

# Introduction to Use Cases for the EOSC Federation

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24 June 2026, 15:00-16:30



- What are EOSC and EOSC Federation
- What is an EOSC Use Case
- What should an EOSC Use Case demonstrate

- **EOSC** is defined as
  - Web of FAIR Data and related services
  - Data Space for Research
- EOSC is expected to enable new ways of conducting science by facilitating the discovery, access, use, and combination of resources (datasets, services, compute and storage resources, etc) from multiple research initiatives
- The **EOSC Federation** is the way we have chosen to implement EOSC
  - Definition from the Handbook: *Network of autonomous nodes – the EOSC Nodes – that interact with each other to deliver additional capabilities to users [...] to provide Europe's researchers with the necessary digital resources to conduct research within and across disciplines and borders according to the FAIR principles for data and open science, in a trustworthy and secure environment driven by the scientific communities.*

- An **EOSC Use Case** is a scientific or research-support workflow, process, or practice that is enabled or enhanced through the EOSC Federation
  - by combining and consuming resources, services, data, or capabilities provided by multiple EOSC Nodes
- An **EOSC Use Case** is expected to enable or facilitate:
  - The use of services and/or datasets from multiple Nodes
  - The combination and consumption of resources through EOSC interoperable interfaces (EOSC Interoperability Framework)
- An **EOSC Use Case** should demonstrate a clear added value from the EOSC Federation beyond what could be achieved using a single local infrastructure alone

- An **EOSC Use Case** demonstrates how Federation-wide interoperability and resource sharing can support end-user activities that cannot be effectively realised through a single Node (provider or infrastructure) alone
- **Why EOSC Use Cases are important**
  - Demonstrate the value of the EOSC Federation to researchers
  - Validate Federation interoperability mechanisms
  - Identify gaps in Federating capabilities
  - Drive the evolution of EOSC services and policies
  - Showcase scientific outcomes enabled by EOSC

## An EOSC Use Case should demonstrate

- Discovery of resources across multiple Nodes
- Access to distributed datasets and services
- Federation interoperability
- Cross-Node scientific workflows
- Added value for researchers
- Benefits of EOSC compared to isolated infrastructures
- Support scientific communities through distributed EOSC resources

## Presented today

1. Beatriz Serrano-Solano (European Molecular Biology Laboratory): Imaging Data Workflows on Galaxy
2. Sara Pittonet Gaiarin (Trust IT): Biological Sequestration of Carbon in the Ocean
3. Tibor Simko (CERN): Federating CERN's REANA Pipelines

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