1. Introduction

1.1 The growing focus on tertiary education

Tertiary education policy is increasingly important on national agendas. The widespread recognition that tertiary education is a major driver of economic competitiveness in an increasingly knowledge-driven global economy has made high-quality tertiary education more important than ever before. The imperative for countries is to raise higher-level employment skills, to sustain a globally competitive research base and to improve knowledge dissemination to the benefit of society.

Tertiary education contributes to social and economic development through four major missions:

- The formation of human capital (primarily through teaching);
- The building of knowledge bases (primarily through research);
- The dissemination and use of knowledge (primarily through interactions with knowledge users); and
- The maintenance of knowledge (inter-generational storage and transmission of knowledge).

The scope and importance of tertiary education have changed significantly. Over 40 years ago tertiary education, which was more commonly referred to as higher education, was what happened in universities. This largely covered teaching and learning requiring high level conceptual and intellectual skills in the humanities, sciences and social sciences, the preparation of students for entry to a limited number of professions such as medicine, engineering and law, and disinterested advanced research and scholarship. These days, tertiary education is much more diversified and encompasses new types of tertiary education institutions (TEIs) such as polytechnics, university colleges, or technological institutes. These have been created for a number of reasons: to develop a closer relationship between tertiary education and the external world, including greater responsiveness to labour market needs; to enhance social and geographical access to tertiary education; to provide high-level occupational preparation in a more applied and less theoretical way; and to accommodate the growing diversity of qualifications and expectations of school graduates.

As participation in tertiary education has expanded, TEIs have assumed responsibility for a far wider range of occupational preparation than in the past. As the result of a combination of the increased knowledge base of many occupations and individual's aspirations, not only doctors, engineers and lawyers but also nurses, accountants, computer programmers, teachers, pharmacists, speech therapists, and business managers now receive their principal occupational qualifications from a TEI. Furthermore, TEIs are now involved in a wider range of teaching than their traditional degree-level courses.

While the extent of such teaching is not large, many examples can be found of TEIs that offer adult education and leisure courses, upper secondary courses to prepare students for tertiary-level study, and short specific occupational preparation at sub-degree level. In addition, it has become more common for TEIs not only to engage in teaching and research, but also to provide consultancy services to industry and government and to contribute to national and regional economic and social development.

Substantial reforms are taking place in tertiary education systems mainly aimed at encouraging institutions to be more responsive to the needs of society and the economy. This has involved a reappraisal of the purposes of tertiary education and the setting by governments of new strategies for the future. It has also involved more room for manoeuvre for institutions but with clearer accountability for the institutions to society. The tertiary sector is expected to contribute to equity, ensure quality and operate efficiently. This has been taken up at a meeting of OECD Education Ministers held in Athens in June 2006. Ministers committed their countries to the goal of raising the quality of tertiary education:

> *"At our meeting, we agreed on a new task: to go beyond growth, by making higher education not just* bigger *but also* better*"* (Giannakou, 2006).

Pressures for continued change are unlikely to abate. There is competition among providers of tertiary education and greater sophistication in demand. Fiscal pressures continue. Global competition for highly skilled graduate students and academics will not diminish in the years ahead. New generations of students, more concerned about the link between their studies and working life and newly empowered by a shifting balance of demand and supply may press TEIs for wider flexibility in provision and greater relevance in teaching than they have heretofore. And, various stakeholders within tertiary systems appear to expect continued movement in the direction of greater agility, openness, and resourcefulness from TEIs. The need for continued change was recognised at the meeting of OECD Education Ministers held in Athens in June 2006. Ministers noted that

> *"We all agreed that higher education cannot escape major change. Sometimes change will be difficult. Our meeting here, and these conclusions, represent a clear signal of our determination to lead the necessary changes rather than be driven by them"* (Giannakou, 2006).

1.2 Methodology

This report is concerned with tertiary education policies that can help countries achieve their economic and social objectives. It draws on a major study, the *OECD Thematic Review of Tertiary Education*,[1] conducted in collaboration with 24 countries around the world. The fact that so many countries took part indicates that tertiary education issues are a priority for public policy, and likely to become even more so in future years.

The Review was based on volunteer countries working collaboratively with each other and with the OECD Secretariat. It involved examining country-specific issues and policy responses in strengthening the contribution of tertiary systems to socio-economic development, and placing these experiences within a broader framework to generate

1. Box 1.1 defines what is meant by "tertiary education" in this report.

insights and findings relevant to OECD countries as a whole. Appendix A details the processes involved, the country reports and other documents that have been produced and the large number of organisations and people who contributed to the Review and to the preparation of this report.[2]

The project involved two complementary approaches: an *Analytical Review* strand; and a *Country Review* strand. The *Analytical Review* strand used a variety of means – country background reports, literature reviews, data analysis and commissioned papers – to analyse tertiary education policy. All participating countries were involved in this strand and prepared a detailed background report following a standard set of guidelines. They were encouraged to establish a national steering committee of relevant stakeholders to manage this process. Additionally, some countries have chosen to take part in a *Country Review*. This involved an external review team undertaking a country visit. The panel produced a Country Note containing an analysis of national tertiary education policies and policy recommendations.[3]

Box 1.1. Definition of "tertiary education"

The term *tertiary education* is a relatively recent one. Previously the more common term was *higher education*, but tertiary education was adopted by the Review in order to reflect the growing diversity of institutions and programmes. *Post-secondary education* is another term used to describe the full range of programmes and institutions available after the completion of upper secondary education. However it is too broad for the Review's purposes, encompassing a far wider range of occupational preparation programmes than is intended to be the focus of the Review, as well as a range of adult education programmes that are also not the primary focus of the Review.

The OECD Thematic Review of Tertiary Education encompasses the full range of tertiary programmes and institutions. International statistical conventions define tertiary education in terms of programme levels: those programmes at ISCED[1] levels 5B, 5A and 6 are treated as tertiary education, and programmes below ISCED level 5B are not.

Programmes at level 5 must have a cumulative theoretical duration of at least 2 years from the beginning of level 5 and do not lead directly to the award of an advanced research qualification (those programmes are at level 6). Programmes are subdivided into 5A, programmes that are largely theoretically based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes and professions with high skills requirements, and into 5B, programmes that are generally more practical/technical/occupationally specific than ISCED 5A programmes. Programmes at level 6 lead directly to the award of an advanced research qualification. The theoretical duration of these programmes is 3 years full-time in most countries (*e.g.* Doctoral programme), although the actual enrolment time is typically longer. These programmes are devoted to advanced study and original research.

In some countries the term higher education is used more commonly than tertiary education, at times to refer to all programmes at levels 5B, 5A and 6, at times to refer only to those programmes at levels 5A and 6. An additional complication is presented by the practice, in some countries, of defining higher education or tertiary education in terms of the institution, rather than the programme. For example it is common to use higher education to refer to programmes offered by universities, and tertiary education to refer to programmes offered by institutions that extend beyond universities. The OECD Thematic Review of Tertiary Education follows standard international conventions in using tertiary education to refer to all programmes at ISCED levels 5B, 5A and 6, regardless of the institutions in which they are offered. For further details see OECD (2004b).

1. The International Standard Classification of Education (ISCED) provides the foundation for internationally comparative education statistics and sets out the definitions and classifications that apply to educational programmes within it.

2. The project's purposes, analytical framework and methodology are detailed in OECD (2004a).

3. The Country Notes were released as the publication series *OECD Reviews of Tertiary Education*.

Twenty four countries took part in the Review. They ranged widely in their economic and social characteristics, as well as their approaches to tertiary education. Together they permitted a comprehensive analysis of key policy issues in a comparative perspective. The countries participating in the Thematic Review were:[4]

- *Analytical Review* strand (24 countries): Australia, Belgium (Flemish Community), Chile, China, Croatia, Czech Republic, Estonia, Finland, France, Greece, Iceland, Japan, Korea, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Russian Federation, Spain, Sweden, Switzerland, and the United Kingdom.
- *Country Review* strand (14 countries): China, Croatia, Czech Republic, Estonia, Finland, Iceland, Japan, Korea, Mexico, the Netherlands, New Zealand, Norway, Poland and Spain.

There are some striking differences among countries in regard to their tertiary education systems, as illustrated by:

Participation: in Australia, Finland, Iceland, New Zealand, Norway, Poland and Sweden over 70% of a single age cohort can expect to enter a tertiary-type A programme at some point in their lives whereas less than 30% can expect so in Mexico and Turkey (OECD, 2007a).

Private Provision: in Chile, Japan and Korea, the proportion of tertiary education students enrolled in independent private institutions in tertiary-type B programmes exceeds 80% whereas it is less than 2% in Australia, New Zealand and the Slovak Republic (OECD, 2007a).

Gender gap: in Estonia, Iceland, New Zealand, Norway and Sweden the gender gap in participation in tertiary-type A programmes is favourable to females by at least 25 percentage points while such participation is favourable to males in Japan, Korea and Turkey (OECD, 2007a).

Performed R&D: in Canada, Greece, Portugal and Turkey over 35% of gross domestic expenditure on R&D is performed by the higher education sector whereas in China, Korea and the Russian Federation less than 10% is so (OECD, 2007b).

Internationalisation: in Australia, New Zealand, Switzerland and the United Kingdom more than one out of 8 students originates from a different country whereas international enrolments represent less than 2% of student bodies in Estonia, Greece, Norway and Spain (OECD, 2007a).

By documenting such differences among countries, and trying to understand their causes and consequences, comparative analysis can help to raise questions about long-established practices, as well as help accumulate evidence on the impact of different policy approaches.

4. However, to the extent they are covered by the OECD Education Database, OECD countries which did not take part in the Review are still considered in the analysis and feature in the report's figures and tables.

1.3 Organisation of the report

This report is intended to add value to the wide range of materials produced through the Review by drawing out its key findings and policy messages. This report seeks to:

- provide an international comparative analysis of tertiary education policy;
- integrate the main themes and findings from the Review;
- draw attention to effective policy initiatives in participating countries;
- develop a comprehensive framework to guide tertiary education policy development;
- help further disseminate the country and other documents produced through the Review;
- identify priorities for follow-up work at national, regional and international levels; and
- propose options for future policy development.

The contexts within which tertiary education policy making operates can vary markedly across countries depending upon their historical traditions, social structures and economic conditions. Policy initiatives that work well in one national context are not necessarily transferable. The Review has attempted to be sensitive to this through an approach that analyses tertiary education policies in relation to the values, vision and organisation of tertiary education systems in different countries as well as the broader economic, social and political contexts in which they operate.

The report has ten further Chapters. Chapter 2 provides an overview of the impact, trends and challenges of tertiary education. Chapters 3-10 are concerned with the key substantive issues driving the project: steering tertiary systems (Chapter 3); matching funding strategies with national priorities (Chapter 4); assuring and improving quality (Chapter 5); achieving equity (Chapter 6); enhancing the role of tertiary education in research and innovation (Chapter 7); the academic career (Chapter 8); strengthening ties with the labour market (Chapter 9); and shaping internationalisation strategies (Chapter 10). Each of these Chapters discusses the trends and developments that are giving rise to policy concerns, the main factors involved, examples of innovative policy responses, and identifies policy options for countries to consider. Chapter 11 focuses on the challenges of policy implementation, with special emphasis upon issues of social acceptance and political feasibility. Appendix A details the process by which the project was conducted, and the range of outputs in addition to this report. Appendix B depicts the structure of the tertiary education system in each country participating in the Review. Appendix C discusses ways of improving the knowledge base to support tertiary education policy. Finally, Appendix D provides a summary of the policy options offered in this report.

The following Chapters provide many examples of country initiatives in tertiary education policies and programmes. A number of particularly innovative and promising initiatives are highlighted in self-contained boxes that provide more detail on the reforms. Nevertheless, due to space constraints, it has not been possible to provide all of the necessary detail, and readers are encouraged to consult the relevant Country Background Reports, Country Review reports, and research studies. All the documents produced

through the project are available from *www.oecd.org/edu/tertiary/review*. It should be noted that country-specific information given in this report with no associated source or reference is taken from *Country Background Reports* and *Country Review* reports (or *Country Notes*) produced through the Review.

References

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