

EOSC Federation interoperability framework, architecture and data-related policies

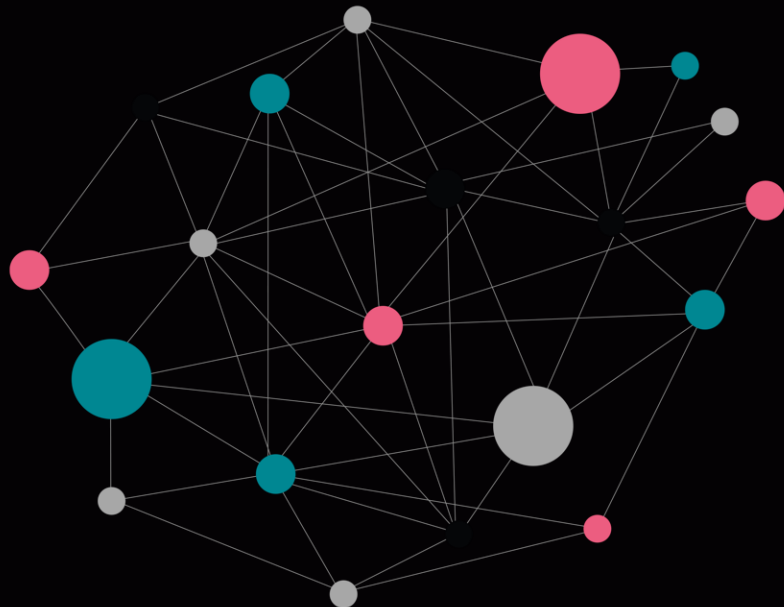
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EOSC Symposium

Peter Maccallum

Chief Technical Officer, ELIXIR

EOSC Life Sciences Connect Node Coordinator



EOSC Interoperability and Architecture in 2026

A practical framework for Nodes-in-Production

Where is the architecture and interoperability framework defined?

Some contributors:

- EOSC Semantic And Technical Interoperability Task Force
- Horizon Europe Projects:
 - EOSC BEYOND
 - EOSC UNITED
 - 2026-EOSC-01 projects
- EOSC Federation Working Groups
 - Architecture & Federating Policies Working Group
 - EOSC Handbook Working Group

What is the practical experience of adopting the framework?

- EOSC Czech Node
- EOSC Data Terra Node
- EOSC Poland Node
- EOSC Italy Node

Semantic and Technical Interoperability Task Force

The Task force brings together experts from across the EOSC Community to make technical recommendations

It is organised into three subgroups:

- Technical Interoperability
- Semantic Interoperability
- Authentication and Authorisation Infrastructure.

DOI [10.5281/zenodo.15388270](https://doi.org/10.5281/zenodo.15388270)

EOSC AAI Architecture 2025

May 12, 2025

DOI [10.5281/zenodo.17507570](https://doi.org/10.5281/zenodo.17507570)

Technical interoperability in the EOSC Federation and initial gap analysis

November 2, 2025

DOI [10.5281/zenodo.19134873](https://doi.org/10.5281/zenodo.19134873)

Landscape overview for the EOSC Federation Semantic Interoperability in 2025

March 20, 2026

DOI [10.5281/zenodo.22831063](https://doi.org/10.5281/zenodo.22831063)

Practical Semantic Interoperability recommendations for the EOSC Federation

September 18, 2026

The mission of EOSC United is to bring together and firmly embed the European research community within the EOSC Federation, while supporting the Federation's growth.

Work Package 3 will establish the EOSC Federation's governance framework, covering all aspects

- legal
- technical
- financial

- Rules of Participation for the EOSC Federation
- EOSC Interoperability validation report
- Comprehensive Legal, Compliance, and Risk Management Framework
- EOSC Federation Architecture
- Standardised Business Model and Incentive Framework
- Operational procedures

EOSC Architecture & Federating Policies WG

The Architecture & Federating Policies WG will define the standards and as-is Architecture for the Federation in Production

The Working Group is chaired & run by the participating Nodes themselves

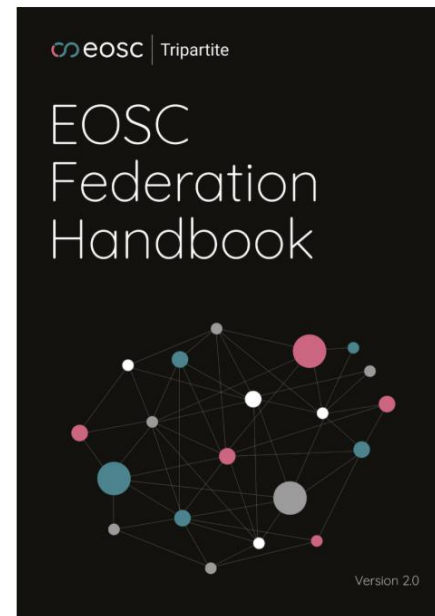
EOSC United is providing technical effort on the as-is Architecture

1	Context	Node in relation to users, providers, EOSC and other Nodes
2	Building Blocks	Main functional and technical components
3	Federated Capabilities	Local, consumed, contributed, planned or missing capabilities
4	Key Integration Flows	Priority journeys and cross-node interactions
5	Governance & Policy	Ownership, roles, responsibilities and policy obligations
6	Roadmap & Gaps	Gaps, dependencies and WG decision points

The EOSC Federation Handbook serves as the reference document for implementing the Federation

The Working Group is chaired & run by the participating Nodes themselves

Chapter 4 details the EOSC Node Architecture: Version 3 of the Handbook will be informed by the experience of the production Nodes.



DOI [10.5281/zenodo.18454649](https://doi.org/10.5281/zenodo.18454649)

EOSC Federation Handbook

January 30, 2026

Experiences from the Federation Nodes

1

Michal Med

Semantic interoperability in the EOSC Federation

EOSC Node Czechia

2

Christelle Pierkot

A DCAT 3 Catalog Model for Semantic Interoperability in EOSC. The example of the Data Terra Node Catalogue

EOSC Node Data Terra

3

Roksana Wilk

Practical aspects of the EOSC Interoperability Framework - EOSC PL journey

EOSC Node Poland

4

Matteo Zanaroli

What it takes to build an EOSC Node - The experience of the Italian Node

EOSC Node Italy



EOSC Association AISBL

Rue du Luxembourg 3
BE-1000 Brussels, Belgium
+32 2 537 73 18
info@eosc.eu | www.eosc.eu
Reg. number: 0755 723 931
VAT number: BE0755 723 931

