



Report on the Research Data Alliance 22nd Virtual Plenary Meeting

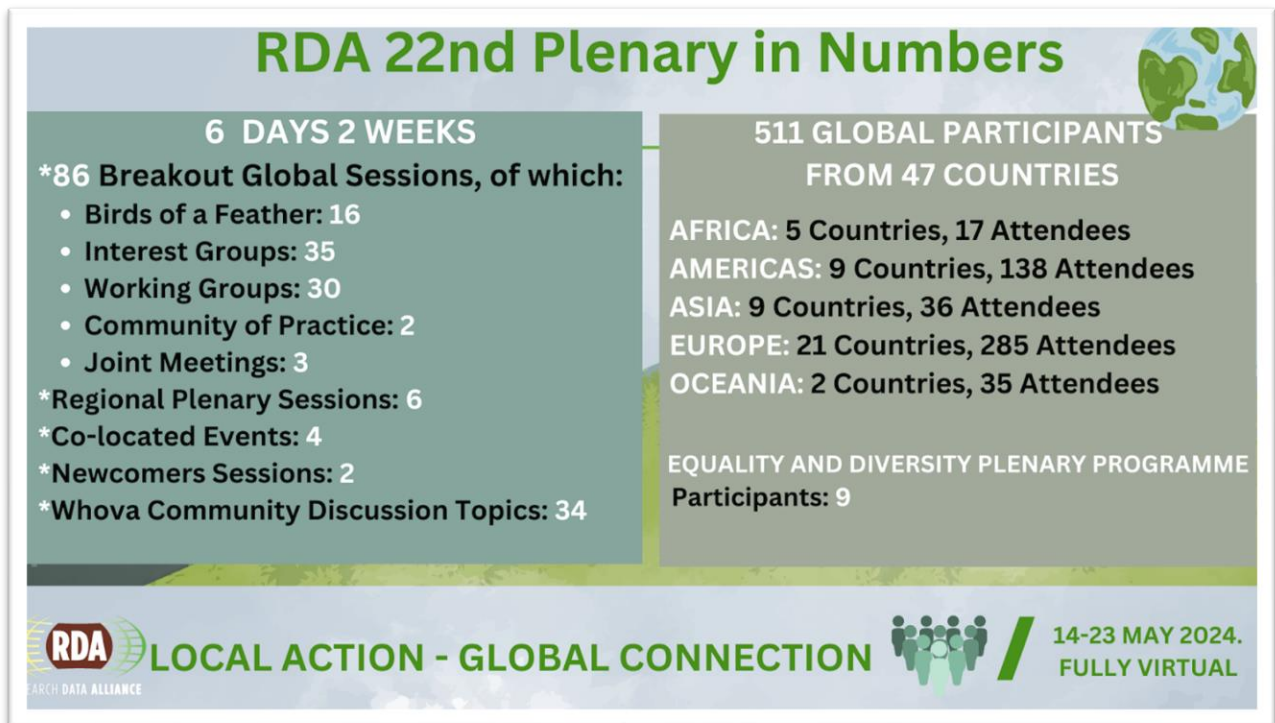
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Report on Research Data Alliance’s 22nd Virtual Plenary Meeting (RDA VP22)

The Research Data Alliance’s 22nd Plenary meeting (VP22) took place as a fully virtual event. Organised by the RDA Secretariat, VP22 was held for half-days spread across two weeks, between 14-23 May 2024. With the theme “Local Action – Global Connection”, which also aligns with the four themes of [RDA’s Strategic Plan](#), the plenary focused on collaboration and engagement with our global community through the sharing of local experiences, best practices and recommendations. 511 attendees from 47 countries joined 86 sessions. Highlights of VP22 were summarised daily in the [RDA Blog](#). Slides and recordings of the sessions have been added to the [RDA-VP22 programme](#).



The summary and key messages or takeaways of individual sessions are summarised per pathway, followed by a mapping of synergies. The Annex provides information on summary and takeaways from all sessions in tables per pathway, which have been collated from collaborative notes taken during each session.



Pathway Summaries

The P22 sessions were categorised into [8 pathways](#), which were intended to help participants in navigating the programme and select sessions of interest:

<input type="checkbox"/> FAIR, CARE, TRUST – Principles	<input type="checkbox"/> Data Infrastructures and Environments*
<input type="checkbox"/> Training, Stewardship, and Data Management Planning	<input type="checkbox"/> Semantics, Ontology, Standardisation
<input type="checkbox"/> Data Lifecycles – Versioning, Provenance, Citation, and Reward	<input type="checkbox"/> Discipline Focused Data Issues
<input type="checkbox"/> Research Software	<input type="checkbox"/> Other

(*Topics related to setting up infrastructure, procedure, policy, and culture for adopting and implementing FAIR, CARE and TRUST principles)

FAIR, CARE, TRUST – Principles

Sessions (17): 12 single sessions, 1 joint session, 4 BoFs

Groups (14): 10 IG, 4 WG

Coordinating ESES Data Preservation and Scholarly Publication Process BoF (WG)
FAIR for Machine Learning (FAIR4ML) IG
Professionalising Data Stewardship IG
Data Versioning IG
Earth, Space, and Environmental Sciences (ESES) CoP
Physical Samples and Collections in the Research Data Ecosystem IG
FAIR Digital Object Fabric IG
FAIR Data Maturity Model WG
Virtual Research Environment IG (VRE-IG)
PID IG
Wind Energy Community Standards WG
Let's Keep Talking about Mappings (WG) BoF
Global Water Information IG
Repository Platforms for Research Data IG
Domain Repositories IG

Complex Citations WG
Interoperable Descriptions of Observable Property Terminology WG (I-ADOPT) WG

Pathway Summary: The sessions in this pathway highlight the importance of integration, alignment, community engagement, and practical implementation of standards and best practices to comply or advance FAIR, CARE, and TRUST principles.

Highlights include, but are not limited to:

- The emphasis on steering working group outcomes to foster systemic changes rather than just establishing best practices;
- The need for alignment across ongoing initiatives and projects, e.g. in mapping FAIR principles to and developing metadata schemas for machine learning models;
- There is an increasing number of training opportunities for data stewards, but keeping track of these offerings and differentiating them can be challenging;
- The need for consistent terminology in data review and its integration into open science practices.

Data Infrastructures and Environments

Sessions (28): 19 single group sessions, 2 Joint sessions, 7 BoFs

Groups (26): 17 IGs, 9 WGs

National PID Strategies IG
Health Data Commons WG
Artificial Intelligence and Data Visitation (AIDV) WG
RDA-OfR Mapping the landscape of digital research tools WG
Coordinating ESES Data Preservation and Scholarly Publication Process BoF (WG)
RDA-OfR Creating a Multi-omics Metadata Schema Standard Reporting Matrix WG
Professionalising Data Stewardship IG
Research Data Architectures in Research Institutions IG
GORC IG
GORC WG
PID IG
Research assessment and science integrity: A global approach with local impact for research policy and the development of digital tools BoF
National Data Services IG
FAIR Data Maturity Model WG
Life Science Data Infrastructures IG

Active disposal of research data: what you need to know and do before you push delete (WG) BoF
FAIR Digital Object Fabric IG
RDA / CODATA Data Systems, Tools, and Services for Crisis Situations WG
Working with PIDs in tools IG
Global Water Information IG
Understanding and Capturing the Uptake of Digital Research Infrastructure IG
Open Science Graphs for FAIR Data IG
Research Tool Usage in Data Curation Workflows: Responsibilities & Collaboration BoF
Data Discovery Paradigms IG
Repository Platforms for Research Data IG
Domain Repositories IG
Social Science Research Data IG
Building Immune Digital Twins WG
Data Granularity WG
National PID Strategies IG

Pathway Summary: The sessions in the Data Infrastructures and Environments pathway emphasised the challenges/needs for building a global data infrastructure underpinning open science, including equal access/leave no one behind, connecting national and global and different domain infrastructures and the sustainability and transparency of the infrastructure enhancing trust. Data infrastructures cover the whole workflow, expanding from data to semantics and compute, requiring the harmonisation of workflows, stakeholder engagement and actionable recommendations and their assessment to ensure a high research data quality.

Training, Stewardship, and Data Management Planning

Sessions (6): 4 single group sessions, 2 joint sessions

Groups (8): 4 IGs, 3 WGs, 1 Regional Group

Engaging researchers with data IG
RDA-OfR Creating a Multi-omics Metadata Schema Standard Reporting Matrix WG
Professionalising Data Stewardship IG
Active disposal of research data: what you need to know and do before you push delete (WG) BoF
Global Water Information IG
RDA in Ireland
FAIRsharing Registry: Connecting data policies, standards and databases RDA WG

[DMP Common Standards WG](#)

[Active Data Management Plans IG](#)

Pathway Summary: Sessions in this pathway emphasised the importance of training and education applying a mixture of common approaches including guides/documentation, training/webinars/summer schools, networking, dedicated platforms for training discovery/navigation. For Data Management Planning the importance of actionable and standardised data management plans was highlighted. Engagement across disciplines and regions with special focus on the global south and early career onboarding is required. Ambassadors and alumni play an important role as multipliers.

Semantics, Ontology, Standardisation

Sessions (13): 12 single group sessions, 1 BoF

Groups (12): 4 IGs, 7 WGs, 1 CoP

[National PID Strategies IG](#)

[RDA-OfR Creating a Multi-omics Metadata Schema Standard Reporting Matrix WG](#)

[FAIR for Machine Learning \(FAIR4ML\) IG](#)

[FAIRification of Genomic Annotations WG](#)

[Community-based catalogue of requirements for trustworthy Technical Repository Service Providers \(TRSPs\) WG](#)

[Harmonised terminologies and schemas for FAIR data in materials science and related domains WG](#)

[Metadata IG](#)

[Wind Energy Community Standards WG](#)

[IGAD CoP](#)

[Data Policy Standardisation and Implementation IG](#)

[Global Water Information IG](#)

[Interoperable Descriptions of Observable Property Terminology WG \(I-ADOPT\) WG](#)

Let's keep talking about mappings (WG) BoF

Pathway Summary: Sessions of the two RDA groups focussing on general metadata aspects I-ADOPT and Metadata worked on the uptake of their RDA recommendations, demonstrated use cases and planned further outreach activities. Within the domain sessions the fragmentation of metadata standards and the need for a community-driven harmonisation and standardisation of vocabularies was emphasised. Equality and inclusiveness are essential for standardisation. The importance of collaborations with projects and external organisations was highlighted including OGC, W3C and ISO.



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Data Lifecycles – Versioning, Provenance, Citation, and Reward

Sessions (12): 10 single sessions, 2 BoFs

Groups (10): 7 IGs, 3 WGs

RDA-OfR mapping the landscape of digital research tools WG
Evaluation of Research IG
Coordinating ESES Data Preservation and Scholarly Publication Process BoF (WG) BoF
Data versioning IG
Physical Samples and Collections in the Research Data Ecosystem IG
Working with PIDs in tools IG
ESES IG
Open Science Graphs for FAIR Data IG
Research Tool Usage in Data Curation Workflows: Responsibilities & Collaboration BoF
Data Discovery Paradigms IG
Complex Citations WG
Data Granularity WG

Pathway Summary: Sessions focussing on the whole life cycle made progress on tool inventory/landscape or discussed the whole life cycle of specific data types. Other sessions focussed on specific parts of the data life cycle including creation, curation, preservation, publication, discovery, and citation of data. Concepts identified as relevant for the data life cycle management are actionable data versioning, granularity treatment/awareness and the compliance with FAIR and CARE principles.

Discipline Focused Data Issues

Sessions (13): 9 single group sessions, 4 BoFs

Groups (9): 5 IGs, 3 WGs, 1 CoP

Health Data Commons (WG)
Small Unmanned Aircraft Systems' Data (IG)
FAIR for prosthetics design and assessment BoF
FAIRification of Genomic Annotations WG
ESES Community of Practice
Harmonised terminologies and schemas for FAIR data in materials science and related domains WG
Life Science Data Infrastructures IG
Wind Energy Community Standards WG
IGAD Community of Practice
Science communication for research data (IG)

Pathway Summary: Key topics across the different disciplinary sessions were FAIR adaptation/uptake and metadata/semantics/vocabularies to support interoperability. Further topics discussed include the harmonisation/assessment of approaches and workflows. Many disciplines plan to establish WGs to investigate prioritised areas further. Several groups collaborate with groups outside of RDA like OGC Domain WGs or ISO standardisation groups.

Research Software

Sessions (3): 2 single group sessions, 1 BoF

Groups (2): 1 IG, 1 WG

RDA & ReSA Policies in Research Organisations for Research Software (PRO4RS) WG
Software Source Code IG
Digital twins supporting data-driven science through optimal data management and sharing (IG) BoF

Pathway Summary: Progress on the adoption of best practices in research software management was made in the RS pathway by gathering and analysing existing research software policies in research organisations (see R1) and analysing the use of research software archival infrastructures (R2). A main discussion topic was how to support policy changes and the uptake of FAIR software practices.

Mappings and Synergies

RDA has been fostering connections and collaborations among groups, encouraging groups to expand their expertise and adopt work that may have already been conducted by other groups. From this plenary, session organisers were asked to record “Synergies and/or possible collaborations identified with RDA groups and other groups” in their session collaborative notes. These recorded group connections are visualised in **Figure 1 below**. It is important to note that the recorded connections are perhaps based on session topics for this plenary and may not cover all activities of a group. Furthermore, the absence of a group from the visual map doesn’t imply that the group hasn’t identified connections with others, as not all sessions provide this information, and some groups didn’t organise a session at this plenary.

Some highlights from this group connection visualisation:

- 38 out of 43 plenary participating groups provide group connection information.
- 8 groups identify connections with 15 initiatives/groups outside of RDA.
- Disciplinary focused groups (e.g. Improving Global Agricultural Data - IGAD CoP; Life Science Data Infrastructure IG; Earth, Space and Environmental Science - ES IG/WG/CoP, etc) are well connected with groups inside and outside of RDA.
- The Professionalising Data Stewardship IG is well connected with many groups, highlighting the need and the importance of skilled personnel in addressing complex data curation issues.



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- Out of the 12 BoF sessions, 8 sessions (provided summaries or takeaways indicate interest or action to start an interest group or a working group.

View Figure 1 on the next page, or [explore the interactive map](#).

Pathways provide another perspective on group connections. Primarily used for organising plenary sessions, pathways also offer insights into the coverage of these pathways topics by various groups.

Figure 2 illustrates the relationship between groups and pathways. This information was gathered from session submissions, where session organisers were asked to nominate specific pathways for their proposed session. One session can nominate more than one pathway.

Figure 2 indicates all pathways are well represented, with two biggest being Data Infrastructures and Environments (26 groups, 28 sessions), and FAIR, CARE, TRUST - Principles (14 groups, 17 sessions). The large size of these pathways suggests they might need to be more specific to offer greater values. Nevertheless, the connections as shown in Figure 2 provide an overview of which topics a group is working on, and which groups could be related to a particular pathway topic.

View Figure 2 on the next page, or [explore the interactive map](#)

Conclusion

The 86 sessions of RDA-VP22 show a good representation across all pathways, indicating that these pathways are still meaningful. Several sessions agreed to establish new groups, which build on RDA group achievements and outcomes, showing that RDA is a living dynamic bottom-up interdisciplinary and global community, which advances common topics. The new analysis of group collaborations is known to be incomplete but indicates the high level of collaboration among RDA groups.

The distribution of sessions across pathways shows two large pathways 'FAIR, CARE, TRUST – Principles' and 'Data Infrastructures and Environments' as well as the small pathway 'Research Software'. For the [RDA-P23 pathways](#), small adjustments were made to improve their usability for participants in selecting the sessions of interest to them. The two large pathways have been split into 3 and 2 more specific pathways, and research software has been integrated into the slightly generalised existing pathways. TAB will have a more substantial review and adjustment of the pathways after RDA-P23. Engagement of TAB with the session and group chairs will ensure RDA continues to progress in the right direction.

The discussions from RDA-VP22 will be continued at [RDA-P23](#), a hybrid plenary taking place in Costa Rica and online from 12-14 November 2024. RDA-P23 is hosted by Consejo Nacional de Rectores (CONARE) in collaboration with Universidad de Costa Rica (UCR), Tecnológico de Costa Rica (TEC), Universidad Nacional (UNA), Universidad Estatal a Distancia (UNED), and Universidad Técnica Nacional (UTN).

[Registration will open soon](#). Join us again at RDA-P23!

This report was written by Technical Advisory Board (TAB) members Mingfang Wu, Martina Stockhause, and Louise Bezuidenhout based on the information provided by session chairs and edited by RDA Secretariat members Connie Clare and Rosie Allison.

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Annex

Individual Session Summaries per Pathway

[Download a PDF of the Individual Session Summaries per Pathway.](#)

[Access RDA Pathways Connections interactive graph](#) to read the session summaries and key takeaways per pathway.