

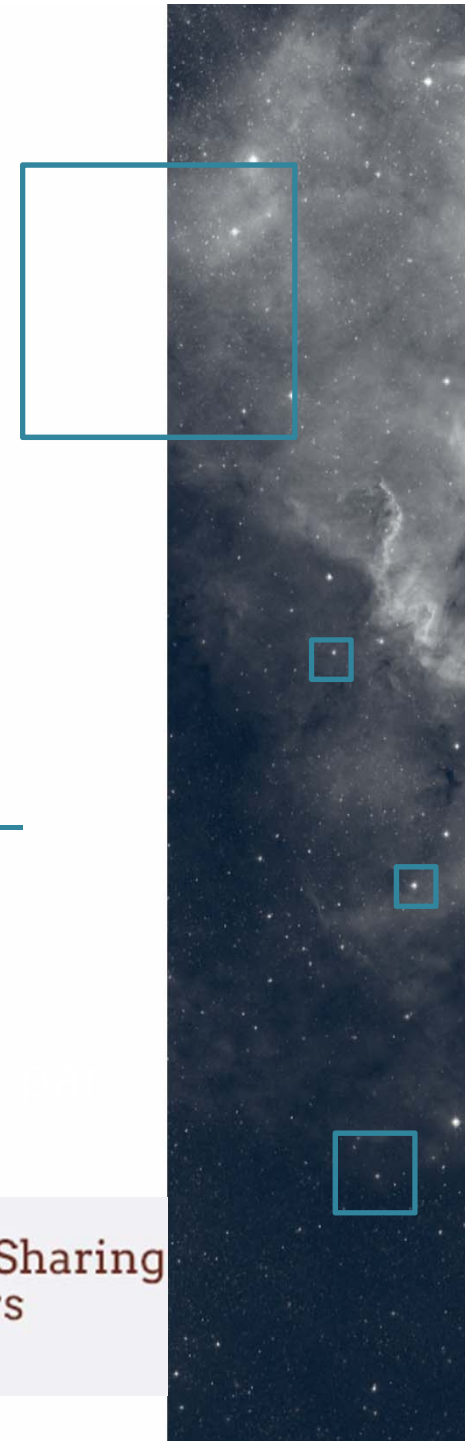
# La Research Data Alliance

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Françoise Genova, UMR 7550



Research Data Sharing  
without barriers



# □ Prises de position des Ministres du G7

- Octobre 2015, Berlin
  - Further progress on sharing and managing scientific data and information should be achieved, especially by **continuing engagement with community based activities such as the Research Data Alliance RDA**.
  - We encourage the GSO to continue their work on convergence and alignment of **inter-operable data management** that could accomplish an effective open-data science environment at the G7 level and beyond.
- Open Science statement – Entering into a new era for science (Mai 2016, Tsukuba)
  - Establish a working group on open science with the aims of **sharing open science policies**, exploring supportive **incentive structures**, and **identifying good practices** for promoting increasing access to the results of publicly funded research, including scientific data and publications, coordinating as appropriate with the Organisation for Economic Co-operation and Development (OECD) and Research Data Alliance (RDA), and other relevant groups; and
  - **Promote international coordination and collaboration** to develop the appropriate technology, infrastructure, including digital networks, and human resources for the effective utilization of open science for the benefit of all.



## □ La Research Data Alliance

- Fondée en mars 2013 par le gouvernement australien, la CE et la NSF (USA)
- ~6300 membres de ~130 pays
- Travail « bottom-up » sur tous les aspects du partage des données scientifiques, technologiques et sociologiques

<http://rd-alliance.org>



# THE RESEARCH DATA ALLIANCE

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

*building the social and technical  
bridges that enable open sharing of  
data*

## 18 FLAGSHIP OUTPUTS

of which 4 ICT  
Technical  
Specifications

## 75 ADOPTION CASES

across multiple  
disciplines,  
organisations &  
countries

## 89 GROUPS WORKING ON GLOBAL DATA INTEROPERABILITY CHALLENGES

of which 30 WORKING GROUPS  
& 59 INTEREST GROUPS

## 6,283 INDIVIDUAL MEMBERS FROM 132 COUNTRIES

67% Academia & Research  
15% Public Administration  
11% Enterprise & Industry

## 43 ORGANISATIONAL MEMBERS & 8 AFFILIATE MEMBERS



## Vision

Researchers and innovators openly share data across technologies, disciplines, and countries to address the grand challenges of society.

## Mission

RDA builds the **social and technical bridges** that enable open sharing of data.

[WWW.RD-ALLIANCE.ORG](http://WWW.RD-ALLIANCE.ORG)

@RESDATALL



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□ Il y a de nombreux types de piliers!



Inspiré de J. Bicaregui, exposé oct. 2012



# □ Diversité!

- 89 Groupes de Travail et « Groupes d'Intérêt » sur les briques de base
- Thèmes très divers
  - Domaines scientifiques
  - « Besoins communautaires »
  - Référencement et partage des données
  - Gestion des données et services de données
  - Technologies de base
- Producteurs de données, bibliothécaires, chercheurs, ingénieurs, « publishers », etc
- Recommendations, certaines reconnues comme « ICT specifications »



# What does RDA do?

*Members come together through self-formed, volunteer, focussed Working Groups, exploratory Interest Groups to exchange knowledge, share discoveries, discuss barriers and potential solutions, explore and define policies and test as well as harmonise standards to enhance and facilitate global data sharing & re-use.*

RDA members collaborate together across the globe to tackle numerous infrastructure & data sharing challenges related to:

- ❖ Reproducibility
- ❖ Data preservation
- ❖ Best practices for domain repositories
- ❖ Legal interoperability
- ❖ Data citation
- ❖ Data type registries
- ❖ Metadata
- ❖ and so many more!



# Who Can Join RDA?

*Any individual or organization, regardless of profession or discipline, with an interest in reducing the barriers to data sharing and re-use and who agrees to RDA's guiding principles of:*

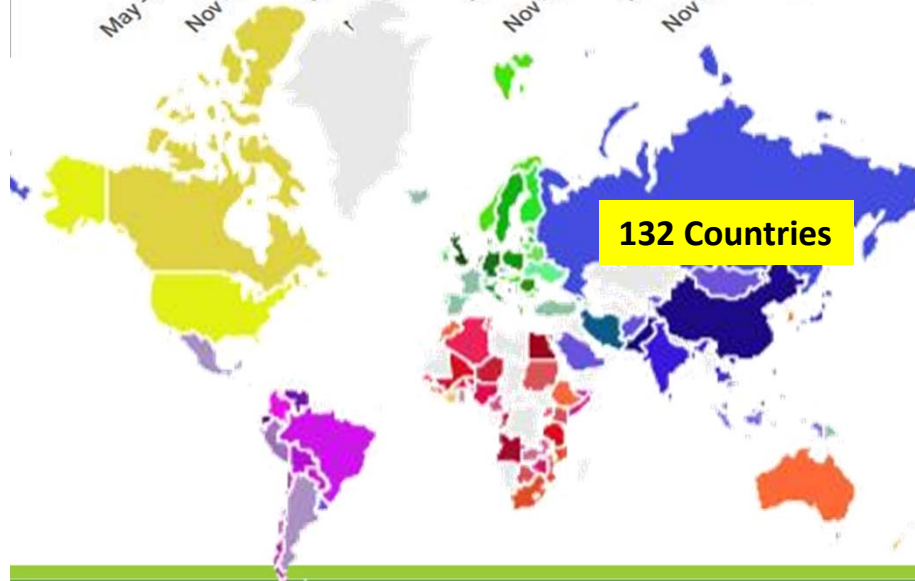
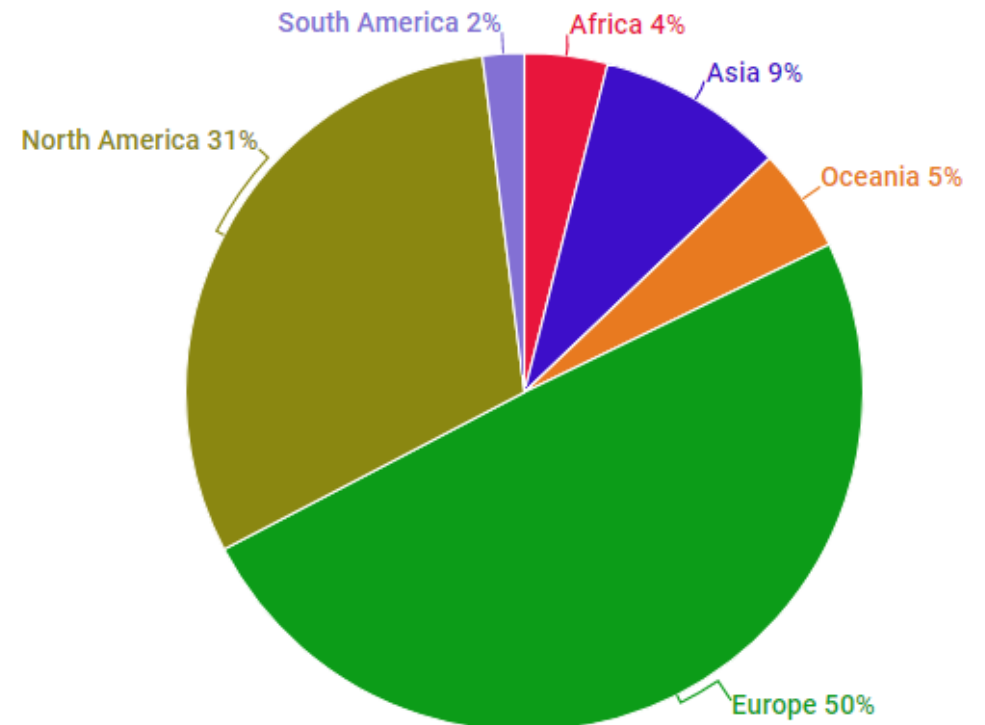
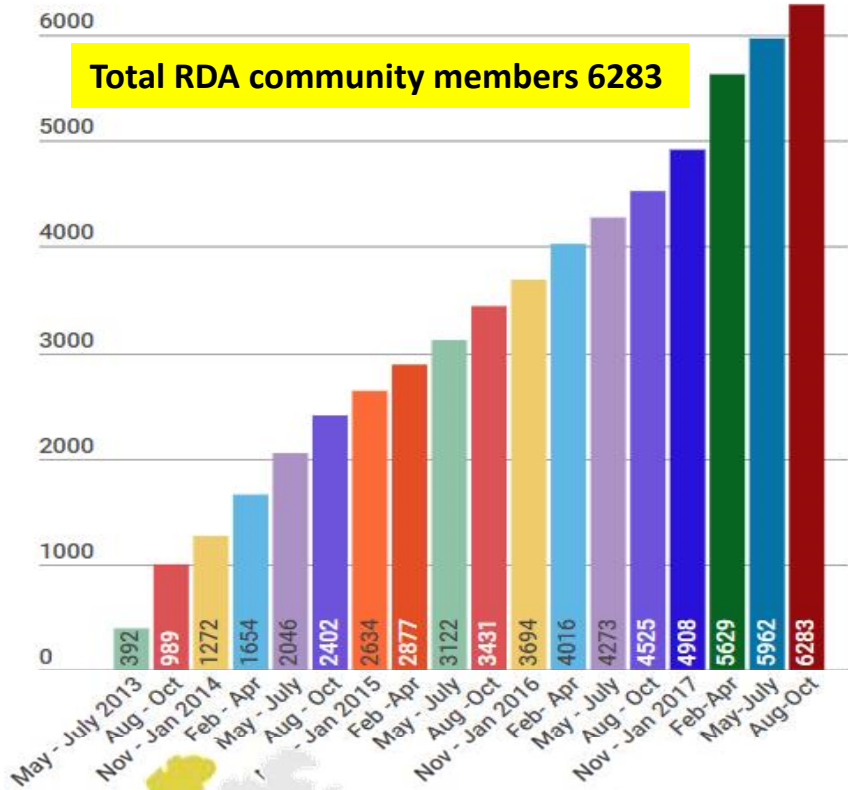
- *Openness*
- *Consensus*
- *Balance*
- *Harmonization*
- *Community-driven*
- *Non-profit and technology-neutral*



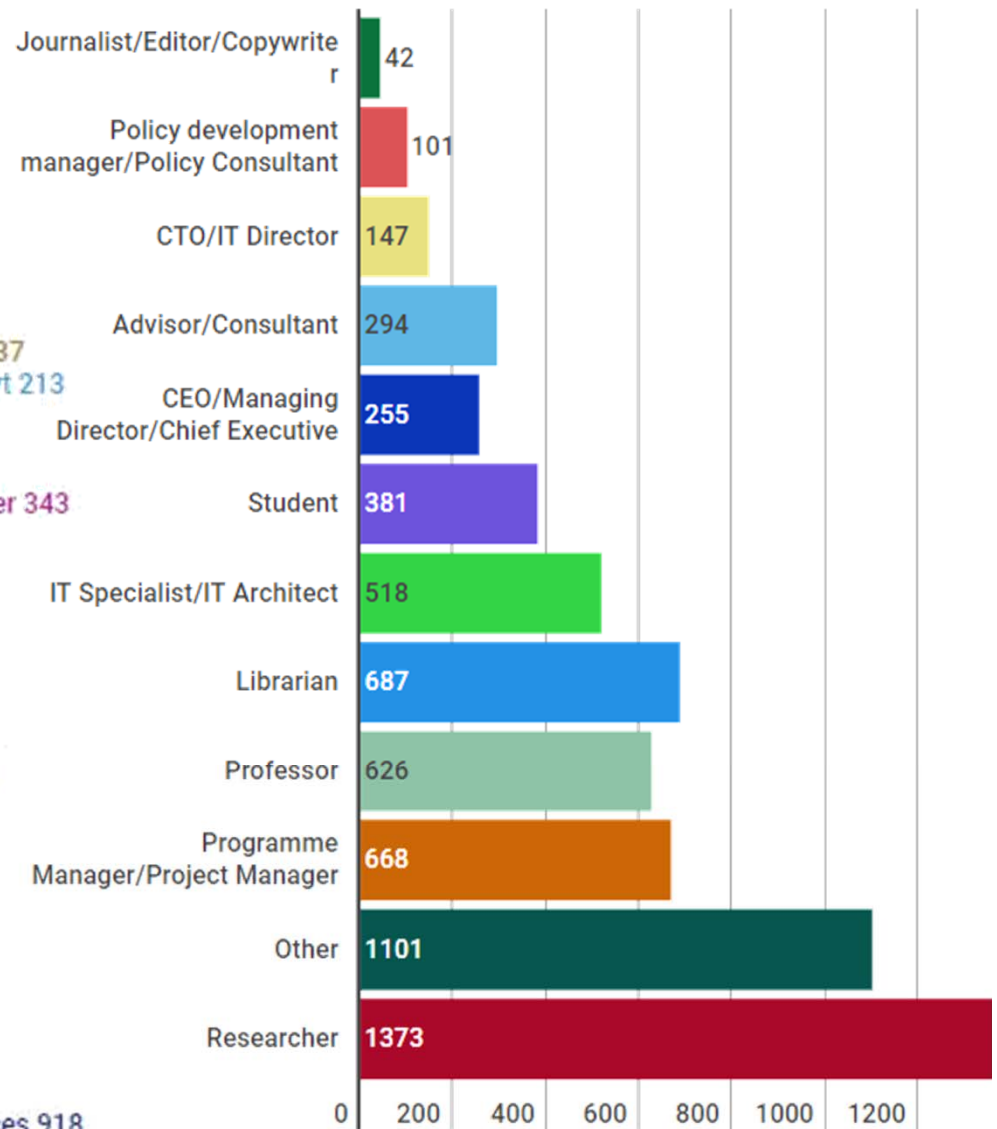
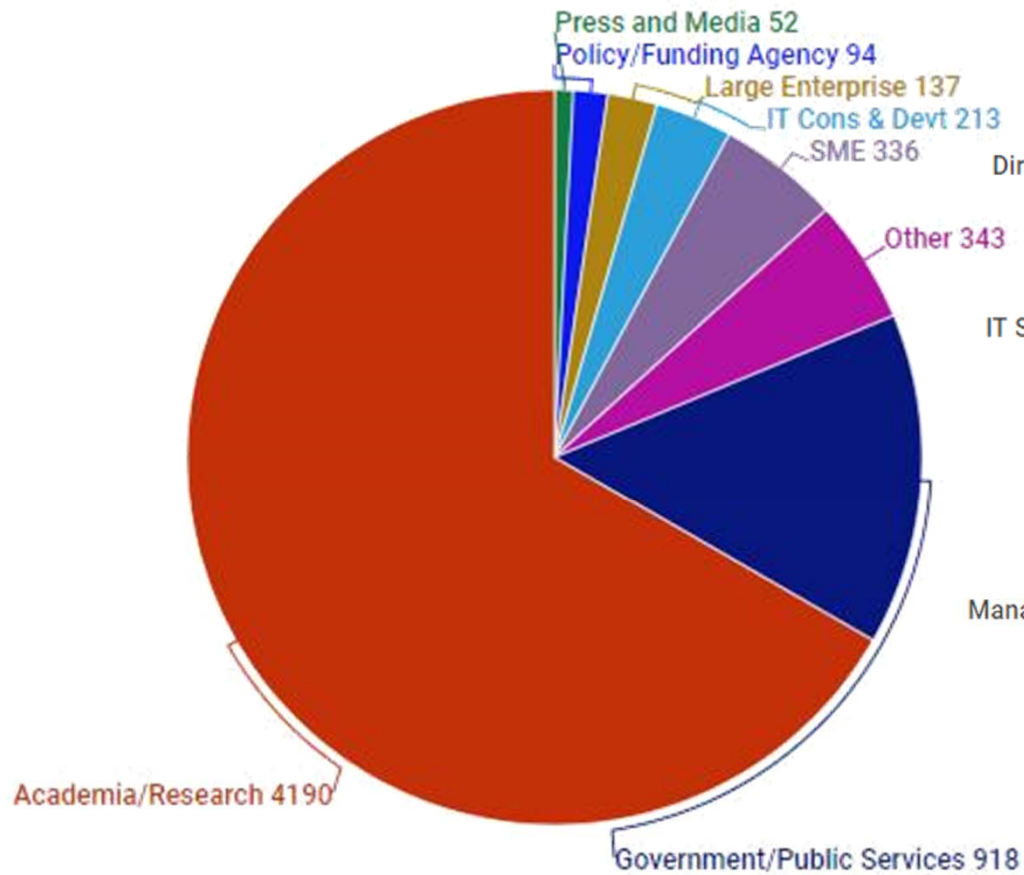
**Individual Membership is free @**  
**<https://www.rd-alliance.org/user/register>**



# RDA worldwide growth



# Who is RDA?





# Organisational & Affiliate Members

43 Organisational Members

8 Affiliate Members



[rd-alliance.org/get-involved/organisational-membership](http://rd-alliance.org/get-involved/organisational-membership)

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# □ Participer à la RDA

- Pourquoi?
- Où?
- Quand?
- Comment?



# □ Pourquoi?

- Forum neutre et international pour discuter des questions relatives au partage des données scientifiques avec des personnes de profils très différents
- Echanges sur les bonnes pratiques
- Discuter et travailler sur les thèmes qui vous intéressent, produire des recommandations
- Mettre en œuvre les recommandations qui vous intéressent



# □ OÙ?

- Pendant les réunions plénières
  - Sessions des Groupes de Travail (WG) et Groupes d'Intérêt (IG)
  - « Bird-of-a-Feather » (BoF) pour les nouveaux thèmes
  - Discussions informelles
- Dans les WG et IG (téléconférences, mails, réunions)
- Sur le site web de la RDA [rd-alliance.org](http://rd-alliance.org)
  - WG, IG, programme détaillé des plénières, recommandations, exemples d'adoption, etc



# □ Quand?

- Deux réunions plénières/an, dans différentes régions
- On peut proposer un nouveau Groupe à tout moment
  - Request for Comments
  - Revue par le Technical Advisory Board
  - Acceptation par le Conseil
- Les WG
  - ont 18 mois pour produire des livrables « implémentables » - Recommandations (certaines reconnues comme « ICT Recommendations » par la CE)
  - Peuvent avoir des successeurs
- Les IG existent sur le long terme, peuvent aussi avoir des productions reconnues par la RDA





# RDA 9th Plenary Meeting

## Data Infrastructures for Open Science

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

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



The 9th RDA Plenary Meeting will take place from 5th to 7th April 2017 at the Barcelo Sants Hotel, Barcelona, Spain. The plenary meeting is organised by the Barcelona Supercomputing Center-Centro Nacional de Supercomputación (BSC-CNS) with the support of RDA Europe.

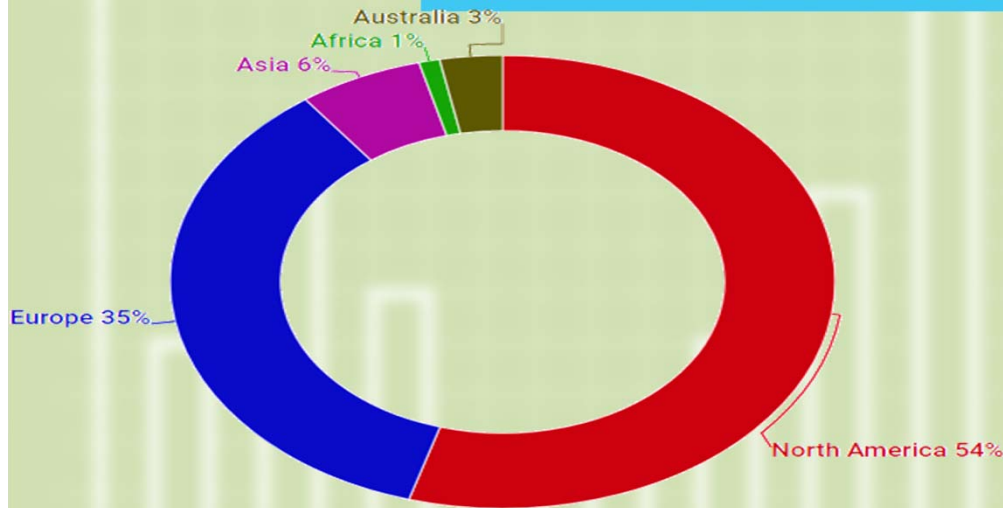
<https://www.rd-alliance.org/plenaries/rda-ninth-plenary-meeting-barcelona>

*Looking forward to seeing you all in Barcelona!*





Over **430** participants from **30** countries



Increased female participation **44%**  
 the highest sofar

**73 Breakout meetings**  
 of which 14 Working Groups  
 of which 37 Interest Groups  
 of which 6 Joint Working & Interest Groups  
 6 Outputs presented / 1 Final Release  
 60 Posters



# □ Comment? (1)

- Devenir membre de la RDA
  - Accepter les principes de base
  - S'enregistrer sur le site
- Créer un Groupe
  - D'abord, regarder ce qui existe
  - Proposer une session BoF
  - WG, IG: identifier des collègues intéressés (de différentes régions) et remplir le formulaire
  - WG: points de rencontre et livrables
- Rappel: la RDA traite de questions techniques ET sociologiques



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

Total 89 groups:  
30 Working Groups & 59 Interest Groups

## Domain Science - focused

- Agrisemantics WG
- BioSharing Registry WG
- Fisheries Data Interoperability WG
- On-Farm Data Sharing (OFDS) WG
- Rice Data Interoperability WG
- Wheat Data Interoperability WG
- Agricultural 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
- Linguistics Data Interest Group
- Mapping the Landscape IG
- Marine Data Harmonization IG
- Quality of Urban Life IG
- RDA/CODATA Materials Data, Infrastructure & Interoperability IG
- Research data needs of the Photon and Neutron Science community IG
- Small Unmanned Aircraft Systems' Data IG
- Structural Biology IG
- Weather, Climate and air quality IG

## Community Needs - focused

- Certification and Accreditation for Data Science Training and Education WG
- RDA/CODATA Summer Schools in Data Science and Cloud Computing in the Developing World WG
- Teaching TDM on Education and Skill Development WG
- Archives & Records Professionals for Research Data IG

- Data for Development IG
- Development of Cloud Computing Capacity and Education in Developing World Research IG
- Early Career and Engagement IG
- Education and Training on handling of research data IG
- Ethics and Social Aspects of Data IG
- International Indigenous Data Sovereignty IG

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

Total 89 groups:  
30 Working Groups & 59 Interest Groups

## Reference and Sharing - focused

- Data Citation WG
- Data Description Registry Interoperability WG
- Data Security and Trust WG
- Empirical Humanities Metadata WG
- International Materials Resource Registries WG
- Provenance Patterns WG
- QoS-DataLC Definitions WG
- RDA / WDS Publishing Data Bibliometrics WG
- Repository Core Description WG
- Research Data Collections WG
- Research Data Repository Interoperability WG
- Data Discovery Paradigms IG
- National Data Services IG
- RDA/CODATA Legal Interoperability IG
- Reproducibility IG
- Sharing Rewards and Credit (SHARC) IG

## Partnership Groups

- RDA / TDWG Metadata Standards for attribution of physical and digital collections stewardship WG
- RDA/WDS Scholarly Link Exchange Working Group
- ELIXIR Bridging Force IG
- RDA/NISO Privacy Implications of Research Data Sets IG
- RDA/WDS Publishing Data IG

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

Total 89 groups:  
30 Working Groups & 59 Interest Groups

## Data Stewardship and Services – focused

- Brokering Framework WG
- DMP Common Standards WG
- Exposing Data Management Plans WG
- RDA / WDS Publishing Data Workflows WG
- WDS/RDA Assessment of Data Fitness for Use WG
- Active Data Management Plans IG
- Data in Context IG
- Data Rescue IG
- Data Versioning IG
- Domain Repositories IG
- Virtual Research Environments IG

- From Observational Data to Information IG
- Libraries for Research Data IG
- Long tail of research data IG
- Managing the flow of technology
- Physical Samples and Collections in the Research Data Ecosystem IG
- Preservation e-Infrastructure IG
- Preservation Tools, Techniques, and Policies IG
- RDA/WDS Certification of Digital Repositories IG
- RDA/WDS Publishing Data Cost Recovery for Data Centres IG
- Repository Platforms for Research Data IG
- Research Data Provenance IG

## Base Infrastructure – focused

- Array Database Assessment WG
- Data Type Registries WG
- Metadata Standards Catalog WG
- PID Kernel Information WG
- Data Fabric IG
- Data Foundations and Terminology IG
- Disciplinary Interoperability Framework IG

- Big Data IG
- Brokering IG
- Federated Identity Management IG
- Metadata IG
- PID IG
- Software Source Code IG
- Vocabulary Services IG

## □ Comment? (2)

- Proposer une Recommandation ou une Production
  - Travailler dur avec les collègues et proposer une production qui intéresse d'autres personnes/projets
  - Les Recommandations sont soumises à une Request for Comments
  - Certains Groupes soumettent leurs recommandations à des experts extérieurs
- Utiliser une recommandation
  - Exemples d'adoption sur le site





# RDA Recommendations & Outputs



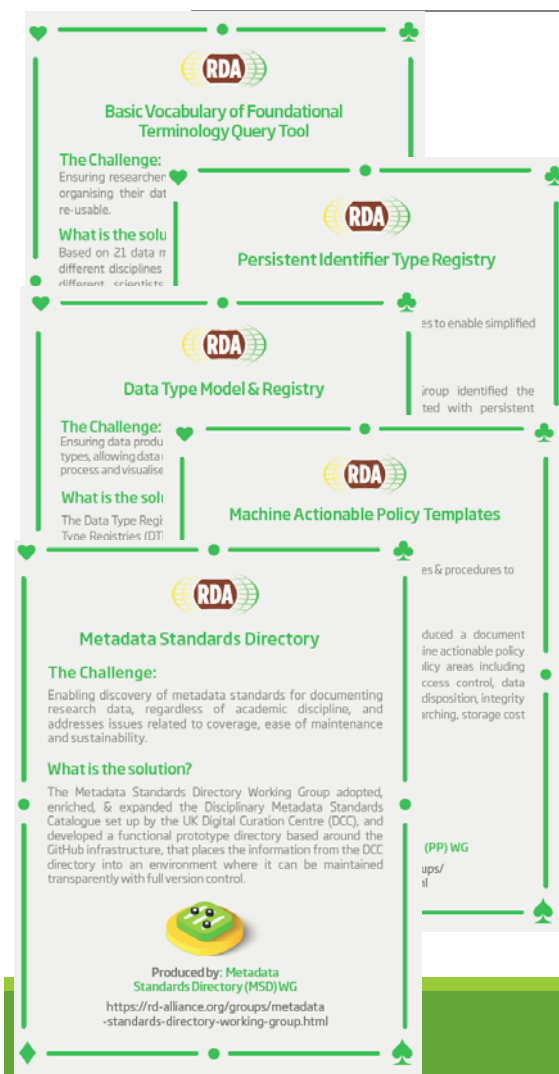
## THE RDA OUTCOMES LEGEND

**Recommendations:** are the flagship outputs of RDA. They are RDA's equivalent of the "specifications" or "standards" that other organisations create and endorse. The process for creating and endorsing these is already defined.

**Supporting Outputs:** are the outputs of RDA WGs and IGs that are fruit of RDA work, but are not necessarily adoptable bridges. "Upon request", these sort of outputs go through a community comment period and if no major objections or gaps are identified they get the RDA Brand.

**Other Outputs:** include workshop reports, published articles, survey results, etc. Anything a WG or IG wants to register and report. Upon request, these are published and discoverable on the RDA website but have no level of endorsement.

# RDA Recommendations & Outputs



**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.

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

[rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs](https://rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs)





# RDA Recommendations & Outputs

**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

**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)

[rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs](https://rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs)

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# RDA Recommendations & Outputs

The infographic is a vertical list of four items, each with the RDA logo and a small globe icon. The items are: 1. Repository Audit and Certification Catalogues. 2. Bibliometric Indicators for Data Publishing. 3. Workflows for Research Data Publishing: Models and Key Components. 4. An open, universal literature-data cross-linking service. Below the fourth item, there is a section titled 'The Challenge:' with the text 'Sharing information about the links between the literature and research data.' and a section titled 'What is the solution?' with the text 'Building on pre-existing components and international initiatives, the RDA/WDS Publishing Data Services Working Group is one of the drivers behind the "Data Literature Interlinking Service" (DLI), developed in a synergy with OpenAIRE & PANGAEA. DLI is aimed at improving visibility, discoverability, re-use and reproducibility by bringing 2M+ existing article/data links together, normalize them using a common schema, and exposing the full set as an open service.' Below this text is a small image of a chocolate cake with orange frosting. At the bottom of the infographic, it says 'Produced by: RDA/WDS Publishing Data Services WG' and provides the URL 'https://rd-alliance.org/groups/rdawds-publishing-data-services-wg.html'.

**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 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/WDS Publishing Data Services:** A universal interlinking service between data and the scientific literature. **The Scholix initiative** a high level interoperability framework for exchanging information about the links between scholarly literature and data. It aims to build an open information ecosystem to understand systematically what data underpins literature and what literature references data.

[rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs](https://rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs)



# RDA Recommendations & Outputs



**23 Things: Libraries For Research Data** An overview of practical, free, online resources and tools that users can immediately take advantage of to incorporate research data management into the practice of librarianship.

**Legal Interoperability of Research Data Principles and Implementation Guidelines:** a set of principles and practical implementation guidelines offered as high-level guidance to all members of the research community —the funders, managers of data centers, librarians, archivists, publishers, policymakers, university administrators, individual researchers, and their legal counsel.

**Matrix of use cases and functional requirements for research data repository platform** Based on use cases, the matrix describes forty-four functional requirements identified for research data repository platforms and provides a score identifying relative importance.

**BioSharing Recommendations** Data repositories, standards and policies in the life, biomedical and environmental sciences

[rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs](https://rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs)



# Moving Towards Plenary 11: Berlin!

**RDA**

**11 PLENARY**

**MEETING**

**21-23 MARCH 2018**

Berlin, Germany



**From Data to Knowledge**

To find out more visit: <https://www.rd-alliance.org/plenaries/rda-eleventh-plenary-meeting-berlin-germany>

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

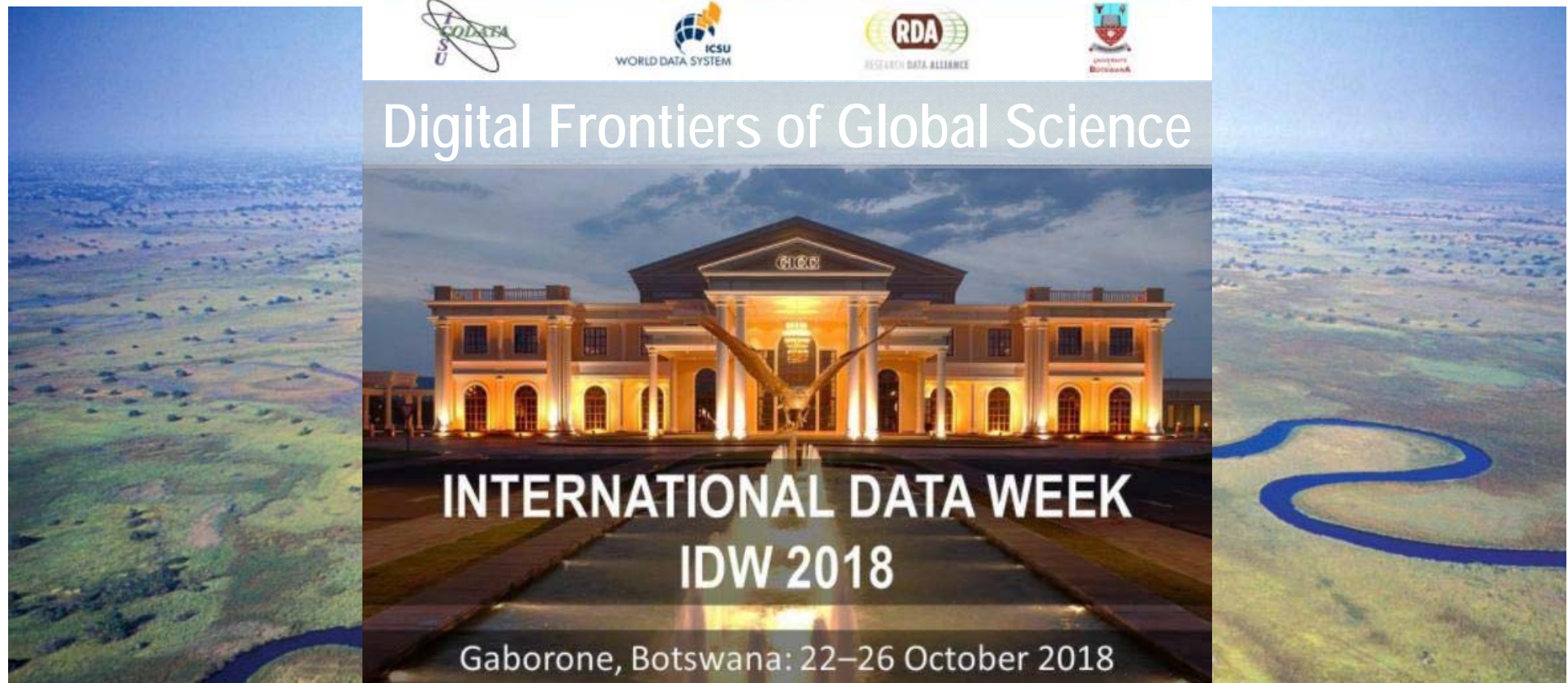
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# Looking Forward to Plenary 12: Botswana



To find out more visit: <https://www.rd-alliance.org/plenaries/rda-twelfth-plenary-meeting-part-international-data-week-2018-gaborone-botswana>

Co-organised within the framework of  
International Data Week with CODATA & WDS

## □ En France

- Des réunions et une liste

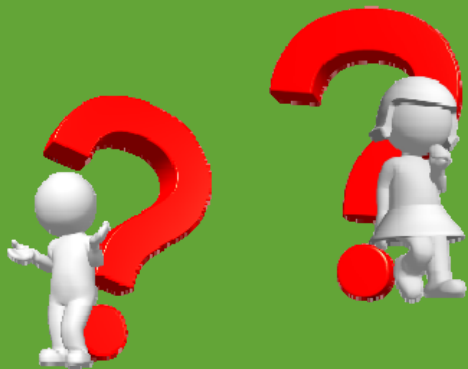
<https://listes.services.cnrs.fr/wws/subscribe/rda-france>

- Un « nœud national » dans le cadre du prochain projet européen (démarrage mars 2018)



## RDA in a Nutshell

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### RDA Global

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

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Twitter - [@resdatall](https://twitter.com/resdatall)

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

Slideshare -

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

### RDA Europe

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### Pour la France

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