RDA in a nutshell

June 2017
**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**.
What is RDA?

RDA is an international member based organization focused on the development of infrastructure and community activities that reduce barriers to data sharing and exchange, and the acceleration of data driven innovation worldwide.

With more than 5,600 members globally representing 126 countries, RDA includes researchers, scientists and data science professionals working in multiple disciplines, domains and thematic fields and from different types of organisations across the globe.

RDA is building the social and technical bridges that enable open sharing of data to achieve its vision of researchers and innovators openly sharing data across technologies, disciplines, and countries to address the grand challenges of society.
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
Why Join RDA as an Individual Member?

Individual Member Benefits

- **Contribute** to acceleration of data infrastructure development
- Work and **share experiences** with collaborators throughout the world
- **Access** to extraordinary network of colleagues with various levels of experience, perspectives and practices
- Gain greater **expertise** in data science regardless of whether one is a student, early or seasoned career professional
- **Enhance** the quality and effectiveness of personal work and activities
- **Improve** one’s competitive advantage professionally and positioning oneself for leadership within the broader research community

rd-alliance.org/get-involved/individual-membership.html
Total RDA community members 5629

RDA worldwide growth

126 Countries

North America 30%
Europe 51%
Asia 9%
Africa 4%
Oceania 5%
South America 2%
Who is RDA?

Academia/Research 3743
Government/Public Services 825
Press and Media 44
Policy/Funding Agency 88
Large Enterprise 122
IT Cons & Devt 192
SME 315
Other 300

Journalist/Editor/Copywriter 36
Policy development manager/Policy Consultant 87
CTO/IT Director 133
Advisor/Consultant 269
CEO/Managing Director/Chief Executive 235
Student 346
IT Specialist/IT Architect 480
Librarian 612
Professor 570
Programme Manager/Project Manager 635
Other 987
Researcher 1239
Why Join RDA as an Organisational Member?

Organisational Member Benefits

◦ Provide an *organizational perspective* on the work of RDA and ability to influence RDA’s direction
◦ Assist in *implementation & adoption* of RDA Recommendations & Outputs
◦ Participate in all RDA Organizational Forums
◦ Receive regular *updates* on the work of the RDA
◦ Attend Organizational Assembly meetings and vote on *proposed policies* for consideration by the RDA Council and for members of the Organizational Advisory Board
◦ Provide *advice to RDA Council* through the Organizational Advisory Board
◦ Be recognized on the RDA Website and at RDA Meetings as a *supporter of data interoperability*

43 Organisational & 8 Affiliate Members
Organisational & Affiliate Members

43 Organisational Members

8 Affiliate Members

rd-alliance.org/get-involved/organisational-membership

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### 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

Total 82 groups: 29 Working Groups & 53 Interest Groups
RDA Interest (IG) & Working Groups (WG) by Focus (2)

Total 82 groups:
29 Working Groups & 53 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

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)

**Data Stewardship and Services – focused**
- Brokering Framework WG
- WDS/RDA Assessment of Data Fitness for Use WG
- RDA / WDS Publishing Data Workflows WG
- Active Data Management Plans IG
- Data in Context IG
- Data Rescue IG
- Data Versioning IG
- Domain Repositories IG
- Libraries for Research Data 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
- Big Data IG
- Brokering IG

**Total 82 groups:**
- 29 Working Groups & 53 Interest Groups

- Long tail of research data 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
- Virtual Research Environments IG

- Federated Identity Management IG
- Metadata IG
- PID IG
- Vocabulary Services IG

rd-alliance.org/groups
RDA Recommendations that make data work

“Create - Adopt - Use”

✓ Adopted code, policy, specifications, standards, or practices that enable data sharing

✓ “Harvestable” efforts for which 12-18 months of work can eliminate a roadblock

✓ Efforts that have substantive applicability to groups within the data community but may not apply to all

✓ Efforts that can start today

18 flagship recommendations & outputs with over 75 cases of adoption in different domains, organisations and countries
**RDA Recommendations & Outputs**

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**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.
**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


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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)

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 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.
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
Adoption & Implementation

“Solving the problem must include adopters in the process, to ensure that real problems are addressed. Open problem solving is the key.”

RDA Recommendations and Outputs take the form of technical specifications, code, policies or practices, harmonized standards or reference models. In the widest sense these aim for:

- Greater data sharing, exchange, interoperability, usability and re-usability;
- Greater discoverability of research data sets;
- Better management, stewardship, and preservation of research data;
- New data standards or harmonization of existing standards.

Addressing data challenges

75 Adoption Cases
https://www.rd-alliance.org/recommendations-and-outputs/adoption-recommendations

Find out how you can become an Adopter
https://www.rd-alliance.org/recommendations-and-outcomes/become-rda-adopter
Call for Supporting and Other RDA Outputs

If your group has produced something that you would like to share with the broader community, please send it to enquiries@rd-alliance.org and indicate whether you would like it to be considered as a ‘Supporting’ or ‘Other’ output.

https://rd-alliance.org/call-supporting-and-other-rda-outputs
What are Plenary Meetings?

- Organised around the world every 6 months
- Exciting & productive events bringing together a unique community of data science professionals, from multiple disciplines and domains;
- Help move the community forward in creating tangible deliverables that improve data sharing across disciplines, technologies, and countries;
- Heart of the plenaries are working meetings of RDA Working & Interest groups and new potential groups through Birds of a Feather meetings
- Presentation of new Outputs and Adoption cases
RDA Plenary Meetings: benefits of attending

- Exchange knowledge, share discoveries, discuss barriers and potential solutions
- Learn about new trends, strategies, research developments, directions and policies
- Expand your network and meet new committed and passionate data science professionals, working in multiple disciplines
- Contribute to acceleration of data infrastructure development

rd-alliance.org/plenaries
RDA deliverables presented:
- RDA/CODATA Summer Schools in Data Science and Cloud Computing in the Developing World WG
- Brokering Governance WG
- Metadata Standards Catalog WG Recommendations
- Biosharing Registry WG Recommendations
- Scholix Framework
  + 6 Adoption cases

69 Breakout session meetings:
- 12 BoF Meetings
- 31 Interest group meetings
- 10 Working group meetings
- 16 Joint group meetings
- 69 Breakout sessions

Newcomers Session, 2 RDA organisational members meeting, TAB and Chairs session
- RDA/EU sponsored 8 European Early Career Researchers and Scientists & RDA/US sponsored 8 Fellowship
- 42 posters on display

549 participants from 33 countries
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

73 Breakout meetings
of which 15 Working Groups
of which 32 Interest Groups
of which 13 Joint Working & Interest Groups
of which 13 Birds of a Feather

3 Outputs presented
54 Posters

620 participants from 45 countries

% of participants by continent:
- Europe: 67%
- North America: 20%
- South America: 2%
- Africa: 2%
- Asia: 6%
- Australia & Oceania: 3%

rd-alliance.org/plenaries/rda-ninth-plenary-meeting-barcelona
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RDA Plenary 11
BERLIN, GERMANY
MARCH 2018
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RDA Europe
General Support

• Giving advice and support (incl. sending an expert to location)
• Early Career Programme (travel support to plenaries)
• Chairs Programme (supporting travel of chairs)
• Co-Organising community-based meetings
• Co-Organising regional/national meetings

RDA Europe is funded by the European Union.
Training & Webinars

Training webinars, face-to-face workshops, hackathons/datathons partly organized as “summer schools” and special meetings on request.

Delivered in different formats by International Experts:

- RDA recommendations and outputs – e.g. *Data Description Registry Interoperability*
- General topics – e.g. *Data Management Plans, State of EU Copyright discussion*
- Interviews – e.g. *Open Science/Open Data/Innovation*
- Information sessions – e.g. *What happened at the Barcelona Plenary?*
Outreach and politics

• How to contribute to European Open Science Cloud

• In contact with Policy makers, e.g. RDA meets Heads of EC-DGs

HTTPS://RD-ALLIANCE.ORG/ - HTTPS://TWITTER.COM/RESDATALL
RDA Europe Atlas of Knowledge Pilot

Moderated wiki focusing on issues raised by RDA Working and Interest Groups but will also incorporate topics with a much broader focus

Advice about research data issues and to also carry out analysis work to clarify open questions.

Executed in collaboration with research communities & experts from different fields & initiatives with deep experience & knowledge to give the most comprehensive answers.

https://confluence.csc.fi/display/RDAEUKB/RDAEU3+Atlas+of+Knowledge+Home
RDA Europe Adoption Projects

Objective: to support communities that want to test/adopt RDA outputs.

Dynamic Data Citation & the Argo data set
Adopting: Dynamic Data Citation

Creation of a Query interface for phenotyping data
Adopting: Wheat Data Interoperability (WDI)

Integration of the RDA Metadata Standards Directory into DMPonline
Adopting: Metadata Standards Directory

Analysis of the OpenPhilology/Perseus and the CLARIN data repositories
Adopting: Data Foundation and Terminology

Implementation of a Query Store for the VAMDC infrastructure
Adopting: Data Citation

Integration of the DLI Service into the OpenAire infrastructure
Adopting: Publishing Data services

Introduction of PIDs to the Armenian Life Sciences
Adopting: PID Information Types

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RDA DEutschland
Spread the word of RDA

• Bring together all German research data practitioners
• Promote RDA and RDA outputs
• How?
  o Since 2014: RDA DE Meetings in November
  o Since 2016: RDA DE Trainings

http://www.forschungsdaten.org/index.php/RDA-DE
RDA DE Communication

Mailinglist Forschungsdaten:

https://www_listserv_dfn_de_sympa_subscribe_forschungsdaten

Wiki:

www.forschungsdaten.org
RDA DE e.V.

- Currently no organization in Germany
- Some people just “do” RDA DE
  - Many individuals
  - Help of the Helmholtz Open Science Koordinationsbüro and RDA Europe people in Germany
- “RDA DE e.V.”
  - “Verein” for individual persons
  - Central contact for RDA in Germany
  - To be founded in fall 2017
RDA DE e.V. - Goals

• Consultant to science organizations, funding agencies and companies

• Support for the professionalization of research data management

• Support the dialogue between scientists and research data managers

• Public outreach on the importance of safeguarding and facilitating the re-use of research data