



RDA activities and outputs

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Data Curation and Preservation Session
IVOA May 2017, Shanghai

THE RESEARCH DATA ALLIANCE

www.rd-alliance.org

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

17 FLAGSHIP OUTPUTS

of which 4 ICT
Technical
Specifications

75 ADOPTION CASES

across multiple
disciplines,
organisations &
countries

81 GROUPS WORKING ON GLOBAL DATA INTEROPERABILITY CHALLENGES

of which 30 WORKING GROUPS
& 51 INTEREST GROUPS

5,418 INDIVIDUAL MEMBERS FROM 123 COUNTRIES

66% 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.

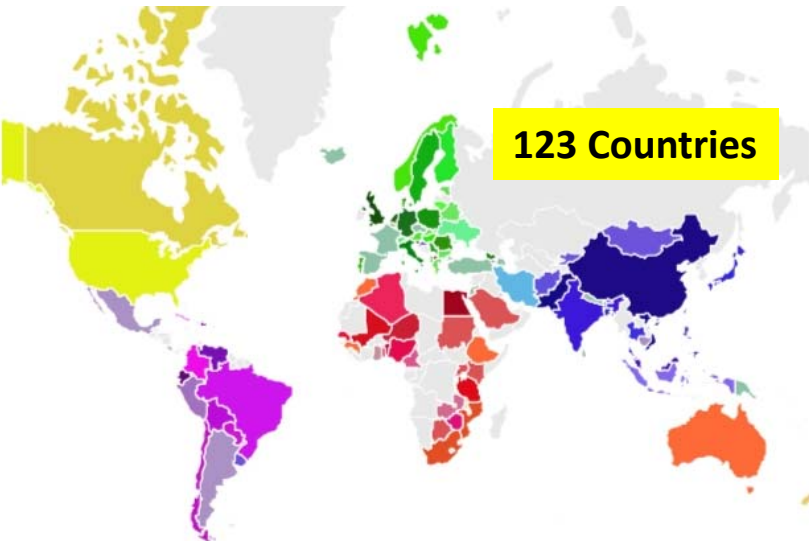
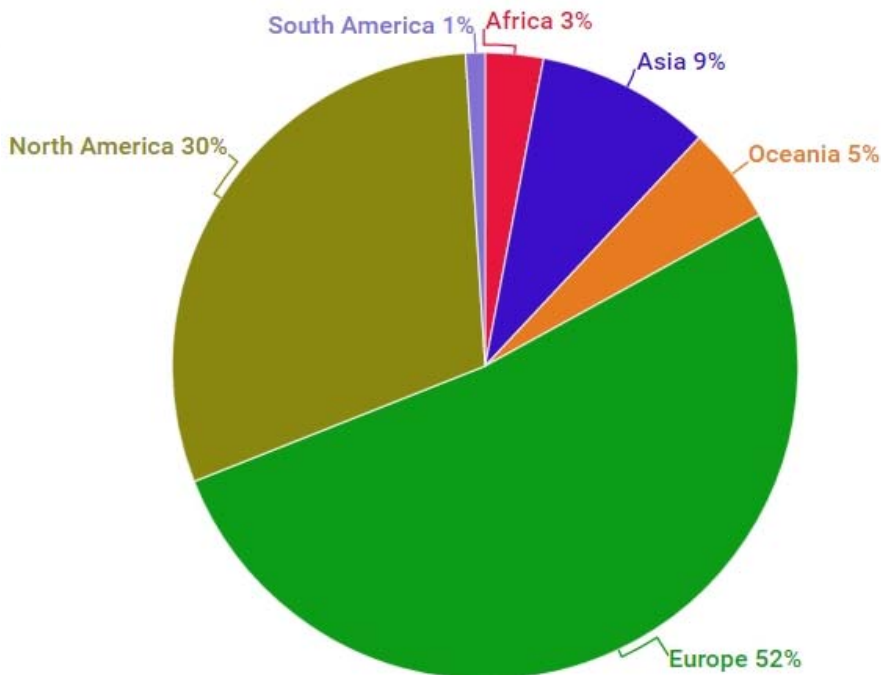
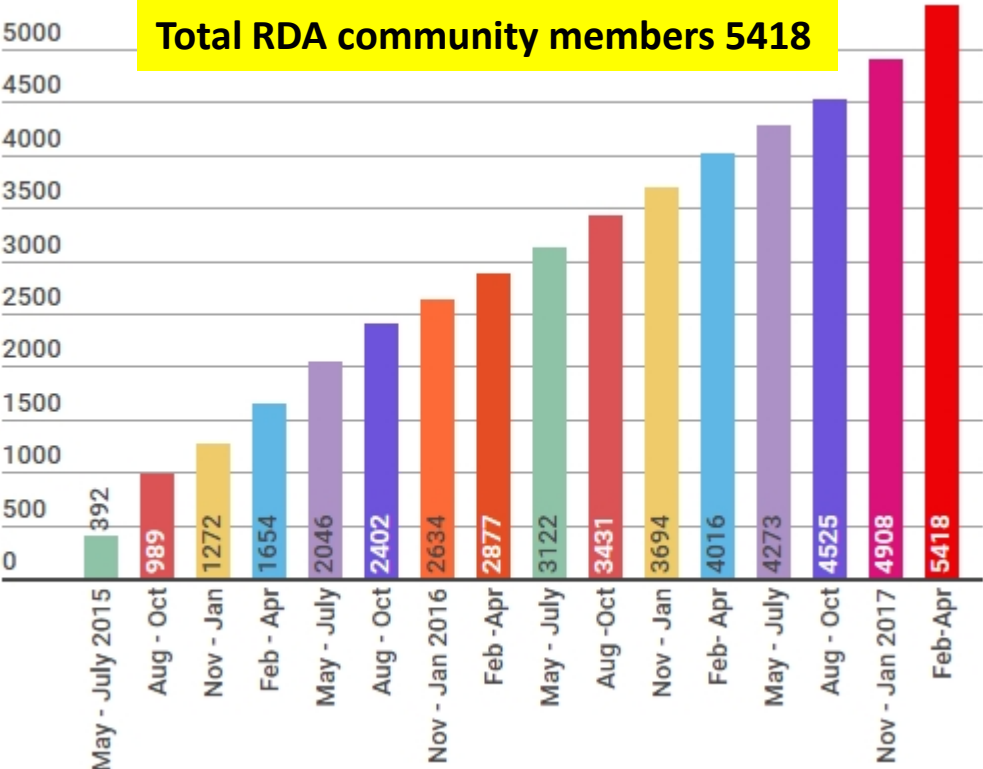
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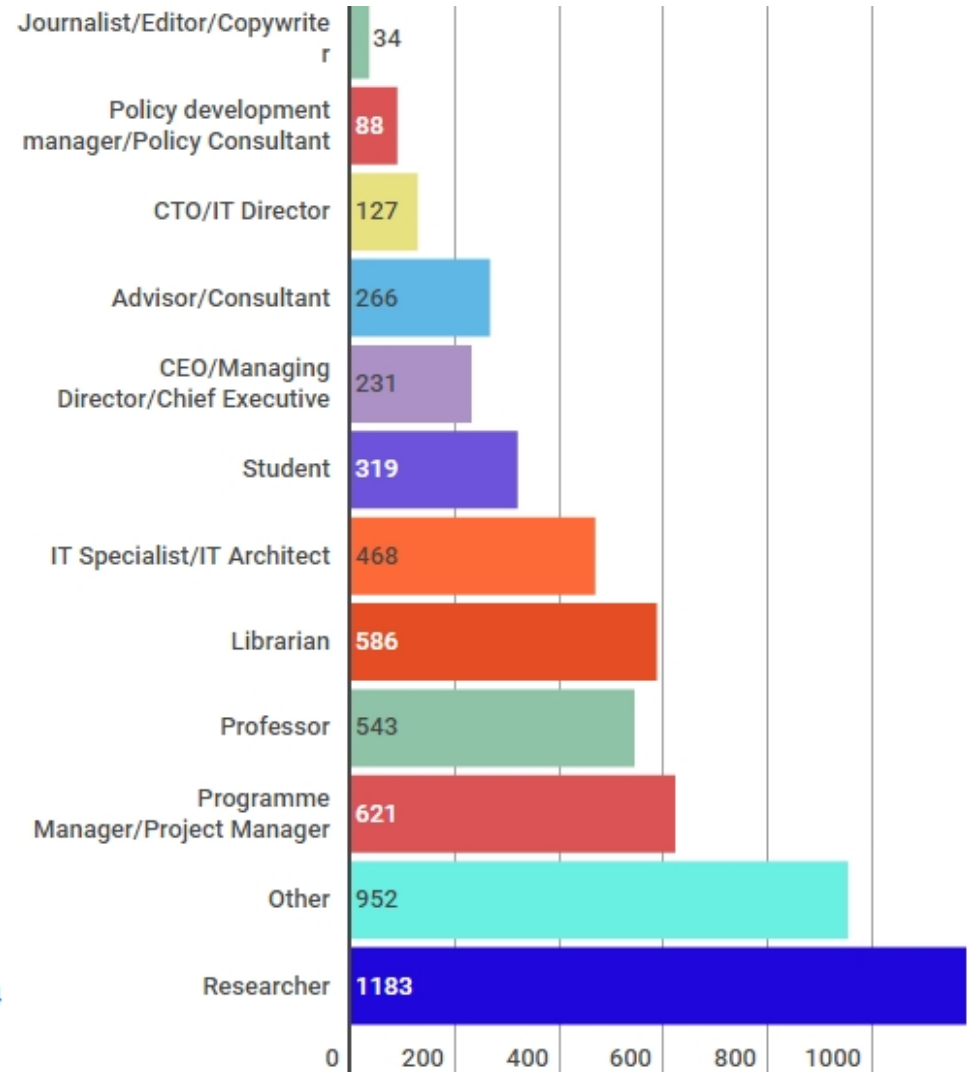
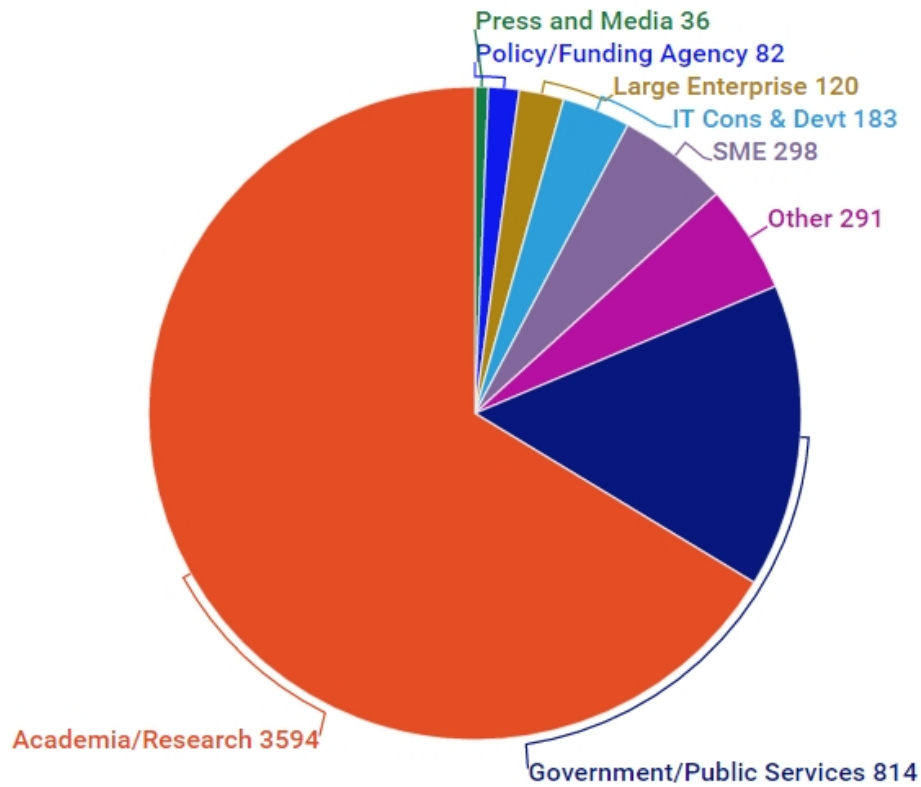


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RDA worldwide growth



Who is RDA?



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

Total 81 groups:
30 Working Groups & 51 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
- Linguistics Data Interest Group
- Health Data IG
- 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
- 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 81 groups:
30 Working Groups & 51 Interest Groups

Reference and Sharing - focused

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

Partnership Groups

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

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

Total 81 groups:
30 Working Groups & 51 Interest Groups

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

- 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

Base Infrastructure – focused

- Array Database Assessment WG
- Data Type Registries WG
- Metadata Standards Catalog WG
- Metadata Standards Directory WG
- PID Kernel Information WG
- Data Fabric IG
- Data Foundations and Terminology IG
- Big Data IG

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

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

17 flagship recommendations & outputs with over
75 cases of adoption in different domains, organisations and countries



RDA Recommendations & Outputs



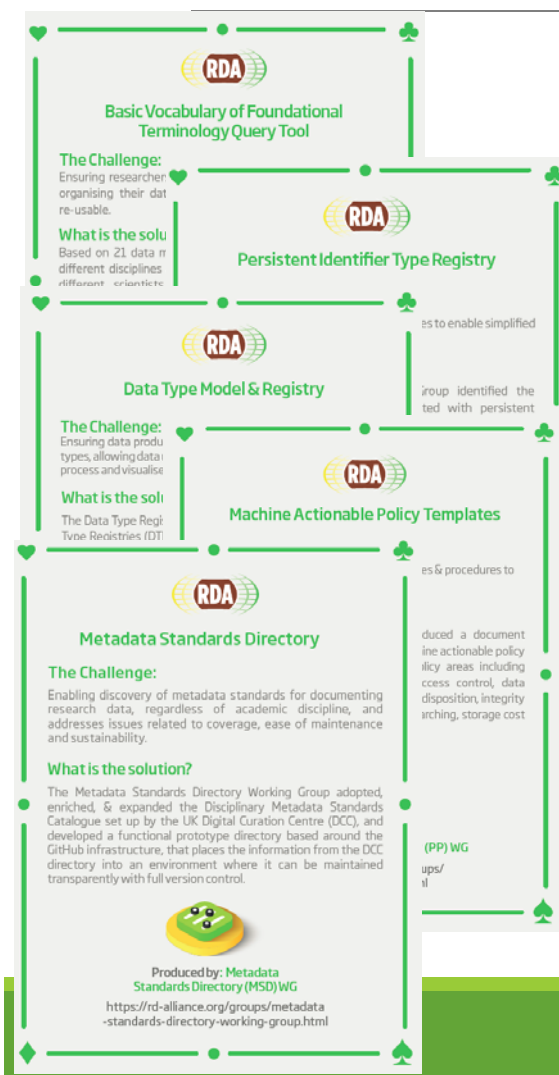
THE RDA OUTCOMES LEGEND

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



RDA Recommendations & Outputs

Scalable dynamic-data Citation Methodology
The Challenge: Supporting accurate and efficient processing of dynamic data.
What is the solution? The Dynamic Data Citation Methodology provides a scalable mechanism for the identification of artifacts in a time- and context-specific manner.

Data Description Registry Interoperability Model
The Challenge: Connecting datasets in various models such as RDF, JSON, and XML.
What is the solution? The Data Description Registry Interoperability Model provides a framework for describing and linking datasets in a way that is interoperable across different models and systems.

Wheat Data Interoperability Guidelines, Ontologies and User Cases
The Challenge: Helping researchers to describe and link their data in a way that is interoperable across different systems and domains.
What is the solution? The Wheat Data Interoperability Guidelines, Ontologies and User Cases provide a framework for describing and linking wheat data in a way that is interoperable across different systems and domains.

Sustainable Business Models for Brokering Middleware to support Research Interoperability
The Challenge: To answer the need for a sustainable business model for brokering middleware to support research interoperability.
What is the solution? The Sustainable Business Models for Brokering Middleware to support Research Interoperability provides a framework for describing and linking research data in a way that is interoperable across different systems and domains.

Summer Schools in Data Science and data sharing framework
The Challenge: A framework to run a series of Summer Schools in Data Science and data sharing in low and middle income countries (LMICs).
What is the solution? The CODATA/RDA Summer School in Data Science and Cloud Computing in the Developing World WG provides a framework to run a series of Summer Schools in Data Science and data sharing in low and middle income countries (LMICs) with the goal of addressing the gap in research data science skills that stops researchers from reaping the benefits of the data revolution.

Brokering Governance WG
The Challenge: The introduction of a broker or a brokering middleware to support research interoperability is a complex task that requires addressing the question of which business/revenue or sustainability models for consideration.
What is the solution? The Brokering Governance WG provides a framework for describing and linking research data in a way that is interoperable across different systems and domains.

Produced by: RDA/CODATA Summer Schools in Data Science and Cloud Computing in the Developing World WG
<https://www.rd-alliance.org/groups/rdacodata-summer-schools-data-science-and-cloud-computing-developing-world.html>

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)

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RDA Recommendations & Outputs

The infographic is a vertical list of four items, each with the RDA logo and a small 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, and 4. An open, universal literature-data cross-linking service. Below the fourth item, there is a section titled 'The Challenge:' followed by 'What is the solution?' and a paragraph of text. At the bottom of the infographic is a small image of a cake and the text 'Produced by: RDA/WDS Publishing Data Services WG' with a URL.

Repository Audit and Certification Catalogues

Bibliometric Indicators for Data Publishing

Workflows for Research Data Publishing: Models and Key Components

An open, universal literature-data cross-linking service

The Challenge:
Sharing information about the links between the literature and research data.

What is the solution?
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.

Produced by: RDA/WDS
Publishing Data Services WG
<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

Fichier Édition Affichage Historique Marque-pages Outils ?

Assessment | Data Seal of ... X +

https://www.datasealofapproval.org/en/assessment/ data seal of approval

Home Assessment Community News & Events TOOL LOG IN



Data Seal of Approval Benefits

Certifying your repository against the 16 Data Seal of Approval requirements has many benefits, chief among them that the repository is recognized in the community as a trustworthy source of data.

Starting point for obtaining the Data Seal of Approval

Complete a self-assessment in the DSA online tool. The online tool takes you through the 16 requirements and provides you with support.

Once you have completed your self-assessment you can submit it for peer review. The peer reviewer will go over your answers and documentation and will award the Data Seal of Approval (DSA) when you have met the requirements.

Your self-assessment and review will not become public until the Data Seal of Approval is awarded.

[Apply now!](#)

Acquired Seals

Repository	DSA
3TU.Datacentrum	2014-2017
Archaeology Data Service	2014-2017
BABS - Long Term Preservation at the Bavarian State Library- Library Archiving and Access System	2010
Banco de Información para la Investigación Aplicada en Ciencias Sociales (BIIACS)	2014-2017
BAS CLARIN	2014-2017
CINES : Long-term Preservation Platform (PAC)	2014-2017
CISER Data Archive	2014-2017
CLARIN Center BBAW	2014-2017
CLARIN Center INL	2014-2017
CLARIN Centre Vienna	2014-2017
CLARIN-D Resource Center Leipzig	2014-2017
Clarín-PL Repository	2014-2017
CLARIN.SI Repository	2014-2017

hercher



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.

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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.

RECOMMENDATIONS & OUTPUTS

All Recommendations & Outputs

Adoption Use Cases

Become an RDA Adopter

Addressing data challenges

<https://www.rd-alliance.org/recommendations-and-outputs/all-recommendations-and-outputs>

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>

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

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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



Register now:

<https://www.rd-alliance.org/plenaries/rda-ninth-plenary-meeting-barcelona/rda-9th-plenary-registration>

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

<https://www.rd-alliance.org/plenaries/rda-ninth-plenary-meeting-barcelona/rda-9th-plenary-programme>

[rd-alliance.org/plenaries/rda-ninth-plenary-meeting-barcelona](https://www.rd-alliance.org/plenaries/rda-ninth-plenary-meeting-barcelona)

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The 10th RDA Plenary Meeting will take place from 19 to 21 September 2017 in Montreal, Canada. The meeting is co-organised by RDA, the University of Montreal and Research Data Canada, Canada.

<https://www.rd-alliance.org/plenaries/rda-tenth-plenary-meeting-montreal-canada>

RDA in a Nutshell

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RDA Global

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