

The Research Data Alliance (RDA): 10 years young and still growing very strong

Hilary Hanahoe
Secretary General, Research Data Alliance
RDA France Annual Meeting
12 October 2023

www.rd-alliance.org



A global greenhouse for research data management

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







The Vision, The Mission and The Values

Vision

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

Mission

RDA builds the <u>social</u> and <u>technical</u> bridges that enable open sharing and reuse of data.

RDA Guiding Principles

- ✓ Openness
- ✓ Consensus
- ✓ Inclusive
- ✓ Harmonization
- ✓ Community-driven
- ✓ Non-profit and technology-neutral





www.rd-alliance.org



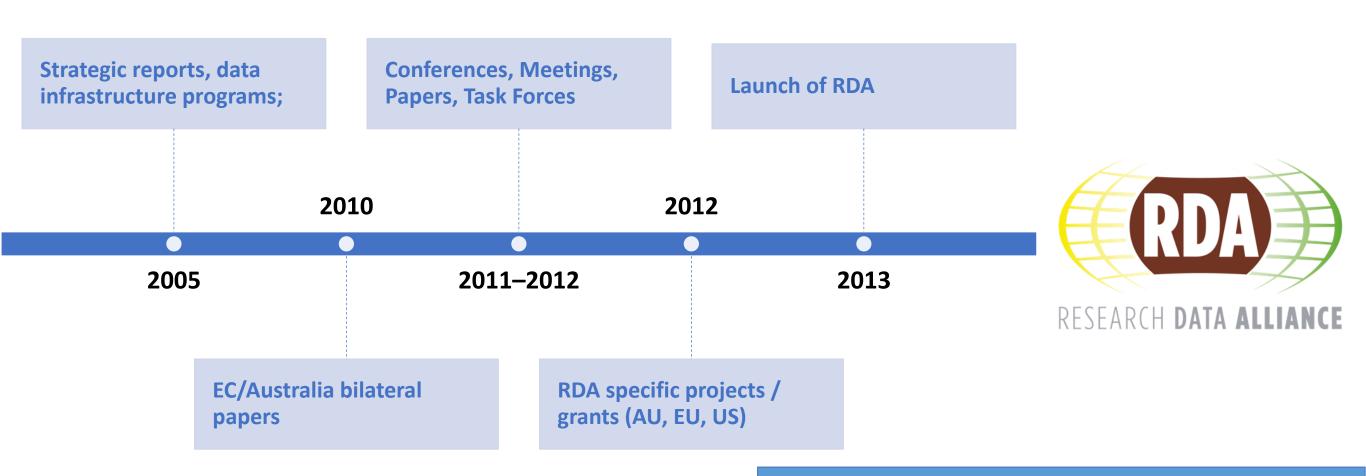
What was the rationale to set up RDA?

RDA came about as data communities and international agencies sought to accelerate research innovation and the development of enabling data infrastructure at a time of unprecedented growth of digital research data (the RDA community defines "research data" broadly as any digital data used in the conduct of research).

Berman, F, Wilkinson, R, Wood, J (2014) Guest editorial: Building global infrastructure for data sharing and exchange through the Research Data Alliance. D-Lib Magazine 20(1/2): .

doi:10.1045/january2014-berman.

RDA was not built in a day



Berman, F. (2019): <u>The Research Data Alliance -- The First Five Years</u>, Supplement to: Berman, F., & Crosas, M. (2020). The Research Data Alliance: Benefits and Challenges of Building a Community Organization. Harvard Data Science Review, 2(1). <u>doi:</u> 10.1162/99608f92.5e126552

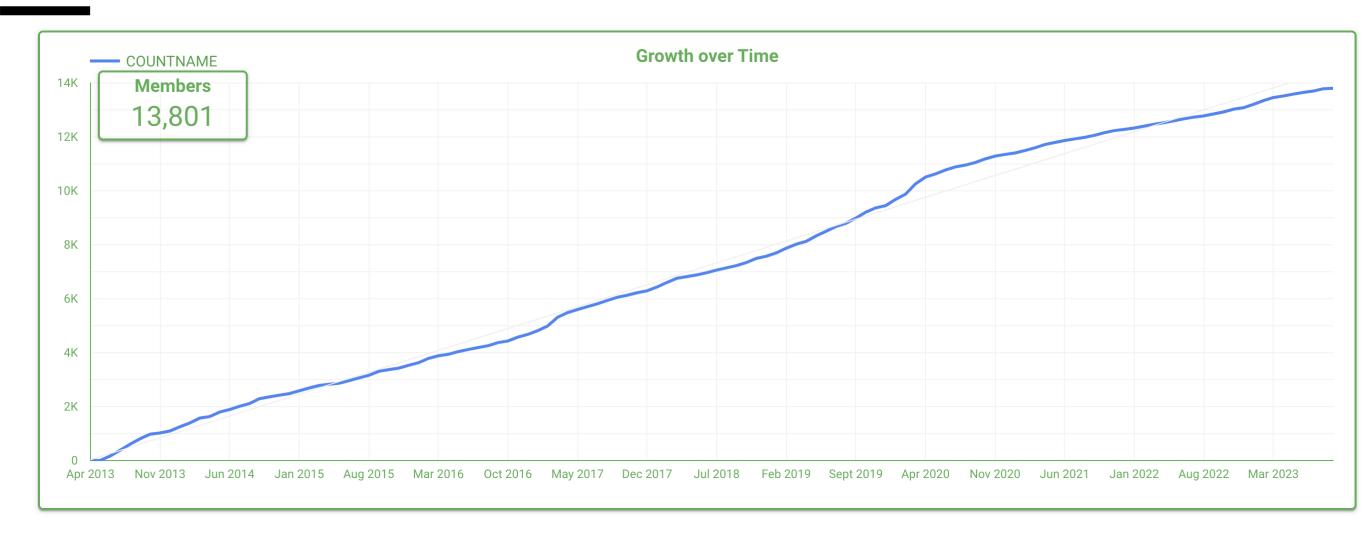




1st RDA Plenary Meeting, 18 – 20 March 2013, Chalmers University 250 participants & 14 Working group ideas launched

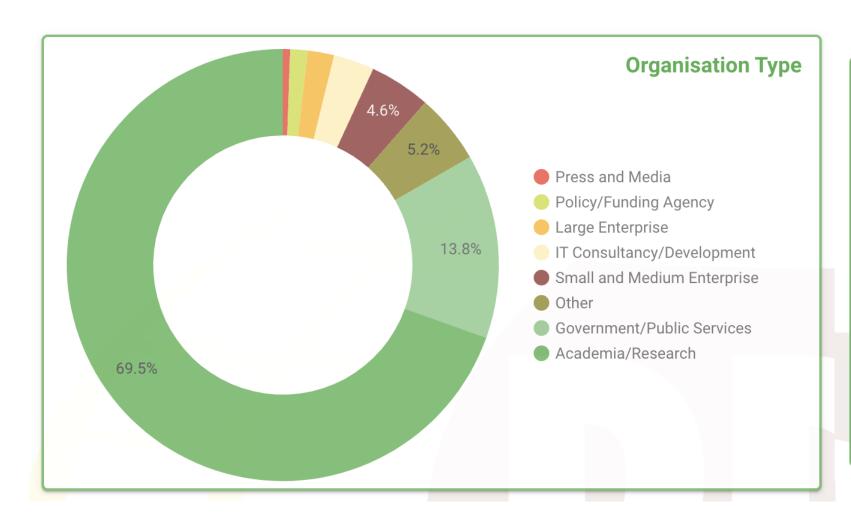


Who is RDA - Worldwide Growth





Who is RDA - Organisation type

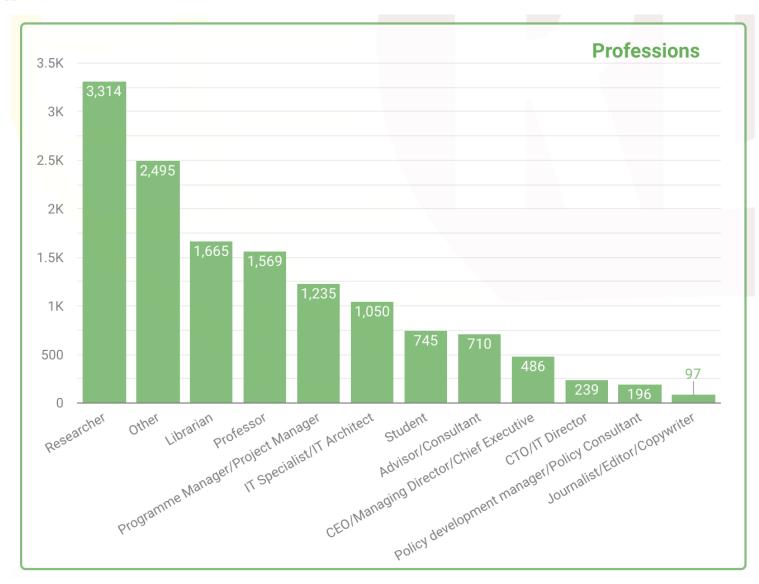


	Organisation Type	COUNTNAME *
1.	Academia/Research	9,596
2.	Government/Public S	1,904
3.	Other	721
4.	Small and Medium E	631
5.	IT Consultancy/Devel	422
6.	Large Enterprise	270
7.	Policy/Funding Agen	182
8.	Press and Media	75
		1-8/8 < >



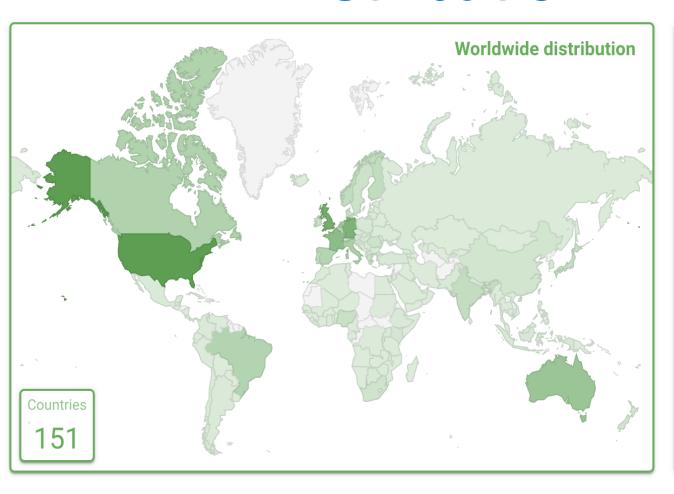
Who is RDA - Professional Title

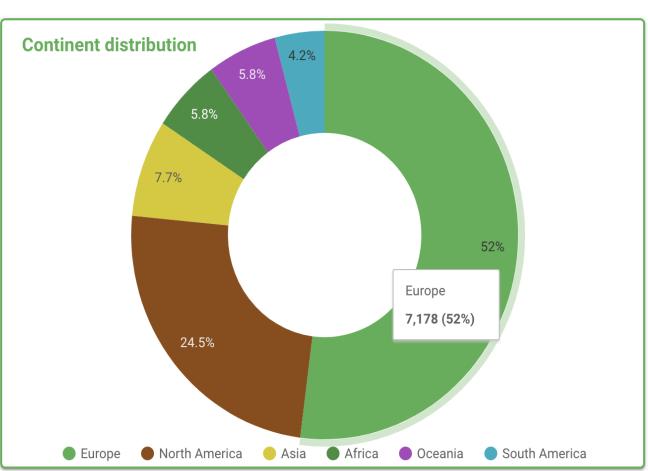
RESEARCH DATA ALLIANCE





Who is RDA – Geographical Distribution





13,801 RDA members from 151 different countries

rd-alliance.org

@resdatall



The heart of the RDA: Community groups

A Decade of Data 2013-2023

Research Data Alliance



Grass-roots, bottom-up, organic creation to address global challenges

Working Groups

- Develop & implement tools, policy, practices & products for data that are adopted & used by projects, organisations, & communities.
- Life span: 12-18 months

RECOMMENDATIONS:

Concrete deliverables -"Running code", tools, standards, etc.

Interest Groups

- Focus on solving a specific data sharing problem and identifying what kind of infrastructure needs to be built.
- Life span: As long as group is active.

OUTPUT:

Best practices, guidelines, emergence of new working groups (WGs), etc.

Communities of Practice

- Domain/disciplinary focus, coordination and awareness raising role -'umbrella group'
- Life span: as long as CoP is active (review every 18 months)
- 1 CoP on Agricultural Data

OUTPUT:

New WGs & IGs, bridge building across the RDA and externally.







The International, Inclusive Family

Research Data Allian

Individuals (13,800+)

"a strategic think tank to enhance a constructive dialogue and collaboration on themes relevant to data science and to present the latest research results in many areas"

Create groups, collaborate & generate outputs

Organisations (80+)

"one of the few places where researchers and data managers / information professionals directly interact and collaborate to develop solutions and best practices"

> Adopt, Implement, Customise

Nations / Regions (35+)

"a global perspective to assist in **sharing best** practices, experiences and common needs to achieve efficiency and reduce duplication of efforts"

Localise (linguistically & culturally), network



100+ active groups covering various Open Research and Research Data Management themes

Back to the Future

```
granularity
                                  agriculture
                                                  blockchain
               chemistry
                                             biodiversity
                                                           attributes
             stewardship
                             infrastructure intelligence integration
ethnography
             scientific social
                                 software low preservation active citations
                             artificial global environmental earth information
      income metadata interoperability repository fra
                                                      framework principles
                           community digital aidv
                                                          working services processes
            systems
                       history repositories management development strategies
                         research wds rda ig science schools could codata fair
economics rda-covid
                      graphs covid codata
                               health legal scholarly training
  agrisemantics
                          tools
  countries
                                            scholarly training
                                                                virtual paradigms
                                  policies
                                            model materials
                                                                 middle
                   brokering archives
                                       professionals collections usage
                              publication visitation coordinating
                                     implementation
```

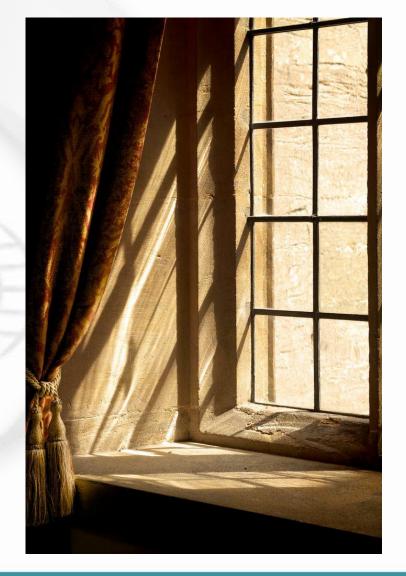




Back to the Future

"It is like opening the curtains – the more you open the more is unveiled. Data is light."

The words from French Minister of State for Digital Technology Axelle Lemaire, who spoke at the opening session of the 6th RDA Plenary, 23-25 September 2015, Paris, France.







Data is light (oil, water)

- UNESCO Recommendation on Open Science, adopted Nov 2021: 193 countries have agreed to abide by common standards for open science.
- OECD working with member and non-member economies to review policies to promote open science and to assess their impact on research and innovation.
- G7 Hiroshima Leaders' Communiqué May 20, 2023: promote open science by equitably disseminating scientific knowledge, publicly funded research outputs including research data & scholarly publications following the Findable, Accessible, Interoperable, and Reusable (FAIR) principles.
- The Summit of the Future in 2024 adapt basic UN practices on data, communications, innovation, strategic foresight, performance and results, and more, so it is better positioned to support and face the challenges of tomorrow







RDA Recommendations

- Open Science paradigm must change to be inclusive
- Prioritisation of data standards and application of new technologies
- Invest in team science.
- Inclusion of the scientific community in the definition of the Open Access and Open Science visions, agendas and policies
- Reward, recognise and support the diversity of roles and responsibilities, and their importance in the overall academic research ecosystem.
- Proactive Consortia funding of infrastructure where developed countries and scientific communities should subsidise some of the cost for less developed countries and communities.
- Funders should align their policies and investments to reduce financial waste and duplication of efforts.

Full report & recording of Research Data Alliance (RDA) roundtable during the Science Summit at the United Nations General Assembly, 15 September 2023









Funded by the EOSC Future project, this diverse programme served to gain a deeper understanding of disciplinary community needs and will provide in turn the EOSC with a domain insights, in particular communities that might need more support to engage with open science practices and EOSC.

https://www.rd-alliance.org/rda-disciplines

It opened the door to other possibilities, international networking. It gave me an 'authority' to argue for his domain. RDA recognised material sciences as an important domain





Composed by: <u>Dr Helene Andreassen</u> (RDA/EOSC Future Ambassador for Linguistics), Andrea Berez-Kroeker, Lindsay Ferrara

Contributors: List TBA

Comments requested: Please note that this is a new Discipline page, and it is open for comments from the RDA Community. To add your input please use the comments section below.

Downloadable disciplinary info sheet: <u>Linguistics</u>



Overview of data-related practices in Linguistics

"Data, in many forms and from many sources, underlie the discipline of linguistics. [...] From descriptive to theoretical work, from corpus-based to introspection-based inquiry, from quantitative to qualitative analysis, linguists rely on data every day. [... D]ata must be understandable, discoverable, reusable, shareable, remixable, and transformable."

(Berez-Kroeker, A.L., McDonnell, B., Collister, L.B., Koller, E. 2022. Data, Data Management, and Reproducible Researn in Linguistics: On the Need for The Open Handbook of Linguistic Data Management. In Berez-Kroeker, A.L., McDor B., Collister, L.B., Koller, E. (eds.), The Open Handbook of Linguistic Data Management, p. 3. Cambridge, MA.



RDA for Research Evaluation

Celebrating A Decade of Data RDA community cross-fertilisation workshop



🖳 See community group card





 There is a lack of suitable policy, tools, guidelines, training, funding and incentives enabling non-traditional outputs to be assessed and rewarded in time-constrained research

 Evaluation of research needs to evolve to recognise the diversity of outputs and there is a need to assess how to measure their impact.

Demo

Strikir

- Non-traditional outputs e.g. research data and instruments are: i) not discoverable, recognised or rewarded: ii) less easy to evaluate. This results in for research credibility, quality and impact (e.g. iournal impact factor, reputation).
- Tracking data citations and linking non-traditional outputs to traditional ones is challenging.

- Identification of meaningful qualitative criteria beyond bibliometrics is needed to enable research impact measurement; this may add a burden on researchers and evaluators when qualitatively assessing outputs.
- Consideration of discipline-specific maturity
- A common understanding across all disciplines of the meaning of open science is lacking.

rd-alliance.org

RDA Community crossfertilisation workshops

Harnessing the power of community groups to brainstorm global challenges, solutions and initiatives

Workshop summaries 2-3 page document highlighting challenges, solutions, initiatives, and actions for the RDA.

30 November 2023: Summary **Community Cross-fertilisation** workshops on-line event



Common challenges: by the community, for the community

1. FAIR data and software creation

Metadata standards and ontologies

2. Ethical considerations

 Personal or commercially sensitive data, consent, anonymisation, security and privacy, AI, data exploitation, democratising data

3. Social and cultural barriers

Training and education, raising awareness, incentivisation and adoption









Acknowledgements

- Drafted by the RDA Council in collaboration with Secretariat since November 2022.
- Feedback received from community consultation in March 2023.
- Contributions from the RDA Governance bodies (TAB, RA, OA).
- Pre-final version now open for comments.
- Final version published December 2023.



Summary

- Fifth strategic plan direction until 2028
- 2020-2023 Strategy Highlights
- Four **strategic themes** for 2024-2028:
 - Globalise
 - Sustain
 - Empower
 - Innovate
- Strategic areas & priorities



The RDA <u>now</u>: A snapshot



Vision

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

Mission

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

Guiding Principles



Openness



Consensus



Inclusivity



Harmonisation



Community-driven



Non-profit and technology-neutral

13,800+
Community Members

82Organisational & Affiliate
Members

150 Countries

35 Regional Networks

150+
Community Groups

RDA 2020-2023 Strategy Highlights

PEOPLE

- Increased representation of the RDA in global areas (e.g. Southern hemisphere).
- Launch of the Communities of Practice (CoPs) framework.
- Formalisation of engagement with Regions through structured agreements/MoUs.

PROCESSES

- Increased financial revenue and implementation of financial sustainability plan.
- Definition of a framework to engage with the private sector.
- Improved coordination among RDA groups through cross-fertilisation workshops.

PRODUCTS

- Investment of resources to build a collaborative web platform for the community.
- Recruitment of two new RDA Foundation staff to support the global community.
- Increased awareness of the RDA's contribution to the UN Sustainable Development Goals (SDGs).





2024-2028 Strategic Directions

In the next five years, the RDA's strategy will focus on four strategic themes...



1. GLOBALISE

Ensure the RDA is a truly global organisation

- Build and maintain capacity in global areas
- Consolidate and expand regional engagement



2. SUSTAIN

Secure organisational sustainability

- Promote sustainability within the RDA
- Optimise processes for financial sustainability



3. EMPOWER

Foster leadership for the future

- Support leadership in education and training
- Champion progress in research data management practice and policy



4. INNOVATE

Create impact in the global data landscape

- Harness the power of the community to innovate and advocate
- Maximise potential and impact of RDA Outputs and Recommendations
- Provide an effective environment for innovation and community growth within the RDA

GLOBALISE

Ensure the RDA is a truly global organisation

STRATEGIC AREA	PRIORITY
	1.1.1. Increase RDA engagement in the Global South
1.1. Build and maintain global capacity	1.1.2. Collaborate with global projects and inititiaves
	1.1.3. Encourage multilingualism in RDA activities
1.2. Consolidate and expand	1.2.1. Support, maintain and innovate existing regional relationships
regional engagement	1.2.2. Engage new regions

SUSTAIN

Secure organisational sustainability

STRATEGIC AREA	PRIORITY
	2.1.1. Provide coordination for Working and Interest Groups
2.1. Promote sustainability within the RDA	2.1.2. Ensure RDA Outputs and Recommendations remain current and relevant
	2.1.3. Continue to develop RDA staff expertise and organisational knowledge
	2.2.1. Further diversify funding sources to ensure RDA meets its strategic objectives
2.2. Optimise processes for financial sustainability	2.2.2. Expand relationships with funders, ministries, national governing bodies and others to communicate the value of the RDA and realise financial sustainability

EMPOWERFoster leadership for the future

STRATEGIC AREA	PRIORITY
	3.1.1. Raise awareness of training resources and opportunities where available and needed
3.1. Support leadership in education and training	3.2.2. Explore collaboration between RDA and higher education institutions to include awareness of, and participation in the RDA and its groups
	3.1.3. Encourage and recognise contribution, service and involvement in both the RDA community and governance
3.2. Champion progress in research data management practice and policy	 3.2.1. Raise awareness of the importance of research integrity to promote sound research practice and workflows through the higher education system, such that early career researchers establish an integral basis and skills for: Science policy development later in their careers Educating the next generation of researchers 3.2.2. Advocate the importance and implications of
	policy development and implementation for research data 3.2.3. Ensure the recognition of best practices in research data management and open research

INNOVATE Create impact in the global data landscape

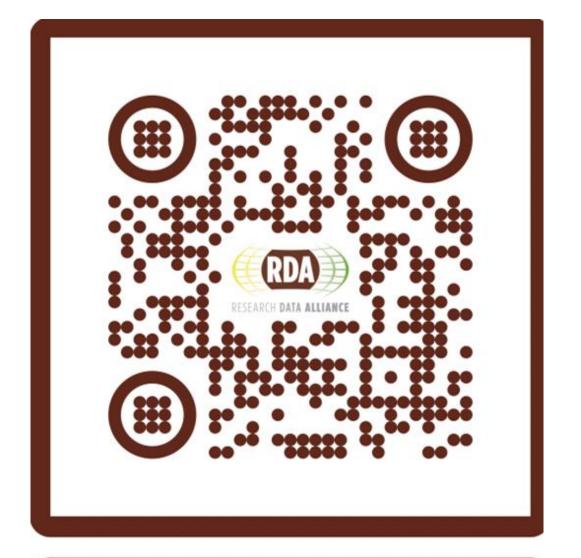
STRATEGIC AREA	PRIORITY
	4.1.1. Demonstrate the innovative value of the RDA to a broad range of stakeholders
4.1. Harness the power of the community to innovate and advocate	4.1.2. Encourage innovation to address emergent themes impacting research data, including but not limited to Artificial Intelligence (AI), High Performance Computing (HPC) and research software
	4.2.1. Engage in outreach and promotion to increase adoption of RDA Outputs and Recommendations
4.2. Maximise potential and impact of RDA Outputs and Recommendations	4.2.2. Measure impact of RDA Outputs and Recommendations to maximise value and potential
	4.2.3. Facilitate the conversion of RDA appropriate Recommendations to standards
4.3. Provide an effective environment for innovation and community growth within the	4.3.1. Map, develop and maintain the RDA landscape to clarify boundaries and identify overlaps or gaps in provision
RDA	4.3.2. Review and revise RDA structures and processes to enable growth

Implementation Plan

- Separate internal implementation plan
- 18- month timeline
- Outlining activities, deliverables & actors associated with strategic areas & priorities
- Includes Key Performance Indicators (KPIs) to measure progress

Provide your feedback

Complete online form from Friday 20
 October 2023 until Friday 10 November

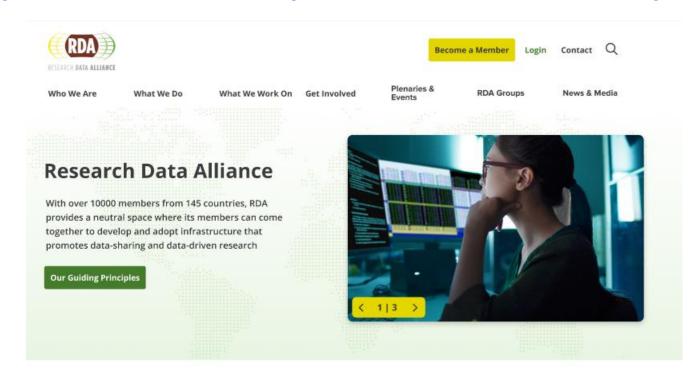






New web platform: by the community, for the community

- Smart member management
- Smart content management
- More cross links to groups, outputs, themes, etc
- Multilingual
- Increased regional visibility
- Dedicated community member landing page & personalised content
- ...



RDA Provides Value To





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





23-26 OCT 23-26 OCT

SALZBURG

International Data Week

A FESTIVAL OF DATA



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

Organised by







SALZBURG CONVENTION BUREAU

Hosted by:









RDA Plenary Meetings in 2024

1 fully virtual meeting in April 2024

1 hybrid meeting in late 2024 – not in Europe



INTERNATIONAL DATA WEEK 2025

Trusted research data driving innovation and a better world















INTERNATIONAL DATA WEEK

20 - 23 SEPTEMBER 2027

Cape Town International Conference Centre (CTICC)



science & innovation

Science and Innovation REPUBLIC OF SOUTH AFRICA















Merci beaucoup

Hilary Hanahoe, Secretary General, Research Data Alliance

Email - hilary.hanahoe@rda- foundation.org

Twitter - @hilaryhanahoe

LinkedIn - www.linkedin.com/in/ hilary-hanahoe

Research Data Alliance (RDA) Secretariat

Email - enquiries@rd-alliance.org

Web - www.rd-alliance.org

Twitter - @resdatall

LinkedIn - www.linkedin.com/in/Research DataAlliance

