RDA in EOSC Future – Impact Report September 2023

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General Aspects of the Cascading Grant Mechanism

From 2021-2023, RDA Europe coordinated a task in EOSC Future to roll out a number of cascading grants to leverage RDA's communities and outputs within the EOSC context.

The cascading grant mechanism has many advantages: it can support high-risk, high-payoff activities, it has low overall risk due to the number of parallel activities, and it can bring new ideas and avoid "groupthink" due to open calls and open review processes.

Immediate benefits

The cascading grant mechanism has been demonstrated to be a very cost-efficient networking and engagement tool. Over 11 RDA outputs have been leveraged, optimised, and implemented across a variety of tools and test beds. Many of the awardees are now involved and engaged in RDA and some wish to expand on this and join the formal RDA bodies (e.g Technical Advisory Board).

The Open Calls programme established a direct link with almost 100 highly connected, well-known individuals from over 40 organisations across 22 countries. The grantees have produced 361 concrete outputs, including over **240** presentations, talks or posters and ca. **15** technical solutions (software, services, databases). Most of the resources produced were made available through EOSC (typically via OpenAIRE or Zenodo). In addition, four organisations have already onboarded themselves as new EOSC resource providers, and other onboarding requests are in progress (expected to be submitted by the end of 2023). These numbers are clearly above the levels produced by projects of similar size. These immediate benefits tend to based on the following mechanisms:

- The calls are an effective method of kick-starting research on a topic that is gaining momentum. They provide a solid basis for continuing to work on software management plans.

- The Ambassadors' network was effective and active in most of the cases. In terms of the Ambassador's network, many ambassadors felt empowered by their ambassadorship, which gave them entry into their domain activities and allowed them to act as experts and spokespersons on matters around Open Science.

- Engaging with EOSC means automatically promoting also FAIR data. As a concrete move towards FAIR, a number of projects took closer steps to realising FAIR. There is scope to leverage these projects results to other EC projects and also at an international level.

Two examples demonstrate these immediate effects:

- One funded activity – the EU FAR project – provided 20 dissemination outputs (talks, policy briefs, newsletters) and presented the open data solution developed within the project to the national association of mayors.
- In another case, the REPOPSI project performed two FAIR maturity assessments of a repository of psychological instruments (survey tools, for example), developed and deployed a new website to make them more available, and is planning to apply CoreTrustSeal validation to the repository launched by the project.

Size of the Grants

While both grants were larger than average (€50.000), this output level clearly exceeds the expected results of a traditional small project. Relatively short "submission to launch" time allows teams to "hit the ground running". In addition, low administrative burden, flexibility to adjust plans during the project runtime, and the ability of the project staff to recruit voluntary contributions from their colleagues have all contributed to this productivity. The networking and collaborations between the cascading grant projects have also increased the short- and potential long-term impact of the grants.

For more details on this, see the EOSC Future page on the RDA website.

Potential Long-term benefits

The long-term impact of the projects depends on the ability and interest of the project teams to continue the activity beyond the cascading grant. In many cases, the grantee organisations have provided implicit or explicit support or commitments that make this possible. For example, a tenured researcher may have just needed a targeted "boost" from the grant for a long-term supported activity. The cascading grant can also provide the initial validation of the approach that can be used to seek follow-up funding. Specifically, collaboration with other cascading grant initiatives and EOSC Future activities has provided additional short-term impacts and will likely lead to new sustainability options. As an example of this, RDA domain ambassadors have provided in-depth analysis and feedback on EOSC approaches and, in two cases, successfully extended the scope of their activities through other third-party funding mechanisms of the project.

Recommendations from the Practical Perspective

Based on the experiences from the EOSC Future Cascading Grants programme, it is possible to draw some initial candidate recommendations:

1. Reserve sufficient resources for administrative support. Despite the simplicity and overall efficiency, the administrative load of managing the grants should not be underestimated. In short, a 10,000€ grant requires considerably more than 1% of the management effort of a 1M€ grant. In the case of EOSC Future, each of the 40 contracts went through a review process in the grantee organisations' administration and finance departments and – once signed – required tracking reporting and payment requests. While the complexity is lower than including a normal beneficiary in a project, launching the grantee's activities is likely more sensitive to delays.
2. Additional, personalised guidance will enhance the grants' impact. Identifying dissemination and exploitation opportunities and facilitating cross-pollination can require considerable effort. This was perhaps especially obvious in the EOSC Future since both EOSC and RDA offer many contact points, but identifying and successfully seizing exploitation opportunities need background knowledge.

3. Social capital is important in support activities. Inclusivity and diversity are important success factors, as is the personal level of connectivity and knowledge. Social capital is especially important if the goal is to maximise cross-pollination between grants.
4. The grantees of previous open calls are important stakeholder sets. Publishing project calls where a certain number of beneficiaries need to be cascading grant awardees or employ successful awardees could lead to a higher impact initiated through the grants. Similarly, targeting more market-oriented grantees as recipients of Digital Innovation Hub -style direct, in-kind support activities or early-stage innovation procurement activities could lead to more impactful outputs.
5. Capturing and retaining the skills and approaches that support cascading grant management would be beneficial. A dedicated Coordination and Support Action (CSA) could be used to address this issue in the future. A RDA interest group is planned to bring EOSC Future grantees together with grantees and stakeholders from other engagement support initiatives (to be discussed in a session during the 22nd RDA plenary in May 2024).

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Contractual aspects

- Fleur Lebhardt (Technopolis Group Belgium)
    - Contract negotiations, compliance, liaison with the project management and European Commission
    - Financial management
    - "Level 3" support for questions related to contractual issues
- Melina Jander, Merle Schatz, Inke Achterberg (University of Göttingen)
    - Formal management of all call relevant steps, including processes related to call publication, evaluation, formal monitoring, reporting
    - Reporting, progress follow-up and output tracking of the projects
    - Level 2 support for contractual issues
    - Email-based helpdesk service
    - Appointment of external experts (together with RDA)
    - Ranking of the proposals and proposal for selection for funding

Dissemination and outreach

- Patricia Nugent, Nicholas Ferguson (Trust-IT)
    - Promotion of the calls, publishing the call results and grantee profiles
    - EOSC in practice stories featuring several of the grantees
- Alexandra Singer (Arctik)
    - Social media campaigns ensuring maximal visibility of the open calls
- Alexandra Delipalta (RDA)
    - Promoting the projects and their results through RDA channels

Main Outcomes and Impact

The RDA task in EOSC Future has brought Impact in the following areas anticipated in the project proposal and the Description of Action. It has also made additional contributions to EOSC.

Creation of Standards, tools and services allow researchers to find, access, reuse and combine results
The Open Calls have created tools/recommendations needed to enable and ease the sharing of data in the EOSC environment.
- Machine actionable data and software management plans
- Persistent identifiers: practical integration work of DataCite PID into a popular lab notebook solution with close link to an RDA interest group (PIDS is tools)
- Registry services for controlled vocabularies (Chris Schubert)
- Transforming messy data into structured data (Enqwre project)
- FAIR enabling cross-domain citation model in Cultural Heritage (Irina Balalour)

Ensure Open Science practices and skills are rewarded and taught, becoming the 'new normal'

FAIR is the key starting point: RDA can assist in demonstrating the benefits of higher maturity levels. This also has **an impact of increasing the uptake of RDA outputs that can be used as a proxy indicator of the level of the FAIR adoption.**

By using RDA 'outputs/standards', some projects/communities have started to inject FAIR into their methods and this will help them streamline resources for EOSC at early stage of data sharing practices

- RDA FAIR indicators in Biology (Irina Balaur)
- FAIRification for psychology repositories (Repopsi)
- Recommendations for cross-disciplinary data sharing (leading to a possible RDA group) Wind Energy Community (Sarah Barbour)

Outreach to disciplinary communities: future engagement strategy of EOSC
The RDA Engagement task has found that there are barriers to the uptake Open Science practices and engagement with of EOSC. Data-sharing practices differ widely across EOSC and as such the task has delivered tailored engagement and support e.g Infosheets to 15 under-represented disciplines. The Domain Ambassadors have provided valuable insights into how they share data, they have adopted RDA outputs, carried out intense dissemination efforts, promoted RDA and data sharing in their communities, and updated the RDA disciplinary pages. As a result:
- EOSC Future gets regular feedback and promotion of EOSC via the Ambassador network
- The Open calls projects will also make EOSC relevant to new audiences through the onboarded resources
- The science communications grant will present the projects – and EOSC, by extension – in a way that will be relevant to new groups of policymakers and other actors in the global innovation ecosystem.

Sustainable and federated infrastructures enable open sharing of scientific results
Bringing EOSC Future to the International Stage, as well as exposing it to other societal issues
- Discussion of technical aspects via P20 satellite event and involvement of GORC IG and WG
- The EOSC Interoperability Framework promoted as good practice outside Europe
- Ambassadors' network has shown that EOSC should consider also other languages in addition to English. It also brought up various diversity issues, including the CARE principles (Ann McCartney)
- Other programme impacts that can provide guidance and support for future EOSC activities:
  - Ethics and Data Visitation WG established
  - Working with PIDs in Tools IG supported by one of the open call projects with close links with the EOSC PID and Semantic Interoperability Task Forces.