



ICSU World Data System: Trusted Data Services for Global Science

Mustapha Mokrane
Executive Director
International Programme Office

ICSU World Data System

‘ICSU’s long-term vision is of a world where excellence in science is effectively translated into policy making and socio-economic development. In such a world, **universal and equitable access to scientific data and information** is a reality ...’



ICSU Strategic Plan II, 2012-2017
(including a summary of progress made in
implementing the Strategic Plan I, 2006-2011)



WORLD DATA SYSTEM

Scientific Committee 2012–2015

- **Bernard Minster** (*Chair, USA*)
- **Michael Diepenbroek** (*Germany*)
- **Françoise Genova** (*France*)
- **Claudia Emerson** (*Canada*)
- **Sandra Harrison** (*UK*)
- **Wim Hugo** (*South Africa*)
- **Jane Hunter** (*Australia*)
- **Vasily Kopylov** (*Russian Fed.*)
- **Guoqing Li** (*China*)
- **Ruth Neilan** (*USA*)
- **Lesley Rickards** (*UK*)
- **Ryosuke Shibasaki** (*Japan*)
- **Ariel Troisi** (*Argentina*)
- **Orhan Altan** (*Ex officio, ICSU*)
- **Yasuhiro Murayama** (*Ex officio, NICT*)



**WDS-SC Members
and WDS-IPO Staff**



WDS Members

Scientific Data Services: Assist organizations in the **capture, storage, curation, long-term preservation, discovery, access, retrieval, aggregation, analysis, and/or visualization** of scientific data, as well as in the associated **legal frameworks, to support disciplinary and multidisciplinary scientific research.**



WDS Members

- Full and open access data policy
- Broad disciplinary and geographic coverage
- Trustworthiness and adoption of data standards/conventions (certification)



WORLD DATA SYSTEM

WDS Membership

57 Regular

Organizations that are data stewards and/or data analysis services

10 Networks

umbrella bodies representing groups of data stewardship organizations and/or data analysis services (ESDIS, IODE, IVOA...)

3 Partners

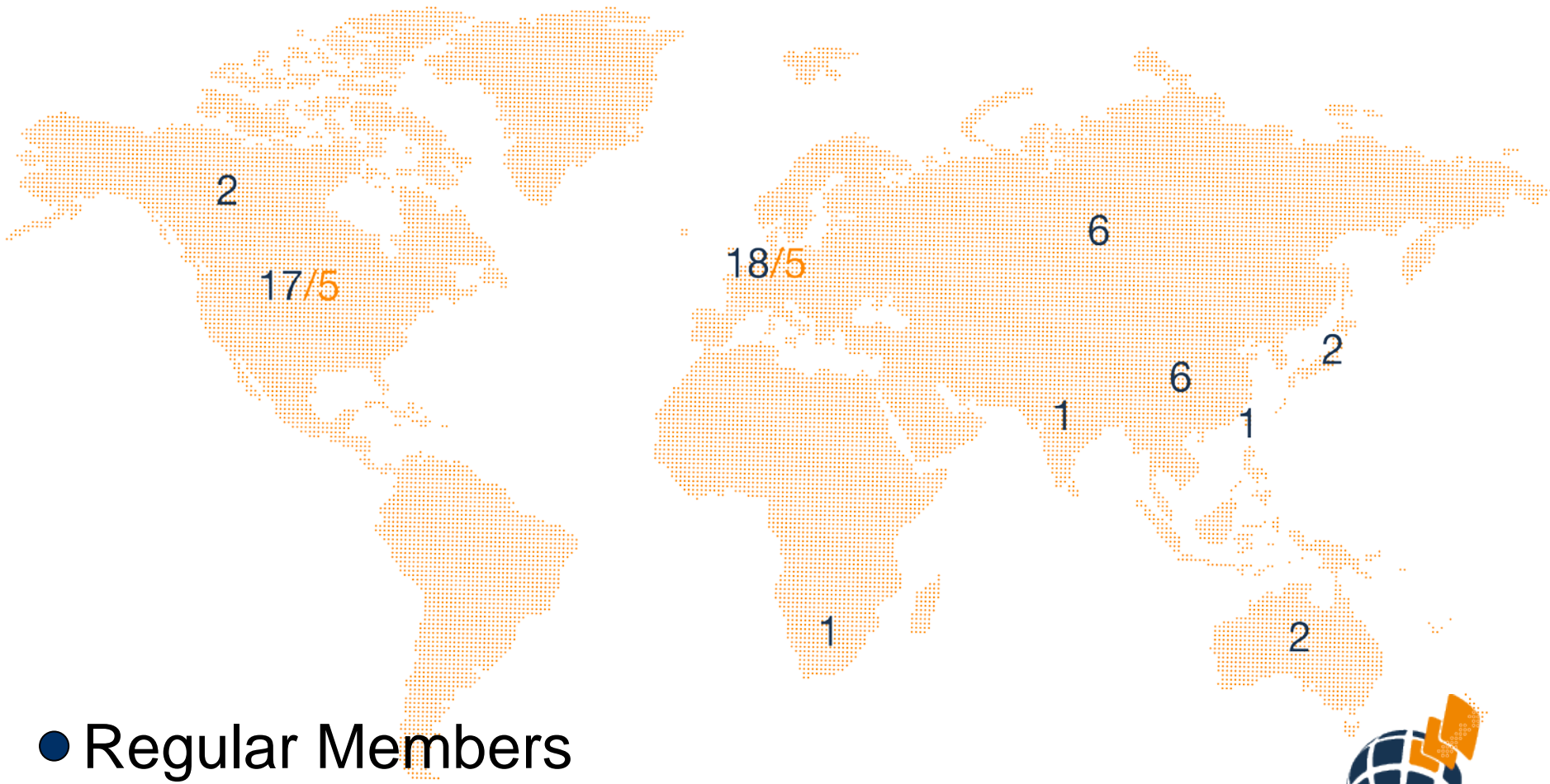
Contribute support to WDS Membership

17 Associates

Interested in the WDS endeavour **(ICSTI)**



WDS Membership



- Regular Members
- Network Members

Strategic Plan 2014–2018



<https://www.icsu-wds.org/organization/strategic-plan>

Strategic Targets

- 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 trust in and quality of **open** Scientific Data Services
- 5) Position WDS as the **premium** global multidisciplinary network for quality-assessed scientific research data



Publishing Data



facilitating access to, and use or reuse of datasets
through **Data Publication**



100+ participants at the RDA–WDS Publishing
Data Interest Group breakout session: Dublin, March 2014

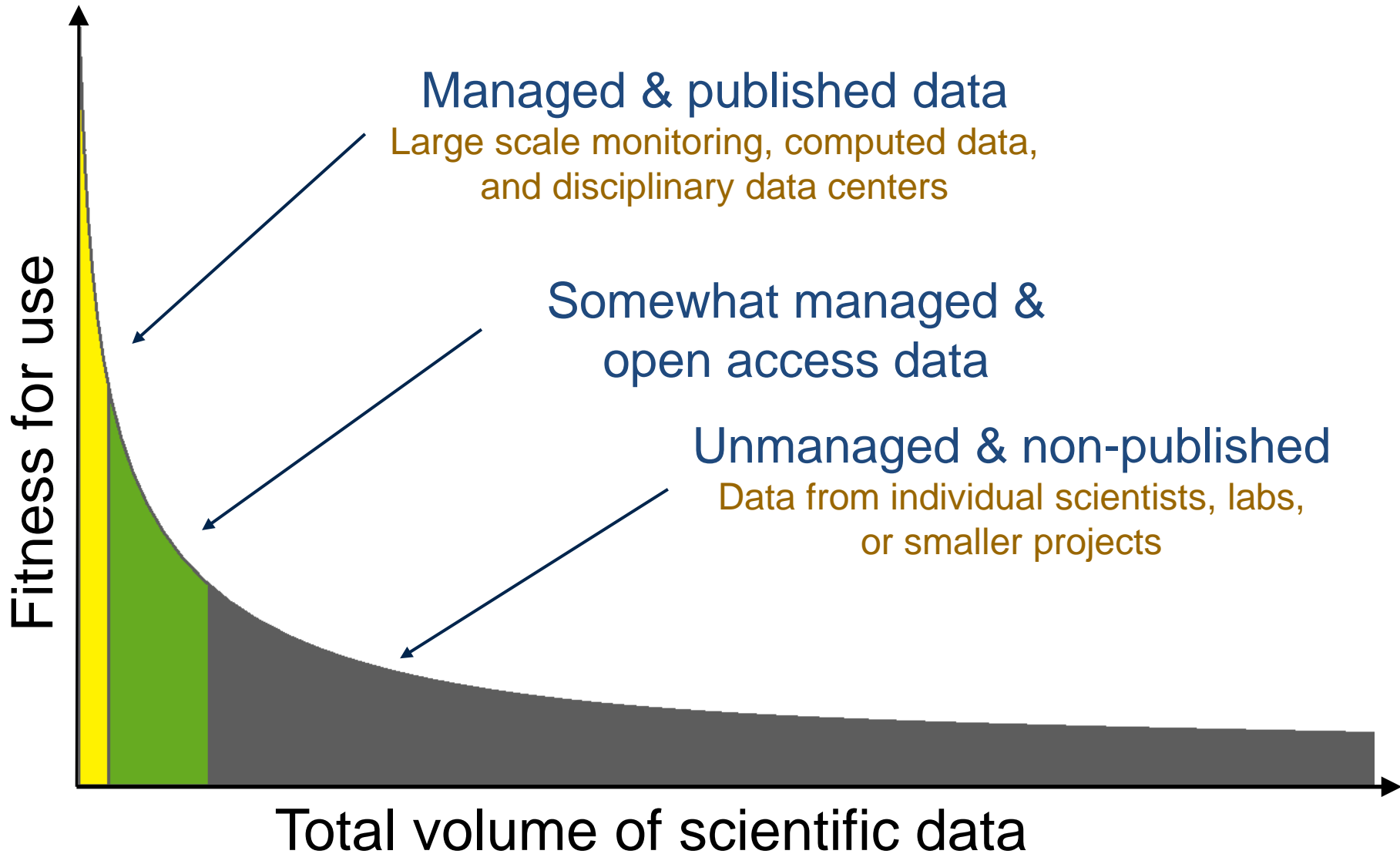


Interest Group

- Research facilities
- Data repositories
- Universities
- Libraries
- Industry

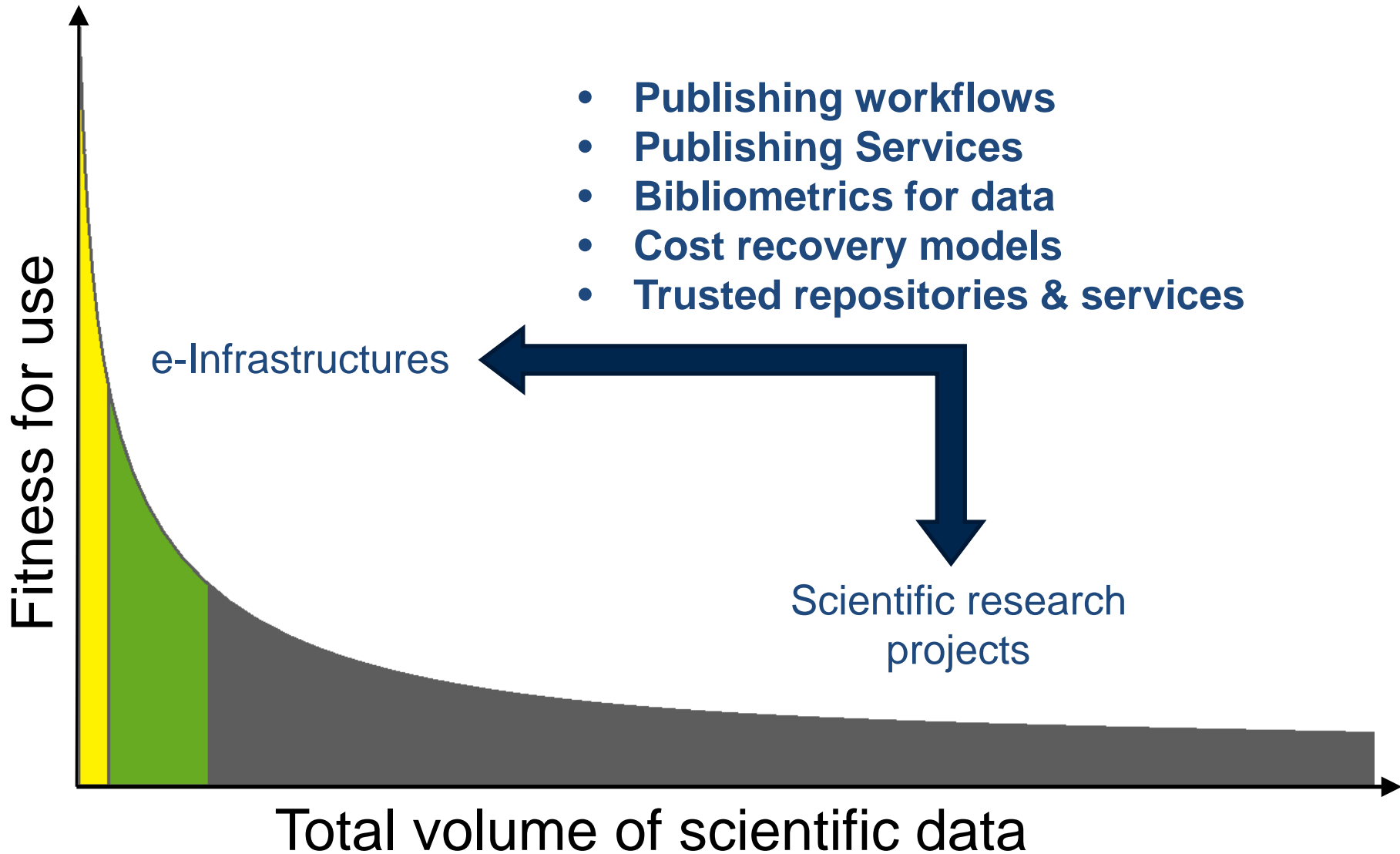


The Long Tail



Bridging domains

- Publishing workflows
- Publishing Services
- Bibliometrics for data
- Cost recovery models
- Trusted repositories & services

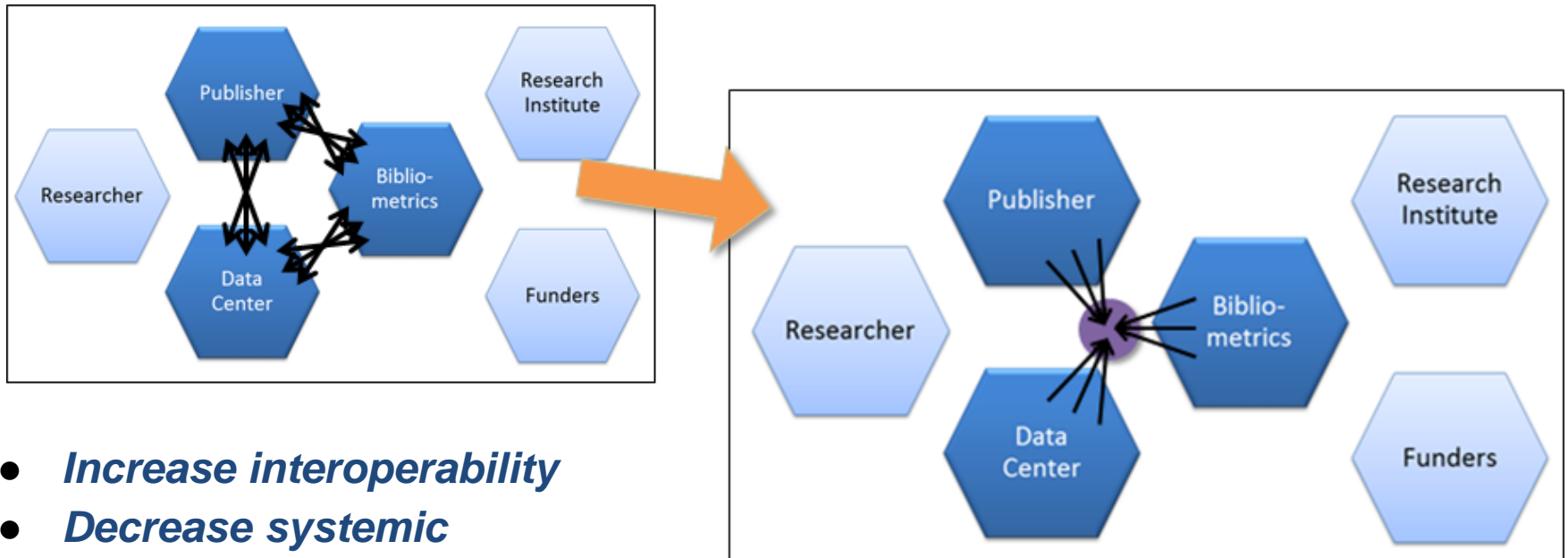


Publishing Data IG

- **Workflows WG: Provide generic workflow models for data publication**
- **Bibliometrics WG: Approaches & solutions that allow analysis of content & proper citations**
- **Cost recovery models WG/IG**
- **Services WG: One-for-all, Article–Data cross-referencing service**

Data Publication Services WG

How to move from a plethora of (mostly) bilateral arrangements to a one-for-all service model infrastructure for the research data publication landscape?

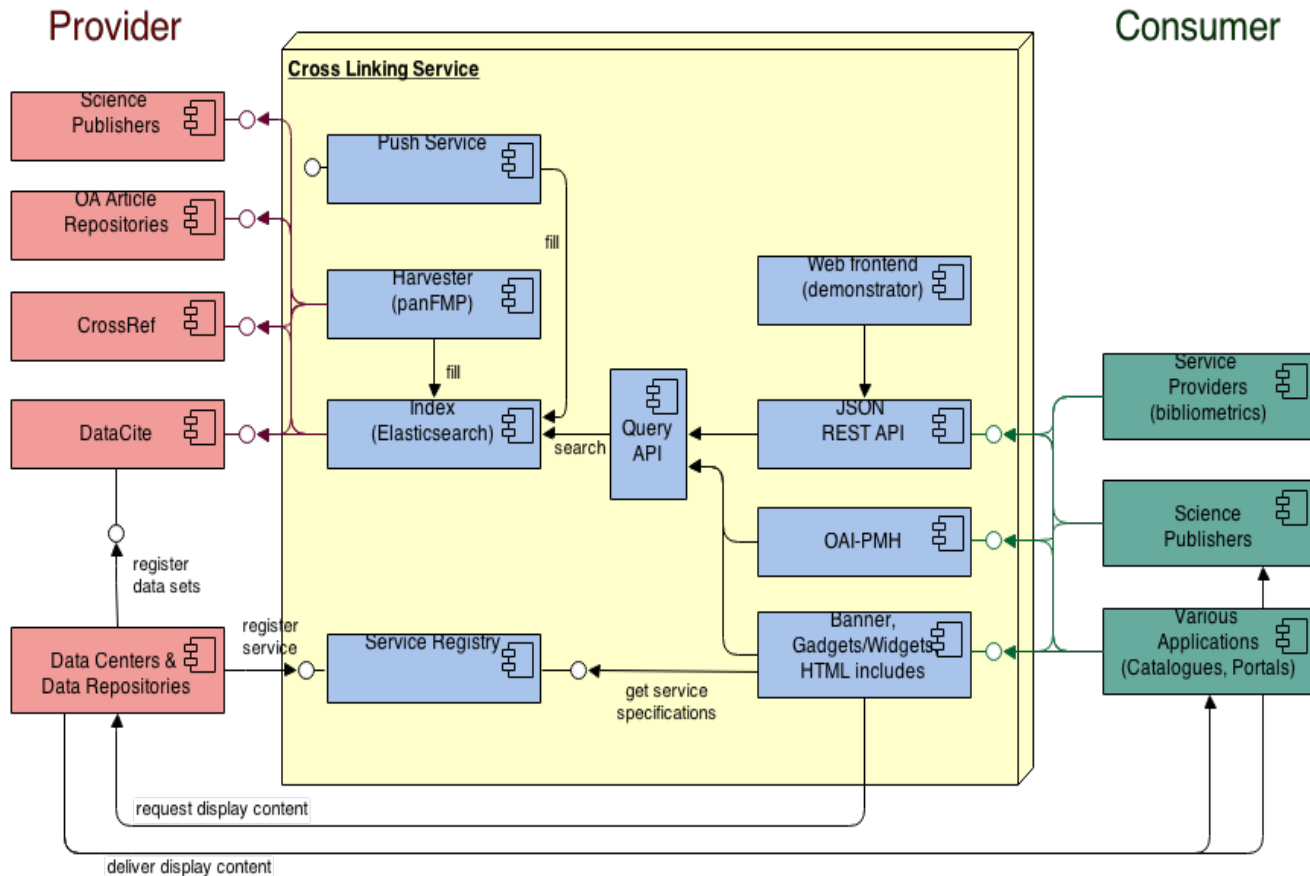


- *Increase interoperability*
- *Decrease systemic inefficiencies*
- *Power new tools and functionalities to the benefit of researchers*

User Scenarios



Technical Prototype



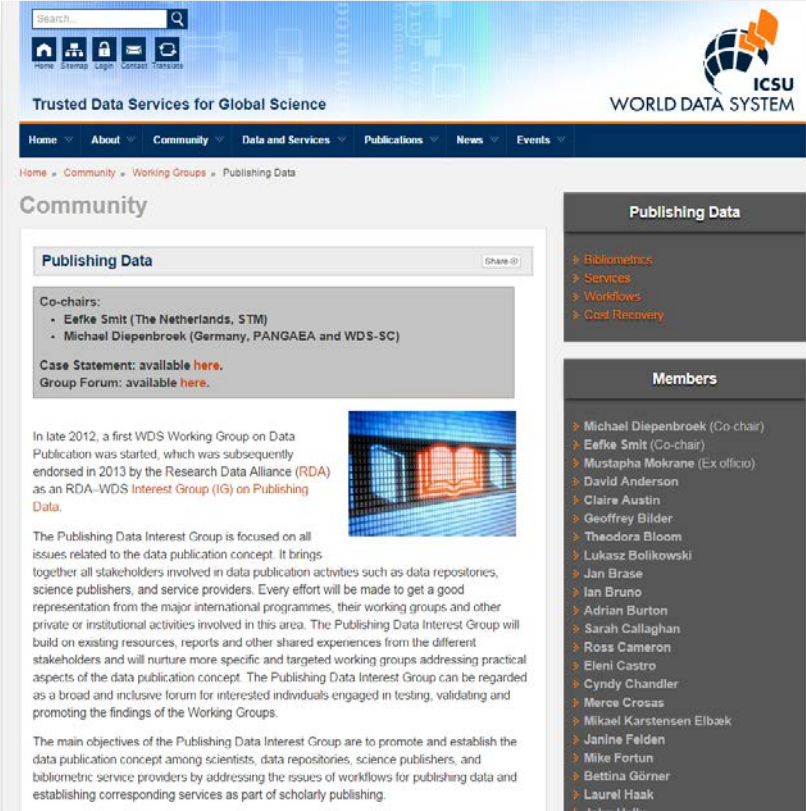
Test Corpus

ANDS	2K data collections with publications across disciplines and publishers; Data URLs with article DOI/URL
CCDC	450K entries from Cambridge Structural Database with CCDC id or DOI linked to CrossRef DOIs from various publishers
CrossRef	CrossRef / DataCite linking service under development. Currently 70k DataCite DOI's referencing CrossRef DOI's.
DataCite	500K linked items (data-data, data-pub, pub-data, pub-pub)
Elsevier	105K article-data links; ScienceDirect article DOIs with URLs to data landing pages
Europe PMC	API access to article-data relations, see http://europepmc.org/advancesearch
PANGAEA	Rich data set description including citation information, content descriptions, references, coverages, identifiers, and lineage
Thomson Reuters	20K data items with article links
OpenAire	Descriptions are collected from publication and dataset repositories, registries, journals and CRIS systems.



More...

www.ICSU-WDS.org



The screenshot displays the ICSU World Data System website. At the top, there is a search bar and navigation icons for Home, About, Login, Contact, and Password. The main header reads "Trusted Data Services for Global Science" and "WORLD DATA SYSTEM" with the ICSU logo. A navigation menu includes Home, About, Community, Data and Services, Publications, News, and Events. The breadcrumb trail shows "Home » Community » Working Groups » Publishing Data".

Community

Publishing Data

Co-chairs:

- Eefke Smit (The Netherlands, STM)
- Michael Diepenbroek (Germany, PANGAEA and WDS-SC)

Case Statement: available [here](#).
Group Forum: available [here](#).

In late 2012, a first WDS Working Group on Data Publication was started, which was subsequently endorsed in 2013 by the Research Data Alliance (RDA) as an RDA-WDS Interest Group (IG) on Publishing Data.

The Publishing Data Interest Group is focused on all issues related to the data publication concept. It brings together all stakeholders involved in data publication activities such as data repositories, science publishers, and service providers. Every effort will be made to get a good representation from the major international programmes, their working groups and other private or institutional activities involved in this area. The Publishing Data Interest Group will build on existing resources, reports and other shared experiences from the different stakeholders and will nurture more specific and targeted working groups addressing practical aspects of the data publication concept. The Publishing Data Interest Group can be regarded as a broad and inclusive forum for interested individuals engaged in testing, validating and promoting the findings of the Working Groups.

The main objectives of the Publishing Data Interest Group are to promote and establish the data publication concept among scientists, data repositories, science publishers, and bibliometric service providers by addressing the issues of workflows for publishing data and establishing corresponding services as part of scholarly publishing.

Publishing Data

- Bibliometrics
- Services
- Workflows
- Cost Recovery

Members

- Michael Diepenbroek (Co chair)
- Eefke Smit (Co-chair)
- Mustapha Mokrane (Ex officio)
- David Anderson
- Claire Austin
- Geoffrey Bilder
- Theodora Bloom
- Lukasz Bollkowski
- Jan Brase
- Ian Bruno
- Adrian Burton
- Sarah Callaghan
- Ross Cameron
- Eleni Castro
- Cyndy Chandler
- Merce Crosas
- Mikael Karstensen Elbaek
- Janine Felden
- Mike Fortun
- Bettina Görner
- Laurel Haak
- John Helly

SciDataCon 2014

International Conference on

Data Sharing and Integration for Global Sustainability



Join us at SciDataCon 2014

Date: 2–5 November 2014

Venue: Jawaharlal Nehru University
Convention Centre, New Delhi, India

SciDataCon will bring together international experts and practitioners in data sciences, technologies and management; researchers from the natural, social, health, and computer sciences; research funders and sponsors; and policy makers and advisors to discuss practical challenges of data sharing and integration in the context of global sustainability research.

www.SciDataCon2014.org

