



# The European Commission's contribution to the development of EOSC

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European Commission (DG R&I)

20 September 2023 | EOSC Symposium in Madrid



# Enabling an operational, open and FAIR EOSC ecosystem

## The INFRAEOSC Destination in Horizon Europe

The main EC contribution to the EOSC European partnership  
Around 70 M€ of EU investment every year during 7 years

- **INFRAEOSC Calls 2021 & 2022:** Management of 15 ongoing EU grants
  - June 2023: Coordination meeting of EOSC-related projects
- **INFRAEOSC Call 2023:** Deadline for submission on 9 March 2023. 7 grants under preparation (projects to begin their activities in January 2024)
- **INFRAEOSC Call 2024:** Opening on 6 Dec 2023 (deadline on 12 Mar 2024)
  - Information day planned in November 2023
- **Public procurement for EOSC managed services:**  
Being processed for signature by the end of this year
- **INFRAEOSC Calls 2025-2027:** review of the draft EOSC Multi-Annual Roadmap (MAR) 2025-2027 and drafting of strategic orientations for the Research Infrastructure Work Programmes 2025-2027

# Enabling an operational, open and FAIR EOSC ecosystem

## The INFRAEOSC Destination in Horizon Europe (cont.)

### EU investments in 2021 and 2022

#### Enabling Open Science

##### Supporting an EOSC-ready digitally skilled workforce

HORIZON-INFRA-2021-EOSC-01-01  
SKILLS4EOSC (7Mio€)

##### Services that underpin a research assessment system that incentivises Open Science

HORIZON-INFRA-2022-EOSC-01-01  
GRASPOS (8 Mio€)

##### Supporting institutional open access publishing across Europe

HORIZON-INFRA-2022-EOSC-01-02  
CRAFTOA (5 Mio€)

#### FAIR implementation

##### Deploying EOSC-Core components for FAIR

HORIZON-INFRA-2021-EOSC-01-03  
FAIRCORE4EOSC (10 Mio€)

##### Enabling discovery and interoperability of research objects across communities

HORIZON-INFRA-2021-EOSC-01-05  
FAIR-IMPACT (10 Mio€)

##### Support to international standards and specifications for open sharing of FAIR research digital objects

HORIZON-INFRA-2022-EOSC-01-04  
RDA TIGER (3 Mio€)

#### Uptake – Use cases

##### FAIR and open data sharing in support of the Cancer Mission

HORIZON-INFRA-2021-EOSC-01-06  
EOSC4CANCER (8Mio€)

##### FAIR and open data sharing in support of the Mission on oceans & waters

HORIZON-INFRA-2022-EOSC-01-03  
BLUE CLOUD 2026 AND AQUAINFRA (16 Mio€)

#### EOSC partnership

##### Supporting activities of the European EOSC Partnership

HORIZON-INFRA-2021-EOSC-01-02  
EOSC-FOCUS (4Mio€)

# Enabling an operational, open and FAIR EOSC ecosystem

## The INFRAEOSC Destination in Horizon Europe (cont.)

**EU investments in 2023**

**EU investments in 2024**

Enabling Open Science

FAIR implementation

Uptake – Use cases

EOSC partnership

**Planning, tracking and assessing scientific knowledge production**

HORIZON-INFRA-2023-EOSC-01-03 (8 Mio€)

**Improving the quality of scientific software and codes**

HORIZON-INFRA-2023-EOSC-01-02 (8 Mio€)

**Enabling a network of EOSC federated and trustworthy repositories**

HORIZON-INFRA-2024-EOSC-01-03 (5 Mio€)

**Long term access and preservation infrastructures and data quality**

HORIZON-INFRA-2024-EOSC-01-04 (8 Mio€)

**Build on the science cluster approach to ensure EOSC uptake**

HORIZON-INFRA-2023-EOSC-01-01  
(25 Mio€)

**FAIR and open data sharing in support of the Mission climate adaptation**

HORIZON-INFRA-2024-EOSC-01-01  
(16 Mio€)

**Supporting activities of the European EOSC Partnership**  
HORIZON-INFRA-2024-EOSC-01-02  
(4 Mio€)



# Enabling an operational, open and FAIR EOSC ecosystem

## The INFRAEOSC Destination in Horizon Europe (cont.)

Towards an EOSC federated infrastructure

**Innovative and customizable services for EOSC Exchange**  
HORIZON-INFRA-2024-EOSC-01-05 (28 Mio€)

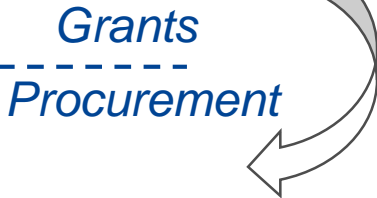
**Next generation services for operational and sustainable EOSC Core Infrastructure**  
HORIZON-INFRA-2023-EOSC-01-04 (10 Mio€)

**EOSC Architecture and Interoperability Framework**  
HORIZON-INFRA-2023-EOSC-01-05 (3 Mio€)

**Trusted environments for sensitive data management in EOSC**  
HORIZON-INFRA-2023-EOSC-01-06 (15 Mio€)

**Innovative and customizable services for EOSC**  
HORIZON-INFRA-2021-EOSC-01-04 (20 Mio€)  
AI4EOSC, EUROSCIENCEGATEWAY, FAIR-EASE, RAISE, SciLAKE

**HORIZON-INFRA-2022 - Public procurement**  
Delivering the EOSC core infrastructure and services (32 Mio€)



**H2020-INFRAEOSC-07-2020**  
C-SCALE, DICE, EGI-ACE, OPENAIRE  
NEXUS, RELIANCE  
(24 M€)

**H2020-INFRAEOSC-03-2020**  
EOSC Future  
(40 M€)

Horizon 2020  
Horizon Europe



# Coordination of EOSC-related projects

## Face-to-face meeting in Brussels on 15-16 June 2023

### Main objectives:

- Deepen the collaboration with the consortia in the context of implementing the EOSC European Partnership and its Strategic R&I Agenda.
- Update on respective contributions and plans.
- Discuss challenges and next steps for the implementation of EOSC

### Audience:

- 59 participants including representatives from 19 EU-funded projects, the EC, its executive agency REA and the EOSC Association

### Some highlights:

- [EOSC Macro Roadmap](#) of contributions to the SRIA by the EOSC Focus project provides a tool for detailed mapping and visualisation of all projects' contributions to the EOSC Strategic Research and Innovation Agenda.
- [Vademecum of coordination actions](#) by the EOSC Association
- Yearly [INFRAEOSC Winter School](#) for more in-depth technical cooperation
- [EOSC Multi-Annual Roadmap \(MAR\) 2025-2027](#)
- [Breakout sessions](#): sharing of FAIR research data, federation of services and core components of EOSC, end user perspective (engagement, skills, rewards, and incentives), EOSC after 2027

Let's harness the power of  
collaboration and  
partnership!

#EOSC #OpenScience  
#EURResearchArea



# EC public procurement

## Managed Services for the European Open Science Cloud platform

### Status update

- 4 May 2022: Prior Information Notice
- 4 May to 5 August 2022: Open Market Consultation (3 months)
- 20 December 2022: Tender Publication
- 2 May 2023: Submission of Initial Tender Response for Dialogue
- May to July 2023: Dialogue Stage (9 weeks)
- 28 July 2023: Final invitation to tender
- 7 September 2023: Final submission
- Ongoing: Evaluation (to be followed by contract signatures by the end of this year)

### Procurement Lot Structure

Lot 3

Managed Collaborative Data Platform, Interactive Data Analytics Platform and Visualization Services for the EOSC Exchange (Application Services)

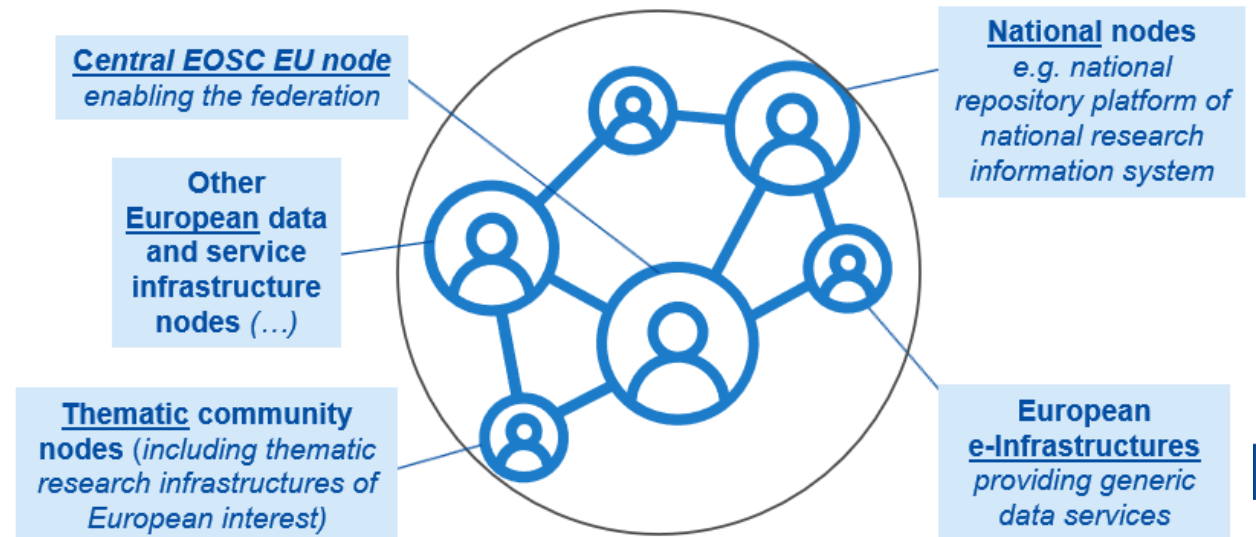
Lot 2

Managed Container Platform and Virtual Machine Services for the EOSC Exchange (Infrastructure Services)

Lot 1

Managed Services for the Development, Integration, Deployment and Operations of the Federated EOSC Core

The **EOSC EU node** should provide from next year onwards core functionalities enabling the **EOSC federation**



# EOSC thematic demonstrators

## Blue Cloud, PANOSC (and others)

### Examples of EOSC thematic demonstrators delivered after Prague:

- **PANOSC** by the photon & neutron (PaN) community (closing event in Grenoble on 29 Nov 2022)
- **Blue Cloud** Initiative (BCI) for marine researchers and ocean modellers (final event in Brussels on 8 Dec 2022)



### Similar approaches:

- Making FAIR data a reality within the community
  - Adoption of common FAIR data policies
  - Standard metadata and data stewardship within the community
  - Adoption of common templates for Data Management Plans
- Developing and providing services for scientific data
  - FAIR data discovery and access service
  - Virtual research environment with distributed computing and storage
  - Virtual labs with analytical services
- Connecting these resources to the European Open Science Cloud (EOSC).

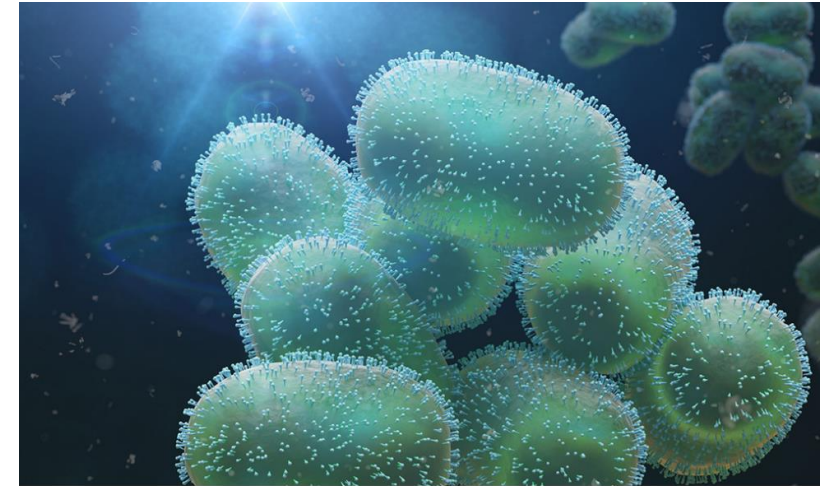




# The new Pathogens Portal builds on EOSC success

## Launch of the new Pathogens Portal in July 2023

- Builds on the same framework as the European COVID-19 Data Portal
- Enables sharing and analysis of pathogen data from across the world.
- Extends to the pathogen world beyond viruses
- Contains data on more than 200 000 pathogen species and strains. All data are open and FAIR
- Helps scientists, healthcare, and public health professionals to collaborate and enhance pathogen surveillance worldwide, especially during public health outbreaks and pandemics.
- Wide effort supported by EMBL and a series of EU-funded projects including EOSC-Life (no. 824087) and BY-COVID (no. 101046203)
- News release: <https://www.embl.org/news/science/pathogens-portal-launch/>



Credit: dottedyeti/stock.adobe.com



# A new EC-funded activity towards a FAIR-enabling repository in EOSC

## **New HORIZON-ZEN grant: Enhancing Zenodo with FAIR-enabling capabilities**

- Enhanced Zenodo-community for the EC's research programme beneficiaries (e.g. Horizon Europe)
- FAIR principles enablers: depositing services for digital research objects that are FAIR-enabling and compliant with Horizon Europe requirements
- A data curation framework for the EC-branded Zenodo-community
- Lead by example by showcasing best practices for how scientific repositories can support the implementation of the FAIR data principles

## **Open community-driven methodology: help shaping Zenodo!**

- The early adopters will be involved in the design process and provide feedback on concepts developed
- For some early adopters, Zenodo will be extended to support domain-specificity of the project's domain.

➤ Link: <https://about.zenodo.org/projects/horizon-zen/>

# Open Research Europe (ORE): an EU scientific publishing platform

## ORE was launched in 2021 for Horizon 2020 and Horizon Europe participants

- Ongoing process to extend operation in the period 2024 to 2026
- Transition to an open source infrastructure to underpin innovative publishing workflows

## Council Conclusions on Open Science (2022):

*“... INVITES Members States and research funding organisations to consider joining the ORE initiative”*

- Ongoing discussion with interested national research funders across Europe:
  - Further detailing the vision and implementation roadmap
  - Converging on a not-for-profit ‘business model’
  - Soliciting participation and funding commitments



# EOSC and Open Science monitoring capacity: The EOSC policy intelligence tool

## Objectives:

- Measures national policies and investments to the EOSC via surveys co-defined with Member States and associated countries
- Measures other open science practices, policies, infrastructures, data and services in Europe

## Results in 2023:

- Ongoing analysis of the survey 2022-2023
  - 102 questions (plus sub-questions)
  - 32/40 countries responded
  - 2600+ data points collected
- Improved data dashboard and visualisation

## Implementation:

- In 2021-2023: by the EOSC-Future consortium
- After the end of EOSC-Future: dedicated action in the Research Infrastructure Work Programme 2023

eOSC OBSERVATORY

EOSC Readiness Login

## Monitoring the European Open Science Cloud (EOSC)



[eoscobservatory.eosc-portal.eu](https://eoscobservatory.eosc-portal.eu)

# The EOSC post-2027 reflection process

## Steps undertaken by the Commission in 2023 to facilitate well-informed positions by the three Parties:

- Four information **webinars** organised in January 2023 documenting sustainability issues and existing governance models
- Characterisation of **EOSC tasks and features** for the post-2027 period
- Elaboration of **logical pathways** along key strategic questions
- EOSC Tripartite event on 24 May
  - 53 participants: 29 country representatives of the EOSC Steering Board, 13 participants of the EOSC Association and 11 participants from the European Commission
  - Review of existing scenarios and guidance on the next steps

## Coming next:

- Till October: detailed analysis of the preferred scenarios with check points with the EOSC Steering Board, its Policy sub-group and the Board of Directors of the EOSC Association
- End of October: delivery to the three parties of the final version of the analysis document
- End of November: EOSC Tripartite event in Madrid



# Involvement in EOSC policy structures and think tanks

- **EOSC Steering Board:**
  - Chairing and secretariat support to the EOSC Steering Board and its three sub-groups
- **EOSC partnership Board:**
  - Co-chairing and collaboration with the EOSC Association
- **New ESFRI-EOSC Task Force (launched in June 2023):**
  - Co-drafting and adoption process of the terms of reference
  - Participation of 2 EC members to the new ESFRI-EOSC Task Force
- **Continued collaboration with e-IRG**
  - Follow-up to the White paper 2022: bilateral meetings between EC and eIRG
  - Regular policy updates in e-IRG meetings and workshops
- **NPR network on scientific information**
  - 10th meeting of the network of National Points of Reference (NPR) on Scientific Information

# Continued policy support to EOSC

- **European data strategy:**
  - Reporting to the Council on the state-of-development of EOSC as a data space
  - Participation of the EOSC developers in the Data Space Support Centre (DSSC) Network
  - The SIMPL procurement builds notably on the EOSC pilot experience.
- **ERA policy agenda**
  - Regular reporting on ERA action 1 (including EOSC)
  - Synergies with other ERA actions such as ERA Action 2 (EU copyright and data legislative framework fit for research), 3 (reforming research assessment), 8 (Strengthen research infrastructures) and 19 (ERA Monitoring Mechanism).
  - EOSC in the next ERA Policy Agenda post-2024
- **Presidency events and/or declarations**
  - Lund conference on research data and research infrastructures
- **EOSC in the international context (G7, OECD, UN, RDA,...)**

# Thank you



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