

# The Research Data Alliance: Building bridges to enable Scientific Data Sharing



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TAB co-chair



# □ A whole world in 12 minutes!

... Please complete the talk with a look at the current 'RDA in a Nutshell' file found in the 'Who is RDA' page

<https://www.rd-alliance.org/about-rda/who-rda.html>

... and more generally a look at the RDA pages (I can help!)

<https://rd-alliance.org>



The screenshot shows a web browser window displaying the RDA website. The browser's address bar shows the URL <https://www.rd-alliance.org/about-rda>. The website has a green header with navigation links: RESEARCH DATA SHARING WITHOUT BARRIERS, RDA EU, RDA US, CONTACT US, LOGIN, and REGISTRATION. The main navigation menu includes ABOUT RDA, GET INVOLVED, GROUPS, RECOMMENDATIONS & OUTPUTS, RDA FOR DISCIPLINES, PLENARIES, EVENTS, and NEWS & MEDIA. A red arrow points to the 'ABOUT RDA' menu item, which has opened a dropdown menu with the following options: Who is RDA?, Governance, and Our Funders. The main content area features the RDA logo and a heading 'About RDA'. Below this, there is a paragraph: 'The Research Data Alliance (RDA) builds the social and technical bridges that enable open sharing of data. The RDA vision is researchers and innovators openly sharing data across technologies, disciplines, and countries to address the grand challenges of society.' A sidebar on the right contains a list of links: Who is RDA?, Governance, RDA Council, RDA Council Subcommittees, RDA Secretariat, RDA Technical Advisory Board, RDA Organisational Advisory Board, and Our Funders. At the bottom, there is a section for 'RDA News' and a footer with the text: 'The Research Data Alliance (RDA) was launched as a community-driven organization in 2013 by the European Commission, the United States National Science Foundation, and National Science Foundation of Australia.' The browser window also shows a search bar with the text 'Rechercher' and several utility icons.

# □ The Research Data Alliance

- Founded in March 2013 by EC, NSF and the Australian Government to build *technical* and *sociological* bridges to enable scientific data sharing
- Currently 4300+ members from 110 countries
- **Bottom-up**
- Working Groups and Interest Groups

# □ RDA WG and IG, RDA Outputs

- **Working Groups** : « implementable » deliverables in 18 months
- **Interest Groups**: platform for communication and coordination (surveys, best practices, WGs, ...)
- **Outputs**
  - Recommendations (WG deliverables)
  - Supporting outputs
  - Other outputs (e.g. Workshop report, article, ...)

# □ RDA organisation

- Council
- Technical Advisory Board
- Organisation Assembly and Board
- Secretary General/Secretariat
  
- Request for Comments: Group Case Statements, Recommendations, « RDA Statements »
- Milestones: Plenaries twice a year
  - Several hundred participants



# RDA Interest (IG) & Working Groups (WG) by Focus (1)

## Domain Science - focused

Agrisemantics WG

BioSharing Registry: connecting data policies, standards & databases in life sciences WG

Rice Data Interoperability WG

Wheat Data Interoperability WG

Agriculture Data IG (IGAD)

Biodiversity Data Integration IG

Chemistry Research Data IG

Digital Practices in History and Ethnography IG

Geospatial IG

Global Water Information IG

Health Data IG

Marine Data Harmonization IG

Metabolomics Data Interoperability IG

Quality of Urban Life IG

RDA/CODATA Materials Data, Infrastructure & Interoperability

Research data needs of the Photon and Neutron Science community IG

Structural Biology IG

## Community Needs - focused

RDA/CODATA Summer Schools in Data Science and Cloud Computing in the Developing World WG

Archives & Records Professionals for Research Data IG

Data for Development IG

Development of Cloud Computing Capacity and Education in Developing World Research IG

Education and Training on handling of research data IG

Engagement IG

[www.rd-alliance.org/groups](http://www.rd-alliance.org/groups)  
Ethics and Social Aspects of Data IG

Total 73 groups: 27  
Working Groups & 46  
Interest Groups

[WWW.RD-ALLIANCE.ORG](http://WWW.RD-ALLIANCE.ORG)  
[@RESDATALL](https://twitter.com/RESDATALL)



# RDA Interest (IG) & Working Groups (WG) by Focus (2)

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## Reference and Sharing - focused

Data Citation WG

Data Description Registry Interoperability WG

Data Security and Trust WG

Empirical Humanities Metadata WG

RDA / WDS Publishing Data Bibliometrics WG

Research Data Collections WG

QoS-DataLC Definitions WG

International Materials Resource Registries WG

## Partnership Groups

RDA / TDWG Metadata Standards for attribution of physical and digital collections stewardship

RDA/NISO Privacy Implications of Research Data Sets WG

Repository Audit and Certification DSA–WDS Partnership WG

RDA/WDS Publishing Data IG

ELIXIR Bridging Force IG

Total 73 groups: 27  
Working Groups & 46  
Interest Groups





# RDA Interest (IG) & Working Groups (WG) by Focus (3)

## **Data Stewardship and Services – focused**

Brokering Framework WG

Brokering Governance WG

RDA / WDS Publishing Data Services WG

RDA / WDS Publishing Data Workflows WG

Active Data Management Plans IG

Data in Context IG

Data Rescue IG

Domain Repositories IG

Libraries for Research Data IG

Long tail of research data IG

## **Base Infrastructure – focused**

Array Database WG

Data Foundation and Terminology WG

Data Type Registries WG

Metadata Standards Catalog WG

Metadata Standards Directory WG

PID Information Types WG

Practical Policy WG

Data Fabric IG

Data Foundations and Terminology IG

Data in Context IG

[www.rd-alliance.org/groups](http://www.rd-alliance.org/groups)

Brokering IG

Total 73 groups: 27  
Working Groups & 45  
Interest Groups

[WWW.RD-ALLIANCE.ORG](http://WWW.RD-ALLIANCE.ORG)  
[@RESDATALL](https://twitter.com/RESDATALL)



- Huge diversity in activities – *bottom up!*
- But diversity is not chaos!
  - TAB reviews proposals, liaises with the Groups, organises TAB/Chair meetings at the Plenaries, develops a global view of what RDA does
  - Chairs meet twice a year
  - Groups organise their own session and joint meetings during Plenaries



# RDA Recommendations & Outputs

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**Data Foundation & Terminology:** a model for data in the registered domain.

**PID Information Types:** a common protocol for providers and users of persistent ID services worldwide.

**Data Type Registries:** allowing humans and machines to act on unknown, but registered, data types.

**Practical Policy:** defining best practices of how to deal with data automatically and in a documented way with computer actionable policy.

THE RESEARCH  
DATA ALLIANCE  
RECOMMENDATIONS  
& OUTPUTS





# RDA Recommendations & Outputs

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**Metadata standards directory:** Community curated standards catalogue for metadata interoperability

**Data Citation:** defining mechanisms to reliably cite dynamic data

**Data Description Registry Interoperability** solutions enabling cross platform discovery based on existing open protocols and standards

**Wheat Data Interoperability** impacting the discoverability, reusability and interoperability of wheat data by building a common framework for describing, representing linking and publishing wheat data

THE RESEARCH  
DATA ALLIANCE  
RECOMMENDATIONS  
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# RDA Recommendations & Outputs

**Repository Audit and Certification DSA–WDS:** A convergent DSA-WDS certification standard to help eliminate duplication of effort, increase certification procedure coherence and compatibility thus benefitting researchers, data managers, librarians and scientific communities.

**RDA/WDS Publishing Data Bibliometrics:** improved research data metrics and corresponding services, with the final goal of increasing the overall availability and quality of citations and research data itself.

**RDA/WDS Publishing Data Services:** A universal interlinking service between data and the scientific literature.

**RDA/WDS Publishing Data Workflows:** enhance the possibilities for greater discoverability and a more efficient and reliable reuse of research data benefitting other stakeholders like publishers, libraries and data centres.





# RDA Recommendations & Outputs

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**Brokering Governance WG:** Sustainable Business Models for Brokering Middleware to support Research Interoperability

**RDA/CODATA Summer Schools in Data Science and Cloud Computing in the Developing World WG:** A framework to run a series of Summer Schools in Data Science and data sharing in low and middle income countries (LMICs)

**THE RESEARCH  
DATA ALLIANCE**  
RECOMMENDATIONS  
& OUTPUTS



## □ Recent highlight

- RDA is being recognized as non standards body issuing technical specifications and RDA'S first 4 recommendations as technical specifications to be used in public procurement in Europe
- Evaluation by the European Multistakeholder Platform (composed of EU member state and international & EU standards bodies representatives)

# □ RDA and astronomy

- We have the IVOA to define our interoperability standards, no need for a specific Astronomy Group
- We have lots to bring and lots to get
- RDA regularly discussed in the IVOA meetings (in particular by Data Curation and Preservation IG)
- Plenaries are a vibrant forum on scientific data sharing
  - Informal exchanges on lessons learnt and good practices
    - CDS applied to DSA Certification
    - IVOA Registry in EUDAT B2FIND
- Participation in Groups on topics of interest
- YOU can become an *Observer/Contributor/Driver!*



# □ Among the topics of interest

- Data/Dynamic data citation
  - E.g. VAMDC
- Certification: new DSA/WDS basic framework
- Provenance: IVOA Provenance Model (K. Riebe's talk)
- The set of work on Data publishing
- Other topics: practical policies, metadata standards directory, data type registry, PID information type, etc, plus many more to come

# INTERNATIONAL DATA WEEK 2016

[WWW.INTERNATIONALDATAWEEK.ORG](http://WWW.INTERNATIONALDATAWEEK.ORG)

Organized by:



11-17 SEPTEMBER 2016 - DENVER, COLORADO, US



## SCIDATACON 2016-ADVANCING THE FRONTIERS OF DATA IN RESEARCH

addressing a range of fundamental issues around the 'Data Revolution' and the data-driven transformation of research.



## INTERNATIONAL DATA FORUM

discussing the major opportunities and challenges of the data revolution, from 'Big Data' to 'Open Data.'



## 8TH RESEARCH DATA ALLIANCE PLENARY MEETING

making concrete progress in technical and social areas on topics related to research data sharing and exchange.

Looking forward to seeing you ALL there

[WWW.RD-ALLIANCE.ORG](http://WWW.RD-ALLIANCE.ORG)  
[@RESDATALL](https://twitter.com/RESDATALL)



# RDA 9th Plenary Meeting

5-7 April 2017, Barcelo Sants Hotel,  
Barcelona, Spain

Organised by Barcelona Supercomputing Center (BSC) with the support of RDA Europe



<https://rd-alliance.org/plenary-meetings/rda-ninth-plenary-meeting.html>

## RDA in a Nutshell

WWW.RD-ALLIANCE.ORG/  
@RESDATALL



### RDA Global

Email - [enquiries@rd-alliance.org](mailto:enquiries@rd-alliance.org)

Web - [www.rd-alliance.org](http://www.rd-alliance.org)

Twitter - @resdatall

LinkedIn - [www.linkedin.com/in/ResearchDataAlliance](http://www.linkedin.com/in/ResearchDataAlliance)

Slideshare - <http://www.slideshare.net/ResearchDataAlliance>

Facebook - <https://www.facebook.com/pages/Research-Data-Alliance/459608890798924>

### RDA Europe

Email - [info@europe.rd-alliance.org](mailto:info@europe.rd-alliance.org)

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Twitter - @RDA\_Europe

### RDA US

Twitter - @RDA\_US