

Science in the Information Society¹

Scientific research is one of the key factors underpinning the development of the Information Society. The fundamental technological components of the Information Society: electricity, radio waves, the World Wide Web (www) and the web browser were all first developed in academic laboratories. Ensuring equitable access to scientific knowledge is essential in order to achieve the Millennium goals and the use of Information and Communication technologies (ICTs) now offers incredible opportunities in this regard. Scientific research leads to the development of new technologies themselves and to the production of data and information that, when combined with these technologies, can be of huge benefit to society as a whole. **The essential role of science and scientists in building the Information Society should be clearly acknowledged in the declaration of principles and reflected in the plan of action from WSIS.**

Principles

Scientific knowledge and data are of enormous importance in a global Information Society:

- To foster innovation and promote economic development
- For efficient and transparent decision-making, particularly at the governmental level
- For education and training

Scientific data and information should be as widely available and affordable as possible: the more people that are able to share them, the greater the positive effects and returns to society. Scientific knowledge is a “public good“.

The development of new IC Ts opens up **unprecedented opportunities** to ensure universal and equitable access to scientific data and information and to enhance the global knowledge pool. However, **excessive privatization and commercialization of scientific data and information** is a serious threat to the realization of these opportunities for the benefit of society as a whole.

Agenda for Action:

1. Ensure that all universities and research institutions have affordable and reliable high-speed Internet connections to support their critical role in information and knowledge production, education and training.

¹ This statement is the product of a workshop “Science in the Information Society”, that was organised by ICSU and the ICSU Committee on Data for Science and Technology (Codata) in partnership with UNESCO. The workshop took place in Paris on 12th March 2003 and involved over 60 scientists, science managers and representatives of international agencies from all over the world. Further information can be found at www.icsu.org.

ICSU, the International Council for Science is a non-governmental organisation that was founded in 1932 and whose mission is to “strengthen international science for the benefit of society”. The ICSU membership is made up of 101 national science academies/research councils and 27 international science unions. Whilst every attempt has been made to make the current document as authoritative as possible, the content does not represent the formal views of individual ICSU members.

2. Promote sustainable capacity building and education initiatives to ensure that all countries can benefit from the new opportunities offered by information and communication technologies (ICTs) for the production and sharing of scientific information and data.
 3. Ensure that any legislation on database protection guarantees full and open access to data created with public funding. In addition, restrictions on proprietary data should be designed to maximize availability for academic research and teaching purposes.
 4. Promote interoperability principles and metadata standards to facilitate cooperation and effective use of collected information and data.
 5. Provide long-term support for the systematic collection, preservation, and provision of essential digital data in all countries.
 6. Promote electronic publishing, differential pricing schemes, and appropriate open source initiatives to make scientific information accessible on an equitable basis.
 7. Encourage initiatives to increase scientific literacy and awareness of how to interpret web-based scientific information.
 8. Support urgently needed research on the use of information technologies in key areas, such as geographical information systems and telemedicine, and on the socio-economic value of public domain information and open access systems.
 9. Recognize the important role for science in developing and implementing the new governance mechanisms that are necessary in the information society.
-