

26 September 2023

BlueCloud2026



RESEARCH **DATA ALLIANCE**

Getting FAIR Done: A view from RDA Europe

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Connie Clare (RDA Foundation)





RDA: A global greenhouse

RDA is an **international community-driven, member-based** organisation focused on the development of infrastructure and community activities.

Reduce barriers to data sharing and exchange, and the acceleration of data-driven innovation worldwide.



A Decade of Data 2013-2023

Research Data Alliance



What does RDA do?

Members come together through self-formed, volunteer and focused Working Groups and 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!



How: The HEART of RDA:



Working Groups

(34)

GOAL: develop and implement tools, policy, practices & products for data management that are adopted and used by projects, organisations, communities

TIMING: 12-18 MONTHS

RECOMMENDATIONS:
Concrete deliverables -
“Running code”, tools,
standards, etc.

Interest Groups

(56)

GOAL: focus on solving a specific data sharing problem and identifying what kind of infrastructure needs to be built.

TIMING: as long as group is active

OUTPUT: Possibly case statements for new WGs, guidelines, best practice, etc

Communities of Practice

(1)

GOAL: Domain / disciplinary focus, coordination and awareness raising role. “Umbrella group”

TIMING: as long as CoP is active (review every 18 months)

OUTPUT: New WGs & IGs, bridge building across RDA and externally

Outputs & Recommendations

[Home](#) » [Recommendations & Outputs](#) » [Outputs & Recommendations](#)

RESOURCES: HOW RDA CAN HELP YOU WITH FAIR IMPLEMENTATION



RDA Outputs are the technical and social infrastructure solutions developed by RDA Working Groups or Interest Groups that enable data sharing, exchange, and interoperability.

These Outputs have an important impact in two areas: solving problems, and incorporation and/or adoption in infrastructure environments by individuals, projects and organisations. As an organisation, RDA's goal is to expand awareness and adoption of these Outputs, and hence their impact, within all regions of the world. RDA Outputs are products of the respective Working or Interest Group and should be demonstrably developed and endorsed by the group. Each Output should have the respective Working or Interest Group listed as an author where appropriate.

RDA Outputs are classified as **RDA Recommendations** (official, endorsed results of RDA Groups), **Supporting Outputs** (useful solutions from our RDA Working and Interest Groups) or **other Outputs** - more information can be found at <https://www.rd-alliance.org/recommendations-outputs>. **They are all listed below and can be searched according to their focus, scientific domain, or by status using the filters on the right.** Filters can be combined, too (if more than one filter is selected, results sum up).

Search for Recommendations & Outputs



Supporting FAIR Implementation: Leveraging Community Outputs

Search by Status

- RDA Endorsed Recommendations
- Recommendations with RDA Endorsement in Process
- RDA Supporting Outputs

Search for Topics

Select All

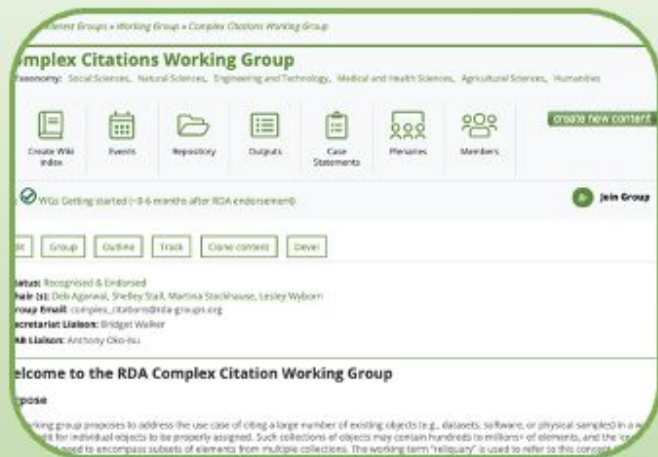
- Data Management
- Data Collection
- Data Description
- Identity, Store, and Preserve
- Disseminate, Link, and Find
- Policy, Legal Compliance, and Capacity

Primary Domain

Select All

- Social Sciences
- Natural Sciences
- Engineering and Technology
- Medical and Health Sciences
- Agricultural Sciences
- Humanities

Marine Research: Some Relevant RDA WG Groups



Complex Citations WG

'R': Receiving attribution for Reuse
Looking for "case studies"



Global Water IG

Water standardisation: geosciences, biodiversity, agriculture

Cross-cutting topics, also supporting cross-disciplinary research

Marine Research: Some Relevant RDA Outputs



FAIR Data Maturity Model

Flagship output

Used as a basis to get started in FAIR

Translated into other languages



ESIP/RDA Earth, Space and Environmental Sciences IG

Outputs: Semantic Resources catalogue

Output: Data Infrastructures Catalogue

Join this Group!

Jonas K. Roemer, Aarhus University, Institute for Ecoscience



Applying FAIR Principles to an Arctic Science Repository

1. Working to strengthen the ties between RDA, EOSC and the arctic data community while learning new skills in data science and data management, with Greenland Ecosystem Monitoring as study case of an arctic data repository.
2. Participating in Arctic Science Summit Week, RDA Plenary, EUDAT Summer School Providers Track. Blog about lessons learned, create arctic disciplinary page for RDA, publish poster to inspire the domain to navigate FAIR criteria and benefit from RDA and EOSC.
3. Post project, will continue to investigate and work with actual use cases and integrations between arctic data repositories and EOSC portal.

Links and outputs: <https://data.g-e-m.dk> . jkr@ecos.au.dk . <https://www.rd-alliance.org/blogs/rdaeosc-future-domain-ambassador-spotlight-jonas-koefoed-roemer-arctic-data-community> . <https://www.rd-alliance.org/blogs/experiences-visiting-rda-20th-plenary-rda-eosc-future-domain-ambassador.html> . <https://doi.org/10.5281/zenodo.7692013> . <https://www.rd-alliance.org/rda-disciplines/natural-sciences#RDA%20and%20The%20Arctic%20Data%20Community>



eoscfuture.eu



@EOSCFuture



EOSCFuture



Recommendations for improving cross-disciplinary FAIR data sharing in wind energy , Eastern Switzerland University of Applied Sciences

Kick Starting FAIR practices in Wind Energy



- 1.The goal of this project is to create and adopt a set of recommendations for improving cross-disciplinary FAIR data sharing in wind energy.
- 2.We plan to adopt and test the existing recommendations in a pilot data-sharing project.
- 3.We are particularly interested in fostering collaboration and communication between data stewards and wind energy domain experts.

For more info contact Sarah Barber (sarah.barber@ost.ch)

GLOBAL COOPERATION ON FAIR DATA POLICY AND PRACTICE



WorldFAIR



The case study team on **Ocean Science & Sustainable Development** (whose personnel chaired the technical implementation of ODIS) will examine how the ODIS Interoperability Architecture (ODIS-Arch) being piloted with regional partners can be coordinated with other case studies and central guidelines of CODATA and RDA to support digital policy alignment. The key objective will be to ensure policies support regional and local specificity, but allow the concrete implementation of global FAIRness around key (meta)data types. Through these actions, this case study aims to sustainably interface the ODIS digital ecosystem with many others.



Funded by
the European Union



Community Workshops

The main findings of this Special Edition Community Cross-Fertilisation Workshop will be presented as a summary document and published online.

See summary document examples for:

Data Management Plans [here](#)

Agricultural Data [here](#)

FAIR Data, Software and Hardware [here](#)

Health and Medical Data [here](#)

Persistent Identifiers [here](#)

Agriculture and Environmental Data [here](#)



RDA for Agricultural and Environmental Data
Celebrating A Decade of Data
RDA community cross-fertilisation workshop

ABOUT THE WORKSHOP
The community cross-fertilisation workshop, 'RDA for Agricultural and Environmental Data', brought chairs and members of RDA community groups together, with members of the wider research data community, to share and discuss challenges, solutions and initiatives associated with managing agricultural and environmental data. The key findings of the workshop summarised herein will be used to direct the future strategy of the RDA community. Read more about the [community cross-fertilisation workshop series](#) in commemoration of the [RDA 10th Anniversary](#).

CHALLENGES TO BE ADDRESSED WITHIN THE THEME OF AGRICULTURAL AND ENVIRONMENTAL DATA

Lack of standards for the diversity of data

- Agricultural and environmental research is multidisciplinary comprising diverse data and metadata types, sources, and formats that lack standardisation to enable [Findable, Accessible, Interoperable and Reusable \(FAIR\)](#) data practice.
- Due to the heterogeneity of data, it is uncertain which types of data to use as reference data to classify/categorise data.
- Large proportions of data in subdisciplines (e.g., Hydrology) is not research data and is not FAIR.
- Challenge to map, understand, and navigate myriads of cross-disciplinary initiatives.

Institutional & data stewardship

- Managing large, multidimensional and/or commercially sensitive agricultural and environmental data often demands specialised skills and training.
- Adoption of data management standards and best practices is not routinely taught as part of research data management training curricula.
- Data is not always deemed valuable by its creator and is, therefore, not shared or reused.
- Authors do not know which databases and/or repositories to use to publish data.
- Lack of tools to implement standards and best practices for data governance, management sharing and reuse.
- Lack of funding and financial sustainability for RDA and data stewardship.

Governance, legal & ethics

- Commercially sensitive data (e.g., collected from farms and fisheries) requires controlled, secure data storage, access, and reuse.
- Managing collection, ownership, and access to data, and how to prevent its misuse.
- Lack of attribution to data creators, leading to power imbalances between Global North and South.
- Democratizing data and enabling equitable access to data across government, industry and research organisations globally.
- Striking a balance between openness vs. IP/contractual agreements.
- Anonymising personal/identifiable information to enable data sharing or reuse (data from farms).

SOLUTIONS TO ADDRESS THE CHALLENGES

- Encourage more agricultural and environmental organisations to participate in the socialisation, and adoption of data management standards and best practices.
- Determine incentives and barriers to the creation and reuse of FAIR data, define actionable steps taken by stakeholders (e.g., researchers, data support professionals) to gaps to be addressed.
- Develop and implement tools/solutions for data governance, e.g., codes of conduct, and data sharing agreements, to mitigate ethical and legal challenges.
- Develop interoperable agricultural and environmental monitoring networks to connect agricultural and environmental research.
- Provide training and certification to build capacity for digital literacy, educate stakeholders about standards and best practices and make their adoption mandatory.
- Encourage collaboration among RDA groups to avoid duplication of efforts (e.g., [Scientific Data IG](#)).
- Raise awareness of the RDA's work (via position papers) across different geopolitical contexts.
- Identify support for agricultural and environmental data initiatives through collaborations with funding and private organisations.

Community cross-fertilisation workshop: RDA for Agricultural and Environmental Data



RDA for FAIR Data, Software & Hardware
Celebrating A Decade of Data
RDA community cross-fertilisation workshop

ABOUT THE WORKSHOP
The community cross-fertilisation workshop, 'RDA for FAIR (Findable, Accessible, Interoperable and Reusable) Data, Software & Hardware', brought chairs and members of RDA Working Groups (WG) and Interest Groups (IG) together, with members of the wider research data community to share and discuss challenges, solutions and initiatives associated with managing and reusing FAIR research outputs. The key findings of the workshop summarised herein will be used to direct the future strategy of the RDA community. Read more about the [community cross-fertilisation workshop series](#) in commemoration of the [RDA's 10th Anniversary](#).

CHALLENGES TO BE ADDRESSED WITHIN THE THEME OF FAIR DATA, SOFTWARE AND HARDWARE
Coherent and global implementation of the FAIR data principles across different research outputs:

- Software and hardware each face unique challenges in regard to the FAIR elements, and should not be treated the same as data outputs.
- FAIR software, machine learning and hardware policy has evolved separately from that of data, leading to divergence in implementation.
- Defining the scope and application of the [FAIR data principles](#) across all research outputs, including software and machine learning algorithms that combine data, software and computational workflows, and ii) hardware that comprises a combination of (often modular) physical design, data and digital content/dependencies or assembly instructions.
- A lack of understanding of the different roles and responsibilities necessary for creating FAIR research outputs and/or [FAIR data](#) as it pertains to software (e.g., researchers, data support professionals, service providers).
- A misconception that FAIR is the goal rather than a means for achieving the goal of data reuse.
- Understanding how FAIR principles relate to the [FAIR](#) and [FAIR](#) principles.
- Extending the FAIR principles to the arts, humanities and social sciences.
- The FAIR principles are not consistently implemented in all regions around the world.
- FAIR assessment tools are not easily usable within different disciplinary contexts.

Metadata and technical infrastructure:

- Understanding how discipline-specific metadata standards and schemas have evolved over time.
- Ensuring discipline-specific metadata standards and schemas are maintained and remain relevant to communities in the future.
- Not all repositories and data service providers have resources and/or capacity for curation of FAIR research outputs.
- Increasing need for scholarly infrastructure(s) to provide functionalities for the creation of FAIR software, machine learning and hardware.

Community cross-fertilisation workshop: RDA for FAIR Data, Software & Hardware

PARTICIPATING GROUPS & WORKSHOP LEADS

- Data Discovery Paradigms IG**
Nominated lead: [Marta Faria VV](#)
See community group card
- FAIR Data Maturity Model IG**
Nominated lead: [Esther Lopez-Gomez](#)
See community group card
- FAIR Data Digital Object Fabric IG**
Nominated lead: [Mariane Hedstrom](#)
See community group card
- FAIR for Research Software (FAIR4RS) IG**
Nominated lead: [Cristina Marinova-Ott](#)
See community group card
- Software Source Code IG**
Nominated lead: [Joni Ilomaa](#)
See community group card
- FAIR Principles for Research Hardware IG**
Nominated lead: [Johann Colomb](#)
See community group card
- FAIR for Machine Learning (FAIR4ML) IG**
Nominated lead: [Felix Probst](#)
See community group card

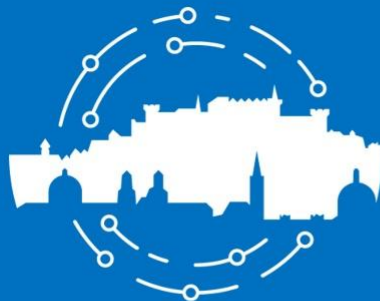
**Workshop leads collected challenges, solutions and initiatives in preparation for the workshop and explained them during the workshop on behalf of their group.*

CHALLENGES TO BE ADDRESSED WITHIN THE THEME OF FAIR DATA, SOFTWARE AND HARDWARE
Lack of conversation on global PID and communication of the value of PIDs
For identifiers on a national level, work is a limitation for working groups - efforts are needed.
A need to i) establish governance to progress the PID agenda; ii) involve older; and iii) update / maintain PID strategy.
A national PID strategy requires and securing the commitment of its funders to develop, support and maintain a PID strategy.

23-26 OCT

2023

SALZBURG



International Data Week

A FESTIVAL OF DATA



<https://www.rd-alliance.org/plenaries/international-data-week-2023-salzburg>

Organised by



Hosted by:



RDA 21st Plenary Pathways



RESEARCH DATA ALLIANCE

doi: <https://doi.org/10.15497/RDA00094>

'FAIR, CARE, TRUST - Principles'

Research Data Alliance Pathways

<https://www.rd-alliance.org/rdas-21st-plenary-programme>

Version: July 2023

THIS PATHWAY IS ABOUT...

The FAIR, CARE and TRUST principles and their applicability to various research objects, including data, software, metadata and hardware.

RDA 21ST PLENARY SESSIONS

- Breakout 1: Metadata IG: [Structuring Semantic Information with Respect to Conventional Metadata \(Syntactic\) Structures](#)
- Breakout 1: Software Source Code IG: [Mastering the Art of Research Software Metadata and Metrics](#)
- Breakout 2: Ethics and Social Aspects of Data IG: [Identifying and discussing key topics in ethics for the RDA Community: Developing together a revised agenda for the Ethical and Social Aspects of Data \(ESAD\) Interest Group](#)
- Breakout 2: Birds of a Feather: [Very Large Open Datasets for Machine Learning in Personalized Medicine](#)
- Breakout 2: RDA / CODATA Data Systems, Tools, and Services for Crisis Situations WG: [Advancing the RDA/CODATA Data Systems, Tools, and Services for Crisis Situations WG](#)
- Breakout 3: Birds of a Feather: [NIRQ Gaggle - Boosting non-text support through experiential and collaborative effort](#)
- Breakout 3: Artificial Intelligence and Data Visitation (AIDV) WG: [Transforming the AIDV-WG's deliverables into horizontal actions across data disciplines, sectors, and systems: Engaging digital communities in incorporating ELSI in data and hardware systems from climate th](#)

- Breakout 4: Birds of a Feather: [Let's talk about FAIR mappings! Towards common practices for sharing mappings and crosswalks](#)
- Breakout 4: Birds of a Feather: [Bridging the Data/HPC divide: lessons learned from the community talks](#)
- Breakout 5: FAIR Digital Object Fabric IG: [FAIR Digital Object Fabric: Shaping the Fabric](#)
- Breakout 5: 2nd Birds of a Feather: [Trusted / Secure Research Environments for Sensitive / Confidential Data: FAIRness for "Closed" Data and Processes](#)
- Breakout 6: PID IG: [Equity and Inclusion: universal access to PIDs](#)
- Breakout 6: RDA/WDS Certification of Digital Repositories IG: [TRUST Principles and Repository Certification Landscape](#)

[View the Plenary programme](#)

RELEVANT RDA GROUPS

- [Artificial Intelligence and Data Visitation \(AIDV\) WG](#)
- [Blockchain Applications in Health WG](#)
- [CoreTrustSeal Maintenance WG](#)
- [CURE-FAIR WG](#)
- [Ethics and Social Aspects of Data IG](#)
- [FAIR Data Maturity Model WG](#)

11 Plenary Pathways to help you select a session of interest from a thematic / topical perspective.



<https://www.rd-alliance.org/rdas-21st-plenary-pathways-programme-navigation>

RDA TIGER Services

“Do you have an idea for a Working Group?”



Service quality control and Pilots



Co-design with selected WGs and Pilots



Selection Board for transparent service provision



“Let experts concentrate on being experts”

“Direct support where needed”

“Communication is the key to collaboration”

“Groups should have right participants and representation”



RDA TIGER - Timeline

- The call will remain open for the *duration* of the project and we will onboard new WGs four times a year.
- We have 4 cut-off/evaluation dates a year:
 - 31 May 2023, 2024, 2025
 - 31 August 2023, 2024, 2025
 - 30 November 2023, 2024
 - 27 February, 2024, 2025

Applications are evaluated by the RDA TIGER Selection Committee

Results: One month after each of the above evaluation dates


Note: WGs can reapply or for other calls



Join the Research Data Alliance (RDA)

Building the social and technical bridges to enable open sharing and re-use of data

RDA EU RDA US CONTACT US **LOGIN REGISTRATION**



O&A Members **80**

Active Organisational & Affiliate members

MEMBERSHIP **Members: 13752**

Becoming a member of RDA is simple and open to both individuals and organizations

[Register now](#)

RDA Groups **WG & IGs: 106**

Discover what RDA Working and Interest Groups and all other Groups are up to and find out how to join them. [Explore Groups](#)

ABOUT RDA ▾ GET INVOLVED ▾ GROUPS ▾ RECOMMENDATIONS RDA FOR DISCIPLINES ▾ PLENARIES & EVENTS ▾ NEWS & MEDIA ▾

& OUTPUTS ▾



Membership is free of charge | All community members are welcome |
“If you want to go fast go alone. If you want to go far, go together”

Useful Links to get started

RDA for Newcomers page:

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

Group search by focus/domain:

<https://www.rd-alliance.org/rda-for-you>

RDA Recommendation/Output search:

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

RDA in a Nutshell (Monthly stats on RDA community & Quarterly Updates on Groups & Outputs):

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

