RDA for RDM

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research data sharing without barriers
rd-alliance.org

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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.

THE RESEARCH DATA ALLIANCE

www.rd-alliance.org

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

18 FLAGSHIP OUTPUTS

of which 4 ICT Technical Specifications

75 ADOPTION CASES

across multiple disciplines, organisations & countries

82 GROUPS WORKING ON GLOBAL DATA INTEROPERABILITY CHALLENGES

of which 29 WORKING GROUPS & 53 INTEREST GROUPS

5,629 INDIVIDUAL MEMBERS FROM 126 COUNTRIES

66% Academia & Research
15% Public Administration
11% Enterprise & Industry

43 ORGANISATIONAL MEMBERS & 8 AFFILIATE MEMBERS

Vision
Researchers and <u>innovators</u> openly share data across technologies, disciplines, and countries to address the grand challenges of society.

Mission
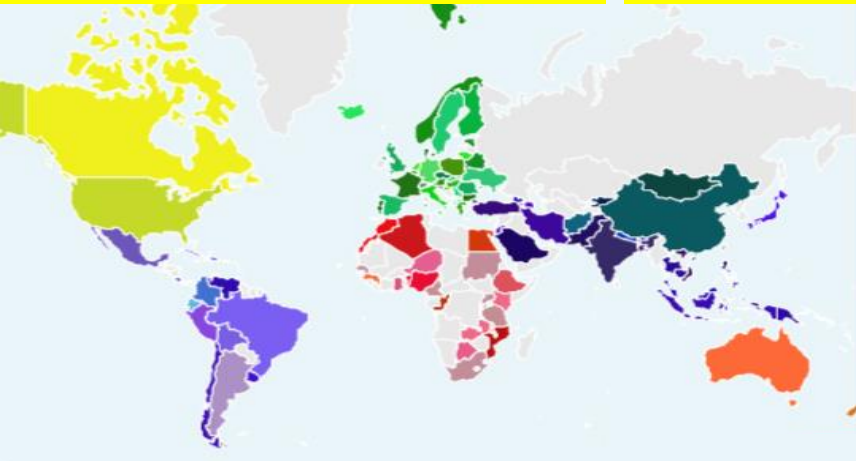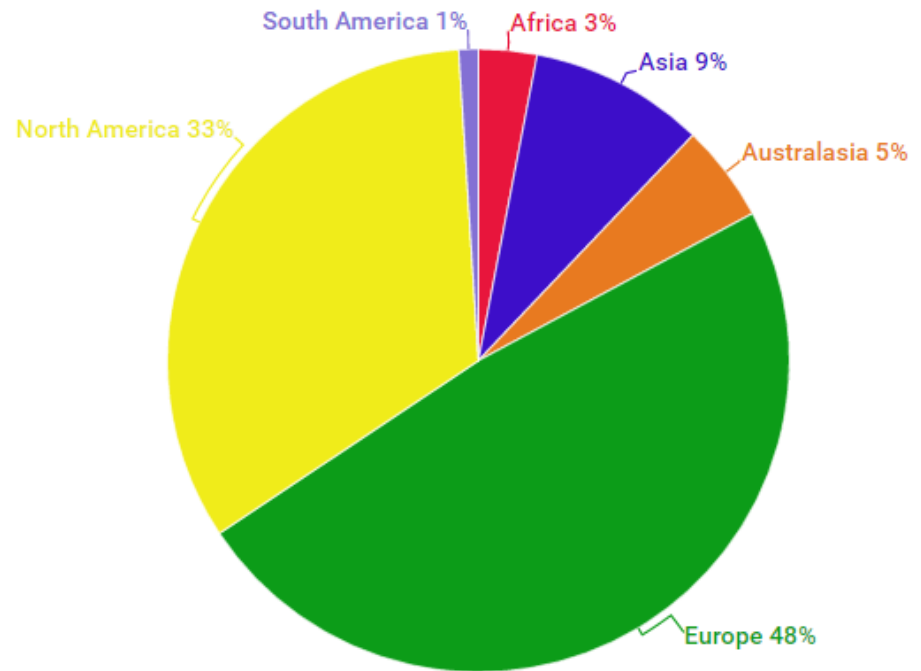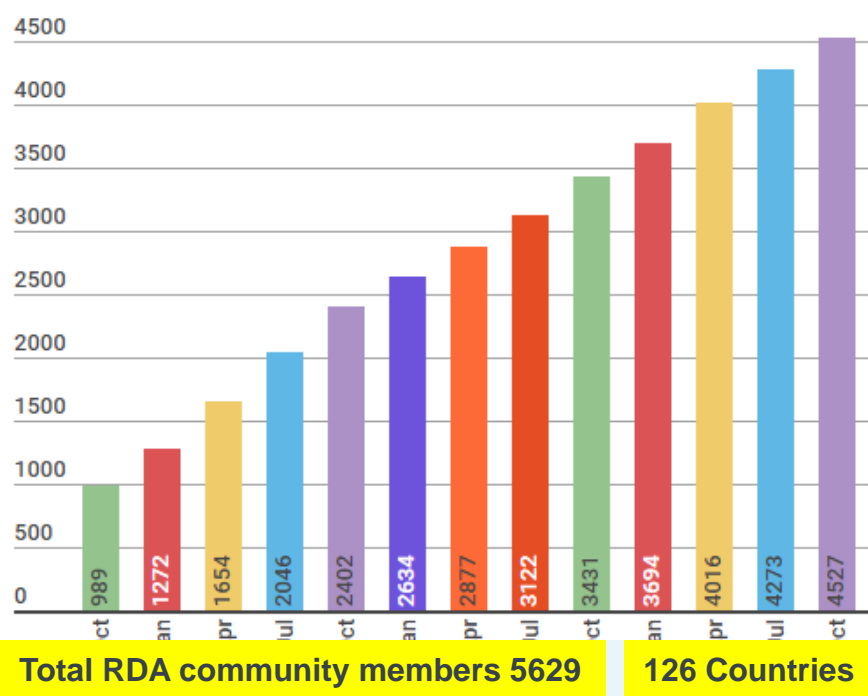RDA builds the **social and technical bridges** that **enable open sharing** of data.

**Please note: Individual Membership is free.
Register@
https://www.rd-alliance.org/user/register**

Research Data Alliance Guiding Principles

- **Openness** – Membership is open to all interested individuals who subscribe to the RDA's Guiding Principles. RDA community meetings and processes are open, and the deliverables of RDA Working Groups will be publicly disseminated.

- **Consensus** – The RDA moves forward by achieving consensus among its membership. RDA processes and procedures include appropriate mechanisms to resolve conflicts.

- **Balance** – The RDA seeks to promote balanced representation of its membership and stakeholder communities.

- **Harmonization** – The RDA works to achieve harmonization across data standards, policies, technologies, infrastructure, and communities.

- **Community-driven** – The RDA is a public, community-driven body constituted of volunteer members and organizations, supported by the RDA Secretariat.

- **Non-profit** - RDA does not promote, endorse, or sell commercial products, technologies, or services.

RDA worldwide growth

Total RDA community members 5629   **126 Countries**

rd-alliance.org/about-rda

- *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.*

- RDA members collaborate together across the globe to tackle numerous infrastructure & data sharing challenges related to:
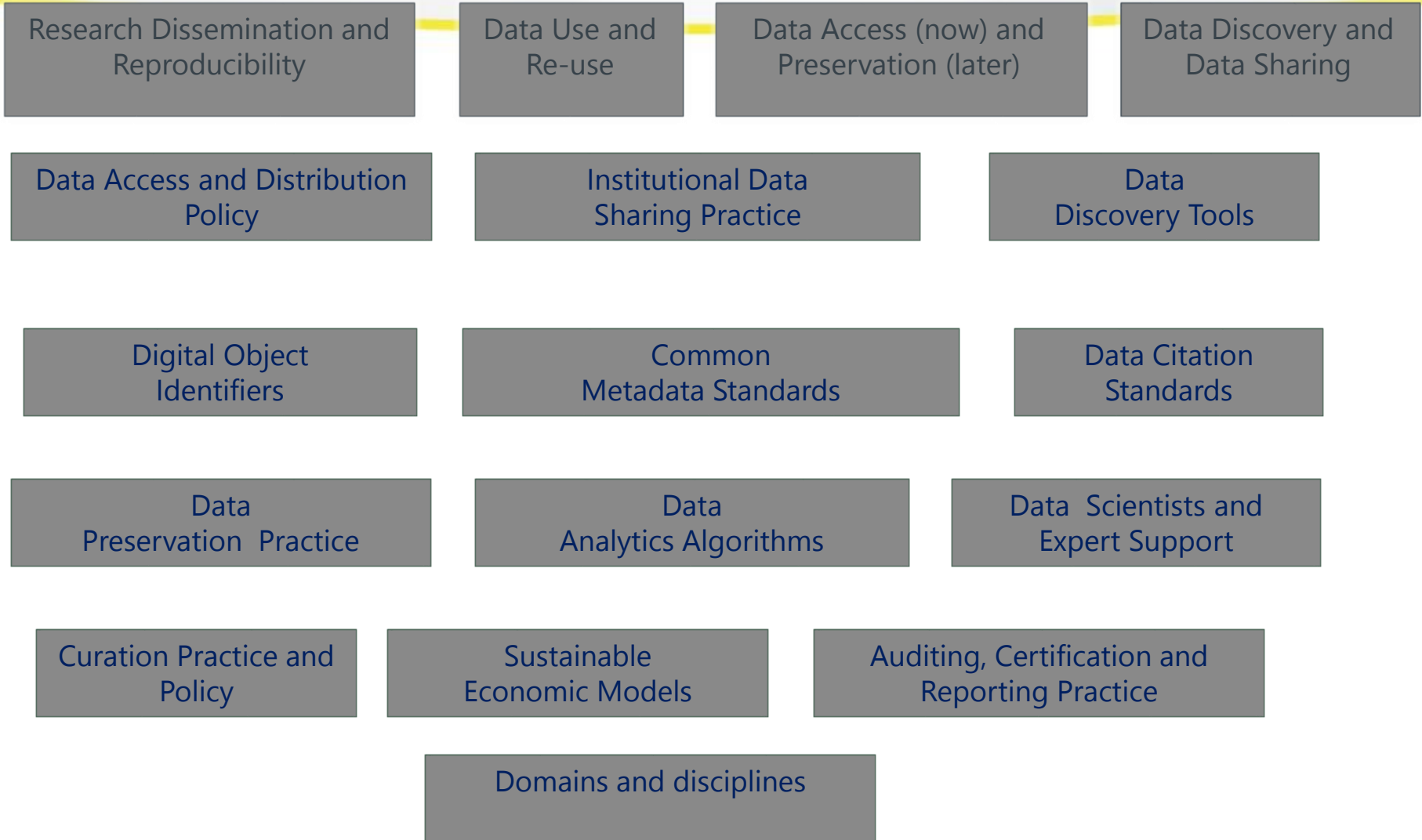
Reproducibility
Data preservation
 Best practices for
   domain repositories
Legal interoperability

Data citation
Data type registries
Metadata
and so many more!

DATA SHARING

Themes

Research Dissemination and Reproducibility	Data Use and Re-use	Data Access (now) and Preservation (later)	Data Discovery and Data Sharing

Data Access and Distribution Policy	Institutional Data Sharing Practice	Data Discovery Tools

Digital Object Identifiers	Common Metadata Standards	Data Citation Standards

Data Preservation Practice	Data Analytics Algorithms	Data Scientists and Expert Support

Curation Practice and Policy	Sustainable Economic Models	Auditing, Certification and Reporting Practice

Domains and disciplines

Courtesy: Amy L. Nurnberger, RDA Organizational Advisory Board,

Data Management Issues

- Data visibility, availability and lifecycle
- Data publication (data journal) and citation
- Provenance, trust
- Technical, Semantic and Syntactic Interoperability
- Resource Identification
- Privacy, Rights (Intellectual property, Licensing)

Interest group on Agriculture Data [IGAD]

IGAD activities

- Inception at RDA P1 at Gothenburg. 2013
- Meetings at Every RDA
- Members from 5 continents

**IGAD pre-meetings
Focus topics**

- Assess and find ways to increase participation from universities, government and research organizations in the Agricultural sector worldwide
- Situation and requirements audit to meet Open Access and Research Data Policies in Agriculture
- Increase data access and availability (formats, users)
- Interoperability (policies, tools, taxonomies, standards)

IGAD Goals

Goals:

ṬTo promote good practices in the research domain: data sharing policies, data management plan, data interoperability

ṬTo provide a platform for networking and cross-fertilization of research ideas in data management and interoperability

ṬTo solicit and promote interactions and projects among the major international institutions and groups worldwide which work on agricultural research and innovation

ṬTo achieve Data interoperability in data sets in the domain of agriculture among stakeholders

RDA
RESEARCH DATA ALLIANCE

IGAD Focus Groups

- Agrisemantics
- Agrimetrics
- On Farm data
- Crops:
  - Wheat Data
  - Rice Data
  - Other crops
- Soil data
- Weather and Climate
- Capacity Development of RDM

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

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)

THE RESEARCH DATA ALLIANCE
RECOMMENDATIONS & OUTPUTS

- Lack of scientific data [or available as discreet, discontinuous, spurts of data]
- Lack of infrastructure
- Knowledge and skill deficit
- Lack of awareness
- Lag in standards adoption
- IT gaps
- Lack of FUNDING!

Answer: Collaboration

3Ps

- **P**revent re-inventing the wheel

- **P**romote reuse

- **P**rogress together

RDA Plenary 10

Thank you!

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