

2. EOSC Coffee Lecture

Wo steht die EOSC heute und welche Zukunftsperspektiven gibt es?



*Klaus Tochtermann, 27.02.2024
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Überblick EOSC Coffee Lectures

1. EOSC Coffee Lecture:

“Was ist die EOSC und welche Ziele verfolgt sie?”

Datum: Dienstag, 30. Januar 2024

Uhrzeit: 16:00-17:00

2. EOSC Coffee Lecture:

“Wo steht die EOSC heute und welche Zukunftsperspektiven gibt es?”

Datum: Dienstag, 27. Februar 2024

Uhrzeit: 16:00-17:00

3. EOSC Coffee Lecture:

“Welche Möglichkeiten zur Beteiligung gibt es?”

Datum: Dienstag, 26. März 2024

Uhrzeit: 16:00-17:00

Überblick 2. Coffee Lecture

- Where do we stand?
- Tasks for EOSC post-2027
- Node Concept
- “Procurement”

EOSC development 2021-2027

EOSC phase 1: 2018 - 2020	EOSC phase 2: convergence 2021 - 2027	EOSC phase 3: operation Post-2027
Funding instruments: H2020 calls/grants approach	Funding instruments: HE INFRAEOSC calls / grants approach EOSC Procurement In kind contributions from the EOSC Association members	Funding instruments: Under discussion
Funders: European Commission (DG CNECT; DG RTD)	Funders: European Commission (DG CNECT; DG RTD) Members of the EOSC Association	Funders: Under discussion
Total funding: 350 M€	Total funding: 1 billion € (500M€ from the EC + 500M€ as in kind contributions from the EOSC Association members)	Total funding: Under discussion
Main purpose: To support the implementation strategy defined in the EOSC roadmap 2018-2020 by the European Commission	Main purpose: To support the implementation of the strategic priorities identified in the Multi Annual Roadmap 2021-2022; 2023-2024; 2025; 2026-2027 of the Strategic Research and Innovation Agenda (SRIA)	Main purpose: To support the EOSC strategy and governance post 2027

Strategic Research and Innovation Agenda



Strategic Research and Innovation Agenda (SRIA)

of the European Open Science Cloud (EOSC)

Version 1.2 – 1 November 2023

EUROPEAN PARTNERSHIP



















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- 1 -

Table of Content

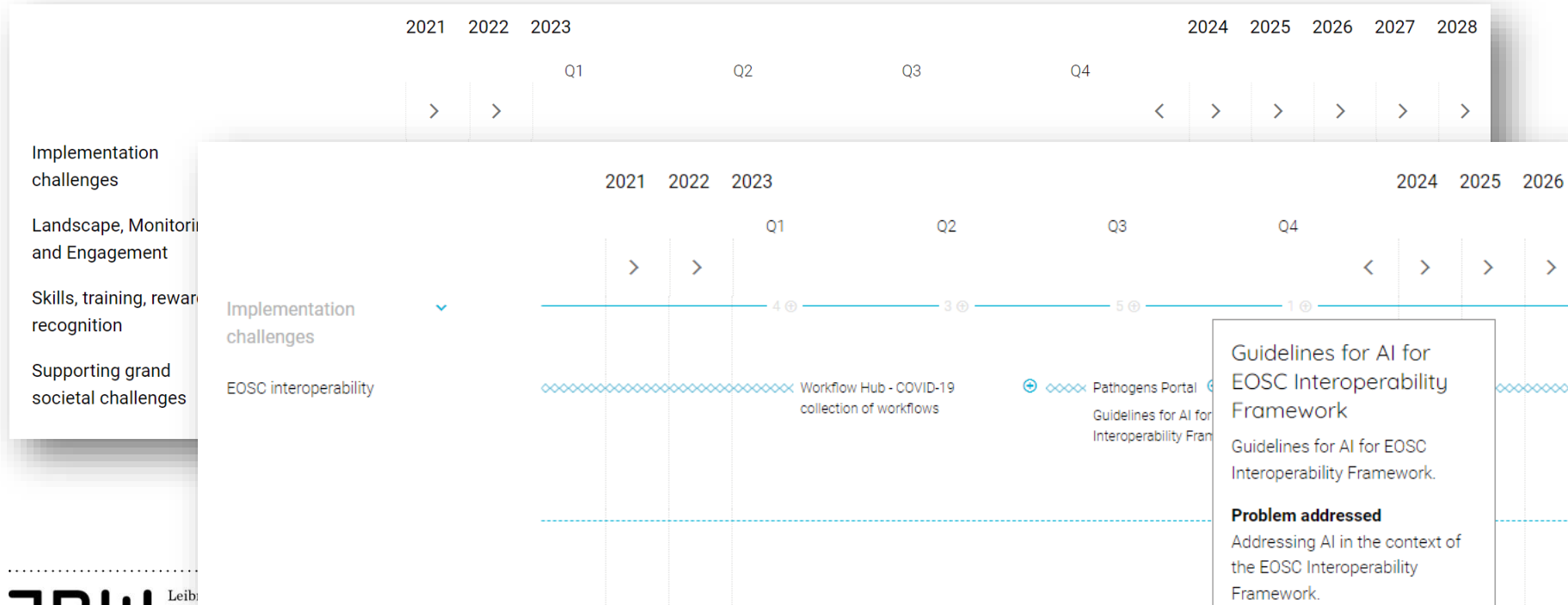
- ...
- Implementation Challenges
- Landscape Monitoring
- Skills and Training
- ...

Funded EOSC Projects

 <p>Artificial Intelligence for the European Open Science Cloud</p> <p>→</p>	 <p>Infrastructure for Marine and Inland Water Research</p> <p>→</p>	 <p>Beyond COVID</p> <p>→</p>	 <p>A Federated European FAIR and open Research Ecosystem for oceans, seas, coastal and inland waters</p> <p>→</p>
 <p>CRAFT-OA European Research Infrastructure Consortium for Open Access</p> <p>→</p>	 <p>e-Infrastructure Reflection Group Support Programme 7</p> <p>→</p>	 <p>A European Network of TRUSTed research environments</p> <p>→</p>	 <p>Focusing on Open Collaboration and Useful Science</p> <p>→</p>
 <p>A European-wide foundation to accelerate data-driven cancer research</p> <p>→</p>	 <p>Leveraging the European compute infrastructures for data-intensive research guided by FAIR principles</p> <p>→</p>	 <p>European Virtual Institute for Research Software Excellence</p> <p>→</p>	 <p>FAIR EArth Sciences & Environment services</p> <p>→</p>
 <p>→</p>	 <p>→</p>	 <p>→</p>	 <p>→</p>

 <p>Open Science Plan-Track-Assess Pathways</p> <p>→</p>	 <p>Research Analysis Identifier System</p> <p>→</p>	 <p>Research Data Alliance facilitation of Targeted International working Groups for EOSC-related Research solutions</p> <p>→</p>	 <p>Scientific Data-Lake-as-a-Service</p> <p>→</p>
 <p>Secure Interactive Environments for Sensitive data Analytics</p> <p>→</p>	 <p>Skills for the European Open Science Commons: Creating a Training Ecosystem for Open and FAIR Science</p> <p>→</p>	 <p>Support to Reinforce the European Strategy Forum on Research Infrastructures 3</p> <p>→</p>	 <p>Trusted environments for confidential computing and secure data sharing</p> <p>→</p>
 <p>Global cooperation on FAIR data policy and practice</p> <p>→</p>			

EOSC Implementation Macro-Roadmap



Where do we stand?

- Lively community has been established and is growing continuously
- Results from funded projects are available
- Overall result not yet available
- Status of EOSC comparable with status NFDI

EOSC development post 2027

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EOSC „helicopter view“ (by M. Schouppe, EC)

Main EOSC tasks for the future

Task 1: Deploying and operating the EOSC EU node
(Core, Exchange, FAIR Data Federation)

Task 2: Maintaining and updating the EOSC EU node and
expanding the EOSC federation
(with elements that are close to the 'market')

Task 3: Enabling a 'web of FAIR data and services' for
science

Task 4: Develop, prototype and test new elements
supporting the evolution of the EOSC Core and
Exchange and the tools enabling the federation
(elements that can be made ready for the 'market')

Task 5: Enabling Open Science policies and the uptake of
Open Science practices

Three potential high-level scenarios (1/3)

Tasks 1 to 5 would all fall **under direct management by the European Commission**. This scenario is mainly based on the use of grants and/or procurement as part of the EC Work Programmes.

Main EOSC tasks for the future

Task 1: Deploying and operating the EOSC EU node (Core, Exchange, FAIR Data Federation)

Task 2: Maintaining and updating the EOSC EU node and expanding the EOSC federation (with elements that are close to the 'market')

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Task 3: Enabling a 'web of FAIR data and services' for science

Task 4: Develop, prototype and test new elements supporting the evolution of the EOSC Core and Exchange and the tools enabling the federation (elements that can be made ready for the 'market')

Task 5: Enabling Open Science policies and the uptake of Open Science practices

Three potential high-level scenarios (2/3)

Tasks 1 to 5 would all fall under **indirect management by an external entity**. This scenario is mainly based on the use of grants and/or procurement as part of the legal entity's Work Programmes.

Main EOSC tasks for the future

Task 1: Deploying and operating the EOSC EU node (Core, Exchange, FAIR Data Federation)

Task 2: Maintaining and updating the EOSC EU node and expanding the EOSC federation (with elements that are close to the 'market')

Task 3: Enabling a 'web of FAIR data and services' for science

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Task 4: Develop, prototype and test new elements supporting the evolution of the EOSC Core and Exchange and the tools enabling the federation (elements that can be made ready for the 'market')

Task 5: Enabling Open Science policies and the uptake of Open Science practices

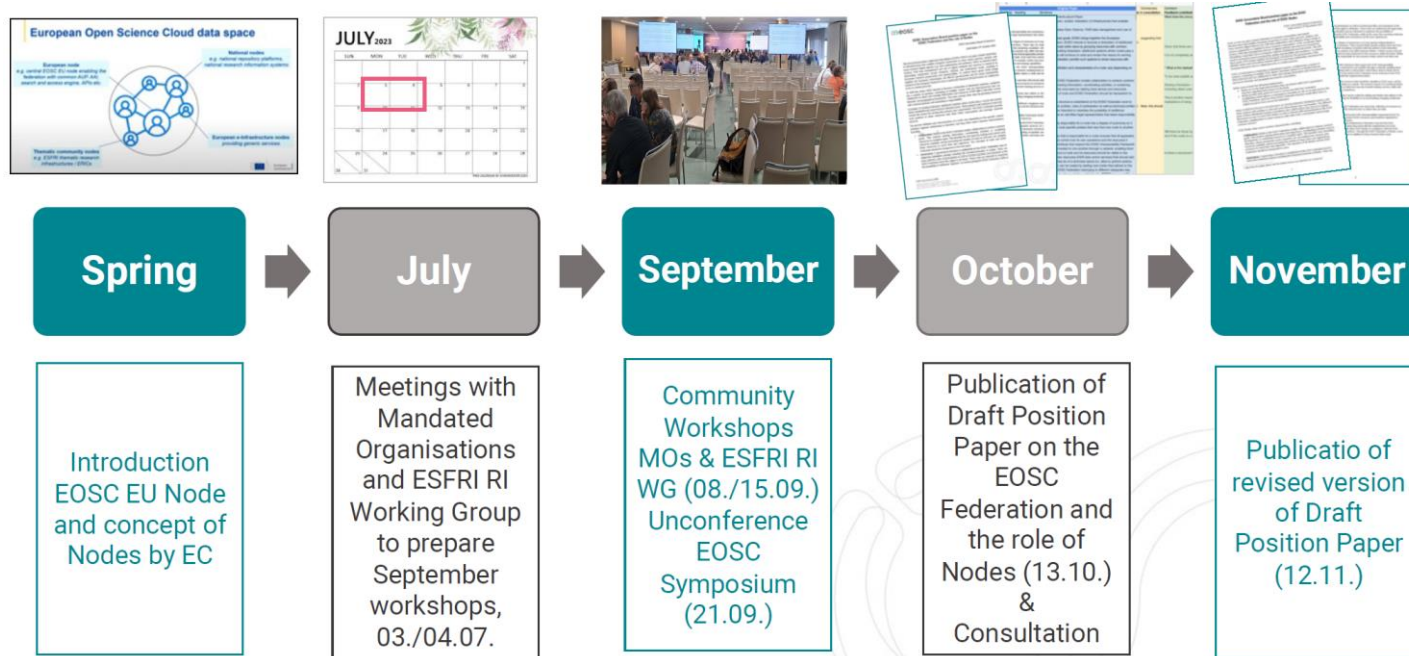
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Three potential high-level scenarios (3/3)

A hybrid model would consist of the **combination of direct management by the European Commission and indirect management by an external entity**, depending on the tasks.

Main EOSC tasks for the future	
Task 1: Deploying and operating the EOSC EU node (Core, Exchange, FAIR Data Federation)	E N T I T Y
Task 2: Maintaining and updating the EOSC EU node and expanding the EOSC federation (with elements that are close to the 'market')	E N T I T Y
Task 3: Enabling a 'web of FAIR data and services' for science	EC
Task 4: Develop, prototype and test new elements supporting the evolution of the EOSC Core and Exchange and the tools enabling the federation (elements that can be made ready for the 'market')	E N T I T Y
Task 5: Enabling Open Science policies and the uptake of Open Science practices	EC

The Evolution of the „Node Concept“



What is a „EOSC Node“?

EOSC Nodes

- contain resources adding value to EOSC
- act as the legal representative that can interact with EOSC's governance structure
- offer interfaces that comply with the EOSC Interoperability Framework
- control their own operations and resources and ensure that policies are followed within the Node
- may vary in their local policies, the resources to which they provide access and the infrastructure on which they are built

What is the EOSC EU Node?

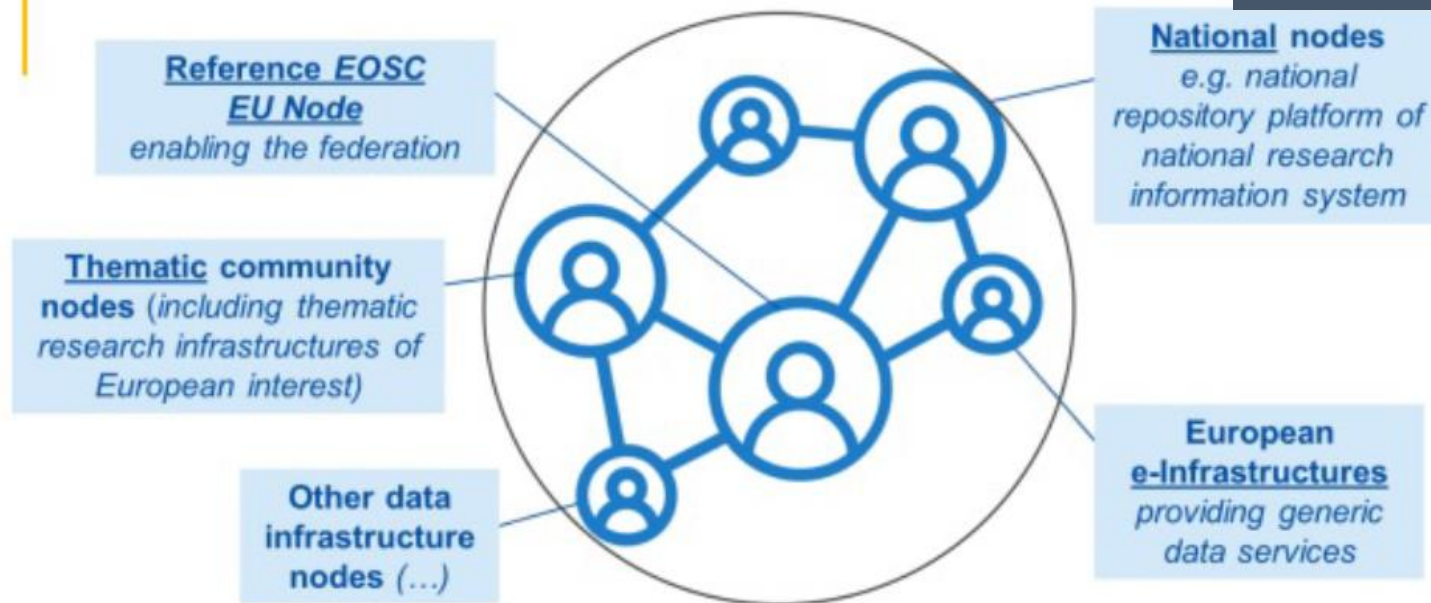
“...to build and deploy a fully operational enabling infrastructure for EOSC – referred to as the EOSC EU Node – providing access to a rich portfolio of FAIR data and professional quality interoperable services in all relevant domains from data handling to computing, processing, analysis and storing...”

Announcement of the winners of the EOSC Procurement

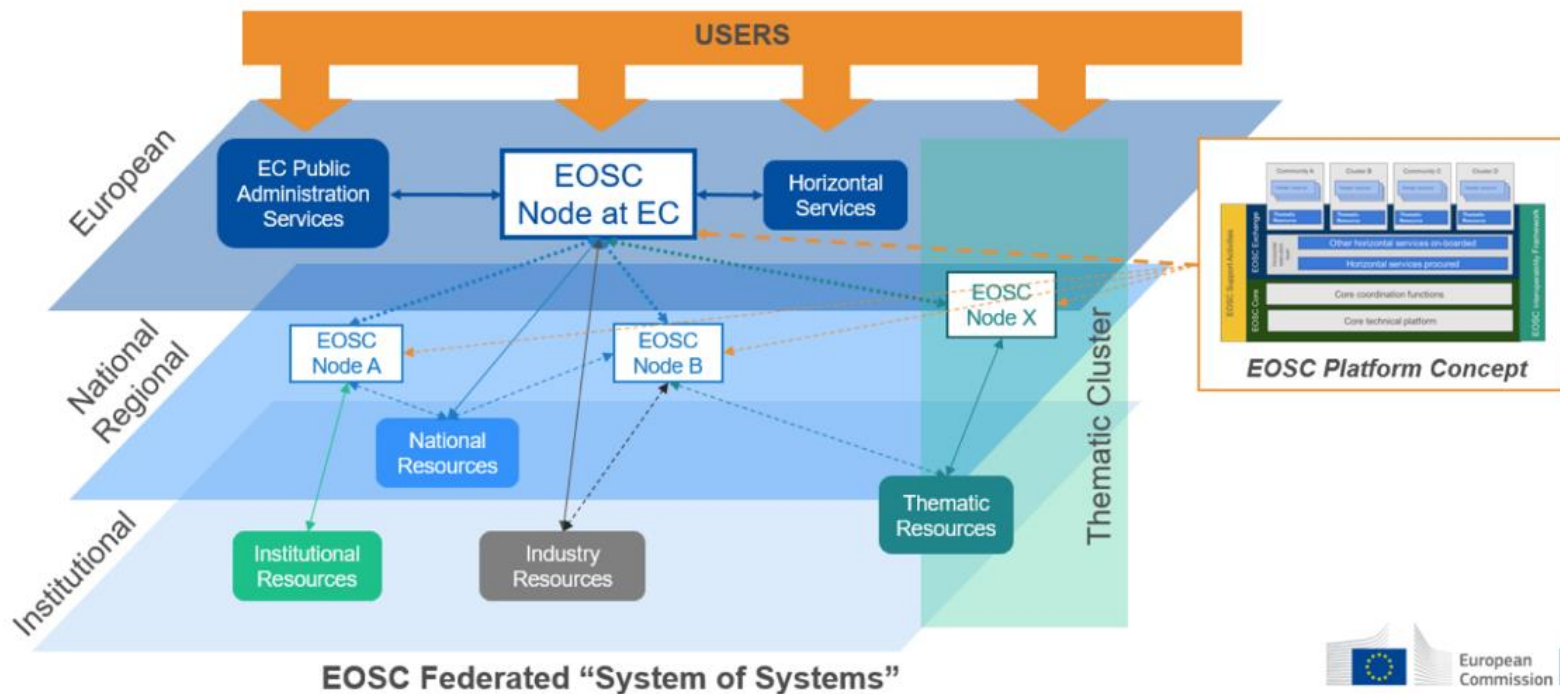
The Node Concept

Peter Szegedi (DG-CNECT)

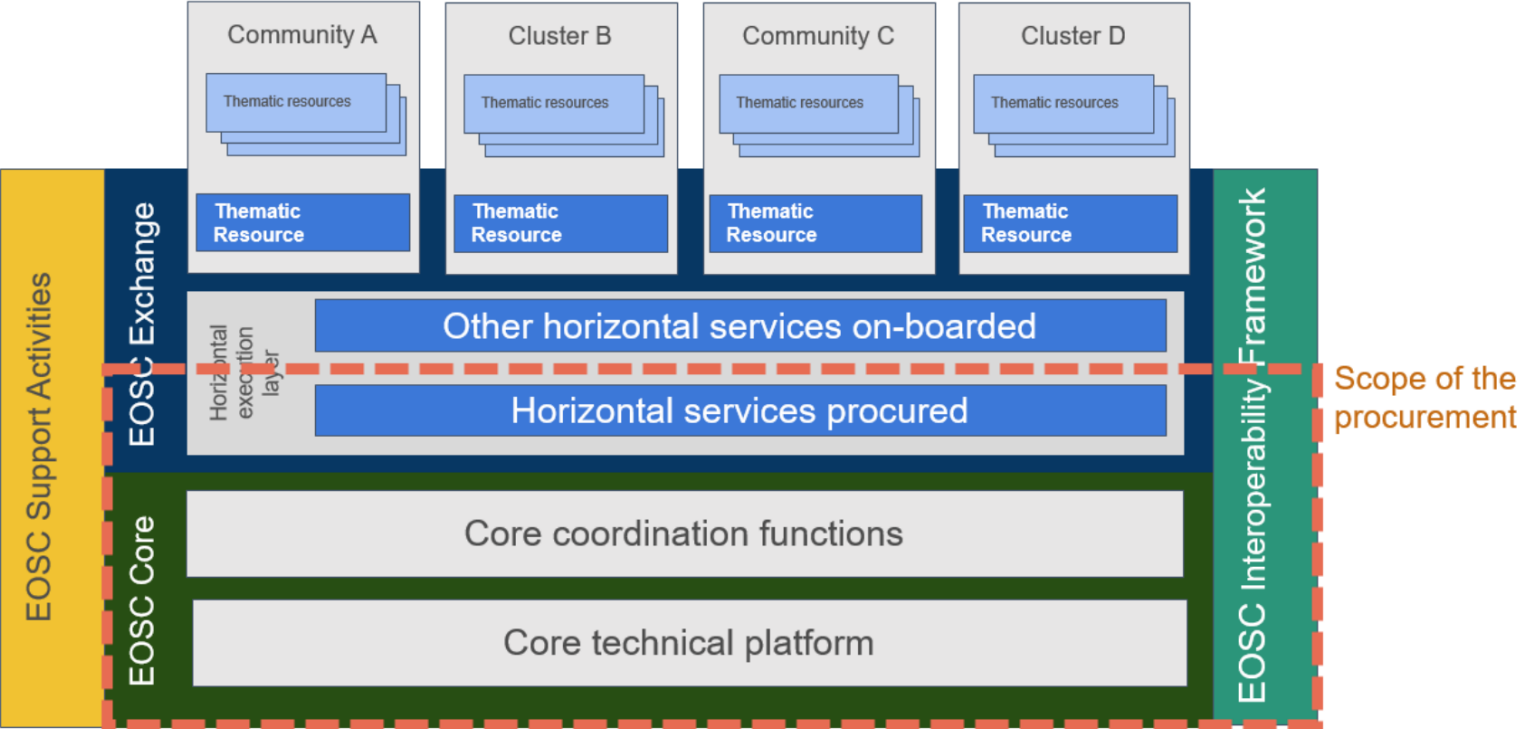
nfdi Nationale
Forschungsdaten
Infrastruktur



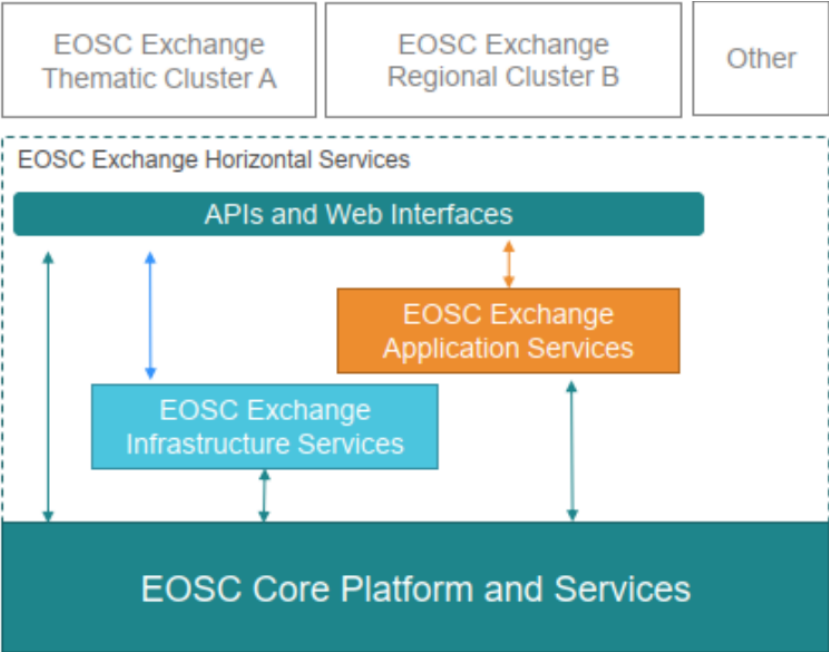
The EOSC EU Node Concept



Procurement for the EOOSC EU Node



Procurement Lot Structure



Procurement Lot Structure

- Lot 3** Managed Collaborative Data Platform, Interactive Data Analytics Platform and Visualization Services for the EOOSC Exchange (Application Services)
- Lot 2** Managed Container Platform and Virtual Machine Services for the EOOSC Exchange (Infrastructure Services)
- Lot 1** Managed Services for the Development, Integration, Deployment and Operations of the Federated EOOSC Core

Awarded Contractors

All together the awardees



EOSC EU Node

EXCHANGE



CORE

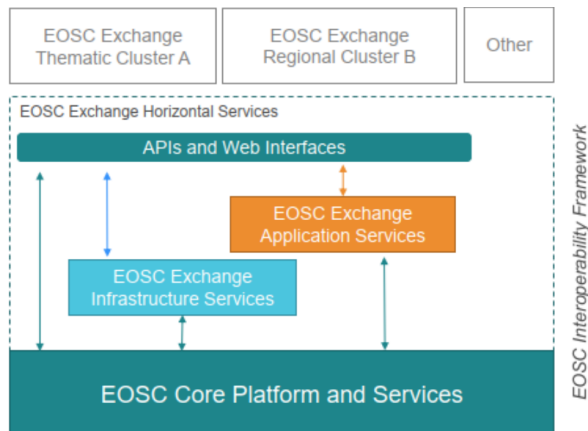


Coordinator Lot 1:
Athena Research Center

Coordinator Lot 2 & 3:
Poznan Supercomputing
and Networking Center

Alignments of EOSC and NFDI

Base4NFDI provides basic services for NFDI
Alignment with **EOSC procurement** necessary

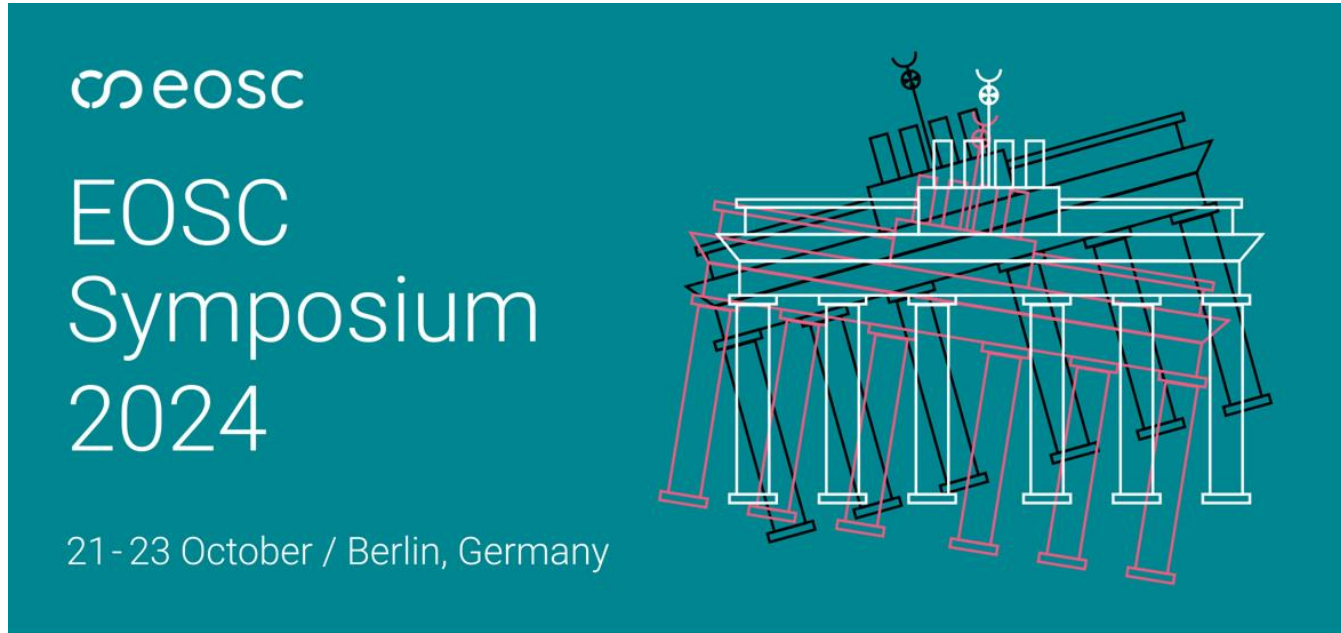


Base4NFDI Projects

The Base4NFDI Projects section features four cards:

- IAM4nfdi**: Identity and Access Management for the German National Research Data Infrastructure. Icon: Key. Label: IAM4NFDI Identity & Access Management.
- TS4nfdi**: Terminology Services for the German National Research Data Infrastructure. Icon: Network diagram. Label: TS4NFDI Terminology Services.
- PID4nfdi**: Persistent Identifier Services for the German National Research Data Infrastructure. Icon: Location pin. Label: PID4NFDI Persistent Identifiers.
- Future Services**: We are open for your proposals! Icon: Hand holding a glowing sphere with various icons.

Meet the EOSC Community

A teal banner for the EOSC Symposium 2024. On the left, the text 'eosoc' is written in a stylized white font, followed by 'EOSC Symposium 2024' in a larger white font. Below this, the dates '21-23 October / Berlin, Germany' are written in a smaller white font. On the right side of the banner is a white line-art illustration of a complex, multi-tiered structure resembling a modern building or a data center, with various levels and connecting lines. The background of the banner is a solid teal color.

eosoc
EOSC
Symposium
2024
21-23 October / Berlin, Germany

Further Information

EOSC Implementation Macro-Roadmap

[EOSC Implementation Macro-Roadmap launched during the EOSC Symposium 2023 - EOSC Association](#)

Interactive visualisation of EOSC Macro-Roadmap

[The Macro-Roadmap - EOSC Association](#)

Funded EOSC EU Projects

[Horizon Europe Projects - EOSC Association](#)

Further Information

EOSC post-2027 planning

[EOSC governance meets to advance post-2027 planning - EOSC Association](#)

Position Paper on the Node Concept

[20231112-Short-paper-on-the-EOSC-Federation-draft-v3.pdf](#)

Fact sheet on EOSC Procurement

[European Open Science Cloud \(EOSC\) - factsheet on procurement | Shaping Europe's digital future \(europa.eu\)](#)

Further Information

Details on the Procurement

[European Open Science Cloud \(EOSC\) | Shaping Europe's digital future \(europa.eu\)](#)

Announcement of the winners of the EOSC Procurement

[The Commission announces winners of the EOSC Procurement | Shaping Europe's digital future \(europa.eu\)](#)



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