

The ICSU World Data System

International research is increasingly dependent on access to quality-assured data across multiple scientific domains, in particular to tackle the pressing challenges of sustainability and the resilient management of our planet. In unison with the concept of Open Science, it is vital that the data underlying scientific research are properly preserved and fully and openly shared to facilitate scrutiny and reuse.



**TRUSTED
DATA SERVICES
FOR GLOBAL
SCIENCE**

The World Data System (WDS) was established by the International Council for Science (ICSU) to address the data challenges and opportunities of international research and to create a common globally interoperable distributed data system that incorporates emerging technologies and multidisciplinary scientific data activities. WDS is a worldwide 'community of excellence' for scientific data that ensures the long-term stewardship and provision of quality-assured data and data services to the international science community.

Goals

- Enable universal and equitable access to quality-assured scientific data, services products and information
- Ensure long-term data stewardship
- Foster compliance to agreed-upon data standards and conventions
- Provide mechanisms to facilitate and improve access to data and data products

Strategic Plan 2014–2018

The strategy for WDS to achieve its objectives is outlined in a five-year Strategic Plan covering the period 2014–2018. The Plan is structured around five major targets recognized by the WDS Scientific Committee as imperative to ICSU-WDS accomplishing its goals, and enabling it to contribute significantly to international research projects such as Future Earth, a 10-year international research programme on global sustainability coordinated by ICSU and its partners.

1. Make trusted data services an integral part of international collaborative scientific research
2. Nurture active disciplinary and multidisciplinary scientific data services communities
3. Improve the funding environment for scientific data services
4. Improve the trust in and quality of open scientific data services
5. Position ICSU-WDS as the premium global multidisciplinary network for quality-assessed scientific research data

The concrete tasks are outlined in a two-year Implementation Plan; a living document that shows the status of progress towards completion of activities and targets.

Membership & Certification

Different membership-types are available for organizations, depending on their activities and interests. As of September 2016, ICSU-WDS has certified and accredited **75 Members** and co-opted another **22**.

65 Regular Members—organizations that are data stewards and/or data analysis services.

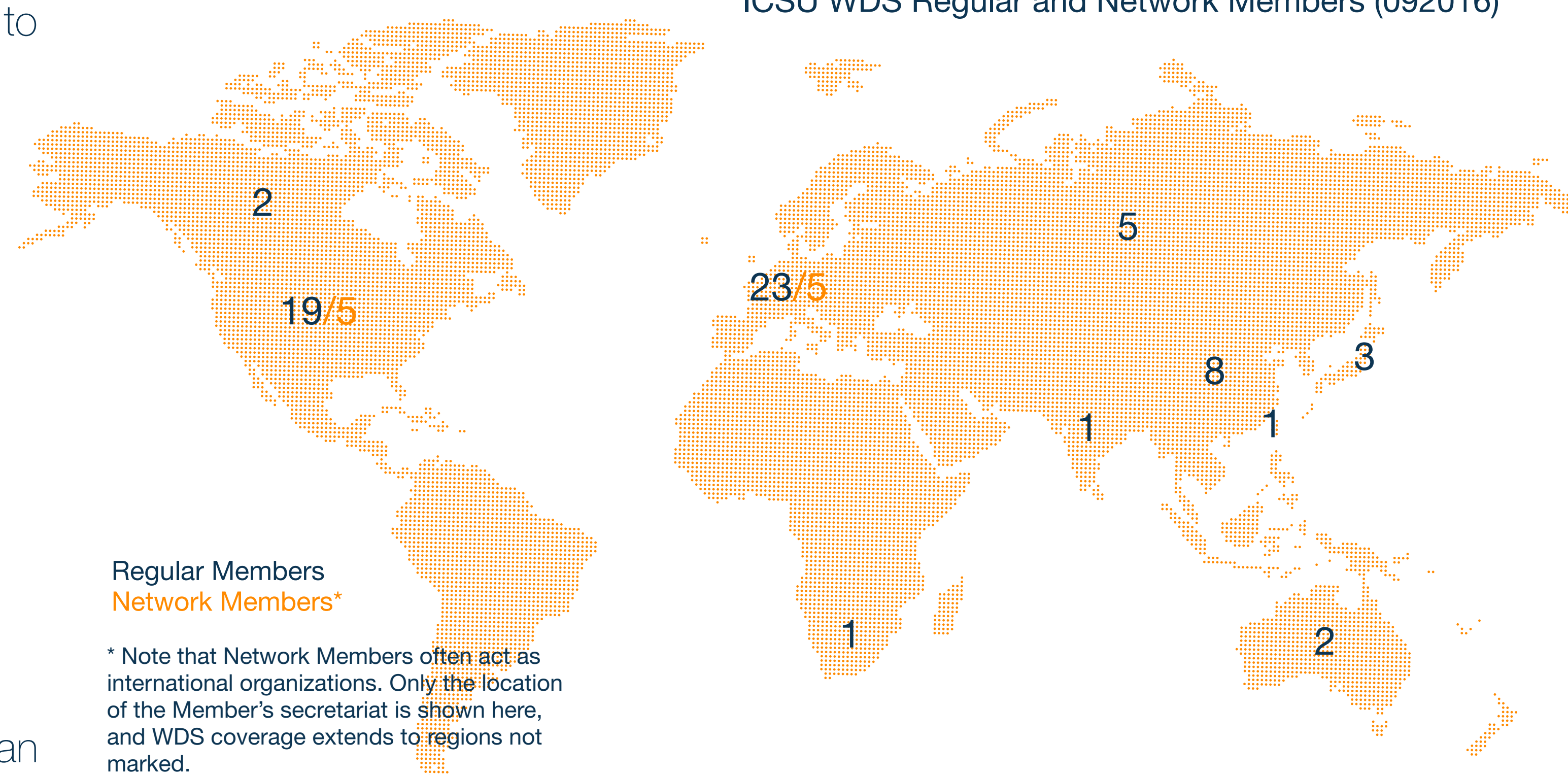
10 Network Members—umbrella bodies representing groups of data stewardship organizations and/or data analysis services.

6 Partner Members—organizations that are not data stewards or data analysis services, but that contribute support or funding to ICSU-WDS.

18 Associate Members—organizations interested in the WDS endeavour, but that do not contribute direct funding or other support.



ICSU WDS Regular and Network Members (092016)



Regular and Network Members are part of a community recognized to have met certification criteria on scientific relevance, governance, data management, technical infrastructure, and security. Furthermore, Members adopt **WDS Data Sharing Principles** open and equitable access to quality-assured scientific data, data services, products, and information.

Working Groups

Certification: Whilst WDS' comprehensive accreditation procedure is unique in the data management landscape, it is not considered definitive. ICSU-WDS is working with the Data Seal of Approval to implement a common certification framework; thus forging a global network of trusted data services.

Publishing Data: ICSU-WDS is bringing together all stakeholders involved in publishing research data, building on their existing resources and experiences through four targeted Working Groups addressing the implementation of workflows for publishing data, and therefore helping establish appropriate supporting infrastructure including bibliometrics, business models, and data literature interlinking services.

Knowledge Network: ICSU-WDS is developing a scalable Knowledge Network that will draw information from an online open Metadata Catalogue of WDS Regular and Network Members' data holdings, as well as a variety of other sources. By richly cataloguing this knowledge, ICSU-WDS can become the lead source of information on global capability regarding scientific data services.



Scientific Committee 2015–2018

Chair: Sandy Harrison (UK). Vice-chairs: Ingrid Dillo (The Netherlands), Wim Hugo (South Africa). Members: Aude Chambodut (France), Alexander de Sherbinin (USA), Arona Diedhiou (France, Côte d'Ivoire), Claudia Emerson (Canada), Elaine Faustman (USA), Isabelle Gärtner-Roer (Switzerland), Toshihiko Iyemori (Japan), Guoqing Li (China), Sanna Sorvari (Finland), Alfredo Tolmasquim (Brazil). Ex officio: Heide Hackmann (ICSU), Yasuhiro Murayama (NICT).

International Programme Office

Mustapha Mokrane (Executive Director)
Takashi Watanabe (Senior Advisor)
Rorie Edmunds (Programme Officer)
Yuko Nikaido (Administrative Officer)

