

The RDA/EOSC Future Cross-Disciplinary Outputs in the EOSC environment

September 2023

As the RDA Open Calls programme comes to an end we highlight many more projects and their outcomes.

What did the Calls Programme create? <u>See our Infographic</u> about the Programme in Numbers.

The RDA EOSC Future Open Calls programme has created a vibrant community around RDA and EOSC and we are now seeing in the final stages many rich outputs, engaging different communities in the EOSC environment, leveraging RDA's Recommendations and Outputs.

Our Ambassadors have also worked tirelessly as a network to promote Open Science and awareness of RDA and EOSC among their disciplines. Many of them are working on data challenges that need to be solved to assist the pathway to engagement in Open Science and EOSC.

For more information on the awardees, see the <u>dedicated RDA</u> <u>webpages</u>.

Highlights from the Cross-Disciplinary projects

1. FAIR Principles in Occupational health

What was the challenge?

The FAIR-ness of data in the field of Occupational Safety and Health could benefit from a wider engagement in FAIR practices. The data generated from the researchers in the domain can be leveraged by optimised classification schemas to make their outputs internationally accessible and more awareness raising around FAIR is required.

What did the project achieve?

In practical terms, a huge amount of data cleaning took place and the CAS registry for chemical substances was applied. The project onboarded its repository to be an EOSC provider which required first making the data and records FAIR. The initiative also worked on raising awareness of RDA and EOSC at a number of events and contributed to national level events in Latvia to encourage data reuse across repositories. This also resulted in consultations with the European Occupational health community and the need to coordinate this across member states.



What was the impact?

By leveraging the RDA Guidelines for FAIR Adoption in Health Data, of the practical guidelines for implementing FAIR data, as well as promoting RDM practices at local institutional level, were implemented. In addition, these guidelines have now been promoted to other universities in Latvia. This means a local repository is now visible at European level via EOSC. Ultimately the project created FAIR datasets for reuse by others and set a good example for similar European communities in the field of Occupational health, another step forward for Open Science.



Project Page

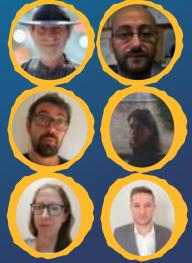
2. A FAIR-enabling citation model for Cultural Heritage Objects

What was the Challenge?

Data citation can be considered one of the pillars of Open Science. Concerning cultural heritage objects and data, the delineation of the data citation methodology can play as a decisive FAIR-enabling factor in terms of identification, discoverability, attribution, and accreditation, also by means of the EOSC Portal

What did the project create?

The project leveraged the RDA Metadata Standards WG, and proposed the enrichment of the model from the cultural heritage domain. It investigated and created a prototype of the FAIR-Cultural Heritage ontology and how it can be effectively applied. It also carried out a thorough literature review, case studies, metadata schema and FAIRness assessment of cultural heritage citations.



What was the impact?

The DRI of Ireland are now interested in using the project outcomes for their cultural heritage data. The project also got out of its 'comfort zone' and looked at working with other disciplinary data. The identification and formalisation of CHO citability could play a relevant role in Europeana, also within the strategic framework being promoted for the creation of a Collaborative Cloud for Europe's Cultural Heritage and the European CH Data Space.



3. Enhancing interoperability through use of PIDs in research platforms

What was the challenge?

Persistent identifiers (PIDs) provide foundations for FAIR. Consistent, persistent and reliable methods to identify data assets are needed to make them Findable. These methods should work reliably years or decades after the datasets have been collected to support the Reusability of the data. However, at the moment, the methods for identifying data assets are often tied to specific tools or instances. Thus, any software change, server migration or organisational/budgeting change poses challenges in terms of consistency, persistency and reliability of the identifiers.



What did the project create?

The project took concrete steps towards a PID framework that is more independent from the implementation details and organisations hosting them. The project demonstrated that \mathcal{O} RSpace inventory could integrate with DataCite \mathcal{O} by using International Generic Sample Numbers (IGSNs) in the context of field sample collection and related ananysis workshow. The lessons learned in the conceptual design, architecture and implementation were collected in a report that contains relevant advice not only to software developers, but also to institutional research data managers and research tool providers.

What was the impact?

In addition to new functionality in the software, the report provides a starting point for a more generalisable guideline that could be adapted to specific needs of different PID-related projects. These observations will be discussed in the future RDA community events, for example, in the RDA groups the project leaders are involved with (such as working with PIDs in Tools IG and GORC WG).



More information:

project page

4. How to engage regional and European data infrastructure communities with relevant RDA and EOSC communities

What was the challenge?

The challenge was understanding - on a detailed level - how the interoperability of disciplinary, cross-border infrastructures works in practice and how RDA and EOSC could better support their development.

What did the project create?

The project produced a wide range of results: case studies, a collection of semantic artefacts to support future community guidelines, and an analysis of the EOSC interoperability framework. The project also strengthened links with several RDA and EOSC-related projects and contributed to a shared understanding of the interoperability on technical and semantic levels. The results were promoted through a series of talks, publications and community engagement activities. The project also contributed to the RDA GORC International Model WG of and the community cross-fertilisation workshop series.

What was the impact?

The direct impact of the project was a focused, in-depth contribution to the body of knowledge of the RDA and EOSC communities. The project also contributed to bridging the gap between these communities, increasing the awareness of different approaches to interoperability across the communities. The next RDA plenary will be an opportunity to present and analyse the results, and turn them into actionable follow-up plans. One of the specific opportunities will be the BoF session on the 25th of October ("Let's talk about FAIR mappings! Towards common practices for sharing mappings and crosswalks").

More information:

Project Page

5. Enhancing Usability and Contributability of RDA DMP Common Standard for Machine-Actionable DMPs

What was the challenge?

The RDA DMP Common Standard specification has several issues affecting its usability and its ability to benefit from community contributions. Essentially, the version and release management practices have not been mature enough to allow efficient, collaborative development process similar to mature open source software projects. A related wishes from the community - the ability to support extensions and new formats of the standard – provided additional motivation for the project.



What did the project create?

The project developed a proposed new design of the maDPM specification, combined with a complete, ready-to-deploy set of tools to support broader community engagement. This includes documentation, a repository for version management, an initial versions of the management tools and community website. The new design will also offer better support for extensions and new formats mentioned above. All of these outputs have been uploaded to Zenodo to ensure FAIRness of the project results.

What was the impact?

The project was intrinsically linked to the DMP Common Standards WG of through Marek's role as the chair of the WG and will support follow-up activities of the working group. The project results have also been promoted in other RDA groups, namely Active Data Management Plans IG, of Discipline-specific Guidance for Data Management Plans WG and Open Science Graphs for FAIR Data IG. of The plans for the next steps will be discussed during the next RDA plenary in Salzburg, with the poster exhibition providing an opportunity to collect feedback from the broader RDA community.



More information:

project page

6. Pursuing the growth of knowledge through global access to hardware for science

What was the challenge?

The goal of the project was to identify ways the FAIR principles could be extended to Open Science Hardware (OSHW). The goal of the OSHW community is to support the pursuit and growth of knowledge through global access to hardware for science. The project supports this goal by identifying barriers to the adoption of FAIR data principles and by developing strategies to promote their adoption by the OSHW research community.



What did the project create?

The project was one of the first in-depth research initiatives looking into the potential of links and synergies between FAIR data principles, open hardware and an open research commons such as EOSC. The case studies, surveys, interviews and other and other research activities resulted in an in-depth report presenting the opportunities and hurdles of OSHW. The research was complemented and supported by community engagement activities, such as conference or workshop presentations in RDA and Open Hardware Community events.

What was the impact?

The insights from the interviews and follow-up discussions will continue to provide actionable insights for the Research Data Alliance and the FAIR4RH IG in particular on adoption of the FAIR4RH principles, for the Open Hardware (OSHW) community to become involved in and have guidance on making data available according to the FAIR principles, and for the EOSC-Future project to help achieve its aim for a "Web of FAIR Data and services" for science in Europe by gaining insights from the experiences of researchers with the EOSC portal and marketplace. The research provided a solid foundation for follow-up activities in RDA, EOSC and Open hardware communities. The details will be discussed during the next RDA plenary in a BoF session on 24th October and the poster exhibition.



Building Bridges: The Domain Ambassador Network

Allyson Lister

Allyson is ambassador for standards, databases and policies and has worked tirelessly to ensure community buy-in to the FAIRsharing Community Champion Programme. Her work involved onboarding community champions embedded in RDA groups as well as in science domains, providing credit and attribution for their efforts. There was also an educational component to her work, co-creating factsheets with the champions. Her ambassadorship helped FAIRsharing to meet the needs of its diverse community through its continued visibility within EOSC. Many of the champions have connectivity to RDA and EOSC, ensuring FAIRsharing is embedded in both moving forward.



Check also Allyson's ambassador page.

Francis Crawley

Francis is the ambassador for Ethics and Law and he set out to explain how to promote best practices within the EOSC and RDA communities. By working at European and global levels, his outreach activities addressed legal issues such as GDPR True to RDA values, aligning his work with international activities is crucial and by helping to organize high-profile events such as with UNESCO and CODATA, and stressing that these frameworks should also be inclusive and not just happen inside Western infrastructures. Francis has raised visibility of the importance of collaboration to implement appropriate ethical procedures. Francis has also aligned this work with the RDA WG for Ethics and Data transformation, and has seized opportunities to enable RDA an highlighted the need for user friendly tools for data sharing agreements at an international level.



Check also Francis's ambassador page.



Find out more about the RDA/EOSC Future Domain Ambassadors



Find out more about the EOSC Future Open Call Projects!



Find out more about the value of RDA for Disciplines!

Building Bridges: The Domain Ambassador Network

Sofie Meeus

Sofie is the ambassador for Biodiversity. Sofie works as a data steward assisting researchers with their Open Science practices. She is working on a guidelines document to apply best practices for the self-archiving of biodiversity research outures. In her own words, she is working to promote open infrastructures to researchers in the domain and also taking a creative approach to resonate these good practices within her community, for example see her colourful leaflet pointing to resources to manage biographical data. She is still working on a review of the state of the art of best practices in taxonomy which tackle aspects of research such as global inequalities in research outputs and accessibility.



Check also Sofie's ambassador page.

Helene Andreassen

Helene is the ambassador for Linguistics. Her ambassadorship has focused on needs requirements in her field and she is finalising a survey around the topic of educating linguists in Open Science practices. This will provide an empirical basis which can serve other bodies when creating strategies for sharing data. She has also reached out to scientific editors with regards to the Tromso recommendations for the citation of research data in linguistics which needs to be improved. Helene has worked to push this cultural change.



Check also Helene's ambassador page.

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Overcoming the obstacles to data sharing



Research Data Alliance fosters crossdisciplinary, global data sharing



Innovative projects facilitate data sharing in interdisciplinary research



New partnership to foster data exchange across disciplines and borders

