

National RDA Node meeting: RDA and FAIR: supporting Finnish researchers

6 June 2018 CSC – IT Center for Science, Espoo





- 9.00-9.20: The ABC of RDA, Riina Salmivalli, CSC
- 9.20-9.50: My RDA journey: Ari Asmi, University of Helsinki / ICOS RI and Heidi Laine, University of Helsinki / FCRD
- 9.50-10.10: *coffee break*
- 10.10-10.30 RDAEU4 project & national RDA node, Riina Salmivalli, CSC
- 10.30-11.10: FAIR data: what it means, how we achieve it, and the role of RDA, Sarah Jones, Digital Curation Centre, representing European Commission's FAIR Data Expert Group
- 11.10-11.20: Commentary: Leif Laaksonen, CSC
- 11:20-11:50: What will happen after National Open Science and Research Initiative?, Lea Ryynänen-Karjalainen, Federation of Finnish Learned Societies

THE RESEARCH DATA ALLIANCE

www.rd-alliance.org

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



of which 4 ICT Technical Specifications

75 ADOPTION CASES

across multiple disciplines, organisations & countries

91 GROUPS WORKING ON GLOBAL DATA INTEROPERABILITY CHALLENGES

of which 33 WORKING GROUPS

& 58 INTEREST GROUPS

6,952 INDIVIDUAL MEMBERS FROM 137 COUNTRIES

67% 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.





Who Can Join RDA?

Any individual or organization, regardless of profession or discipline, with an interest in reducing the barriers to data sharing and re-use and who agrees to RDA's guiding principles of:



- Openness
- Consensus
- Balance
- Harmonization
- Community-driven
- Non-profit and technologyneutral

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





Why Join RDA as an Individual Member?

Individual Member Benefits

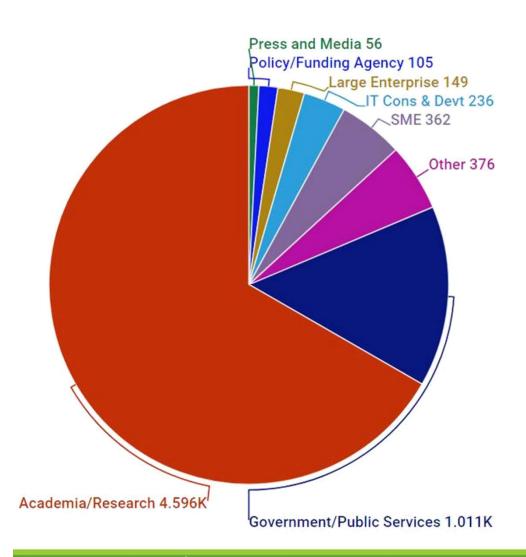
- Contribute to acceleration of data infrastructure development
- Work and share experiences with collaborators throughout the world
- > Access to extraordinary network of colleagues with various levels of experience, perspectives and practices
- Gain greater expertise in data science regardless of whether one is a student, early or seasoned career professional
- Enhance the quality and effectiveness of personal work and activities
- Improve one's competitive advantage professionally and positioning oneself for leadership within the broader research community

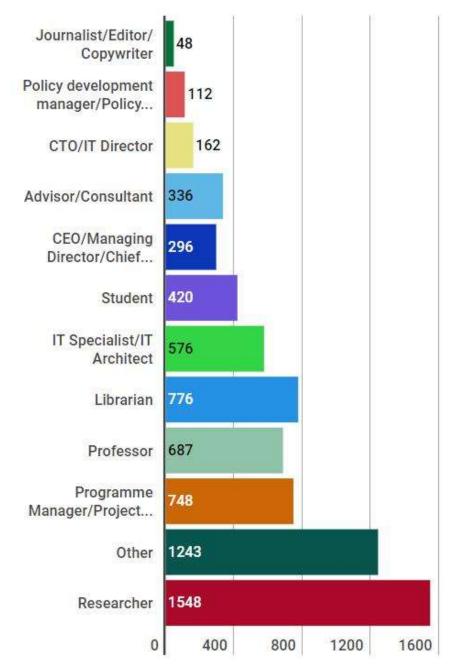
Individual RDA Members 6,952



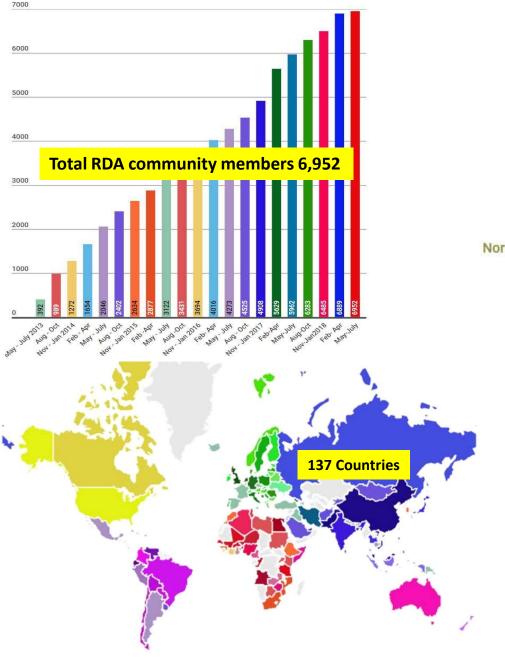


Who is RDA?

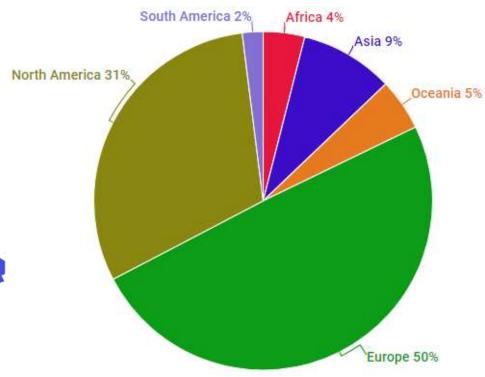








RDA worldwide growth









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

Total 91 groups: 33 Working Groups & 58 Interest Groups

	omain Science - focused		Global Water Information IG
	Agrisemantics WG	ч	Health Data IG
	BioSharing Registry WG		Linguistics Data Interest Group
	Blockchain Applications in Health WG		Mapping the Landscape IG
	Capacity Development for Agriculture Data WG		Marine Data Harmonization IG
	Fisheries Data Interoperability WG		Quality of Urban Life IG
	On-Farm Data Sharing (OFDS) WG		RDA/CODATA Materials Data, Infrastructure & Interoperability IG
	Rice Data Interoperability WG	П	Research data needs of the Photon and Neutron Science
	Wheat Data Interoperability WG	_	community IG
	Agricultural Data IG (IGAD)		Small Unmanned Aircraft Systems' Data IG
	Biodiversity Data Integration IG		Structural Biology IG
	Chemistry Research Data IG		Weather, Climate and air quality IG
	Digital Practices in History and Ethnography IG		
	Earth, Space, and Environmental Sciences IG		
	Geospatial IG		
Par	tnership Groups		RDA/NISO Privacy Implications of Research Data Sets IG
_	•	П	RDA/WDS Publishing Data IG
	RDA / TDWG Metadata Standards for attribution of physical and digital collections stewardship WG	_	NDA, WD3 Fublishing Data 10
	RDA/WDS Scholarly Link Exchange Working Group		
	ELIXIR Bridging Force IG		





RDA Interest (IG) & Working Groups (WG) by Focus (2)

Total 91 groups: 33 Working Groups & 58 Interest Groups

Reference and Sharing - focused Data Citation WG Data Description Registry Interoperability WG Data Security and Trust WG Empirical Humanities Metadata WG International Materials Resource Registries WG Provenance Patterns WG QoS-DataLC Definitions WG	 RDA / WDS Publishing Data Bibliometrics WG Repository Core Description WG Research Data Collections WG Research Data Repository Interoperability WG Data Discovery Paradigms IG National Data Services IG RDA/CODATA Legal Interoperability IG Reproducibility IG
	☐ Sharing Rewards and Credit (SHARC) IG
Community Needs - focused	 Development of Cloud Computing Capacity and Education in Developing World Research IG
 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 CODATA/RDA Research Data Science Schools for Low and Middle Income Countries 	 Early Career and Engagement IG Education and Training on handling of research data IG Ethics and Social Aspects of Data IG International Indigenous Data Sovereignty IG Open Questionnaire for Research Data Sharing Survey IG





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

Focus (3)

Total 91 groups: 33 Working Groups & 58 Interest Groups

			8 1
Da	ta Stewardship and Services – focused Brokering Framework WG DMP Common Standards WG Exposing Data Management Plans WG RDA / WDS Publishing Data Workflows WG WDS/RDA Assessment of Data Fitness for Use WG Active Data Management Plans IG Data in Context IG Data Rescue IG Data Versioning IG Domain Repositories IG Virtual Research Environments IG		Libraries for Research Data IG Long tail of research data IG Physical Samples and Collections in the Research Data Ecosystem 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 Architectures in Research Institutions IG Research Data Provenance IG
Bas	Se Infrastructure – focused Array Database Assessment WG Data Type Registries WG Metadata Standards Catalog WG PID Kernel Information WG Data Fabric IG Data Foundations and Terminology IG Disciplinary Interoperability Framework IG	00000	Big Data IG Brokering IG Metadata IG PID IG Software Source Code IG Vocabulary Services IG
	rd-alliance.org/groups		@resdatall





- > 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.



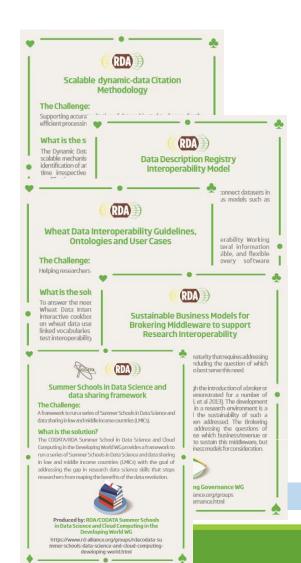




- Data Foundation & Terminology: a model for data in the registered domain.
- **PID Information Types**: a common protocol for providers and users of persistent ID services worldwide.
- **Data Type Registries**: allowing humans and machines to act on unknown, but registered, data types.
- Practical Policy: 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







- 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)







- 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.
- **PDA/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.







> 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 fortyfour functional requirements identified for research data repository platforms and provides a score identifying relative importance.

BioSharing Recommendations Data repositories, standards and policies in the life, biomedical and environmental sciences





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 reusability;
- ☐ 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-andoutputs/all-recommendations-and-outputs



75 Adoption Cases

https://www.rd-alliance.org/recommendationsoutputs/adoption-recommendations

Find out how you can become an Adopter

https://www.rd-alliance.org/recommendations-and-outcomes/become-rda-adopter









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



Adoption of Recommendations

Home » Recommendations & Outputs » Adoption Of Recommendations

Group	Recommendation - Short description & Impact	Recommendation details	Adopters
Brokering	Sustainable Business	Recommendation	• ICSU/WDS
Governance	Middleware to support /group/brokering-ig-brokering- Research Interoperability governance-wg/outcomes	page: https://www.rd-alliance.org /group/brokering-ig-brokering-	Danube Data Infrastructure
		• GEO-BON	
	Discusses the strengths and weakness of five classes of business models in the context of long-term sustainment of brokering middleware	eakness of five classes of siness models in the ntext of long-term stainment of brokering	• SAION
Data Citation	Scalable Dynamic-data	Recommendation page: https://rd-	LNEC: Critical Infrastructure Monitoring System
	Citation Methodology	alliance.org/group/data-citation- wg/outcomes/data-citation-	 Implementation of a Query Store for the VAMDC infrastructure
	Supports accurate citation of data subjected to change, for	recommendation.html DOI: http://dx.doi.org/10.15497 /RDA00016	 NERC (UK Natural Environment Research Council Data Centres)
	the efficient processing of		ESIP (Earth Science Information Partners)
	data and linking from publications.		DEXHELPP – Social Security Data
	to week STOTA TANEES		ENVRIplus: Carbon Observation System



What are Plenary Meetings?



- Organised around the world every 6 months
- exciting & productive events bringing together a unique community of data science professionals, from multiple disciplines and domains;
- help move the community forward in creating tangible deliverables that improve data sharing across disciplines, technologies, and countries;
- heart of the plenaries are working meetings of RDA Working & Interest groups and new potential groups through Birds of a Feather meetings
- presentation of new Outputs and Adoption cases





RDA 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





12:00 - 13:30

Breakout 1 - WG/IG/BoF Working Meetings

- BoF Towards a Global Open Science Commons | Room A04 Remote Access Available
- ❷ IG Digital Practices in History and Ethnography | Room CO3 Remote Access Available
- 1 IG Earth and Space and Environmental Sciences | Room A01 Remote Access Available
- ❷ IG International Indigenous Data Sovereignty | Room B95 Remote Access Available
- • O IG RDA/NISO Privacy Implications of Research Data Sets | Room A06 Remote Access Available
- WG Data Citation | Room A03
- WG Persistent Identification of Instruments | Room B03 Remote Access Available
- WG Research Data Collections | Room A05 Remote Access Available
- WG Research Data Repository Interoperability | Room B04
- D WG Storage Service Definitions | Room CO4 Remote Access Available
- . Joint meeting: IG ELIXIR Bridging Force, IG Biodiversity Data Integration, WG BioSharing Registry | Room A08

13:30 - 14:30

Lunch break- Poster session / Exhibition

14:30 - 16:00

Breakout 2 - WG/IG/BoF Working Meetings

- BoF EOSC-related European Projects getting Global: Engaging with the RDA | Room A04 Remote Access Available
- 🕀 WG Blockchain solutions for accessing health data | Room B95- Remote Access Available
- ❷ IG Global Water Information | Room B03 Remote Access Available
- ❷ IG Long tail of research data | Room A06
- 🕀 IG Open Questionnaire for Research Data Sharing Survey | Room CO3 Remote Access Available
- **⊘** WG DMP Common Standards | Room A05 Remote Access Available
- WG Metadata for the Empirical Humanities | Room C04
- WG RDA/WDS Scholarly Link Exchange (Scholix) | Room A03 Remote Access Available
- Joint meeting: IG ELIXIR Bridging Force, IG Preservation Tools, Techniques and Policies, IG From Observational Data to Information, WG BioSharing Registry | Room A01
- Joint meeting: IG Metadata, IG Data in Context, WG Metadata Standards Catalog | Room A08 Remote Access Available
- Joint meeting: IG RDA/CODATA Materials Data, Infrastructure & Interoperability, WG International Materials Resource Registries | Room B04 -Remote Access Available



Support for Early Career and Experts

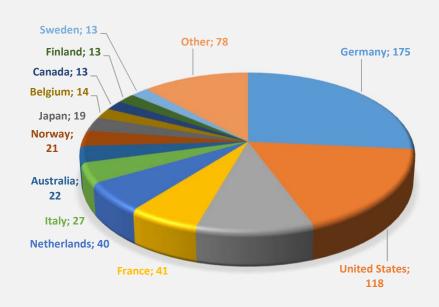
- > Early career support programme existed since 2014
- > 12 grants to Finland, supporting participation to seven Plenaries
- > Travels, accomodation and registration fee

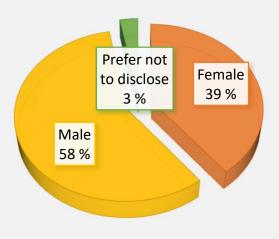


661 participants from 41 countries

83 Breakout meetings

- 19 Working Groups
- 37 Interest Groups
- 12 Joint Working & Interest Groups
- 15 Birds of a Feather
- 4 Final Recommendations presented
- 3 New Recommendations
- Collaboration projects with AGU and ISO on adoption and impact metrics





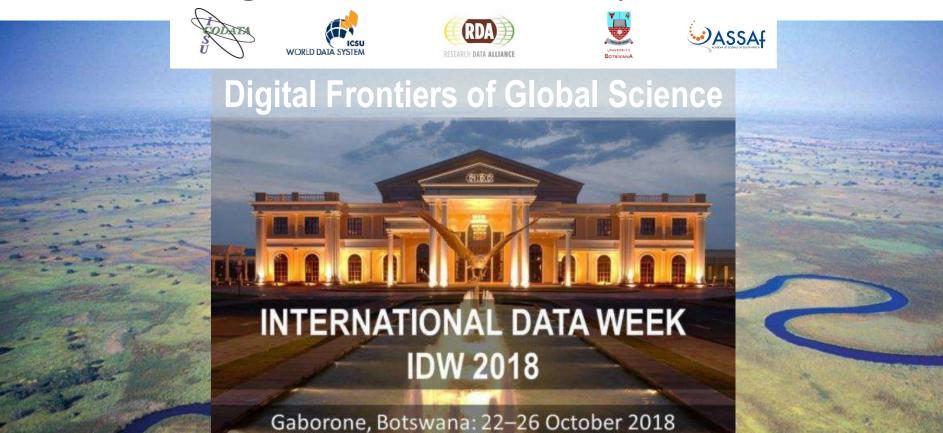
Gender balance

WWW.RD-ALLIANCE.ORG @RESDATALL





Looking Forward to Plenary 12: Botswana



To find out more visit: https://www.rd-alliance.org/plenaries/rda-twelfth-plenary-meeting-part-international-data-week-2018-gaborone-botswana

Co-organised within the framework of International Data Week with CODATA & WDS







My RDA Journey Heidi & Ari

RDA and FAIR: supporting Finnish researchers
6 June 2018



Heidi Laine

Heidi got initiated to the RDA community at the 2nd plenary in Washington D. C. in 2013, where she represented the Council of Finnish Academies. Since then she has participated in six plenaries, twice with RDA support; as an RDA Europe Early Career Fellow at 7th plenary in Tokyo, and at 11th plenary in Berlin through RDA Europe financial support for experts.

Heidi's interests in RDA include, among other things, data citation, data policy, research integrity and ethics, SSH specific data management, and European Open Science Cloud.





Ari Asmi

Ari Asmi is a project director in the ICOS research infrastructure consortium and a research coordinator in University of Helsinki.

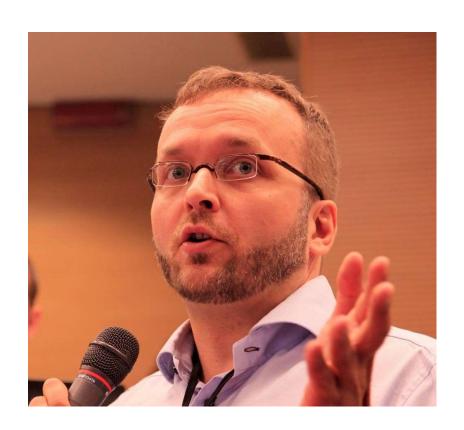
He has been active in the RDA from very first plenary, following the development and being an active partner in working and interest groups and community building.

His main work is in environmental research infrastructures, but he is also involved in Data Science teaching and many national and international data related initiatives, directly benefitting from RDAs work.





My RDA Journey







National RDA Node meeting: RDAEU4 project & national RDA node

6 June 2018 CSC – IT Center for Science, Espoo





Agenda of the day

9.00-9.20: The ABC of RDA, Riina Salmivalli, CSC

9.20-9.50: My RDA journey: Ari Asmi, University of Helsinki / ICOS RI and Heidi Laine, University of Helsinki / FCRD

9.50-10.10: *coffee break*

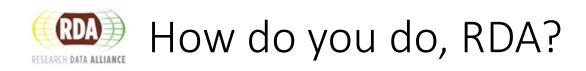
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Commentary: Leif Laaksonen, CSC

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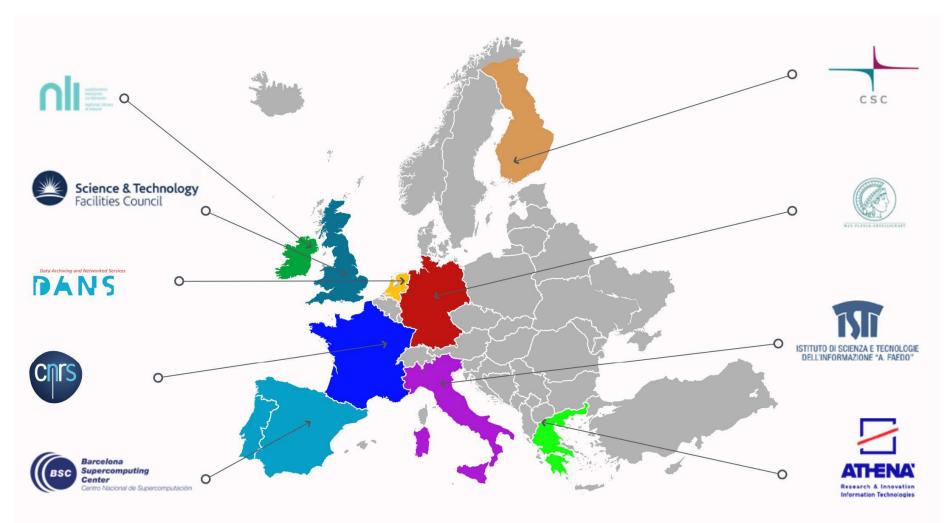
Commentary: Heidi Laine, University of Helsinki / FCRD



- > From RDAEU3 -> RDAEU4 and national nodes
- Hilary Hanahoe, Secretary General Research Data Alliance since February
- > Plenary 13 in Berlin, more than 600 participants
- Work continues in 33 working groups and 58 interest groups
- Outputs and adoption cases
- Calls for Plenary 12 Botswana



RDA Europe National Nodes



RDA EU 4.0 builds on existing networks to create a **European network of nodes** to enhance Member State cooperation and support of RDA in many European countries & vice versa the representation of EU countries in RDA Global



What does a node do?

- Support data-related activities at the national/regional level
 - Join, invite, ask
- Act as central contact point between national data practitioners and RDA
 - Dissemination of calls, news and sharing contacts
- Promote the RDA vision and results through events, workshops and meetings
 - National RDA node events
- Develop concrete actions to facilitate the uptake/adoption of RDA outputs
 - Dissemination of outputs and support for adoption
- Interact with national research funding bodies and advocate for data issues
 - Dialogue with national funding organisations
- Participate in RDA processes and governance to represent national/regional interests
 - Member of European Governance Board



October 2017: Pains & Gains of Finnish RDA participation





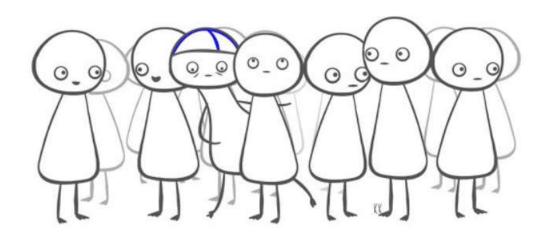
Who are the Finns in RDA: Individual members

At the end of April 2018, RDA counted 148 members from Finland, 58 of which subscribed to one or more RDA Working and/or Interest group(s) and 11 subscribed exclusively to the RDA in Finland national group.

2 of the RDA members from Finland are chairs of 5 different WG and IG.

FINNISH NIGHTMARES

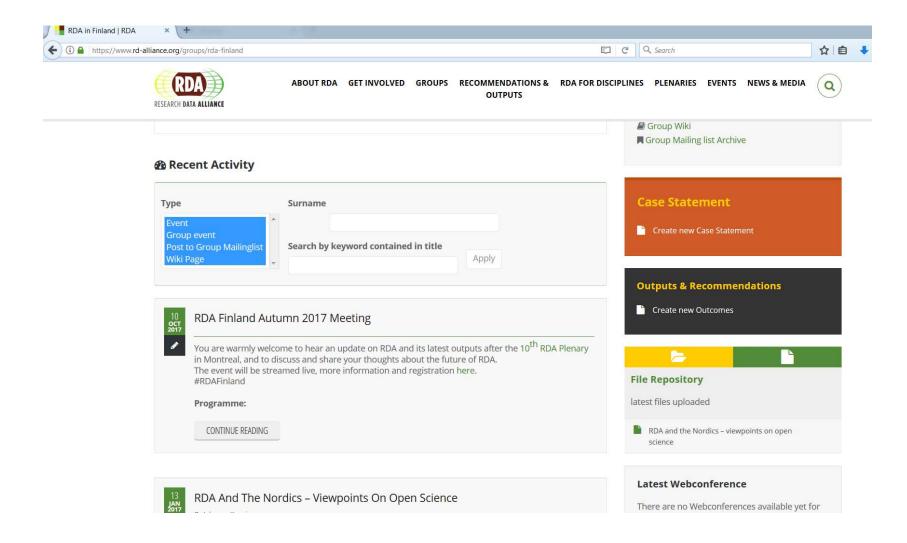
FINNISHNIGHTMARES.BLOGSPOT.FL - FACEBOOK.COM/FINNISHNIGHTMARES - TWITTER.COM/FINN MATTL



IT'S CROWDED AND YOU DON'T WANT TO BOTHER ANYONE.



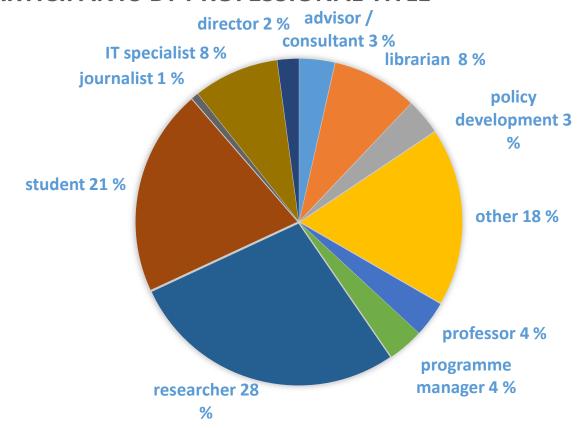
RDA National Groups





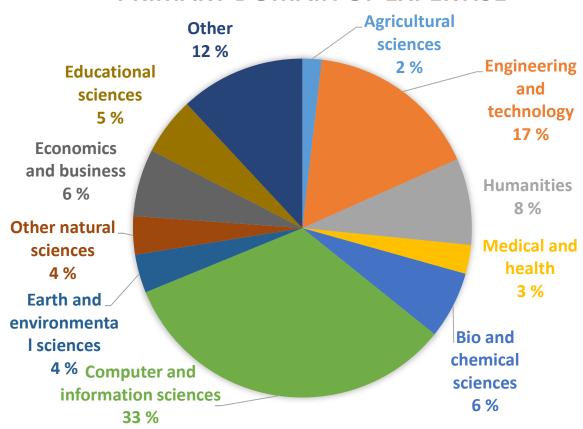
Who are the Finns in RDA?

PARTICIPANTS BY PROFESSIONAL TITLE



Who are the Finns in RDA?

PRIMARY DOMAIN OF EXPERTISE





National Node activity

- > CSC is the Finnish Node Coordinator (responsible: Riina Salmivalli, Anni Jakobsson, Jessica Parland von Essen)
- > The idea is to collaborate with institutions, single persons, infrastructures, working group and other initiatives
- A community to facilitate the participation in RDA activities



RDA recommendations and outputs: Exercise

- which ones about the most interesting RDA outputs and recommendations from the Finnish perspective?
- It list of RDA outputs and recommendations at: https://www.rd-alliance.org/recommendationsand-outputs/all-recommendations-and-outputs
- Answer the survey here:
 https://response.questback.com/cscfi/rdaandfair20
 18



Looking Forward to Plenary 12: Botswana



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Co-organised within the framework of International Data Week with CODATA & WDS





Thank you!

#RDA #RDAEurope @RDA_Europe

https://www.europe.rd-alliance.org/

nodes@europe.rd-alliance.org

https://www.slideshare.net/ResearchDataAlliance/rda-europe-nodes