

Foreword

The *UNESCO Science Report 2005* takes us on a world tour. Through the eyes of an international team of experts, it analyses the current state of science around the globe. What new trends have emerged since the previous report was published in 1998? What events have helped to reshape the scientific enterprise? For example, what has been the impact on science of the Stability Pact for South-East Europe adopted in 1999, the New Partnership for Africa's Development (NEPAD) launched by the African Union in 2001, and the enlargement of the European Union from 15 to 25 Member States in 2004? What distinguishes the scientific profiles of different countries and regions? In what ways are relations between governments, the private sector and 'knowledge institutions' (universities and research bodies) changing, and with what implications for scientific development?

The World Conference on Science has come and gone but its legacy remains. Organized in 1999 by UNESCO and the International Council for Science (ICSU), the World Conference on Science made numerous recommendations. How have these translated into national science policies? For instance, are governments' policy decisions acknowledging that the returns and applications derived from basic research irrigate the entire research system and that basic research therefore requires sustained public support?

In his introduction, Peter Tindemans summarizes the key themes explored throughout the report. The desire to build knowledge societies has become an overriding goal of governments the world over, he notes. Human resources are naturally a key component of this effort. At the same time, governments, industry and other actors in the scientific enterprise are coming to realize 'that building up human resources can be accompanied by large-scale problems', not least of which is the phenomenon of brain drain, be it internal or external. One of the most effective bulwarks against brain drain is a strong university system, but which countries can boast of a strong university system today?

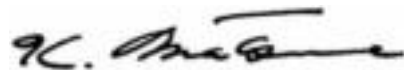
If the 'knowledge society' is one key concept in the present report, a second is 'innovation'. We shall see that private

industry has come to dominate the funding of research and development (R&D) in many countries but that still more is expected of it. However, Tindemans warns that it will not be companies that fund the greatest proportion of basic research in academic institutions in the years to come, despite the fact that universities play an increasingly important role in the innovation system. We find out why in the present report.

We shall also see that Asia's role on the international scene is growing rapidly, driven largely by China's dynamism. This trend is challenging the dominance of the triad comprising Japan, the USA and the European Union. Asia has now overtaken Europe in terms of world share of expenditure on R&D, for instance. However, with hundreds of millions of Asian children still living in poverty, the benefits of R&D are still not reaching large segments of the population who are deprived of such 'basics' as good nutrition, access to safe water, sanitation and shelter. Let us not forget that one of the key recommendations of the World Conference on Science was for R&D to target social needs and development-related problem-solving.

Elsewhere, countries less well-known for their scientific endeavour, such as Turkey, are emerging on the international scene. Science may not yet be a global enterprise but the circle of players is definitely widening. International cooperation is not only helping countries to 'catch up' but is also becoming indispensable to the very exercise of science. We live in exciting times.

I trust that the information, data and informed analysis contained in these pages will prove to be invaluable reference material for public and private sector decision-makers, scientists, students, journalists and all those interested in the unfolding story of science. If these pages provoke reflection and policy debate, the *UNESCO Science Report* will have served its purpose.



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