





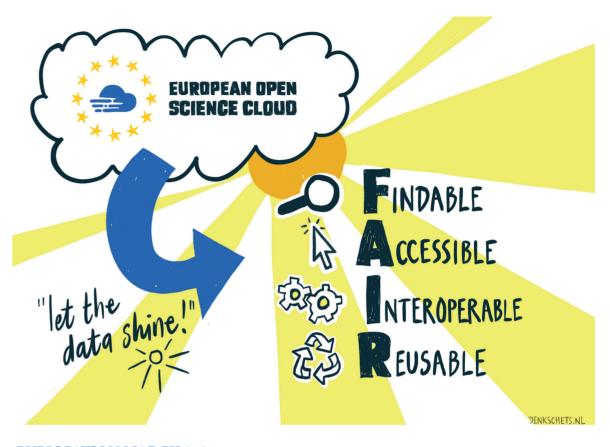
RESEARCH LIBRARIES, RESEARCHERS & THE EOSC

Final Report

## RESEARCH LIBRARIES, **RESEARCHERS** & THE EOSC

Final report

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During the last two weeks of January 2021, LIBER, the Association of European Research Libraries, and Scientific Knowledge Services organised a series of five workshops on the interaction between research libraries, researchers, and the European Open Science Cloud (EOSC). These workshops were aimed at discussing the role of the libraries in connecting researchers to Open Science and the EOSC, and at analysing how their services developed to support researchers can be integrated into the EOSC.



The intention of the workshops was to address the following questions:

- 1) What is the value of the EOSC for researchers and research libraries, based on the goals/work of the EOSC?
- 2) What is the input needed from these stakeholders toward the EOSC?
- 3) How can these stakeholder groups become actively involved in EOSC activities and what do they need to get involved?
- 4) What feedback mechanism could be built to continuously inform the EOSC, in its quest to remain an agile infrastructure?

The series was organised in three regional workshops to cover the Southern, Northern and Central-Eastern European landscapes along with two workshops focussed on typology universities: multidisciplinary and technical.

#### Format of the workshops

All five workshops were held following the same structure: an introduction carried out by two or more invited speakers, three separate discussions in breakout groups, and a final session where outcomes from the discussions were shared in a plenary. Discussions were facilitated by each day's featured speakers and outcomes were presented by one of the participants from each group. Each workshop had a moderator to facilitate the workshop and a rapporteur to provide a final report of the session. Each speaker had 10 minutes to introduce a topic and discussions were held in separate groups for 40 minutes.

The groups answered the four questions above by noting all the different views on a virtual board that was later shared with the plenary when reporting back. The moderator closed each session by wrapping up the workshop and highlighting the main outcomes of the discussions.





#### VBEP \* \*

#### **PARTICIPANTS**

Participants came from almost every country in Europe. Generally, participants chose to attend their corresponding regional workshop although others preferred to attend the typology workshops instead of the regional ones. There were visible differences in the input given by participants in each of the three regional workshops, highlighting the heterogenous situation of libraries and researchers in Europe.

The examples given by speakers also showed that the readiness to be part of the EOSC is not the same from one region to the next. However the division into multidisciplinary and technical universities did not ultimately yield any specific questions or input regarding the typology of the institutions.

The format of the sessions allowed participants to give their views on the relations between libraries, researchers, universities and the EOSC. The use of visual collaboration software allowed people to add a comment at any moment rather than having to wait to speak. In general, speakers performed well in their facilitator roles in the breakout sessions, although some were more successful than others in engaging the entire group into the conversation and in giving the floor to everyone. It must be noted that the parallel discussions were focussed on answering the four main questions and there were not many mentions made of the introductory talks.

In hindsight, it probably would have helped had the speakers referenced the four questions in some way within their opening presentations, since some of them seemed a bit detached from the discussions that followed. However the final plenary sessions reporting back the outcomes of the breakout groups were concise and highlighted the main points of the debate. The use of virtual boards with the notes from all the participants served as a helpful reference.





In each workshop the initial presentations helped to first put the situation in different countries and research institutions into context. For instance, speakers shared with the audience some of the outcomes of several projects that have analysed awareness of the EOSC and the readiness of countries and research institutions to join it.



One of these projects is NI4OS (National Initiatives for Open Science in Europe), an EU-funded project that mapped the current awareness of the EOSC and Open Science among stakeholders in its member states: Greece, Cyprus, Bulgaria, Croatia, Hungary, Romania, Slovenia, Serbia, Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Moldova, Armenia and Georgia. In their opening remarks, Biljana Kosanovic, Judit Fazekas-Parragh and Sylvia Koukounidou shared some of the NI4OS project results that demonstrate the need to still improve awareness of the EOSC among librarians even though as a group they are the most familiar with the topic among all the stakeholders. In another talk, Susanna Nykyri shared the results of the EOSC Landscape Working Group that analysed the readiness of current infrastructures and policies at a country level to be part of the EOSC.

Analysis of the current situation was followed by identification of the role that libraries can play in the process of researchers' engagement and in getting universities ready to participate in the EOSC. Libraries are seen as a relevant stakeholder in overall research data management, but they have to evolve in order to prepare for providing new services and to get involved in new activities.

Speakers also asked the EOSC to increase the presence of libraries and research institutions in the design, development and governance of the association.

### The current European landscape in research data management

As mentioned, the current situation in countries and research institutions in relation to data management was introduced in each workshop. The outcomes of the EOSC Landscape Working Group show that Finland, the Netherlands and Norway are the countries with a higher level of readiness to be part of the EOSC. Beyond an Open Science policy, national organisations in Finland provide data services ruled and monitored by expert panels and working groups. In the Netherlands, funders and universities are setting up digital curation centres to bundle expertise in the field of FAIR (Findable, Accessible, Interoperable and Reusable) Data Stewardship, software and computing. All these centres will collaborate nationally and they are aimed at cooperating internationally with the EOSC.

Workshop participants were able to compare the readiness of those countries with other situations. For instance, in Serbia there is a rather low familiarity with research data management and FAIR principles among both librarian and research communities, and a lack of institutional support. While in Hungary, libraries that facilitate Open Science have come together into a working group. This Hungarian group has organised a meetup series to introduce the basics of openness and FAIR data principles, the adoption of tools and services through real-life experiences, and the benefits of data management plans.

Some institution-level solutions were also presented by Susanna Nykyri and Laurents Sesink. At Tampere University, the library has included a new area of services for Open Science, and the whole university is engaged in an Open Science working group. In Leiden, the library is engaged in the new digital curation centre that was created, linking and enhancing existing elements across the whole institution.



#### Libraries as content and service providers

Pedro Príncipe suggested that libraries should be content and service providers in the broad EOSC landscape but also active players in the development of national infrastructures. Libraries need to ensure access to any sort of research outputs, not only publications, and work on interoperability. Another topic that appeared in many presentations was that of data stewardship programmes developed in some countries, and especially in the Netherlands. Milica Ševkušić welcomed the idea of introducing data stewards, who possess discipline-specific knowledge that librarians don't have, into every organisation – especially for dealing with data management and data processing. However she also remarked that it is not realistic for this to happen in all countries anytime soon. Judit Fazekas-Parragh mentioned specific roles that libraries can take on aside from data stewards: repository managers, data curators and data librarians. Libraries are expected to play a relevant role in policy making, data curation, data stewardship, data science, data analysis and education. How different then is the scope of the EOSC from a library scope?

#### Libraries as providers of high-quality metadata

Eva Méndez highlighted the importance of the metadata and how libraries can improve its quality. The EOSC needs to provide data with good metadata, and meet the added challenge of multiple disciplinary standards. She advocated for avoiding the approach of "my own standard is the one I want to use". András Holl also cited the long-standing experience of libraries in making documents discoverable using metadata. Raphael Ritz called on researchers to take metadata seriously and emphasised that good metadata will benefit creators and users of data.

#### Libraries as skill developers

Results from the NI4OS survey show that training is especially needed in relation to data management and that it can be handled by libraries. However it was also noted that librarians need to develop new skills on data management in order to conduct this training. It was also suggested that libraries could join forces with computing departments. Raphael Ritz went so far as to say that libraries might even become computing departments by bringing computing capacity to where the data is. András Holl warned librarians not to set the threshold of FAIRness too high because it might leave datasets and researchers out. Biljana Kosanovic stated the need to improve knowledge of the EOSC among librarians, especially in some countries, and Ana Slavec mentioned the importance of the libraries in raising awareness of FAIR principles among researchers.

#### Recommendations to libraries

In conclusion, libraries seem to be ready to assist the EOSC but there are a lot of challenges, especially in costs and funding. There is a lack of resources when it comes to staff, infrastructures and dedicated positions. Many speakers suggested that library schools need to include some of the aspects of Open Science services in their curricula.

In her talk, Ana Slavec mentioned some of the publications developed by the FAIR Working Group at the EOSC. This group identified some of the current challenges: the low awareness of Open Science and FAIR data concepts within research communities, the differences among disciplines in their maturity of FAIR adoption, and the lack of recognition and rewards for FAIR data sharing.

#### Recommendations to stakeholders

There were also calls and recommendations to other stakeholders. András Holl made a recommendation to researchers: to ask librarians for advice. Libraries can advise on many issues related to data like FAIRness, licensing or how to manage sensitive data. This recommendation was repeated by Raphael Ritz in his talk asking researchers to seek support from their environment. Ritz also asked computer centres to become members of the EOSC association.

#### Recommendations to the EOSC

Regarding the future, Federica Cappelluti asked for the co-creation of FAIR standards and wondered if the EOSC could facilitate it. She also remarked on the obligation to match EOSC needs with people's needs. She was not alone in requesting changes in the EOSC. András Holl emphasised the significance of the "long tail" of research data and its diversity in opposition to big data: data produced by individual scientists or small teams, in fields and in institutions that are not well funded. Their data is also important, but have different characteristics: they are very diverse in format, metadata, storage, representation, etc. The EOSC must include both. Paul Ayris highlighted that the partnership among universities and the EOSC must go beyond the aggregation of metadata if we want to deliver actual reusable research data. The EOSC must show leadership in research data management. If it does not play this role now, it will fail because universities are already shaping the development of new Open Science solutions.



**SESSIONS** 

## SUMMARY OF THE BREAKOUT

The goal of the three breakout sessions in each workshop was to understand participants' opinions on the value of the EOSC, the input that libraries and researchers can provide, and how these stakeholders can get involved in EOSC and receive mutual feedback.



In general, participants were librarians but when there were researchers among the group there were some different points of view that enriched the discussions. It is also worth mentioning that some groups dedicated more time to answering the first three questions, leaving not much time for the last question. Moreover some discussions were repeated in addressing the different questions. To follow is a summary of some of the issues raised when participants answered all four questions.

## What is the value of the EOSC for researchers and research libraries, based on the goals/work of the EOSC?

The EOSC is seen as a place where research data can be shared with a standardisation of metadata. It was described as a meta catalogue of metadata. It is expected to provide an easy tool for solving certain research data management problems that libraries cannot handle. It is also seen as a place where standards will be unified and where best practices can be shared. Furthermore the EOSC can help build local initiatives and make repositories compatible. However now there is a need to have more guidance on how to engage with and participate in the EOSC.

Although the EOSC is seen as an opportunity for libraries to develop new services and to strengthen their position within their institutions, there is also a fear of being reduced to a simple content provider or a facilitator for training. To benefit from the possible promotion of library services, librarians need to acquire new skills and create new profiles. Currently there is not a clear definition of the role of libraries within the whole landscape. Participants acknowledged the differences in the level of involvement with the EOSC from country to country, and also among libraries within the same country. Moreover it was noted that in some regions of

Europe, such as in southern and eastern countries, the EOSC is still not well known among librarians and researchers.

For researchers, the EOSC could be a place to find reliable data but it is not clear how they can be persuaded to participate and what value it may hold.

Besides being a single point of access, the EOSC is also expected to be a main multidisciplinary and multi-country resource for researchers and libraries. It is important to remark that the EOSC needs to keep a balance among all sciences and not just prioritise some disciplines.

Finally there was a proposal addressed to EOSC suggesting it could develop a Service Level Agreement (SLA) as one of its values. Since EOSC is expected to deal with a new suite of services for researchers, in an organised manner, it is expected that these services will become professional. Therefore there is a need to act based on an SLA (both for service providers and for users), for EOSC to provide a professional services framework and to build trust in it.

### What is the input needed from these stakeholders towards the EOSC?

Libraries can play a role of mediator between the EOSC and researchers. They can provide advice to both sides on the needs for services and infrastructures. Libraries can work with researchers on providing FAIR data but they need more leadership from the architects of the EOSC. Moreover libraries can support those projects developed outside the identified research infrastructures already engaged in the creation of the EOSC. It was observed that libraries also need to speak the language of researchers, which is not easy.





Some participants noted that libraries need to change some of the services they provide currently if they want to engage in the EOSC. Besides providing content with high-quality metadata, libraries need to include new tasks to help researchers in managing research data. There are still many uncertainties. For instance, how institutional, national or regional contributions that facilitate Open Science can connect to the EOSC; how researchers will participate in the EOSC – directly or mediated by their institutions? The structure of the EOSC is not yet clear and therefore it is not easy to ask stakeholders to contribute. Libraries can promote EOSC services as the first choice, but they need to have a compelling case to sell.

#### How can these stakeholder groups become actively involved in EOSC activities and what do they need to get involved?

Participants asked for a general EOSC Stakeholder Forum, but also for national forums with the corresponding EOSC country representative, specific events for stakeholders and a regular series of webinars with the latest updates. The national representatives must be well connected to their national Open Science landscape, a requirement not always fulfilled now.

There was also a plea for more dialogue among universities and the EOSC. It is clear the communication with all universities in Europe is not easy and therefore it was suggested to use existing membership organisations like LIBER, LERU or the EUA, among others. Another idea that came out was the development of guides to raise awareness of the concept and goals of the EOSC among potential stakeholders.

Libraries asked for the creation of competence centres where they will both receive and provide training, a working group for libraries in the EOSC similar to the one in the RDA, and formal EOSC partnerships with relevant library associations. They also offered to work with some European infrastructures and groups that are

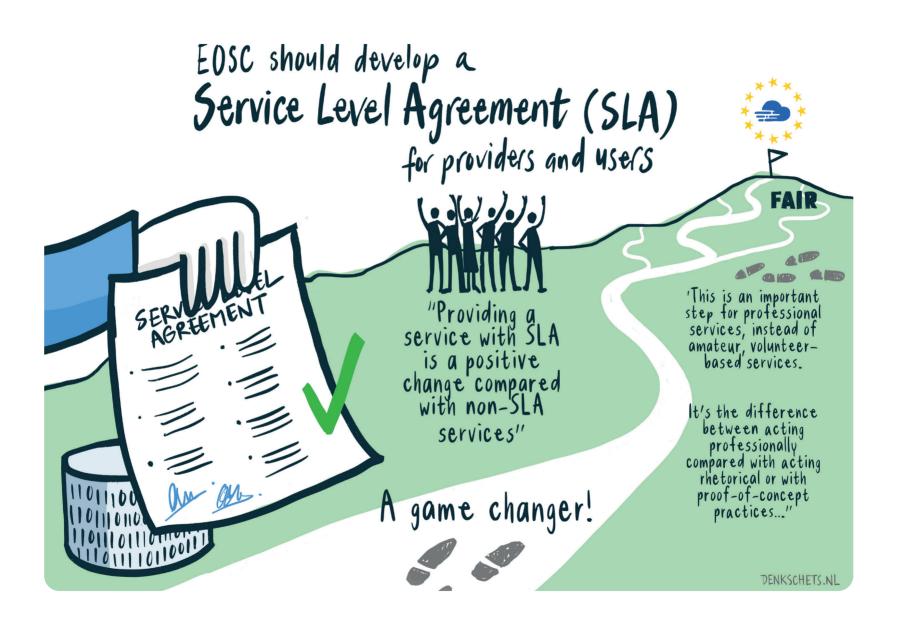
already actively involved in preparation for the EOSC (CESSDA, OPERAS, DARIAH, RDA).

Researchers asked for more training on the promotion of the EOSC and its benefits, including rewards and incentives to motivate them to take Open Science more seriously. The involvement of more researchers in the EOSC could also increase their engagement. The establishment of EOSC-related working groups in national "learned societies" was also suggested. Finally, in relation to rewarding researchers active in the EOSC there was an idea for adding a new criterion when evaluating/assessing research: "EOSC support activities".

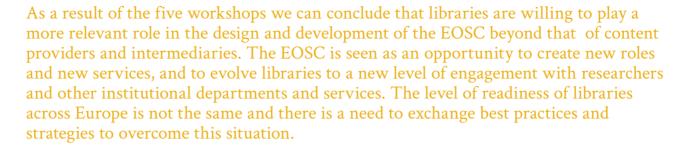
Other suggestions were: to launch pilot projects that engage with as many disciplines as possible, to consider that language is still a barrier in some countries and therefore communication needs to be made in local languages, and that any training on Open Science and the EOSC must end in a certification that could contribute to career advancement.

## What feedback mechanism could be built to continuously inform the EOSC, in its quest to remain an agile infrastructure?

Regarding feedback mechanisms, there were many suggestions. Firstly, in relation to organisation, participants suggested creating national nodes or user groups, to establish working groups but also to use existing channels like the RDA4Lib. Another idea that came out was to establish an EOSC working group in LIBER. Secondly, on how to give feedback, there were several ways proposed: a free online symposium or forum, a help desk, an annual survey to users and providers, and a system for reporting errors and requesting new functionalities. Some participants asked for more data about the providers and the use of the EOSC, statistics and monitoring, and more transparency. Finally there were requests for a clear advocacy programme, EOSC case reports and also the identification of bad practices.









#### **CONCLUSIONS**

Libraries acknowledge that they need to acquire new skills and to establish new partnerships. They need to get more involved in the research landscape at the institutional, national and international levels. They offer their expertise on providing resources and services, and being a trusted intermediary with researchers and external providers. Moreover libraries are well connected in networks that could facilitate communication with the EOSC.

Until now many libraries, researchers and universities have been absent from the design and development of the EOSC and this situation must change. The EOSC has to establish ways to connect with these relevant stakeholders in order to achieve success. The EOSC national representatives need to create national nodes with the participation of all the players of the Open Science landscape. Libraries must be recognised as partners at national and international levels and should be supported to develop new skills and build capacity for their role in the EOSC.

The workshops provided many ways to establish a fruitful collaboration between libraries and the EOSC to achieve a common goal of building a rich environment where data are findable, accessible, interoperable and reusable. To follow is a list of recommendations to libraries and to the EOSC to strengthen their mutual collaboration.



## Recommendations to research libraries



positioning themselves withing research institutes as

Core partners to engage with EOSC



create specific EOSC

Working groups within their networks



partner

with computing services to provide new services



New Staff roles to adress research

data management



develop

Training programmes on research data management



continue to guarantee the

Provision of Content with high oughly metadata

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## RECOMMENDATIONS TO RESEARCH LIBRARIES

## Advocacy and Engagement

To take up their rightful place in the research landscape Research Libraries should:

- 1. Position themselves within research institutions as core partners to engage with the EOSC.
- 2. Create specific EOSC working groups within their networks, and be part of these groups at the national level as well as within their institutions.
- 3. Partner with computing services to provide new services.

## Capacity Building and Training

In order to address the issues related to competencies raised in the workshops, Research Libraries should:

- Introduce new staff roles to address research data management, such as data stewards, data curators and data librarians.
- 5. Develop training programmes on research data management.

#### Leadership in Research Data Management

Research Libraries have known about (meta)data for centuries and know how to manage them. In order to be able to continue to use this knowledge and expertise for the EOSC, Research Libraries should:

6. Continue to guarantee the provision of content with high-quality metadata.



## Recommendations to the EOSC Association



create a
Clear Advocacy
programme



promote a general

Stakeholder forum

and working group

for libraries



Establish a

Close dialogue

with universities



connect
National Representatives
with their national
open science stakeholders



develop a strategy that ensures **Equitable access** 

to researchers and resources for all research disciplines



support recruitment of
The Best Talent
to work for organisations
that provide services for
and within the Fosc



Create
Competence Centres
for training in
research data management



develop guidelines and a

Service Level Agreement

(SLA)

botween providers & users



organize
Events
advessed to specific
Stakeholders



Show leadership in researchdata management

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## RECOMMENDATIONS TO THE EOSC ASSOCIATION

### Advocacy and Engagement

To involve Research Libraries and researchers from all over Europe and from all disciplines in the EOSC, the EOSC Association should:

- 1. Create a clear advocacy programme and start an engagement campaign, especially in those regions of Europe where it is still not well known among librarians and researchers.
- 2. Promote a general Stakeholder Forum and a working group for libraries, similar to the existing one in the Research Data Alliance.
- 3. Establish a close dialogue with universities by utilising existing membership organisations like LIBER, LERU or the EUA, among others.
- Connect national representatives with their national Open Science stakeholders and communicate EOSC values and activities in local languages. They can promote national EOSC forums.
- 5. Develop a strategy that ensures equitable access to services and resources for all research disciplines.

### Capacity Building and Training

To make Research Libraries and researchers sufficiently competent and trained to participate in the EOSC, the EOSC Association should:

- Encourage and strongly support the recruitment of the best talent to work for organisations that provide services for and within the EOSC.
- 7. Create competence centres for training in research data management with certificates that could contribute to career advancement.
- 8. Develop guidelines and require a Service Level Agreement (SLA) between providers and users, to build a trusted professional services framework.
- Organise events addressed to specific stakeholders and provide updates on the development of the EOSC.

#### Leadership in Research Data Management

Universities are already shaping the development of research data management and new Open Science solutions. In order to integrate these solutions and make the EOSC successful, the EOSC Association should:

10. Show leadership in research data management, develop a compelling case to promote its services and compete to become the first choice for universities that implement the FAIR principles.





# ANNEX 1. LIST OF SPEAKERS AND MODERATORS

**Eva Méndez**, *lecturer at Universidad Carlos III de Madrid (UC3M)*, Libraries and Information Science Department

**Biljana Kosanovic,** *Information Specialist*, University of Belgrade (Serbia), EOSC Landscape Working Group

**Pedro Príncipe**, *Head of Division* at University of Minho Documentation and Libraries Services

Judit Fazekas-Parragh, Head of Education and Research Support Department, University of Debrecen University and National Library OpenAIRE NOAD-Hungary

Ana Slavec, researcher at the InnoRenew CoE. Slovenia

**András Holl,** *Deputy Director*, Library and Information Centre of the Hungarian Academy of Sciences, Budapest, Hungary

Wilhelm Widmark, Library Director of Stockholm University

Klaus Tochtermann, Director, Head of Department: Digital Information Infrastructure, ZBW, EOSC Sustainability WG, Kiel, Germany

Paul Ayris (FRHistS), Pro-Vice-Provost UCL (University College London), UK

**Susanna Nykyri,** *Manager of Open Science Services*, Tampere University, EOSC Landscape WG, Tampere, Finland



Raphael Ritz, Head of Data Division at the Max-Planck Computing and Data Facility (MPCDF) - the central IT service unit of the Max Planck Society (MPG) in Germany

**Federica Cappelluti**, *Associate Professor* of Electronic Engineering at Politecnico di Torino

Laurents Sesink, Head Centre for Digital Scholarship, Leiden University

**Liisi Lembinen**, *Development Director* of the University of Tartu Library, *Head* of the Open Science WG and OpenAIRE Estonian NOAD

**Giannis Tsakonas,** *Director*, Library & Information Center, University of Patras, Greece

Marta Teperek, *Data Stewardship Coordinator* at Delft University of Technology, The Netherlands

**Bertil F. Dorch**, *President* of the Danish Research Library Association, *Library Director* at the University Library of Southern Denmark, *LIBER Executive Board member and head* of the LIBER Steering Committee for Digital Skills & Services

**Birgit Schmidt**, *Head* of Knowledge Commons, Göttingen State and University Library, Germany

The workshop reports are written by Mihaela Blagaić Kišiček, Gergely Sipos, Camilla Lindelow and Ignasi Labastida. The final report is written by Ignasi Labastida. Special Advisor: Paolo Budroni, TU Wien.







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