

# International science community to establish global virtual library for scientific data

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The existing networks for collecting, storing and distributing data in many areas of science are inadequate and not designed to enable the inter-disciplinary research that is necessary to meet major global challenges. These networks must be transformed into a new inter-operable data system and extended around the world and across all areas of science. The General Assembly of the International Council for Science (ICSU) agreed today to take the first strategic steps to establish such a system.

More scientific data and information is now available than at any other time in history and the volume is increasing daily, particularly via the World Wide Web. Yet the quality, long-term stewardship and availability of this data is largely uncertain and a large amount of valuable scientific data remains inaccessible. Over 50 years ago, ICSU established networks of data centres and services to provide full and open access to scientific data and products for the global community. But the world has changed enormously in 50 years, most notably with advances in technology, and it is time for the existing structures to be integrated into a new expanded system—a World Data System.

The expert report recommending the new system and presented to the ICSU General Assembly asserts: 'there is a need for global federations of professional state of the art data management institutions, working together and exchanging practices. Such federations can provide quality assurance and promote data publishing, providing the backbone for a global virtual library for scientific data'. The report concludes that ICSU

itself can play a leading role by re-structuring its own data bodies.

Ray Harris, chair of the expert Committee that produced the report said, 'Data is the lifeblood of science and there are many exciting developments, which mean that access to scientific data both for science and for policy making should be much easier. However, in many areas there is little order and the origin and reliability of what one finds on the web can be almost impossible to determine'.

'A more strategic and systematic international approach, together with significant financial investment at the national level, is urgently required if we are to realise the full benefit of science for society,' Harris continued.

Dave Carlson, the Director of the programme office for the International Polar Year (IPY)—a major, ICSU-sponsored, interdisciplinary research programme that is using and generating enormous amounts of data—added: 'There are more than 200 IPY research projects, funded to the tune of 1.5 billion Euros, and its major legacy should be the data that will inform polar research for years to come. But we still don't know how most of this data will be handled'.

'The new ICSU World Data System should help provide at least part of the answer. A little bit of extra resource for data management is urgently needed to ensure maximum return on what has been a huge public investment in IPY.'

The report and more information on the General Assembly are available at: [www.icsu.org/3\\_mediacentre/GA\\_29.html](http://www.icsu.org/3_mediacentre/GA_29.html)

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