

The International Council of Scientific Unions (ICSU) **World Data System**

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*Thanks to Mustapha Mokrane who provided WDS
viewgraphs*

Foundation






ICSU 29th General Assembly in Maputo (Oct. 2008) decided:

- To confirm that ICSU will continue to assert a strategic leadership role in relation to scientific data and information;
- to establish a new ICSU-World Data System as an Interdisciplinary Body to replace the WDC and FAGS



ICSU Data Track Record



<p>PAST</p>	 	<p>World Data Centers Federation of Astronomical and Geophysical services</p>
<p>PRESENT</p>	  	<p>ICSU International Scientific Unions data bodies ICSU National Members data bodies ICSU Interdisciplinary Bodies data activities</p>

WDS Scientific Committee



2012-2015

- **Bernard Minster** (*Chair, USA*)
- **Michael Diepenbroek** (*Germany*)
- **Kim Finney** (*Australia*)
- **Françoise Genova** (*France*)
- **Wim Hugo** (*South Africa*)
- **Jane Hunter** (*Australia*)
- **Vasily Kopylov** (*Russian Federation*)
- **Guoqing Li** (*China*)
- **Ruth Neilan** (*USA*)
- **Lesley Rickards** (*UK*)
- **Ryosuke Shibasaki** (*Japan*)
- **Ariel Troisi** (*Argentina*)

Ex-Officio

- **Howard Moore** (*ICSU*)
- **Yasuhiro Murayama** (*NICT*)



WDS-SC 6th Meeting at the Royal Society, London
(Committee 2009-2012)

Objectives



The WDS ensures the **long-term stewardship** and provision of **quality-assessed data** and data services to the international science community and other stakeholders. The WDS incorporates new scientific data activities into a common, **globally interoperable**, distributed data system. The WDS advances interconnections between data management components for **disciplinary and multidisciplinary scientific data applications**. WDS has a broad disciplinary and geographic base and strives to become a **worldwide ‘community of excellence’** for scientific data.

WDS first steps



1. Constitution
2. Data Policy
3. Certification criteria
4. Applications for Membership
5. International Programme Office (Tokyo, 2012)

Requirements



- ✓ Full and open access data policy
- ✓ Broad disciplinary and geographic coverage
- ✓ Trustworthiness
- ✓ Adoption of data standards/conventions

Membership types



Regular	Data curation and data analysis services.
Network	Groups of regular members, umbrella organizations
Partner	Do not deal directly with data collection, curation, and distribution, but contribute support to WDS
Associate	Organizations interested in the WDS endeavour

WDS Membership (Aug. 2012)



- 39 Regular Members
- 2 Network Members
- 2 Partner Members
- 6 Associate Members

150 Expressions of Interest, 60 applications

Evaluation by the WDS Scientific Committee

Many applications were discouraged

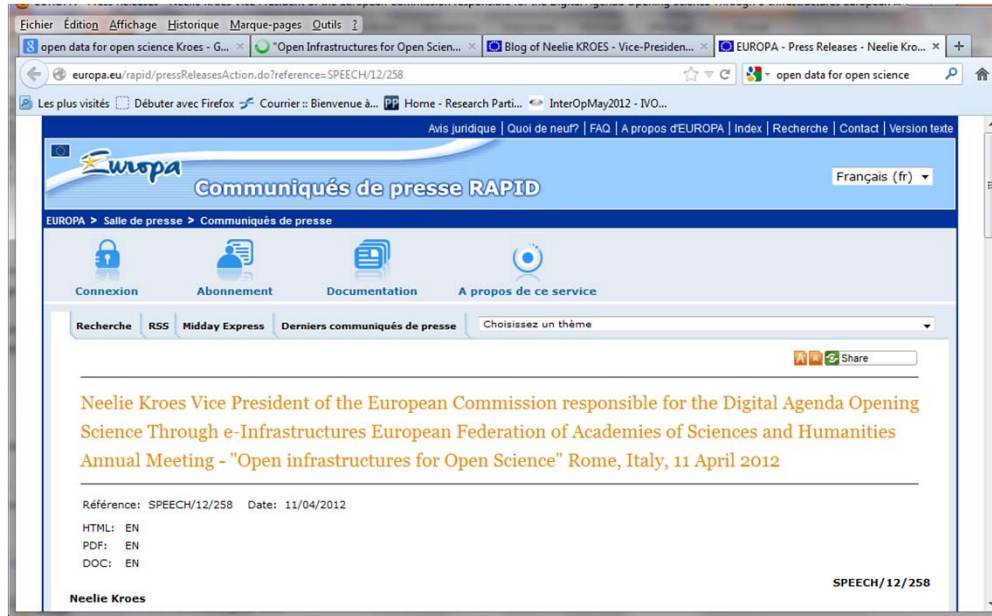
Many other applications are in progress...

Why does this concern astronomy?

- WDS is fully interdisciplinary - Earth Sciences are at present widely represented by legacy of the World Data Centres
- The Federation of *Astronomical* and Geophysical Centres is a parent body of WDS and IAU has been associated to the brainstorming which led to the creation of WDS

Why does this concern astronomy?

- Open Scientific Data is a very hot topic
- Astronomy has historically been at the forefront and astronomy data centres and services are fully WDS-compliant
- It is important to keep astronomy visibility
- Astronomy has the capacity to enrich WDS with its wide variety of potential WDS members



Examples from Europe but a hot topic in MANY countries

Open access to publications has long dominated the debate. Now understood that data is one of the research infrastructures



Astronomy data centre and services

- A Census of European Data Centres and Services by the Euro-VO Data Centre Alliance project (2007-2008)
- An inclusive definition: provide a *service to the community*, with some *added-value* built on expertise, some kind of *sustainability*, concern for *quality*
- *~70 answers*

European Census results

- A huge diversity of resources
 - Large services provided by international agencies, with archives of the large ground-based and space instruments
 - Large systematic surveys of the sky, results of large simulations
 - Generalist data bases and services
 - Smaller, focussed contributions of scientific teams which share their expertise
- There are ‘historical’ data archives and data centres (CDS is 40 years old this year!)
- The provision of data & services has clearly been strongly encouraged by the development of the VO (including theory but not only)

- In practice, membership application questionnaire is do-able and the evaluation process is fair
- IVOA applied as a Network member and the application has been approved
- Huge, widely used data and services to expose to a wider audience
- We should be more present in WDS