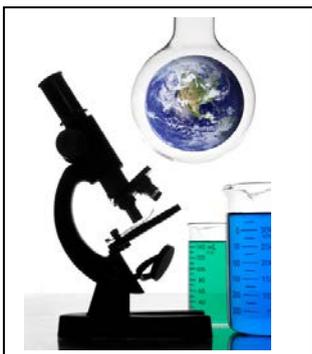




United Nations
Educational, Scientific and
Cultural Organization



Production and Dissemination of Science, Technology and Innovation (STI) statistics

Geographical scope/benefitting country(ies):	Global
Duration (in months):	36 months
Name and unit of project officer	STI/SCC/UIS (Science, Technology and Innovation Unit of the Science, Culture and Communication Section of the UIS) Martin Schaaper/ Susan Schneegans
Partner(s) institutions:	OECD, Eurostat, RICYT (the Latin-American Network on S&T Indicators), AU/NEPAD
Total estimated budget inclusive of Programme Support costs	USD 1,000,000

Rationale and background

Science, technology and innovation (STI) is a key factor in economic growth and the alleviation of poverty. In particular, innovation lies at the heart of productivity, growth and job creation. Evidence suggests that countries which generate innovation grow faster than those that do not. A set of internationally comparable, quality STI indicators and accompanying metadata is an essential tool for policy makers in countries at all levels of development in setting effective STI policies.

The UNESCO Institute for Statistics (UIS) is the UN lead agency responsible for collecting and disseminating STI statistics across the UN system. The Institute collects two key types of STI data, on research and experimental development (R&D) and on innovation.

R&D is one of the key components of a national innovation system. R&D results in the technology that brings new products and services to the market place or underpins better processes, leading to high quality jobs, successful businesses, better goods and services and more efficient processes. R&D results in valuable inventions, ideas and designs which can be a source of potential value when it comes to gaining competitive advantage. Good quality R&D data are crucial information for policy makers in countries at all levels of development. The UIS carries out an R&D data collection every two years, with major updates on an annual basis.

In developing countries, innovation data can be used to more precisely understand the functioning of the business sector by assessing key elements related to technology, technology transfer, design and training, as well as linkages between different actors in the economy. In short, the data can be used to identify factors that promote or hamper innovation. Over the last few years, there has been a considerable increase in the number of innovation surveys undertaken around the world. However, these data are generally collected at the national level and are not necessarily comparable across countries. The UIS is, therefore, seeking to build a global database of innovation indicators that can be compared across countries at all stages of development. The data and accompanying metadata will serve as an essential resource for policymakers seeking to develop effective policies at the national and international levels.

To this end, the UIS proposes to regularly conduct a global survey of innovation data that will complement the already established data collection of research and experimental development (R&D) data. Both of these surveys will be conducted on a biennial basis, during alternate years, in order to reduce the burden on national respondents.

The collection of innovation data is new for many developing countries and a challenge for all. To assist governments in completing the UIS innovation survey, the Institute will provide capacity-building services and training workshops. The aim is to offer a training workshop in every developing region at least once every three to five years.

The UIS will also help countries develop their own surveys by creating and maintaining an inventory of innovation surveys undertaken around the world. National authorities can benefit from the experience of others by consulting the inventory, which will contain definitions, survey items and a wide range of metadata in different languages. In addition, the UIS will develop methodological guidelines and other resources to help countries respond to data requests. These methodological resources will include topics of specific relevance to developing countries, such as the collection of data on innovation in agriculture and the informal sector.

Why UNESCO?

Since UNESCO has more Member States than any of the listed partners it is able to ensure global coverage of data collection. This data is then put to use in the periodic UNESCO Science Report, which has a worldwide reputation.

There is general consensus among regional and international stakeholders that the UIS is uniquely suited for this initiative given its experience, reputation and mandate to serve as the United Nations depository for global STI statistics. It is the only international agency collecting STI data for all countries.

The 'added value' of the Institute is summarized below.

- **Efficiency in terms of resources:** the UIS has the contacts (e.g. network of national statisticians), infrastructure, experience, and reputation required for efficient data collection in countries at all stages of development.
- **Quality assurance:** the UIS has developed the methodological frameworks and resources to produce cross-nationally comparable data.
- **UIS network of statistical advisors:** The Institute has statistical advisors in the field leveraged to implement this initiative, which will entail in-depth consultations with regional partners, establishment of technical committees, training of national statisticians, etc.

Overall Goal/Objective

- To provide policy makers in countries at all levels of development with a set of internationally comparable STI indicators and accompanying metadata;
- To promote and facilitate greater use of cross-nationally comparable STI data for policymaking

Main expected results

Expected Result 1

Policy makers, analysts and other stakeholders have access to quality STI statistics and use them in elaborating national development plans

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

<p>Activity 1 – expected result 1 STI data collection</p>
<p>Output/deliverable 1.1 R&D survey launched in 2014</p> <p>Output/deliverable 1.2 Innovation survey launched in 2015</p> <p>Output/deliverable 1.3 STI metadata available in the UIS database</p> <p>Output/deliverable 1.4 Innovation inventory available to users via UIS website</p>
<p>Activity 2 – expected result 1 Support to the Member States in collecting, analyzing and reporting STI statistics</p>
<p>Output/deliverable 2.1 Guide on the conduct of an R&D survey published</p> <p>Output/deliverable 2.2 Technical advice provided through workshops and direct assistance</p>
<p>Activity 3 – expected result 1 STI statistics dissemination</p>
<p>Output/deliverable 3.1 R&D e-Atlas and R&D fact sheets produced</p>
<p>Output/deliverable 3.2 Information sheet on the innovation data collection produced</p>
<p>Output/deliverable 3.3 Information provided to partner organizations, regional and national stakeholders for their publications</p>

Activity 1: Expanding the UIS STI database, notably through the regular R&D data collection and a global data collection specifically designed to produce more policy-relevant information on the role of the business sector in innovation, especially in developing countries.

- Survey design and delivery
- Data and metadata capture
- Data and metadata processing
- Data and metadata release

Activity 2: Capacity development of national statisticians to collect, analyze and report national STI data for use in internationally comparable database of STI indicators.

- Publishing and disseminating *Guide on the Conduct of an R&D survey in developing countries*
- Conducting two regional workshops on STI data and indicators as well as delivering STI sessions for partners' workshops (approximately 200 statisticians to be trained)
- Providing targeted assistance to selected Member States (at least 4)

Activity 3: Promoting the use of STI indicators in reports and electronic products that link the data to development issues.

- Preparing and publishing analytical materials based on the collected STI statistics
- Providing information to partner organizations as well as regional, sub-regional and national stakeholders

Beneficiaries and stakeholders

Project beneficiaries include policymakers, analysts and other stakeholders, especially in developing countries. Having a set of internationally comparable innovation data and indicators at their disposal will allow them to benchmark national policies against best practices in other countries. The UIS data collection is being designed in close consultation with Member States and benefits from continuous input received during regional capacity building and training workshops.

Data collection agencies in developing countries are another set of project beneficiaries, as they increase their capacity to produce innovation statistics with the technical guides produced by the Institute and by participating in training workshops.

Implementation strategy

The UIS will launch in 2014 a new round of its biennial Resource and Development (R&D) survey, which will improve the coverage of available data in this area. A second global innovation data collection will be launched in 2015.

A good response rate (hence active participation of the national statisticians) will be achieved primarily by developing national capacities for the sustainable production of STI statistics. This will entail the organization of regular training workshops (especially in sub-Saharan Africa, Asia and the Arab States) and the reinforcement of linkages with regional networks of practitioners involved in the generation of statistical information.

In 2014-2015, the UIS will finalize and disseminate methodological guidelines on how to undertake an R&D survey in developing countries. This tool should help, first and foremost, developing countries sustain production and international reporting of STI statistics. The UIS will work with national statisticians to facilitate the use of the new tool.

Various R&D publications, such as the R&D eAtlas and several fact sheets will be updated. A report will be written about the innovation data collection, which will also be translated into French and Spanish. Time permitting, a report will also be produced using information from the innovation catalogue. We will make contributions to various publications from other organisations, such as the UNESCO Science Report 2015, the Global Innovation Index and the ESCAP Statistical Yearbook.

Sustainability and exit strategy

Sustainability of the archived results will be guaranteed by the level of support (both hands-on through trainings and workshops and methodological through guidelines and developed materials) rendered by the UIS to national counterparts in establishing proper mechanism of collecting and reporting the national data.

As the data collection gets more established and a wider audience of national data users and producers become accustomed to it, there will be a steady improvement in the quality and quantity of statistics available in the UIS global STI database, which is used by UNESCO, Member States and partners across the development spectrum. This database constitutes a freely available public good.