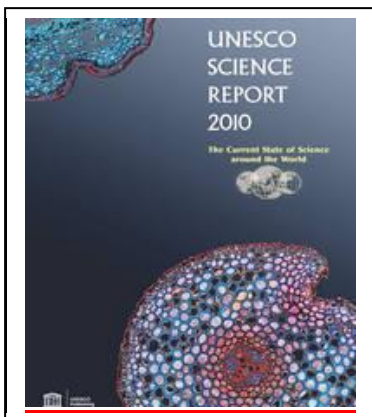




United Nations  
Educational, Scientific and  
Cultural Organization



## UNESCO Science Report 2015

<b>Geographical scope/benefitting country(ies):</b>	Global
<b>Duration (in months):</b>	10 months
<b>Name and unit of project officer</b>	Susan Schneegans, SC/PCB
<b>Partner(s) institutions:</b>	UIS
<b>Total estimated budget inclusive of Programme Support costs</b>	US\$ 1,106,120

### *Rationale and background*

The *UNESCO Science Report* series is the only report that regularly monitors the status of the support system for science, technology and innovation (STI) worldwide. It thus occupies a unique niche. The series was launched in 1993 under the name of *World Science Report*. Since then, four other reports have been published, in 1996, 1998, 2005 and 2010.

The next report will be the sixth in the series. Each report provides a snapshot of the situation worldwide at a given time. It enables governments, academia, the private sector, media and other science watchers to monitor the evolution of STI. It also enables them to study other approaches to fostering STI and compare their own situation with that of other countries and regions around the world. This can help policy-makers to identify emerging trends and best practices, and stimulate a debate at the national level on future directions for STI. The report thus both informs policy-making and serves as a resource for foresight studies.

The report is structured by region, with several additional chapters being devoted to individual countries. The first chapter provides a global overview of the situation, backed by data tables and figures. In each chapter, the author's analysis is informed by statistics provided mainly by the UNESCO Institute for Statistics (UIS). These statistics feature both within the chapters themselves and in the form of a statistical annex. In order to enable

comparisons between countries and over time, the UIS provides baseline statistics for various indicators of financial and human investment in research and development (R&D), as well as for various indicators of R&D output, including scientific publications and patents. The R&D data collected and analysed by the UIS are the main internationally comparable data series on science of the United Nations system and, as such, are used in the UNDP Human Development Report and the World Bank's World Development Indicators. The combination of authoritative data with an analysis written by independent experts who come from the country or region under study lends the report its necessary credibility in the eyes of governments, policy-makers, academics, journalists and other science watchers and thus enables it to have an important global impact.

The *UNESCO Science Report 2010* revealed that the share of R&D conducted in the developed countries had shrunk from 83% in 2002 to 76% in 2007 but that the Big Five (China, EU, Japan, Russian Federation, USA), which represented one-third of the world population, still accounted for three-quarters of both world expenditure on R&D and total researchers. The report found that the emerging economies had weathered the international financial crisis since 2008 much better than the EU, Japan or the USA. These findings demonstrate a shift in global influence in STI away from the EU, Japan and USA towards Asia (27% of GERD in 2002, 32% in 2007), a trend largely driven by China. The news of the 'rise of Asia' was widely covered in the media, including in *The Economist*, *Le Monde* and *Der Spiegel*.

The *UNESCO Science Report 2015* will cover trends and developments in the support system for STI over the period 2010–2015. The report is one of the deliverables of UNESCO's Programme and Budget for 2014–2017 (37 C/5); it is one of the benchmarks for the global monitoring of STI policies, systems and emerging trends.

Gender equality is one of UNESCO's two top priorities (along with Africa). Data will be disaggregated by gender to the extent currently possible to show progress towards gender equity in higher education and research. UNESCO aims to increase this in the subsequent report.

The report will innovate in 2015 to reflect four emerging trends:

- **the growing focus on innovation, including in poor countries**

For the first time, innovation will be the subject of a thematic chapter. It will provide insights into new trends and developments in the private enterprise sector worldwide, complementing and informing the national and regional chapters. The innovation study will incorporate new innovation indicators resulting from the first survey by the UIS of the manufacturing sector worldwide, the results of which are currently being analysed by the UIS. These new innovation indicators will feature in a global table (arranged by country) in the statistical annex.

- **the growing emphasis on monitoring STI governance**

The 2015 edition will lay greater emphasis on STI governance than previous reports. Authors of the 2015 edition are being invited to analyse the impediments to effective implementation of STI policies. This problem contributes to a paradoxical situation, whereby GDP growth shows a consistently positive trend, yet development continues to stagnate. Poor policy implementation may be due to several factors: a lack of co-ordination among relevant government departments and clear lines of responsibility, a lack of accountability, a lack of funding, a lack of policy instruments, etc.

- **the growing role of STI in sub-Saharan Africa**

There will be three chapters on sub-Saharan Africa, compared to one previously, in order to reflect the growing number of initiatives in Africa to develop STI policy and governance and the diversity of approaches. These chapters will cover West Africa, Central and East Africa, and Southern Africa. About 20% of the authors will be African. The chapter on Southern Africa will benefit from the three STI country profiles published by UNESCO since November 2013 for Botswana, Malawi and Zimbabwe.

- **the growing need to monitor the extent to which STI are fostering sustainable development, on the eve of adoption of the sustainable development goals (2015)**

The Statistical Annex will be enriched with global data for selected sustainable development indicators. These will correlate with the planned sustainable developments goals and targets chosen by the international community for the post-2015 period; if adopted in time, they will feature in an annex to the report. The 2015 edition will provide 'baseline' information for measuring the role STI play in fostering sustainable development between 2015 and 2030. The report will also serve as a tool for assessing 'the last push' towards achieving certain MDGs which expire in 2015.

The *UNESCO Science Report 2010* has already identified a growing trend towards the adoption of low carbon, green growth policies and the growing importance attributed in policy to environmental issues and climate change. Its successor will be assessing the extent to which these 'green' policies and programmes have been implemented, their achievements and the challenges they pose, as well as any changes in policy and direction by governments since 2010.

## **Why UNESCO ?**

### **Overall Goal/Objective**

The *UNESCO Science Report 2015* will not only help to inform governments, private enterprises and other stakeholders of emerging trends in STI policy and governance and identify innovative models; the report may also be instrumental in reorienting national policies for STI and the wider development agenda at a time when countries which have adopted *Vision 2020* documents in the past are now beginning to think about elaborating medium-term strategies for the post-2020 period. One key objective will be build greater awareness among decision- and policy-makers of the importance of good governance practices for effective implementation of STI policies so that these policies live up to their promise of fostering sustainable development. Another aim will be to help orient development assistance. The report will also inform governments, academics and other science watchers about some of the key ways in which STI are fostering sustainable development and the hurdles to harnessing STI effectively to this end.

### **Main expected results**

#### **Expected Result 1**

Heightened awareness of significant trends and developments in STI policy at the national, regional and global levels

The analysis and data in the *UNESCO Science Report 2015* will inform the formulation of national medium-term strategies such as planning and Vision documents, and contribute to

measuring progress in implementing regional (e.g. Lisbon Strategy of the European Union, Africa's Science and Technology Consolidated Plan of Action) and international strategies, such as the MDGs. The Report will also lay the groundwork for measuring early progress in implementing other strategies, including the planned sustainable development goals, in the next edition in 2020. It will also help governments to orient development assistance. The report will thus benefit stakeholders at national, regional and international levels.

## ***Activities and outputs/deliverables relating to the achievement of expected results***

### **Activity 1 – expected results 1**

#### **Output/deliverable 1.1**

Publication of UNESCO Science Report 2015

#### **Output/deliverable 1.2**

Launch and other events to publicise the UNESCO Science Report 2015

## ***Beneficiaries and stakeholders***

Governments, universities, science academies, public research institutes and other bodies, private sector, the media, UN agencies, non-governmental organizations and intergovernmental organizations, including cooperation and development agencies, and development banks.

## ***Implementation strategy***

Production of the *UNESCO Science Report 2015* got under way in the first trimester of 2014, with the conclusion of the first author's contracts. The UIS has already shared relevant data with authors, which will be updated as necessary. Most chapters will be written in late 2014 and early 2015, in order for the information to be as recent as possible at the time of publication in November 2015. Each chapter will be peer-reviewed by both an internal (to UNESCO) and external team composed of experts from around the world.

As the report is being prepared over a shorter period than its predecessor in 2010, there will need to be both an editor and deputy editor working full-time on it from September 2014 onwards, as well as a part-time administrative assistant.

The report will be designed and laid out internally by UNESCO. Funding permitting, it will be published in November 2015 and a debate on the report's findings will be organized at the World Science Forum to give the report maximum visibility. A global press campaign managed by UNESCO will accompany the launch. In 2016, a questionnaire prepared by an external evaluator will be sent to Member States enquiring as to the visibility and impact of the report in their country, shortfalls, suggestions for improvement, etc. Upon publication, the report will be open access online and available for purchase from UNESCO Publishing and other online bookshops like Amazon. It will be translated into UN languages, funding permitting. UNESCO and its partners will organize regional presentations of the report to share information widely and encourage debate

## ***Sustainability and exit strategy***

As part of a longstanding series, the *UNESCO Science Report 2015* will be an open access publication available to all for consultation and downloading on UNESCO's portal, like all

reports in the series. Internauts can access all the information and data published in these reports since 1993, ensuring an unbroken time series. The shelf life of the report will thus extend beyond the five years to the next report, useful for analysts. UNESCO will provide access to the full report and to individual chapters, as well as to the full statistical annex. The dedicated webpages will also provide related resources, including executive summaries in at least six languages (funding permitting), press releases highlighting the main trends globally and regionally, fact sheets, Powerpoint presentations and infographics summarizing the main trends, etc. The *UNESCO Science Report 2015* will be followed by the *UNESCO Science Report 2020*.