

BRIEFING PAPER ON EOSC
**FEDERATING RESEARCH
INFRASTRUCTURES IN
EUROPE FOR FAIR ACCESS
TO DATA**
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Briefing paper on EOSC 'Federating research infrastructures in Europe for FAIR access to data'

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FEDERATING RESEARCH INFRASTRUCTURES IN EUROPE FOR FAIR ACCESS TO DATA

**Science Europe Briefing on the
European Open Science Cloud (EOSC)**

The European research and innovation ecosystem is going through a period of profound change. Researchers, organisations that fund or perform research, and policy makers are reshaping the research process and its outputs, based on the opportunities offered by the digital transition. The findability, accessibility, interoperability, and reusability (FAIRness) of research publications, data, and software in the digital space will define research and innovation going forward. Closely related, the transition to an open research process and Open Access of its outputs is becoming an integral part of a well-functioning research system. The European Open Science Cloud (EOSC) is advancing the federation of research infrastructures in Europe for fair access to data.

What is EOSC and what does it aim to achieve?

One of the most prominent initiatives in the digital and open transition of research is EOSC. This federation of existing research data infrastructures in Europe aims to create a web of FAIR data and related services for research. The [Strategic Research and Innovation Agenda \(SRIA\)](#) establishes three strategic objectives for EOSC:

- ensure that Open Science practices and skills are rewarded and taught, becoming the 'new normal'.
- enable the definition of standards, and the development of tools and services, to allow researchers to find, access, reuse and combine results.

- establish a sustainable and federated infrastructure enabling open sharing of scientific results.

Ultimately, the aim is to enable researchers to find, access, and (re-)use interoperable research data stored on any data infrastructure that is linked to EOSC and, in turn, help them collaborate more across national and disciplinary borders. Setting this up will require a holistic approach: EOSC will support the storage, curation, and re-use of data through technical and policy standards and training.

Governance and partnership with the European Commission

The governance of EOSC is “[...] transitioning to a [more stakeholder-driven approach with a shared vision, common objectives and complementary contributions at European, national and institutional levels.](#)” This takes the form of a tripartite collaboration between the European Commission on behalf of the European Union (cf. infra), participating countries represented in the [EOSC Steering Board](#), and the research community represented by the [EOSC Association \(EOSC-A\)](#).

The European Commission supports the development of EOSC on behalf of the European Union. During her speech at the World Economic Forum in January 2020 in Davos, Commission President von der Leyen described EOSC as a “trusted space for researchers to store their data and access data from other disciplines.”

Reflecting this support, the Commission and EOSC-A signed a [memorandum of understanding](#)

[for a co-programmed European partnership](#) in July 2021. Several European Commission services are directly involved in the work of the current EOSC Governance. They provide input and advice for the development of key documents, such as the [Strategic Implementation Plan \(SIP\)](#), the [Partnership Proposal](#), and the SRIA.

In the spirit of tripartite collaboration, all stakeholders can provide input to key documents and influence the further development of EOSC. Recently, in March 2022, a public consultation was held to develop the Multi-Annual Roadmap (MAR) for the second implementation phase in 2023 – 2024, the result of which [was published in May 2022](#). A broader reflection on EOSC operations and evolution post-2027 is currently underway, inviting tripartite stakeholders to reflect what EOSC should be in five years from now, specifically regarding its governance, funding sources and tools, and the tripartite partnership itself.

Why become a member of EOSC-A?

The EOSC partnership will enable the federation of existing and new research data infrastructures, both across borders and across disciplines. It will do so by providing an overarching set of standards that allow interaction and discoverability, while working with the different disciplines to ensure discipline-specific needs and standards are taken into account.

This will provide greater opportunities for researchers to use and reuse data available and participate in more international research collaborations. Research infrastructures will benefit from EOSC driving technology development on an international level.

Science Europe encourages its member organisations to engage in EOSC-A. Research funding or performing organisations can choose to become either a member or observer in the association, giving them the opportunity to engage in various Advisory Groups and Task Forces (cf. infra). Full members are key actors in EOSC as they:

- are producers, users and re-users of research data.
- fund research infrastructures, including data infrastructures, and fund the production of research data.
- define policies for research data management. They should therefore be in the driving seat and influence the definition of policies and common standards.

Opportunities to influence the development of EOSC will not be limited to voting roles in the General Assembly of EOSC-A. [Advisory Groups and Task Forces](#) have been established in which members of the association can have a direct impact on future evolutions. At present, thirteen Science Europe member organisation have become a member of EOSC-A, giving them the opportunity to influence future developments and have an impact on:

- creating overall conditions for interoperability and incentives through common frameworks around methods and infrastructural services for collaboration and sharing of FAIR research data.
- establishing an international framework to co-ordinate national efforts to introduce open access to research data.
- defining how the path towards Open Science, as part of R&I strategies, should look like, both on European and national level.

Additionally, as members of EOSC-A, Science Europe member organisations could potentially, depending on existing arrangements, take up a co-ordination role at national level and support other organisations that consider joining. They can accelerate the transition to Open Science on national level, benefitting from experiences made and lessons learned on the European level, and ensure coherence of policy developments.

The role of Science Europe

Science Europe represents the interests of its member organisations in the development and implementation of EOSC. As a member of the EOSC Executive Board between 2018 and 2020, Science Europe contributed to defining EOSC's vision, core values, types of services and sustainability issues. On the administration front, Science Europe contributed to drafting the first version of the statutes and bylaws of the association. Moreover, Science Europe contributed to the first EOSC SRIA and the MARs (cf. supra).

Science Europe is now an observer member of EOSC-A and as such it is represented in the General Assembly. It is involved in two task forces (cf.

[Research Careers, Recognition, and Credit](#) and [Long-term Data Preservation](#)).

This allows Science Europe to stay at the forefront of data sharing developments in Europe, closely linking EOSC with the work with its members; in particular, the activities developed within its priority topics '[research data](#)' (i.e. the '[Practical Guide to the international alignment of research data management](#)' and '[Practical Guide to sustainable research data](#)'), and '[research assessment](#)'. These are taken forward under the umbrella of its strategic priority [to establish open science as part of a well-functioning research system](#).



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