LIÈGE université
RISE
Recherche Innovation
Support Entreprises

État des lieux et perspectives de l'European Open Science Cloud (EOSC)

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ULIEGE - RISE

ULIEGE Open Science Day – 27 novembre 2025

2016-2020
Pilot Phase

2016 "European Cloud Initiative - Building a competitive data and knowledge economy in Europe"

Communication EU

"The European Open Science Cloud Pilot Phase"

https://zenodo.org/records/50072

EUROPEAN OPEN SCIENCE CLOUD

« The paper poses four interconnected questions about EOSC that need to be answered:

- *What is needed?*
- *How can it be built?*
- *How will it be managed?*
- *How can it be funded? »*

2018-2020 prototype components of the EOSC through calls for projects under Horizon 2020

" […] develop a 'Web of FAIR Data and Services' for science in Europe"

2021-2030

Transitioning to a more stakeholder-driven approach with a shared vision, common objectives and complementary contributions at European, national and institutional levels

eosc

deployment of a network between data repositories and services

2025

‘system of systems’ approach

→ eosc | Federation

“The EOSC Federation will consist of dozens of **EOSC Nodes**

Nodes

that are interconnected and can collaborate

EOSC Federating Capabilities Interoperability Framework

to share and manage scientific data, knowledge, and resources within and across thematic and geographical research communities”

Research Resources

https://eosc.eu/building-the-eosc-federation/

‘system of systems’ approach

eosc | Federation

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Research Resources

- Research **publications**
- Research **data**
- Research **software**
- Research **tools** *(Analytical and visualisation and other types of tools to aid in the interpretation, transformation and presentation of data. These tools may include dashboards, plotting software, data anonymization software and machine learning frameworks)*
- Research **services** *(Services that provide management, processing, and storage capabilities for research data. These may include DMPs, data cleaning, transformation, analytics, and computational power to support large-scale studies)*
- Research **training**
- Research **interoperability guidelines**
- Research **competence centres** *(virtual hub […] providing expertise, best practises and services[…])*
- Research **resources and services discovery** *(search engines for research resources and services for domain specific searches tuned for researchers)*

‘system of systems’ approach

Nodes

EOSC builds on existing infrastructure and services supported by the European Commission, Member States and research communities.

It brings these together in a federated ‘system of systems’ approach, adding value by aggregating content and enabling services to be used together.

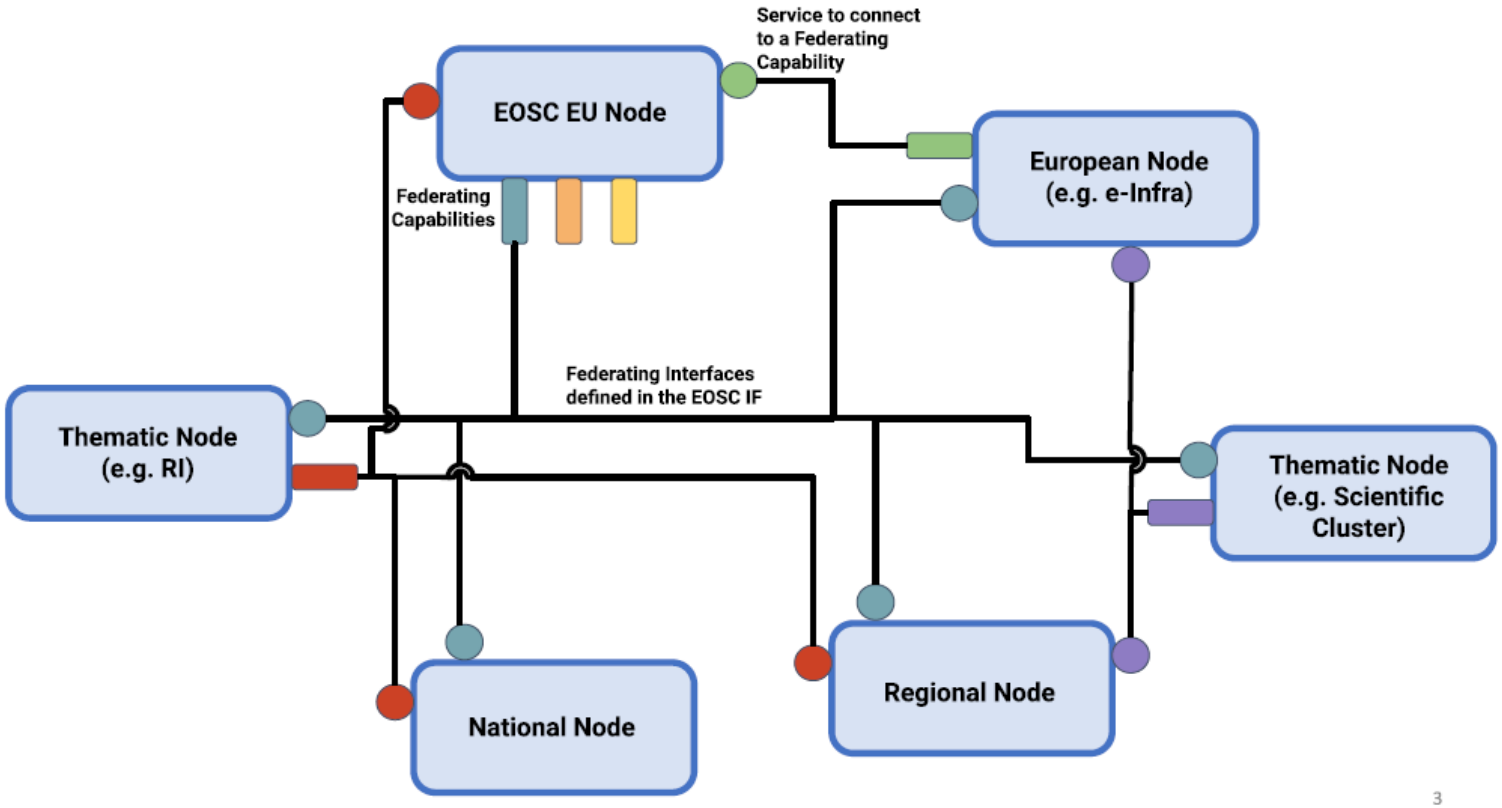

Figure 4.1 - Schematic (or “conceptual”) view of the EOSC Federation Architecture

EOSC Federation Handbook
DOI 10.5281/zenodo.14999577

‘system of systems’ approach

EOSC | Federation

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Nodes

first wave deployment 2025-2026

EOSC EU Node

EOSC Node | European Commission

National EOSC Nodes

- EOSC Node | Finland
- EOSC Node | Germany
- EOSC Node | Italy
- EOSC Node | Poland
- EOSC Node | Slovakia
- EOSC Node | SURF — The Netherlands

Thematic EOSC Nodes

- EOSC Node | BBMRI-ERIC — Health & Food
- EOSC Node | CERN — Physical Sciences & Engineering
- EOSC Node | Data Terra — Environment
- EOSC Node | Digital Twin of the Ocean — Environment
- EOSC Node | Life Sciences Connect — Health & Food
- EOSC Node | PaNOSC — Physical Sciences & Engineering

e-Infrastructure EOSC Nodes

- EOSC Node | EUDAT — Data, Computing and Digital

\+

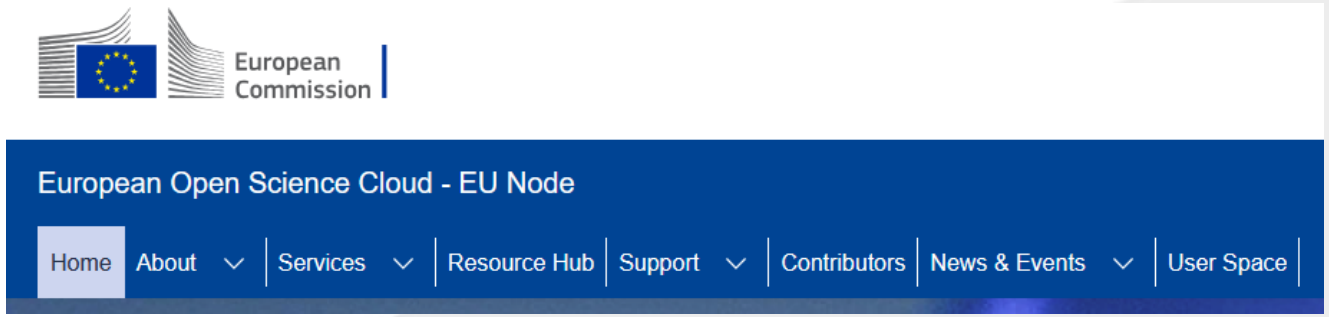
interdisciplinary use cases involving EOSC resources and tools to demonstrate :

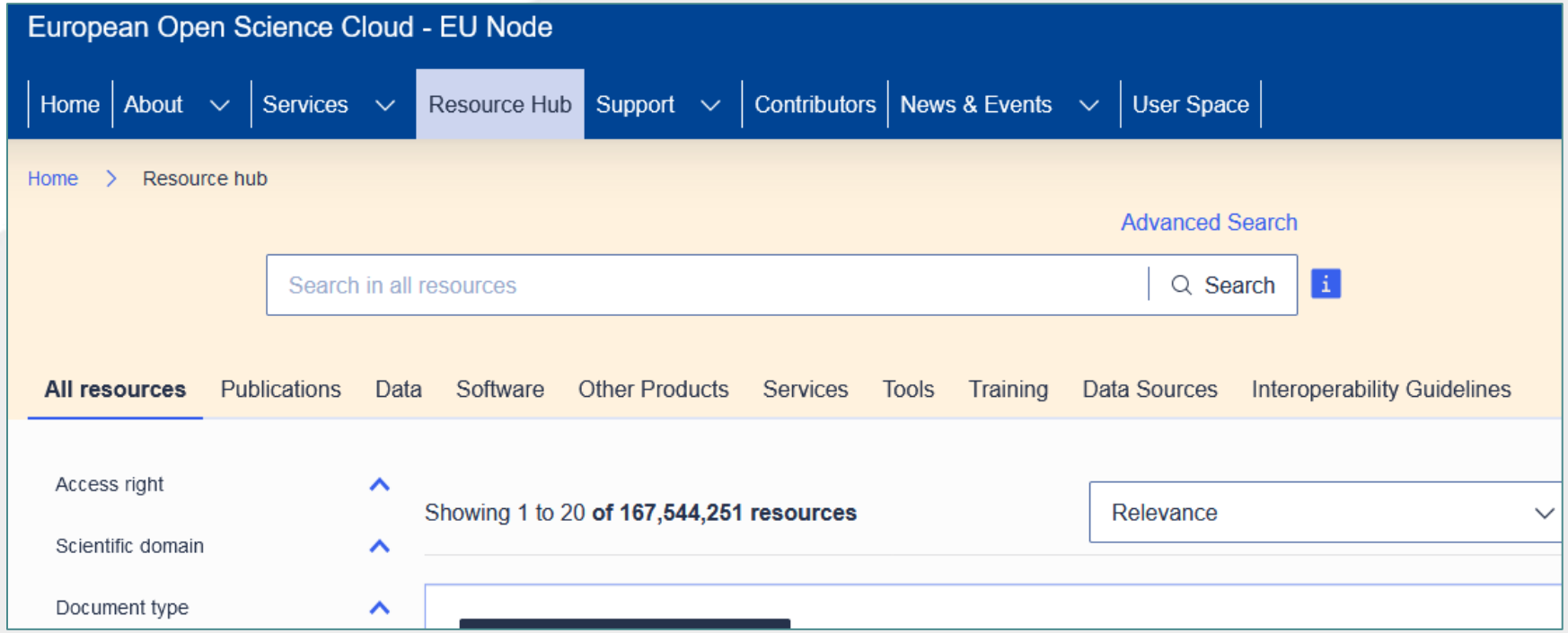
- **the EOSC Federation’s capabilities**
- **potential impact and added value for the European research and researchers**

EOSC EU Node

EOSC Node | European Commission

https://open-science-cloud.ec.europa.eu/

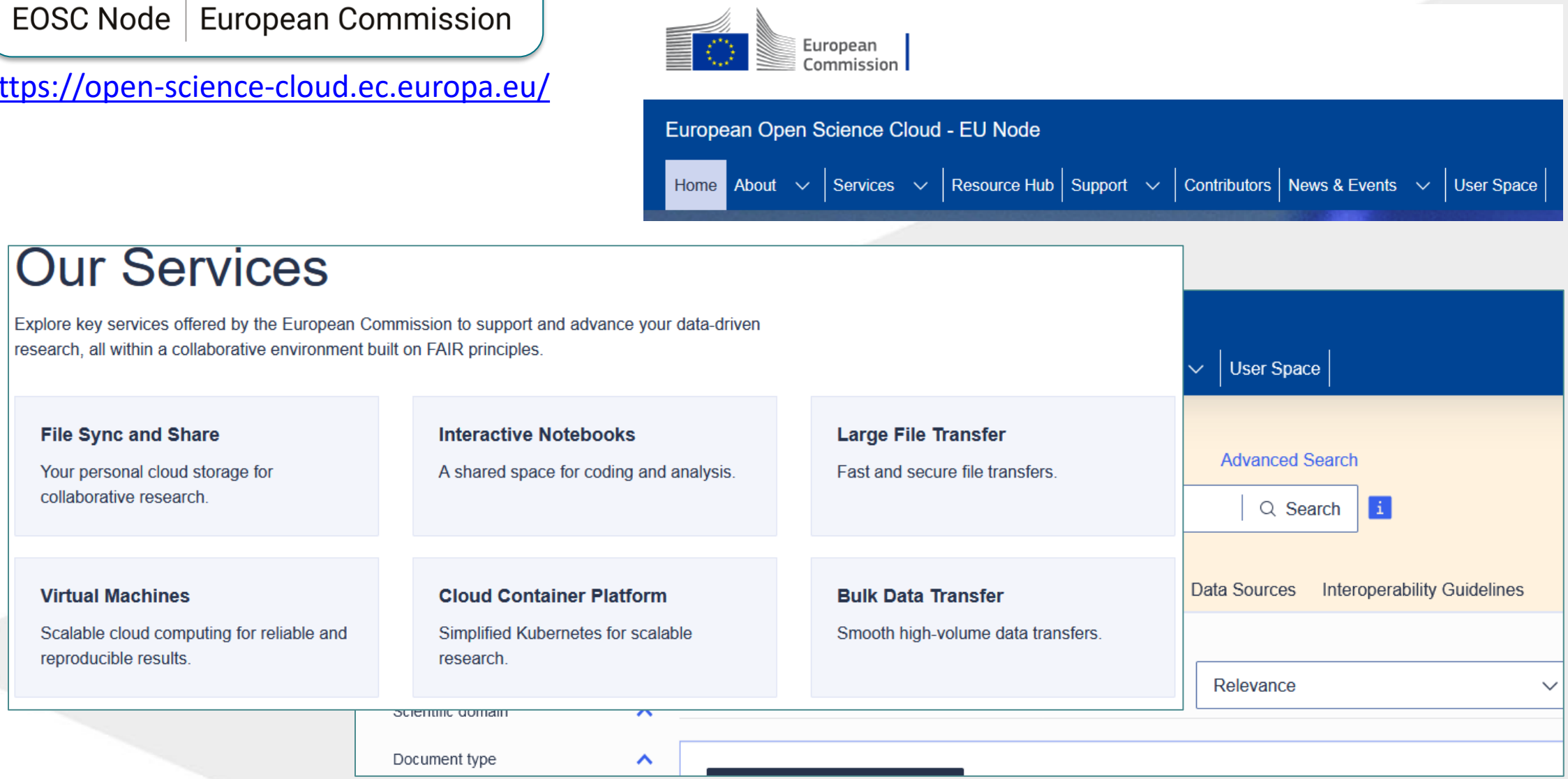




EOSC EU Node

EOSC Node | European Commission

https://open-science-cloud.ec.europa.eu/



What impact for researchers at ULiège?

Opportunities

Resources, services…
Potential visibility of outputs

Expectations (requirements ?)

For EU-funded applications and projects > **EOSC compliance**

- Not only FAIR Data Management
- Integrating data management into the EOSC dynamic

Example

How will you make research data available after your project ?

The data will be preserved and published on the Uliège Dataverse (trusted institutional repository), whose content is already harvested and available on several platforms, including the EOSC EU Node.

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