OECD conducted a major study on teacher policy – *Attracting, Developing and Retaining Effective Teachers*. The participating countries were: Australia; Austria; Belgium (Flemish Community); Belgium (French Community); Canada (Quebec); Chile; Denmark; Finland; France; Germany; Greece; Hungary; Ireland; Israel; Italy; Japan; Korea; Mexico; the Netherlands; Norway; the Slovak Republic; Spain; Sweden; Switzerland; the United Kingdom and the United States.

89. The study also included the organisation of five workshops of participating countries, three of which were hosted by countries (Flemish Community of Belgium, France and Greece). The website of the study (www.oecd.org/edu/teacherpolicy) gives access to the work produced by the study, including 26 country background reports, 10 country notes (resulting from expert team visits to specific countries), several commissioned and background papers

90. The analysis (OECD 2005m) recommends that:

- Teacher policy be formulated within a coherent policy framework, be more targeted, be based more on incentives rather than regulations and with more emphasis on teacher quality than quantity.
- Leadership in schools be strengthened. Schools should have more responsibility – and accountability – for teacher selection, working conditions, and development.

- Teaching working conditions, the status of the teaching profession, reward packages, opportunities for career diversity and mobility be more recognised as important factors to motivate teachers to improve the quality of their education delivery.
- Teacher development be placed in a lifelong learning perspective.
- Teacher evaluation for improvement purposes be given stronger emphasis.
- Teachers benefit from a career ladder based on skills, responsibilities and performance and well trained support and administrative staff.
- The best teachers be deployed in disadvantaged areas, through an array of incentives, reward systems, enhanced status etc.
- Teachers be involved in the reform design and implementation.

Plans for the remainder of the biennium

91. The teacher policy study led to two follow-up projects to be included in the 2005-06 Programme of Work: *Improving leadership in schools* and *Restructuring teachers' work and careers*.

92. The OECD also launched in 2005 a major survey on teachers, teaching and learning to help address the paucity of international and national data on teachers. A project is being considered by countries. The first meeting of the countries intending to participate is scheduled for October 2005 and the proposed timeline has the survey being conducted in 2007.

93. A survey cycle has been proposed that will progressively sample teachers at different levels of education and, following on from the OECD teacher policy review, will cover five policy areas: attracting teachers to the profession; developing effective teachers within the profession; retaining effective teachers in the profession; school policies enhancing effectiveness; and quality teachers and teaching. In the first wave of the survey in 2007, teachers at the lower secondary level will be sampled and, following the outcome of a priority-rating exercise, the policy focus is proposed to be primarily on school policies enhancing effectiveness and developing teachers in the profession.

94. The first wave will also include an experimental link of the teacher survey to PISA 2006, through a complementary survey of the teachers of 15-year-olds in PISA schools. The experimental link to PISA 2006 has three main objectives: to provide a context for teacher response through measures of socio-economic status and student performance collected in PISA; to strengthen school level variables in PISA; and to test the methodological and analytical value of linking a teacher survey to the PISA programme.

95. The survey will be the first significant attempt to obtain data and indicators on teachers and teaching across OECD countries. The indicators developed and the policy issues addressed focus on the quality of teaching and policies that affect such quality teaching. This includes both factors at the school level such as school leadership and the assessment and recognition of teachers, and factors affecting individual teachers such as education and training levels. The distribution of these characteristics across different types of schools will significantly add to analysis of differences in resources across schools and the educational and teaching issues facing different schools and teachers.

Key output results

Data Sets

- Indicator D6, D7 (OECD 2002a); Indicator D2, D5 and D6 (OECD 2003a), Indicator D2, D3 and D4 (OECD 2004a) and Indicator D2 and D3 (OECD 2005a)

OECD Policy Briefs

- *The Quality of the Teaching Workforce*, 2004.

Publications

- Coolahan, John (2002), “Teacher Education and the Teaching Career in an Era of Lifelong Learning”, *Education Working Paper No 2*, OECD, Paris.
- Dolton, P., A. Tremayne and T. Chung (2003), “The Economic Cycle and Teacher Supply”, paper commissioned for the OECD Activity “Attracting, Developing and Retaining Effective Teachers”, Directorate for Education, OECD, Paris. Available from www.oecd.org/edu/teacherpolicy
- Harvey-Beavis, O. (2003), “Performance-Based Rewards for Teachers: A Literature Review”, paper prepared for the OECD Activity “Attracting, Developing and Retaining Effective Teachers”, Directorate for Education, OECD, Paris. Available from www.oecd.org/edu/teacherpolicy
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- OECD (2003p), *Networks of Innovation: Towards Models for Managing Schools and Systems*, OECD, Paris
- OECD (2004p), *Innovation in the Knowledge Economy. Implications for Education and Learning*, OECD, Paris
- OECD (2005b), “How Well do Schools Contribute to Lifelong Learning?” *Education Policy Analysis 2004*, OECD, Paris.
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- Santiago, P. (2002), “Teacher Demand and Supply: Improving Teaching Quality and Addressing Teacher Shortages – A Literature Review and a Conceptual Framework for Future Work”, *Education Working Paper No 1*, OECD, Paris
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Dissemination

96. The recommendations from the analytical study on teacher policy were originally publicised at an International Conference held in Amsterdam on 18-19 November 2004 in collaboration with the Ministry of Education, Culture and Science of the Netherlands. Throughout 2005, several countries organised major national dissemination activities: Belgium (Flemish Community and French Community), Germany, Ireland and Korea and a few other are planning similar initiatives (*e.g.* Denmark). The OECD Secretariat also presented the teacher policy work at international conferences and meetings organised by teacher unions and other international organisations.

STRATEGIC OBJECTIVE 4: RETHINKING TERTIARY EDUCATION IN A GLOBAL ECONOMY

Introduction

97. In recent decades, tertiary education has grown and diversified in all OECD countries. Governments are major players in the sector but they are not the only stakeholders: there is competition among established and emerging providers while learners (and their families and employers) are more sophisticated and demanding. Fiscal pressures continue. The international nature of the market is becoming more evident. In this context tertiary policy must meet broad policy objectives – social cohesion and growth – within a governance framework which encourages institutions collectively to fulfil multiple missions.

Key issues addressed

98. Around the world tertiary education is under pressure to change. It is growing fast and its contribution to economic success is seen as vital. Tertiary education provision is increasingly global and increasingly competitive. Universities and other institutions have a key role in innovation systems and regional development. They must be able to adjust rapidly, efficiently and fairly to the changing demands of society and the labour market.

- How far should tertiary education expand? How should it be financed? What governance reforms are needed? What measures are required on the part of public authorities to enable tertiary education institutions to operate effectively in the new environment, and to encourage them to respond to the expectations of society?
- What governance and strategic management reforms are required within the institutions themselves to enable them to meet expectations and to develop?
- What are the main consequences of the internationalisation of tertiary education?

Progress ...

in measures by public authorities

99. A key challenge for government is to provide a clear articulation of the nation's expectations of universities. Developing a coherent strategy for steering the tertiary sector can be problematic due to the number of stakeholders involved; in addition, government responsibilities may be shared between several ministries. EDU has conducted national policy reviews of the tertiary sector in Switzerland (OECD 2003o), polytechnics in Finland (OECD 2003n), universities in Denmark (OECD 2005l) and Ireland (OECD forthcoming) to help policy makers evaluate performance in these areas and make recommendations for improvement. While each review has made country specific recommendations for the particular national context, they have all highlighted the need for governments to lead in setting the national strategy for the tertiary sector and providing the appropriate co-ordination mechanisms. In setting

out the sector's expected contribution to society, such strategies would include objectives related to equitable access to the tertiary sector – including for adult learners, the sector's role in knowledge creation (R&D, innovation networks, etc.) and clearly articulate the difference in the missions of the various types of institution that make up the tertiary sector. Furthermore, within the overall strategic framework, these reviews have noted the importance of ensuring the autonomy of institutions within the sector and the appropriate tools for self-management to foster innovation and responsiveness to the challenges of internationalisation and the changing needs of society.

100. Other common themes picked up in these country reviews are:

- The need to create a financial framework which gives institutions financial autonomy and stability. This includes appropriate government financing mechanisms based on performance criteria (student or research outcomes) rather than traditional input criteria, recommendations concerning longer budgetary cycles and provision for capital budgets.
- The importance of multiple pathways into higher education.
- The need for research to be geared to the economic and societal priorities and for researchers to be accountable and inform the public debate. This also includes mechanisms for knowledge and technology transfer with the wider community, particularly small and medium-sized enterprises.
- The advantages of internationalisation. This includes setting clear targets cross-border flows of students and staff.
- The need for measures to improve the quality of teaching.
- The need to improve indicators and statistics relative to tertiary education and internationalisation.

101. The most immediate outcomes from work on tertiary indicators will appear in the 2005 edition of *Education at a Glance* (OECD 2005a) As well as the regular indicators related to tertiary education on graduation rates, entry rates, survival rates, attainment and labour force participation, internationalisation of tertiary education, labour market earnings and the returns to education for the individual and society, the 2005 edition contains the following new information on tertiary education:

- Science graduates by gender
- Earnings dispersion by level of attainment
- The connections between educational attainment and health and between educational attainment and social cohesion
- A wider range of countries in the comparisons of graduation rates

in governance and management of tertiary education institutions

102. Work has been done on

- The changing nature of the relationship between governments and higher education institutions as the latter are given increased operational autonomy in exchange for greater public accountability of outcomes. Trends in this area – covering funding, quality assurance, governance and legal

status of institutions were described in Chapter 3 of *Education Policy Analysis 2003* (OECD 2003b)

- The conditions needed to secure financial sustainability of higher education institutions from the national (policy) and institutional (management) perspectives with active participation of eight countries (Australia, Germany, Ireland, Japan, the Netherlands, Sweden, United Kingdom – England and the United States) in collaboration with the Higher Education Funding Council for England (HEFCE). Conferences were organised in China (July 2004) around the review of financing and quality assurance reforms in higher education in China (OECD 2004q) and on “Mission, money, management”(May 2005) in collaboration with the China National Institute for Educational Research.
- The issues universities and new higher education institutes are facing as they face increasing pressure to “produce” research results to keep a competitive edge (case study approach). The Third OECD Civilian Research Development Fund/Ministry of Education and Science Seminar was organised in the Russian Federation on intellectual property and research management which looked at public venture financing and commercialisation of research.
- Trends in technology and learning and their implications for facility planning and design. Two seminars have been organised by IMHE and PEB on information and communications technology and education property management.
- The relationship between institutional image and access policies, managing media relations, crisis management, the impact of external rankings and ethical issues.
- University research management analysing the growing significance of the research mission to higher education, structures and processes for research management and how they can be strengthened, issues of funding and resourcing and research career (OECD 2004x). A second part of the work investigated the processes and strategies being pursued by new institutions to develop research (OECD 2005n).

in internationalisation of higher education

103. The regulatory capacity of national and regional education authorities is being challenged by increasing mobility of students, faculty and workers across borders and by new forms of cross-border delivery involving the mobility of educational programmes and institutions. Cross-border tertiary education presents opportunities and challenges in sending as well as receiving countries for quality, access, cost, and capacity building. It has become a significant economic and commercial stake in some countries and educational services are included in the current negotiations under the General Agreement on Trade in Services (GATS) in the World Trade Organization (WTO). EDU has conducted a major study documenting the trends in cross-border higher education and analysing the implications of the growing internationalisation of higher education and published two reference books (OECD 2004w and OECD 2004x).

104. As a result of the analysis of trends in cross-border higher education and quality assurance systems, the need for an international educational framework for assuring the quality of cross-border higher education was identified. This led to the drafting of the UNESCO/OECD initiative on “Guidelines for quality provision in cross-border higher education”, which is in its final stage. The Guidelines emphasise the shared responsibility of sending and receiving countries of cross-border higher education in quality provision. They also stress the importance of collaboration between stakeholders. Three drafting meetings were held in April 2004 in Paris, October 2004 in Tokyo, and in January 2005 in Paris. The

guidelines have been presented to the Education Committee and to the UNESCO Executive Board and will be adopted by the OECD Council by the end of 2005.

105. One of the objectives of the work was also to engage discussion between the education and trade communities regarding internationalisation and trade in higher education. CERI convened all the relevant stakeholders through a series of three OECD *fora* on Trade in Educational Services. The first forum was held in Washington (USA) in 2002; the second, in Trondheim (Norway) in 2003; the third and final one in Sydney (Australia) in 2004 (in collaboration with UNESCO). As a result, the understanding of the issues, notably the implications of the GATS, has improved and the debate has shifted to quality in cross-border education.

Plans for the remainder of the biennium

in measures by public authorities

106. A *thematic review of tertiary education* is under way. The overall objectives are to examine how the organisation, management and delivery of tertiary education can help countries to achieve their economic and social objectives, and to examine the relationship between national policies for tertiary education and institutional behaviour. A wide range of issues are examined: the links between tertiary education and the labour market; the regional role of tertiary education; the role of tertiary education in research and innovation; equity, financing and other resources; quality assurance and internationalisation. The review is based on close collaboration among voluntarily participating countries, international organisations, social partners and the OECD. To date 22 countries are participating in the review; Australia, Belgium (Flemish Community), Czech Republic, Finland, France, Greece, Iceland, Japan, Korea, the Netherlands, New Zealand, Norway, Poland, Spain, Sweden, Switzerland, United Kingdom, Chile, China, Croatia, Estonia, Russian Federation.

107. Outputs of the thematic review will include a set of country background reports, reports of national review visits, and analytical papers. Several international workshops will be held. Participating countries have nominated national coordinators, set up Steering Committees, and are preparing country background reports according to the agreed guideline. Twelve countries also have country specific reviews by experts and the OECD Secretariat. This review will conclude with an international conference before the end of 2007.

108. The review of education policy of the Dominican Republic will include higher education.

109. The underlying data collection that produced much of the data for *Education at a Glance* has been reviewed with the following changes put in place for this year's collection:

- Fresh collection of tertiary survival rates data
- Expanded collection of data on student mobility with the mobility of students being defined in terms of the residence status or as second-best proxies, the country of prior education or citizenship.
- A fuller count of graduates by field of study, with graduates who graduate in more than one field of study to be recorded against each subject.
- A new table collecting new entrants by field of education.

These changes will produce new and improved indicators in the *Education at a Glance 2006*.

110. Other development work is making progress on:

- Improving the data on the financing of tertiary education with clarifications of data reporting on research and development and ancillary services expenditure. Work to improve the data on household expenditures and public subsidies will get underway in 2006.
- Developing an indicator on cost per graduate, though this may need some further data development
- Conceptual work on and a data strategy to improve statistics and indicators on the internationalisation of tertiary education are being developed. Work is focusing on student mobility, drawing on the new data that is currently being collected as well as the contribution of international students to the graduate output.

in governance and management of tertiary education

111. A follow-up study on higher education funding systems and their effect on higher education has begun: The objective of the study is to describe, analyse and compare specific aspects of institutional funding systems, and the inter-relationships between the actual and intended impact of the systems on institutional behaviour. In addition, a follow up project with China on promoting education research on governance, finance and other key issues is underway. Site visits and seminars are planned for 2005 and 2006 with a final conference and publication in 2007.

112. A major emphasis of IMHE work in this biennium is human resource management. Recruitment and retention - particularly for science and engineering; career development; improving gender balance in senior positions; management and leadership development; and internationalisation of the academic profession are all likely to be issues. A conference to be held in August 2005 will be followed by targeted follow-up work

113. The next IMHE General Conference will focus on values and ethics in higher education management.

internationalisation of higher education

114. Once the UNESCO/OECD Guidelines on quality provision in cross-border higher education are adopted, their implementation process will take place. The implementation process will be reviewed, which could lead to a possible revision of the Guidelines in the future.

115. Work on capacity building through cross-border higher education is underway. The potential of cross-border education for development have not received much attention yet. After the UNESCO/OECD/Australia forum on educational services and a call from countries participating in the "Guidelines" to work on the issue, the work will consist in a joint book with the World Bank: 1) showing how new trends in cross-border education can help developing countries to build capacity in tertiary education (and, more generally, contribute to their development); 2) giving developing countries some policy recommendations to reap the benefits of these new trends while minimising their potential risks; 3) showing the variety and complexity of the policy instruments at their disposal; 4) and opening up new area for research in development theory and bring forward new ideas and ways of thinking on capacity development. While most countries mainly see the possible benefits of exporting education services, a well designed import strategy can also yield strong potential benefits, especially where countries are unable to meet their demand for tertiary and post-secondary education. The book will be launched at a conference

bringing together education stakeholders and policy-makers as well as the development and trade communities from the developing and developed worlds

Key Output Results

Data Sets

- Indicator A2 and C3 (OECD 2002a), Indicator A2, A3, A14, C2, and C3 (OECD 2003a), Indicator A2, A3, A4, A11, C2 and C3 (OECD 2004a); Indicator A3, A9, C2 and C3 (OECD 2005a).

OECD Policy Briefs

- *Internationalisation of Higher Education*, 2004

Publications

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- OECD (2004u), *Higher Education Management and Policy Volume 16 Issue 3*, OECD, Paris.
- OECD (2004v), *Internationalisation and Trade in Higher Education Opportunities and Challenges*, OECD, Paris.
- OECD (2004w), *Quality and Recognition in Higher Education: The Cross-border Challenge*, OECD, Paris.
- OECD (2004x), *University Research Management: Meeting the Institutional Challenge*, OECD, Paris.
- OECD (2005l), *Reviews of National Policies for Education. University Education in Denmark*, OECD, Paris.
- OECD (2005n), *University Research Management: Developing Research in New Institutions*, OECD, Paris
- Vincent-Lancrin, S. (2005), “Building capacity through cross-border higher education”, *Observatory on Borderless Higher Education*, London, 2005.

Forthcoming publications (provisional titles)

- *Reviews of National Policies for Education. Ireland: Higher Education*

Dissemination

116. The work on internationalisation has been covered by the international press (including Financial Times, New York Times, The Economist) and an op-ed has been published in the Times Higher Education Supplement (“Mind the GATS and keep doors open”).

117. The adoption of the UNESCO/OECD Guidelines on Quality Provision in Cross-Border Tertiary Education will be followed by a major dissemination effort.

118. The biennial IMHE General Conference aims to disseminate work on governance and management, this biennium’s themes being *Choices and Responsibilities* (2004) and *Values and Ethics in Higher Education Management* (2006). The first IMHE management and leadership seminar in Latin America was held in Porto Alegre in August 2004. The *IMHE Journal* publishes the best papers resulting from the IMHE programme.

119. A conference was organised in collaboration with the *Zentrum für Wissenschaftmanagement* (ZWM), in Bonn (October 2003) to disseminate the initial findings of the work on university research management.

STRATEGIC OBJECTIVE 5: BUILDING SOCIAL COHESION THROUGH EDUCATION

Introduction

120. Alongside their function of developing the knowledge and competencies of individuals, education systems also have broader social objectives, including that of building social cohesion. This raises important issues about equity in education generally and, more particularly, the circumstances of particular vulnerable social groups, such as those with special educational needs, migrants and minorities. Safety in schools is another important consideration.

Key issues addressed

121. Countries have looked to education as a means of providing opportunities for all to succeed in life, and as a pathway to a fair and cohesive society. Much has been achieved, yet a range of both new and old issues still need to be addressed including:

- How to deliver equity in education and learning, in the face of worrying evidence that the expansion of education systems has not unequivocally served the cause of equity?
- How to respond efficiently to the special education needs of students with disabilities, learning difficulties or social disadvantages?
- What can be done to protect students' rights to a safe and secure learning environment?

Progress ...

in equity

122. In country visits and country notes up to this point, key issues have included:

- Issues of school selection and choice, how weak learners are supported, immigrants and immigrant education, fairness in funding, assessment in schools, the status of vocational education, avoiding drop-out;
- The wide variety of country approaches in dealing with weak learners in lower secondary education – and the implication for later educational careers;
- The need for countries to learn from each other in the provision of education to immigrants and minorities;
- The different ways in which school selection and choice can emerge as key equity issues;
- The need to consider learning as an issue over a lifetime, taking account of the scope for catch-up and drop out after compulsory school.

123. Increasing ethnic and cultural diversity presents opportunities as well as challenges to countries and educational systems. Issues arise of language and multicultural education, of combating prejudice in the majority population, and facilitating integration. At the same time, the challenges faced by indigenous population groups are often strikingly different from those of new immigrants. Current work involves:

- A research programme that evaluates the Youth Empowerment Partnership Programme (YEPP), which brings together public, private, and independent sectors in transnational partnerships to help empower disadvantaged youth in 6 different European countries;
- Meetings of country representatives to discuss current national policies for students at risk and examples of good practice and partnerships in this domain.

124. All sites of the YEPP evaluation project were visited in 2004, with site visits for 2005 ongoing. On the national level, participating countries are currently preparing reports highlighting case studies of national programmes and examples of good practice. Complex systems and concepts like youth empowerment present new challenges for evaluation. The methodology developed for the evaluation combines qualitative and quantitative social science research methodologies, and will be the basis for discussion and comparison with other designs and evaluators in 2006.

125. Analysis is under way, with a policy questionnaire to countries due to be issued by the end of Q2 2005. There is a need to understand and evaluate the comparative effectiveness of different approaches to the education of immigrants, and the different, but substantial challenges of educating indigenous minority groups.

126. Educational work is a key element for both human capital formation and the promotion of peace and democratic values. It has therefore been identified as one of the priorities of the Stability Pact. The OECD was asked to be Co-ordinator for “General Education Policy and System Change” within the Education and Youth Task Force, and to carry out “Thematic Reviews of Education Policy” in the countries of the region. The main outcome of this project is a series of reports which provide both country overviews and a regional overview. These reports offer an analysis of the education system and address issues and barriers to reform and recommendations. The recommendations are designed to be of use for national policy-makers and to assist Stability Pact partner countries and institutions target regional assistance in order to achieve the goal of supporting South Eastern Europe towards European integration. These reports are part of the OECD’s ongoing co-operation with non-member economies around the world.

in students with disabilities, learning difficulties and disadvantages

127. The work on students with special needs is developing information and policy options for countries in order to improve the students’ learning outcomes. Different country approaches and definitions mean that widely varying proportions of students are treated as having special needs in different countries. Policies for such students also vary, particularly in the balance of provision between separate schools and inclusion in regular schools with additional assistance. The work involves;

- Improving statistics and indicators on students with special needs, including those in a growing number of non-members in Latin America, Asia, Africa and other regions, and feasibility work on the extension of PISA to the full range of students with special needs;
- Identification of programmes that are particularly effective in assisting the transition from school and tertiary education to work for students with special needs;
- Identification of best practice in the design of school facilities for students with special needs.

128. Improving the quality and usefulness of the database are priorities. In member countries this is being achieved through the development of local data gathering approaches concerned with headcounts and outcomes of education for special needs students. In collaboration with the World Bank the work is being extended into some developing countries. The first trials will be in Indonesia and Viet Nam. A paper has been prepared analyzing the PISA 2003 database on special needs students who were assessed.

in school safety and security

129. A safe and secure environment is a prerequisite for effective teaching and learning. Threats can arise from natural hazards such as earthquakes, floods and storms, or from human actions such as bullying, violence and crime. Two strands of work are under way. The first involves an examination of the role of facility designers, institutional managers, emergency response and post-crisis intervention teams in mitigating the negative impacts of catastrophic events. Building on an initial focus on earthquake safety, further work will develop a generic approach to risk assessment that will help schools and education authorities prepare for natural and man-made disasters.

130. The *OECD Recommendation Concerning Guidelines on Earthquake Safety in Schools* – which is the product of an ad hoc experts' group meeting held in February 2004 was adopted by the OECD Council on 20 July 2005.

131. The fundamental issue is that despite the fact that disaster prevention and mitigation is considered a global issue and that there is substantial expertise in design and construction, school buildings still collapse when they should not, and preventable injury, loss of life and material damage still occur. There is thus a significant role for the international community to reduce the risk and minimise the impact of disasters.

132. The second strand is concerned with school bullying and violence. Following an international conference on the topic, an international network on school bullying and violence has been established, with the objective of sharing country experiences in policies and practices to combat bullying and violence in schools. A successful conference was held and an international network has been established, with participation by 20 countries. The key issue is that school bullying is common, very damaging, and preventable.

Plans for the remainder of the biennium

in equity

133. The aim is to identify, in a final comparative report, the key issues for a country in addressing equity in education, and how they vary between countries. The evaluation component of YEPP is scheduled to finish end 2005, with the final reports and a conference on methodologies for evaluating complex systems scheduled for 2006. The next meeting of country representatives will take place in Autumn 2005. The final draft is due by end 2005.

in students with disabilities, learning difficulties and disadvantages

134. Work on improving the special needs database will continue to be extended and broadened to include as many ISCED levels as possible, and the level of analysis improved. The work to find ways of including more special needs students in PISA will develop further. The study on transitions from education to work will be commenced and the gathering of data on special needs students in developing countries will be broadened. An international conference on principles and challenges of designing and planning of facilities for students with special needs, in both OECD and non-OECD countries, is scheduled for Q2 2005.

in school safety and security

135. A design and implementation plan for an international 3-year activity on earthquake safety in schools, involving both OECD and non-OECD countries, has been developed. The first meeting of countries participating in the international activity on earthquake safety in schools is scheduled for Q4 2005. An international experts' meeting to discuss the development of an international risk assessment framework and instrument for schools will be held in Q2 2006.

136. A meeting of national co-ordinators was held in June 2004 in Kristiansund, Norway, to agree the programme of work relative to the school bullying network. A key element will be the establishment of a website to share information about school bullying and violence amongst the members of the network, planned for Q3 2005.

Key Output Results*OECD Council Recommendations*

- *The OECD Recommendation Concerning Guidelines on Earthquake Safety in Schools*

Data Sets

- Database on students with disabilities, learning difficulties and disadvantages. Work is underway to make this base available via the OECD statistics portal in OLIS and SourceOECD for 2006. In the interim, data is available upon request.

OECD Policy Briefs

- *Education and Equity, 2004*

Publications

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- OECD (2003k), *Reviews of National Policies for Education South Eastern Europe Volume 1: Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Kosovo*, OECD, Paris.
- OECD (2003l), *Reviews of National Policies for Education South Eastern Europe Volume 2: FYROM, Moldova, Montenegro, Romania, Serbia*, OECD, Paris
- OECD (2003t), *Diversity, Inclusion and Equity: Insights from Special Needs Provision*, OECD, Paris.
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- OECD (2004bb), *PEB Exchange No. 51* Volume 2003 Issue 1, OECD, Paris.
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- OECD (2004dd), *PEB Exchange No. 52* Volume 2004 Issue 2, OECD, Paris.
- OECD (2004ee), *PEB Exchange No. 53* Volume 2004 Issue 3, OECD, Paris.
- OECD (2005o), *PEB Exchange No. 54* Volume 2005 Issue 1, OECD, Paris.
- OECD (2005p), *PEB Exchange No. 55* Volume 2005 Issue 2, OECD, Paris.
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Forthcoming publications (provisional titles)

- *Special Needs in Organization of American States Countries*
- *How Fair is Education? Report of a Thematic Review*

Dissemination

137. A major dissemination effort is being planned regarding the *OECD Recommendation Concerning Guidelines on Earthquake Safety in Schools*. It is hoped that these will also be of interest to non-member economies.

STRATEGIC OBJECTIVE 6: BUILDING NEW FUTURES FOR EDUCATION

Introduction

138. Educational policy is frequently formulated under intense pressure – political, demographic, social and economic. As education systems seek to be more sensitive to demands from learners and less to the needs of the systems themselves, better informed decision-making and knowledge management in the education sector are increasing priorities. There is the need to develop strategic, longer-term perspectives for policy, leadership and investment in infrastructure.

Key issues addressed

139. In comparison to other sectors, education has traditionally operated with an under-developed research and development capacity which has inhibited informed policy-making. In addition there is still a widespread reluctance to look to evidence as an integral part of educational decision-making. Long lead times also characterise investment in educational infrastructure. Information and communication technologies have not yet led to a teaching revolution but have enriched the learning experience and can also permit the sharing of learning and teaching experiences. The future of education greatly depends upon longer-term strategic thinking in policy and its implementation.

- Should governments intervene to sustain the development of knowledge management in the education sector?
- Should the use of information and communication technologies be encouraged by public actions?
- What should be the characteristics of future learning environments?
- How should the futures of educational systems be prepared?

Progress ...

in knowledge management

140. Work on *knowledge management* has consistently argued the need for creating more robust bases of knowledge for educational policy and practice. Activity and success in knowledge creation, mediation and application have traditionally been low in the education sector compared with many others, including health. Between 2002 and 2004, a small high-level study group was set up to address these issues. At the same time, a survey of knowledge management practices in firms was undertaken in co-operation with Statistics Canada, bringing together statistical offices in five countries and research bodies from another four. Each of these strands resulted in a report (OECD 2004p and OECD 2004ff).

141. *Innovations in the Knowledge Economy: Implications for Education and Learning Systems* develops the “four pump” analysis of innovation sources – science, users and doers, modular structures, and ICT – and argues that education systems should develop these much more explicitly. It proposes as the major “innovation policy challenge” the need to steer a path between increasing the effectiveness of innovation processes and maintaining its public dimension. The survey of knowledge management in business was based on data from four countries and represented more the development of methodology and an indicator set, trialled in different national settings, than a full survey and manual. One working hypothesis that emerged was that knowing how to manage knowledge is a generic form of the new

competences required in today's world – sharing, sorting and memorising, communicating, codifying, document retrieval – with implications for educational objectives at all levels.

142. Educational R&D national reviews are carried out in volunteer countries to take stock of their educational research and development capacity, policies and practice, and to identify common issues and conclusions. A first cycle of reviews has been carried out in New Zealand, England, Mexico and Denmark between 2001 and 2004. Part of the concern regarding educational R&D capacity stems from the low levels of activity and the spending devoted to it as compared with other sectors. But the criticisms are about much more than the sheer volume of activity as there is a widespread perception that much educational research is of little relevance to either practice or policy. Countries' initiatives to build capacity and effectiveness include through:

- An increased focus on use-inspired basic research;
- The systematic accumulation and dissemination of knowledge;
- Strengthening research capacity system-wide; and
- Improving educational reform through research-based continuous improvement strategies.

143. The Danish review developed and applied a “generic template” of key questions as a tool for evaluating R&D systems. These questions are:

- What is the extent and quality of a country's knowledge about its current educational system?
- Is there a national policy or strategy for educational R&D, with a clear understanding about what counts as 'research' and as 'development'?
- Are the models of R&D held by participants and stakeholders excessively linear?
- How are R&D priorities supported and funded?
- How are the various R&D activities distributed and co-ordinated?
- Has the R&D enterprise forged appropriate international links?
- How effective is the communication and dissemination of research findings – i.e. knowledge transfer?
- How is the R&D embedded in provision for the education and training of teachers?
- What quality assurance procedures are in place for educational R&D?
- Is there adequate capacity building for educational R&D?

144. Work on evidence-based policy research in education began in 2003 to explore the vital role of research evidence in policy formulation and innovation through a series of international workshops. These are addressing some primary issues, such as methods, costs, and capacity, what constitutes evidence for research in education (including the appropriate role of randomised control methodologies), how that evidence can best be utilized, and possible solutions to challenges observed by participating countries. The

first workshop was held in April 2004 in Washington DC, the second in Stockholm in January 2005 and the third took place in the Netherlands in mid-September 2005.

in information and communications technology (ICT)

145. Information and communication technologies (ICT) make educational facilities more functional, more comfortable and energy efficient, and safer. It can improve their technical and administrative management. These were the main conclusions of an international seminar on *Information and Communications Technology and Educational Property Management* organised by the OECD and the Association of Institutional Property Managers (AGPI – Quebec, Canada), with the participation of the Quebec Ministry of Education and the Quebec Energy Efficiency Agency (AEE).

146. The activity on ICT and Education began in 2002, was carried out in close co-operation with the activities on teachers and adult learning. It was the focus of the OECD/Japan seminar at the end of 2002, on Effectiveness of ICT in Schools: Current Trends and Future Prospects. Since then the programme has concentrated on equity and inclusion, through 2003 conferences in Budapest (June) on ICT for low-achieving school students and Philadelphia (November) on adult learning and ICT use. Both of these have resulted in substantial reports.

147. This project has concluded with an overview analysis, drawing on all these sources and PISA data, in *Education Policy Analysis 2004* (OECD 2005b). This analysis identified a number of barriers preventing countries from realising the full educational benefits from their investments in ICT, including:

- inadequate levels of investment – some of the Nordic countries, Australia and New Zealand are among the few that have made sufficient investments to gain such benefits;
- insufficient use of the equipment that has been purchased;
- insufficient development and/or inappropriate use of teacher professional development.

148. Despite the importance of investment – in ICT and appropriate human resources – a basic problem in gaining improved educational benefits from ICT is that too frequently countries have seen it primarily as a technological issue, and not one of school reform and educational improvement.

149. On ICT and equity, the Budapest international workshop sought to clarify a range of questions regarding low-achievers in school. These included whether to focus on low achievement or on disadvantage, the measurement of performance and achievement in this context, the role of the public sector, and the need for a holistic approach. The Philadelphia international roundtable on ICT and non-formal/adult education for younger and older adults emphasised the importance of access to ICT to develop technology skills and not only to deliver or improve learning. There was a parallel emphasis on access to learning opportunities being needed for adults to access ICT. The question was less whether ICT *per se* was of educational value but the circumstances under which different uses of ICT might produce different types of benefits for different types of adults.

150. The activity on e-learning in post-secondary education is helping policy-makers decide how best to support e-learning initiatives in post-secondary education and providing institutions with information on good practices and on the challenges in developing and evaluating e-learning programmes. E-learning is often said to promise great things to improve quality, increase access and reduce cost in the post-secondary sector. Yet, after the hype of the “new” and “dot.com” economy, disenchantment with e-learning is now as visible as over-enthusiasm. The infrastructure and human capital required to realise this potential tend to be complex and expensive and the relevant cost/benefit analyses inconclusive.

151. This explains the value of a recent study (OECD 2005r), which reviews the current state of e-learning and analyses why and how different tertiary education institutions engage in it. It looks at what institutions perceive to be the pedagogic impact of e-learning in its different forms, how they understand and monitor its costs, and how it might impact on staffing and staff development. The study relied on a qualitative survey of practices and strategies carried out at nineteen tertiary education institutions and on the findings of a quantitative international survey of e-learning in tertiary education carried out in 2004 by the Observatory on Borderless Higher Education (OBHE). This work was supported by the Hewlett Foundation.

in the learning environment

152. Designing high performance schools and universities for the 21st Century for all children is a shared concern amongst OECD countries. Innovative research seeks answers that make efficient use of the resources invested in planning learning environments, in designing, building and renovating facilities, as well as in running schools and universities. Changes in their planning, design and management must serve the educational process and improve the quality of the learning environment. Campus space should be flexible and allow for changes in our understanding about how people learn. To secure the best possible input to deliver schools that will meet future needs and expectations and offer a positive environment that supports learning and teaching is a major challenge.

153. The OECD has looked at some recent attempts to create learning environments that respond to current needs, in order to give an idea of what has been achieved and to examine what developments can be expected in the near future. Research on existing examples of innovative institutions in various countries helps define some of the basic concepts that will affect future learning environments. In 2002, the OECD, the Irish Ministry of Education and Science and the National University of Ireland (NUI), Galway, co-organised an international seminar on *Designing Tomorrow's School*. It identified and compared current trends in school design at the international level and analysed how and why situations vary from one country to another. It also looked at major developments that will affect the design of school buildings in the future and formulated recommendations on the school of the future, defining the actions to be taken at the national/international level.

154. Investment must be optimised to procure well-designed schools. Schools must be inspiring and provide a pleasant and comfortable environment for learning. They must be open to wider use, thereby binding schools into their local communities. They also need to be of sustainable and flexible design, inclusive, and responsive to the most recent developments in information and communication technologies and to curriculum changes. In 2004, EDU and the United Kingdom's Department for Education and Skills organised an international seminar on *Creating 21st Century Learning Environments*, which examined essential elements of effective school design and addressed how architecture relates to the purposes of schooling and its implications in creating learning environments for the 21st Century. School facilities themselves were analysed as effective tools for teaching.

155. Recent work has demonstrated the extent to which higher education is experiencing a period of unprecedented change. Policy reform at national or state level seeks to respond to society's needs and expectations in a developing global market. New forms of learning and research on one hand and new tools that impact on the planning, design and management of higher education institutions on the other hand clearly indicate that the next generation of campuses will differ dramatically from those built in the past, sometimes even as recently as at the end of the 20th Century. These issues were debated at an international seminar held in San José, California, in 2005, entitled *Planning, Designing and Managing Higher Education Facilities*. The event was organised by the OECD and the Association of Higher Education Facilities Officers (APPA), United States.

in futures of schools and universities

156. The schooling for tomorrow activity aims to develop the capacity for futures thinking in education leadership and policy in OECD countries. The importance of engaging in futures thinking at all levels of education lies in a major tension. This lies between, on the one hand, a world that is increasingly complex and uncertain with a growing number of stakeholders in schooling and, on the other, a situation in which so much of education is determined by pressing immediate problems or simply seeking more efficient ways of maintaining established practice. Phase 2 covering the period from 2002 to mid-2005 was both operational and analytical, working intensively with a small number of education systems to develop futures thinking in theory and practice. That pilot phase is now being significantly broadened with many more countries coming on board, reporting and evaluating their identified “futures thinking in action” initiatives to help build an international knowledge base.

157. There have been complementary analyses on understanding demand for schooling, with a synthesis of ten country reports being prepared for publication in 2006, and on personalisation of learning. The latter study, also being prepared for publication, was the subject of an OECD/United Kingdom conference held in London in May 2004.

158. Complementary work on universities futures with experts and higher education stakeholders has developed a range of medium-term scenarios or future options for universities and higher education systems more widely. These are being underpinned by specific consideration of:

- the implications of demographic changes for the composition of the student body, curricula, and staffing;
- the impact of new technologies on teaching and research;
- relationships between universities, lifelong learning and labour markets;
- the implications for higher education of globalisation and market forces in contexts of fiscal pressure;
- the role of university research in overall knowledge systems.

159. Examining the implications of ICT for the future of higher education and the knowledge economy was also the focus of the OECD/NSF/University of Michigan Conference held in 2005 in Washington on *Advancing Knowledge and the Knowledge Economy*, www.advancingknowledge.com

Plans for the remainder of the biennium

in knowledge management

160. Switzerland has volunteered to be the first of the *Educational R&D National Reviews* in the second cycle of CERI reviews, with the country visit taking place in early 2006. On continuation of the evidence-based project, the plans for 2006 are to prepare a final report based on the seminars which will be discussed at a seminar in London, June 2006; this seminar will be jointly organised with the Economic and Social Research Council, United Kingdom. The report will then be finalised for publication.

in information and communication technologies (ICT)

161. Although the use of e-learning is increasing, there are many critical issues to address regarding access, quality, provision of content, and costs of material available over the Internet. A new CERI study is responding to the growing interest in open educational resources (OER) in higher education, which refers to courseware and content that are open and freely accessible on the Internet. These include open software tools (*e.g.* learning management systems), open material for e-learning capacity building of faculty staff, and repositories of learning objects. The study will continue to the end of the biennium to clarify and map the scope of these initiatives and address the following questions:

- How to develop sustainable costs/benefits models for OER initiatives?
- What are the intellectual property right issues linked to OER initiatives?
- What are the incentives and barriers for universities and faculty staff to deliver their material to OER initiatives? and
- How to improve access and usefulness for the users of OER initiatives?

in the learning environment

162. PEB will publish in 2006 its third international compendium of exemplary educational facilities. The book and international exhibition will feature selected school and university buildings and grounds that contribute to the quality of education. The compendium will cover all levels of education and address how the design, use and management of buildings and grounds contribute to the quality of education. It will focus on functionality of recently completed or renovated educational buildings and include an evaluative component; it will also feature learning environments of the future. Special attention will be given to buildings that meet policy objectives, for example in energy-saving, educational achievement or including students with special needs. This third compendium follows two successful earlier editions: *Schools for Today and Tomorrow* (OECD, 1996) and *Designs for Learning* (OECD 2001b).

in futures of schools and universities

163. Schooling for tomorrow has significantly broadened country involvement as a feature of its work in the rest of 2005 and 2006, and throughout this period it is systematically building the international knowledge base on educational futures thinking. CERI research on trends and driving forces will result in refined scenarios and tools for use in countries by those engaged in futures thinking. New work is beginning on radical innovations in learning with Mexico as the lead country, to provide a “micro” perspective on what schooling might be like in the future as a complement to the “macro” perspective of trends, scenarios and methodologies.

164. A major analysis on university futures will be completed in 2006 based on international trends data, thematic analyses, and scenarios on the future of universities. This will be supported by expert meetings on the outstanding thematic dimensions: demography, financing and globalisation, labour market demand, and academic research. Additional seminars with key stakeholders in higher education will be organised – with single stakeholder groups or together – to identify their perceptions regarding the future of higher education and to refine and test the project scenarios. A major international conference will be organised by the end of 2006.

Key Output Results

OECD Policy Briefs

- *Knowledge Management in the Business Sector*, 2004
- *E-Learning in Tertiary Education*, forthcoming.

Publications

- Atkins, D. (2005), “New Technologies and University Futures: Possibilities and Issues”, OECD Room Document, EDU/CERI/CD/RD(2005)5.
- Carnoy, M. (2002), “ICT in Education: Possibilities and Challenges”, Working Paper for OECD/Japan Seminar on *The Effectiveness of ICT in Schools: Current Trends and Future Prospects*, Tokyo.
- Istance, D. (2003), “The OECD Schooling Scenarios”, *Handbook of Educational Leadership and Management* (eds. Davies and West-Burnham), Pearson Longman.
- Kugemann, W (2002) “ICT and Educational Resources”, Working Paper for OECD/Japan Seminar on *The Effectiveness of ICT in Schools: Current Trends and Future Prospects*, Tokyo.
- OECD (1996), *Schools for Today and Tomorrow*, OECD, Paris.
- OECD (2001b), *Designs for Learning*, OECD, Paris.
- OECD (2003x), *Knowledge Management. New Challenges for Educational Research*, OECD, Paris.
- OECD (2003y), *Schooling for Tomorrow Networks of Innovation Towards New Models for Managing Schools and Systems*. OECD, Paris.
- OECD (2004p), *Knowledge Management. Innovation in the Knowledge Economy Implications for Education and Learning*. OECD, Paris.
- OECD (2004ff), *Knowledge Management. Measuring Knowledge Management in the Business Sector - First Steps*, OECD, Paris.
- OECD (2005b), “Alternatives to Universities Revisited”, *Education Policy Analysis 2004*”, OECD, Paris.
- OECD (2005b), “Getting Returns from Investing in Education ICT”, *Education Policy Analysis 2004*”, OECD, Paris.
- OECD (2005b), “How Well do Schools Contribute to Lifelong Learning?”, *Education Policy Analysis 2004*, OECD Paris
- OECD (2005r), *E-learning in Tertiary Education Where Do We Stand?* OECD, Paris.

- OECD and Spanish Ministry of Education, Culture and Sport (2002), *Los Desafíos de las Tecnologías de la Información y las Comunicaciones en la Educación*, Madrid
- Pelgrum, H. (2002), “Teachers, Teacher Policies and ICT”, Working Paper for OECD/Japan Seminar on *The Effectiveness of ICT in Schools: Current Trends and Future Prospects*, Tokyo.
- Vincent-Lancrin, S. (2004), “Building Futures Scenarios for Universities and Higher Education: an International Approach”, *Policy Futures in Education*, Vol. 2(2), pp. 245-263

Forthcoming publications (provisional titles)

- *Creating 21st Century Learning Environments*
- *Low Skilled Adults and Out of School Youth: Is Technology the Answer?*
- *Understanding the Demand for Schooling*
- *Futures Thinking as Education Innovation Strategy*
- *The Future of Personalised Learning*

Dissemination

165. On knowledge management, an international conference jointly organised with the United Kingdom (Oxford 2002) played a prominent role in disseminating the results of earlier analysis and launching the subsequent studies. In the case of the R&D reviews, meetings held with the countries under review with the examining team have served to highlight relevant policies and issues in those countries. The international workshops which are central to the evidence-based policy research study are designed to promote dialogue between policy makers, researchers and practitioners on the use of evidence.

166. An exhibition presenting educational institutions featured in the PEB compendium of exemplary educational facilities, *Designs for Learning*, published in 2001, was presented in Australia, Chile, Ireland, Mexico, Portugal and the United Kingdom. The further work on exemplary educational facilities will be promoted through one or more launch events and a bilingual exhibition that will be made available to national and local authorities and other organisations that wish to display it or organise dissemination events.

167. There have been international conferences to implement and disseminate the results of the Education Committee’s *ICT and Education* project in Tokyo (2002), and in Budapest and Philadelphia (2003). These were complemented by the CERI Spanish-speaking Seminars on ICT held in Mexico in September 2003, and Santiago Chile in March 2005. The next Spanish-speaking Seminar will be held in Spain and, as well as a continued focus on ICT, it will disseminate results drawn more broadly from across the OECD education programme.

168. The OECD/Canada *E-learning conference* held in Calgary, Alberta in June 2005 served as launch platform for the published report on E-Learning in Tertiary Education. It brought together some 200 participants, from across Canada as well from a number of OECD and non-member countries. There were also representatives from many international organisations, including UNESCO, the Commonwealth of Learning, CEDEFOP, and the EU.

169. The *Schooling for Tomorrow* scenarios have been used widely by many educational stakeholders in different countries. The main international project events to date have been the international Forums in Poitiers, France (2003) and Toronto (2004), with a further international conference to be held in Mexico in 2006. Building on the 2004 OECD/United Kingdom conference on personalisation of learning a further dissemination conference is planned on demand for schooling. Involvement in schooling for tomorrow through “futures thinking in action” initiatives is being widened to many more countries in Phase 3 and its prominence is being significantly increased in participating countries. The web-based international educational futures thinking knowledge base now being built is *par excellence* about enhancing dissemination.

170. There has already been one major international conference on university futures (OECD/Japan Seminar in Tokyo, December 2003) and another international dissemination event is planned towards the end of 2006. The additional seminars with key stakeholders being organised throughout the remaining period of the biennium will also serve to disseminate this work to audiences of particular importance to the future of higher education.

ANNEX 1: THE OECD PROGRAMME IMPLEMENTATION REPORTING (PIR) SURVEY

Introduction

The Programme Implementation Reporting was introduced by the OECD Council for the 2003 programme of work to systematically evaluate and report on the final output results financed by Part I of the OECD budget. It is an essential element of the result based budgeting process which requires OECD management to report to Council (though the OECD Budget Committee) on the extent to which the promised results have been achieved. The Chair of the Budget Committee has written, "In a nutshell, the PIR stands for accountability and enhances at the same time a culture of evaluation."

Objectives of the PIR

- To provide a systematic output reporting mechanism and an evaluation tool by which permanent delegations and end-users in member governments evaluate the quality and impact/potential impact of the previous year's Output Results, including outreach Output Results.
- To provide information and a learning tool to Council, Committees and the Secretariat, via direct feedback from members as funders and owners of the Organisation, on implementation, quality and impact/potential impact of Output Results and to take these views into account in subsequent planning of their work programmes so as to improve output performance and effectiveness.
- To assist in identifying priorities for in-depth evaluation and to help provide the information on which such evaluations would be undertaken.
- To maximise its effectiveness through having a critical mass of members participating in the exercise and, by having the evaluation cover a substantial portion of the Organisation's Output Results.
- The PIR is not intended to be applied in any automatic or arbitrary way to draw conclusions regarding priorities for the PWB.

Quality criteria and rating scale

Members are asked to rate the quality of OECD Output Results from **4 to 0** according to the following rating scale. If a quality assessment cannot be made, respondents select one of the "No Assessment" (NA) options.

- 4 = Outstanding
- 3 = Superior (good)
- 2 = Average
- 1 = Below Average
- 0 = Unsatisfactory

- NA = No Assessment
 NA1 – Unaware of the Output Result
 NA2 – Cannot assess due to non-participation
 NA3 – Choose to make no response

The indicative criteria set out in the box below have been developed to provide a broad guide to assessors in determining the overall quality rating for each Output Result. Assessors are not being asked to give a rating for each indicative criterion.

Indicative Quality Criteria to Aid Assessors	
Purpose:	The aims are clearly stated; questions to be answered or issues to be addressed are established.
Analytical Soundness:	Any assumptions that are made are clear and explicit; arguments are logical, objective and supported by analysis, facts and evidence.
Accuracy/Reliability:	Any data and facts provided are accurate; forecasts are robust; sources are attributed and opinions disclosed; all essential material facts are included, and the degree of uncertainty or risk noted.
Completeness:	Where appropriate, an adequate range of options is presented. The costs, benefits and risks of these to the intended client(s) are analysed together with suggestions as to how risks can be minimised and benefits maximised.
Participation and Consultation:	The participants are those needed to produce the result being sought; key stakeholders, including non-members, are identified and consulted.
Practicality and Relevance:	The result responds to Ministerial/senior official policy information needs. For some results, timeliness is crucial, while for others (<i>e.g.</i> guidelines or recommendations) the expected continued relevance (durability) may be important. Generally, the result takes account of current economic, political and social realities and consistency with other policies/actions.
Presentation and Conciseness:	The main policy messages are clear, concise and can be readily understood.

The quality ratings for each Output Result provided by the member country respondents are collated by the Secretariat. The quality rating for each Output Result that will appear in the final PIR Report to Council will show an “average rating” according to the number of member country respondents.

Definition of impact/potential impact and rating scale

Members have agreed to rate the impact/potential impacts of OECD Output Results from **4 to 0** according to the following rating scale. If an impact/potential impact assessment cannot be made at the present time, respondents select one of the “No Assessment” (NA) options.

- 4 = Major
 3 = High
 2 = Significant
 1 = Low
 0 = Negligible

- NA = No Assessment
- NA1 – Unaware of the Output Result
- NA2 – Cannot assess due to non-participation
- NA3 – Choose to make no response

Impact/potential impact has been defined as the level of usefulness of an OECD Output Result from a member government's perspective, in terms of:

1. Its actual or potential contribution to Expected Outcomes, including its potential influence on policy-making in member governments; and
2. The significance of those Expected Outcomes.

For Output Results that concern specifically other member or non-member economies, a rating should still be shown, but it should be based on the level of usefulness of an OECD Output Result from a member government's perspective rather than from the viewpoint of the specific member or non-member economy that is the beneficiary or end-user of the Output Result.

The impact/potential impact ratings for each Output Result provided by the member country respondents are collated by the Secretariat. The impact/potential impact rating for each Output Result that will appear in the final PIR Report to Council will show an "average rating" according to the number of member country respondents.

PIR 2003 and 2004: Results for the Education Committee

The results for the Education Committee output results are summarised in the following table:

2003 Evaluation	Quality Rating	Impact Rating
OECD Average	2.83	2.53
Adult learning	3.00	2.38
Career guidance	3.12	2.72
Co-financing	2.88	2.35
Education Policy Analysis	3.31	2.65
Education reform and system improvement in South East Europe (SEE) countries	2.30	1.40
Financing education – investments and returns (World Education Indicators)	2.88	2.38
INES databases (including <i>Education at a Glance</i>)	3.17	3.25
Intellectual property seminar in the Russian Federation	2.57	1.63
National education policy review in OECD countries	2.68	1.76
National education policy review Bulgaria	2.42	1.25
Upper secondary school survey	2.52	2.36
World Education Indicators	2.85	2.10
2004 Evaluation		
OECD Average	2.97	2.62
Career guidance	3.00	2.58
Disabled and children at risk in SEE countries	3.00	2.36
Financing of tertiary education in China	2.92	2.18
INES databases (including <i>Education at a Glance</i>)	3.46	3.33
Manual for international comparative educational statistics	3.19	2.84
National education policy review in OECD countries	2.95	2.21
National education policy review Chile	3.00	2.00
School bullying	2.84	2.53
Teachers policy	3.19	2.64