



# Implementation of Open Access Principles in the Developing World: Examples from the ICSU World Data System

Mustapha Mokrane,  
Executive Director

# ICSU World Data System



‘As an ICSU Interdisciplinary body, the mission of the World Data System is to support ICSU’s vision by promoting **long-term stewardship** of, and **universal and equitable access** to, quality-assured scientific data and data services, products, and information across a range of disciplines in the natural and social sciences, and the humanities.’

*WDS 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



# Open, Inclusive and Trusted

- ✓ Full and open access data sharing policy
- ✓ Broad disciplinary and geographic coverage
- ✓ Trustworthiness: **WDS Certification procedure** addresses GEO Data Management Principles (Discoverability, Accessibility, Usability, Preservation, Curation.)

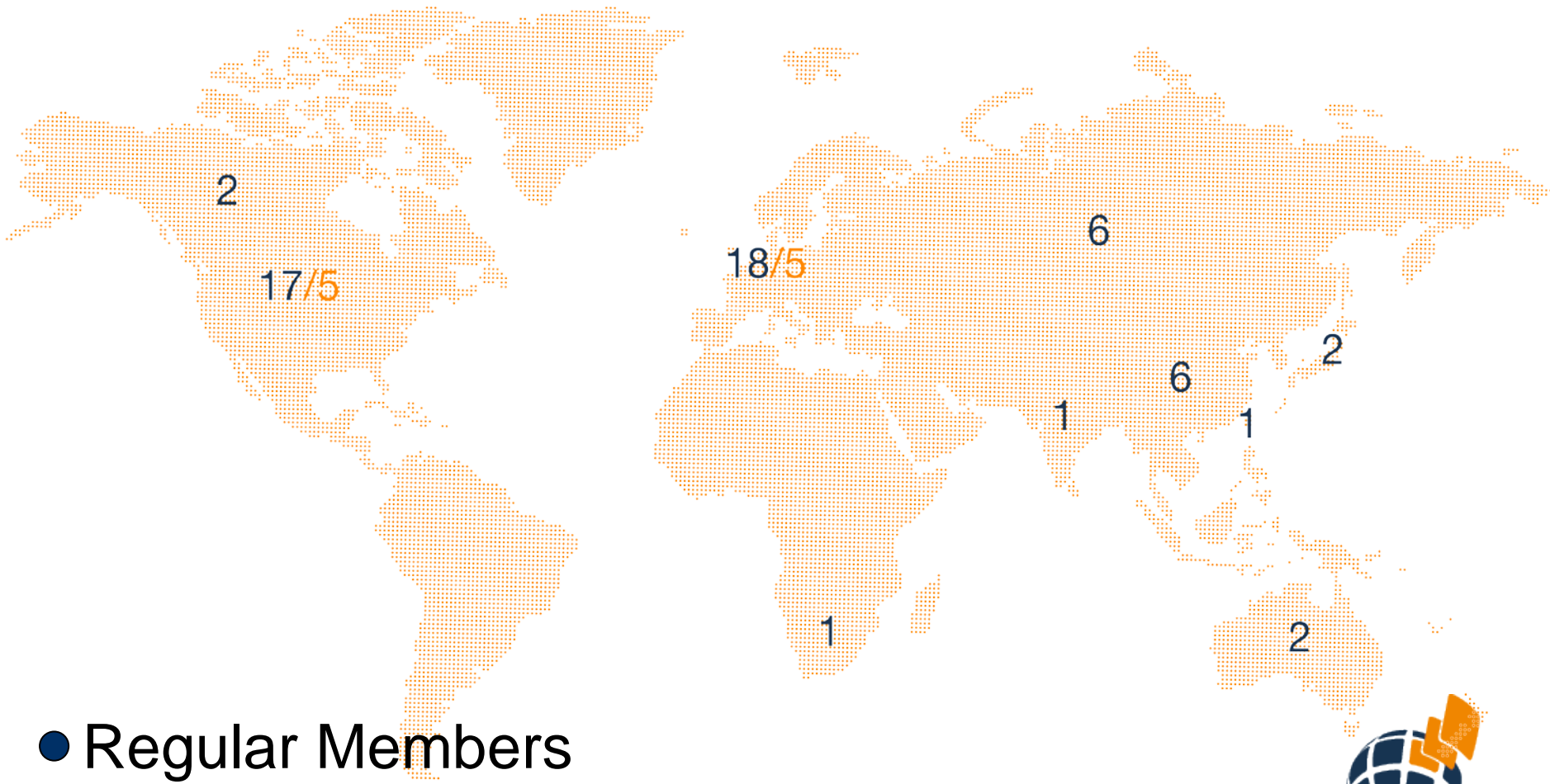


# WDS Membership

- **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 (NASA ESDIS, IOC/IODE, IVOA...)
- **3 Partners and 17 Associates**



# WDS Membership



● Regular Members

● Network Members

# Network members with global footprints

- **International VLBI Service for Geodesy and Astrometry**
- **International Laser Ranging Service**
- **International GNSS Service**
- **International Virtual Observatory Alliance (IVOA)**
- **International Oceanographic Data and Information Exchange (IODE)**
- **NASA ESDIS Project**
- **International Space Environment Service (ISES)**
- **CLARIN-ERIC**
- **International DORIS Service**
- **INTERMAGNET**



# GEO: What's missing?

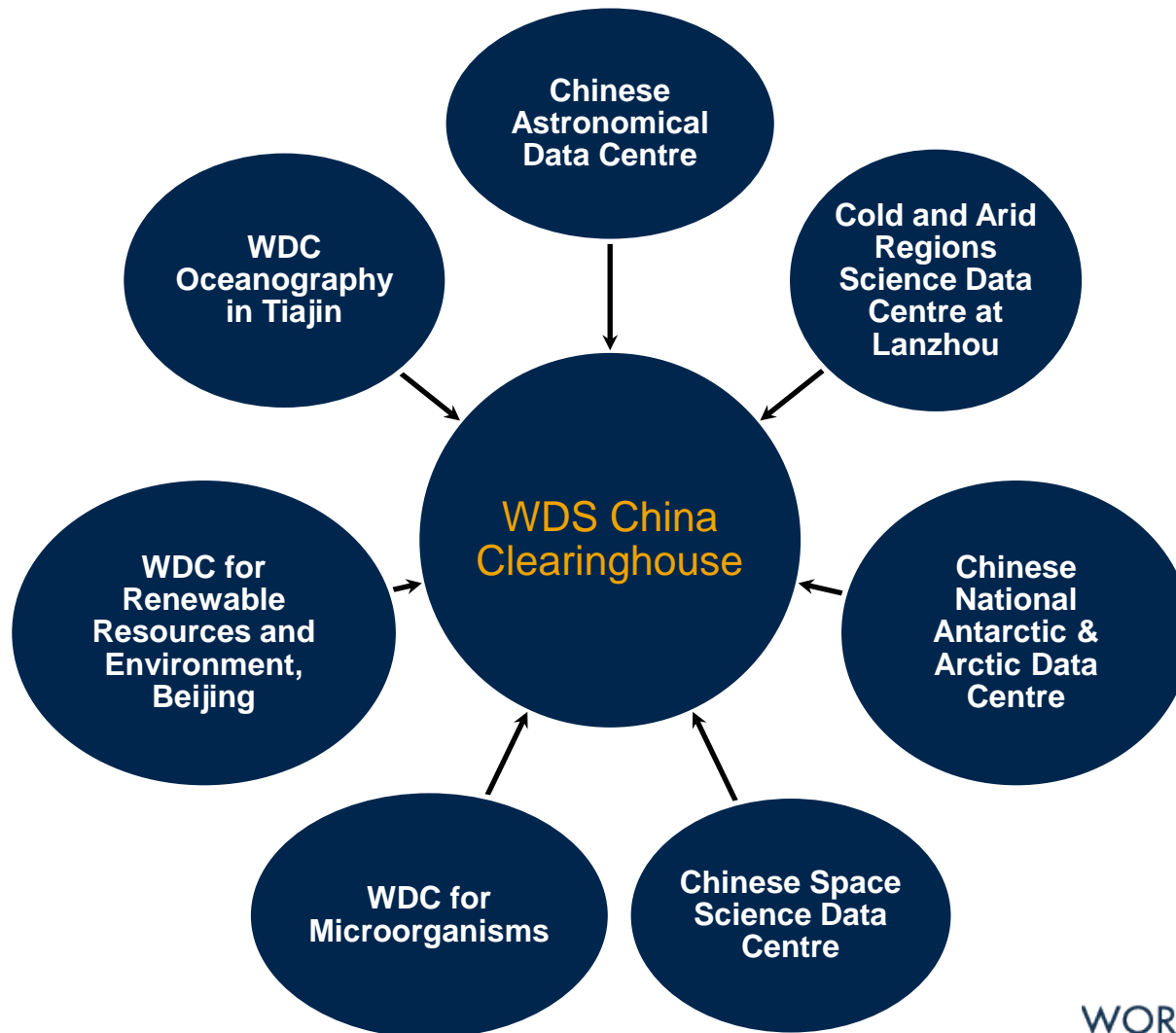




# From Principles to Implementation!

- Having principles is good but not enough
- Alignment is critical (Data revolution or data mess?)
- Use and strengthen existing national, regional and international capacities
- International coordination is needed: ICSU-WDS provides an International umbrella to improve Data Management

# Ex.1: WDS China Clearinghouse



# Ex.2: Network Data Centre for Socio-Economic Data in Africa

- Collaboration with NRF/SAEON, DataFirst, and ICSU Reg. Office for Africa,
- ICSU Grant for this specific activity
- Workshop in June 2013 as part of the 5th African Digital Scholarship and Curation Conference, Durban, South Africa.



# Ex.3: WDC for Biodiversity and Human Health (South Africa)

- Collaboration with USGS and NRF and CSIR & SAEON (extended spatial data infrastructure CoSAMP) started in 2008
- Funding from ICSU, USGS, and NRF
- Prototype for continent-wide data center



# Ex.4: Trusted Data Services Framework

- WDS & DSA: lightweight certification
- Registry of Trusted Data Services:  
Re3data/DataBib merging under DataCite:  
Subset of the registry that aggregates quality and certification properties (WDS, DSA, ISO 16363, etc.) managed by WDS.



# Lessons learned

- Cannot fund infrastructure on research funds
- Sustainability is the limiting factor for moving from prototypes to permanent services
- National and institutional support is key
- International coordination



# Thank you!

[www.ICSU-WDS.org](http://www.ICSU-WDS.org)

