

National Initiatives for Open Science in Europe

Introduction to EOSC

Tamara Gvenetadze
Georgian Research and Educational Networking
Association GRENA











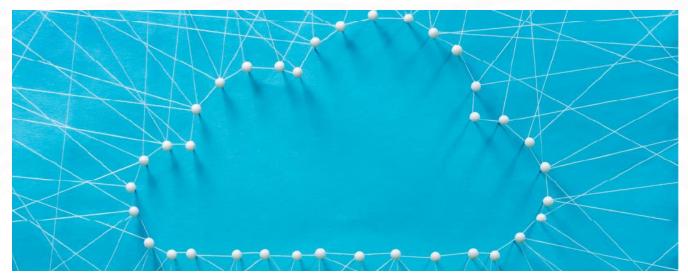
VISION OF EOSC

The European Open Science Cloud vision: "to give Europe a global lead in scientific data infrastructures and to ensure that European scientists get the full benefits of data-driven science".





In 2015, the European Commission set three goals for research and innovation policy within European Union: Open Innovation, Open Science and Open to the World.



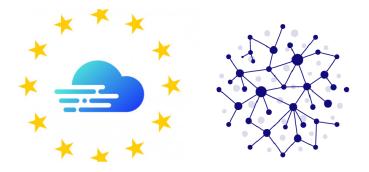
With the adoption of the Digital Single Markets Strategy in May 2015 the Commission announced the launch of a cloud for research data – the 'research open science cloud'.

The 'European Open Science Cloud' aims to create a trusted environment for hosting and processing research data to support EU science in its global leading role.



The idea of a European Open Science Cloud (EOSC) took shape in 2015, as a vision of the European Commission of a large infrastructure to support and develop open science and open innovation in Europe and beyond.

The EOSC is projected to become a reality in 2020 and will be Europe's virtual environment for all researchers to store, manage, analyse and re-use data for research, innovation and educational purposes.





EOSC STRATEGIC IMPLEMENTATION PLAN

According to the EOSC strategic implementation plan, the components of EOSC, is to "build the necessary trust for wide deployment among a large variety of research communities, so it is essential that the development of EOSC follows principles that will drive its implementation".



November 23, 2018: Commission launches European Open Science Cloud



«With the Open Science priority, we set out to change the way European science works. And the launch of the first Cloud portal today is a major milestone on that journey. The Cloud will give Europe a global edge in reaping the full benefits of data-driven science. Thanks to the commitment of scientists, the industry and the EU member states we have seen an idea become reality in less than three years.»

Carlos Moedas, Commissioner for Research, Science and Innovation



EOSC Values

as federated
infrastructure that can
enhance value-based open
trusted, user centric digital services
across borders within the Digital Single
Market
(Vienna Declaration)

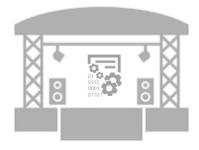
EOSC Common values:

- Focussed on research needs
- Community driven
- Inclusive and respectful of diversity
- Transparent and trustworthy



A platform for European research

- Federation of existing services
- Web of FAIR research data (and services)
- Virtual space where science producers and consumers come together
- Quality mark « Data made in Europe »





EOSC is here to stay

EOSC aims at creating a virtual research environment to access and interoperate research data and other research otputs in Europe across the different disciplines.





First phase of EOSC: 2018-2020

H2020 EOSC-related projects: ca. €600 million

Address six roadmap action lines:

- ◆ Data ◆ Services ◆ Architecture
 - ◆ Access ◆ Rules ◆ Governance

Current EOSC governance tasks:

- steer initial implementation
- ◆ involve all R&I stakeholders
- ◆ transition to 2nd stage 2020+

"Start of the second phase of the implementation is dependent on an evaluation by the Commission and the Member States of the first phase and without prejudice to the Multiannual Financial Framework after 2020"



The Current EOSC Governance

EOSC is currently governed by three constituent bodies, as defined by the European Commission Staff Working Document Implementation Roadmap for the European Open Science Cloud:

- The <u>Executive Board</u>, a body tasked to ensure implementation and accountability. Chaired by Karel Luyben (European Association of Universities of Technology – CESAER) and Cathrin Stöver (GÉANT)
- The <u>Governance Board</u>, gathering representatives from the Member States, Associated Countries and the Commission to ensure effective supervision of the implementation
- The <u>Stakeholder Forum</u>, organised by the EOSC Secretariat, is formed by a group of representatives from a wider range of actors, tasked to provide input and recommendations through events and online consultation mechanisms



Working Groups in numbers

Landscape 15 male 9 female

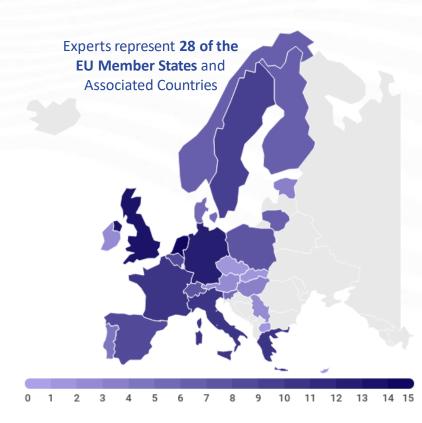
RoP 11 male 8 female

Architecture
39 male
3 female

FAIR
16 male

Sustainability 10 male 8 female Skills 11 male 21 female







The EOSCsecretariat.eu provides support the EOSC Governance by:

- Organising monthly meetings and periodical team building meetings with the EOSC Executive Board
- Regularly publishing and disseminating results and outputs
- Collecting feedback from the EOSC Stakeholders
- Organising EOSC Stakeholder events to engage the community
- Disseminating results and informing the broader public about developments in the EOSC





A first iteration of EOSC by end 2020

- Agreed and tested Rules of Participation
- Analysis of the existing national infrastructures and policies
- Financing model, legal entity & post 2020 governance structure
- Initial set of EOSC data and services
- EOSC Interoperability Framework
- Persistent Identifier policy
- Metrics for FAIR data and certified services





Contributions from our different stakeholders to

the EOSC

Researcher engagement

Interviews

Video: EOSC - The New Frontier of Data-Driven Science





Workshops



Engagement with International Initiatives

The international Research Data Community
Contributing to EOSC





ESFRI Cluster projects

– Position Papers



EOSC Symposium 2019 - Highlights



Building the European Open Science Cloud



HPC Assets and Contributions to the EOSC

EOSC Regional Projects -Coming Soon

EOSC 5b projects (Regional)

zenodo

EOSCsecretariat.eu just launched its Zenodo community, where all publications will be collected, in a collaborative and curated manner.









EOSC Stakeholders as defined in the EOSCSecretariat.eu Engagement Plan

Infrastructure initiatives in the Member States

EU infrastructure related initiatives

International initiatives

Industry

Researchers



Current situation in member states

- Currently, their level of development in the different Member States varies quite a lot both in terms of composition, formal agreements and sustainability.
- Members of these initiatives are usually Research Performing Organizations, Research Agencies, Universities, National Infrastructure Consortia, National Data Centers, Research Infrastructures, etc., that are in many cases publicly funded since they respond to researchers needs.
- They host, use, hold, manage, guarantee the integrity of scientific data and offer services supporting the entire research lifecycle, from basic ones, like connectivity, storage and processing, to data archiving and curation till data management, often community specific, and research outcomes publishing and linking.



Researchers

- Researchers are the first and ultimate target group of EOSC.
- Their role within the EOSC is two-fold: they will primarily be users of the EOSC services, but they can also offer their assets (research output such as data) to the EOSC.
- It is therefore necessary to think of channels that get the message through by other means.
- Many individual researchers may not (yet) be aware about the EOSC or may be sceptical about it.
- Need to reach out to mediate target groups may include rectors, research networks, funding bodies or funders' associations, research support units or other representatives of researchers. Among these are "intermediators" and "ambassadors"





The event, took place Online due to COVID-19 pandemic and analysed the progress of EOSC after two years from its official launch focusing on the added value of EOSC for the European scientific community. The main objectives of this year Symposium were:

- •to show the value of EOSC to research performing organisations and research funders;
- •to onboard new members into the EOSC Association;
- •to engage the EOSC providers explaining how and why federate the services with the objectives.



EOSC Association

On July 29th, 2020 founding members submitted the Deeds of Association of the EOSC Association to the notary public in Brussels which marks an important development towards the sustainability of the European Open Science Cloud (EOSC) initiative.





The Future of EOSC

The EOSC Partnership will enable a trusted, virtual, federated environment in Europe to store, share and re-use research data across borders and scientific disciplines. It will bring together institutional, national and European initiatives and engage all relevant stakeholders to co-design and deploy a European Research Data Commons where data are Findable, Accessible, Interoperable and Reusable (FAIR). This European contribution to a "Web of FAIR Data and Related Services for Science" will enhance the possibilities for researchers to find, share and reuse publications, data and software, leading to new insights and innovations, higher research productivity and improved reproducibility in science.

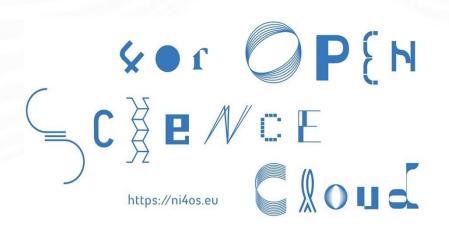








Thank you for your attention!





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