EOSC Mesh proposal presentation

EOSC-01: EOSC Nodes with federating capabilities for the EOSC Federation

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Dissemination level: Confidential

To EB and Council members, for further distribution contact projects@mailman.egi.eu

Outline

- Objective & Results
- Consortium composition (initial map)
- High-level functional view
- Initial project structure and budget
- MoU & NDA
- Let’s organise our work…
- AoB

EOSC Mesh Concept – Overarching Objective

*Projets should have a **clearly described identity** and offer unique value to EOSC users, for example representing a specific thematic domain (e.g. data or computing) or geographical area*

EOSC MESH

Decentralised Mesh of research objects (data, AI models, services, compute and storage capabilities etc.) federating in EOSC multiple nodes

Objectives and results

- **Overarching objective**
  - **Delivery federating capabilities for data reuse enabling the EOSC Mesh**

- **Specific objectives and key results**
  - **O1: Deliver federating capabilities**
    - KER 1 Horizontal and Thematic Federating capabilities for data reuse for the EOSC Federation
      - Federating capabilities for environmental science
      - Federating capabilities for SSH
      - Federating capabilities for data and compute management
      - Federating capabilities for Open Scholarly Communications
    - KER 2 Core federating capabilities (AAI, accounting, monitoring, helpdesk, research graph etc.)

Objectives and results

- **Specific objectives and key results**
  - **O2: Establish Nodes as members of the EOSC federation**
    - KER 3 EOSC Nodes for the provisioning of the federating capabilities
      - Establishment of governance/legal framework, enrollment in EOSC Federation and day-by-day operations
    - KER 4 EOSC Nodes for the provisioning of federated data and services
      - Technical support and Integration with KER 2 of entities that wish to establish a EOSC node
  - **O3: Augument EOSC capacities**
    - KER 5 Integrated data and services
      - Technical integration and onboarding of individual datasets and services into nodes from KER 2 and 3
  - **O4: Establish user communities in EOSC and support them**
    - KER 6 Research environments integrated with EOSC
  - **O5: Define and validate business models with providers and users**
    - KER 7 Node business model(s)

Consortium composition (initial map)

- **KER 1 Horizontal and Thematic Federating capabilities for the EOSC Federation for data reuse**
  - E.g. ENVRI RIs, SSHOC Ris, Open Scholarship (OPERAS, OpenAIRE), EGI Federation and EUDAT
- **KER 2 Core federating capabilities (AAI, accounting, monitoring, helpdesk, research graph etc.)**
  - E.g. SRCE, GRNET, GWDG, KIT, OpenAIRE, EGI Foundation, etc
- **KER 3 EOSC Nodes for the provisioning of the federating capabilities and KER 4 EOSC Nodes for the provisioning of federated data and services**
  - Organisations wishing to establish a EOSC node (list to be defined)
  - National entities from: e.g. Czechia, France, Germany, Poland, Switzerland; Belgium, Slovenia, UK (TBC)
  - Int entities: e.g. BBMRI, CERN, Environment RIs (TBC), SSHOC RIs (TBC), EUDAT, OpenAIRE, Metrofood RI
- **KER 5 & KER 6**
  - Research organisations wishing to integrate services/datasets and deploy scientific use cases
- **KER7: Business models**
  - Subset of organisations with competency wishing to establish a EOSC node with legal/organisational
- **Map will be further developed with consortium members**

EOSC Mesh – High level functional view

Multi Node use cases

Use Case X | Use Case Y | Use Case Z

EOSC Nodes established by the project

Node A | Node B | Node C | Node D

Enabling the EOSC MESH

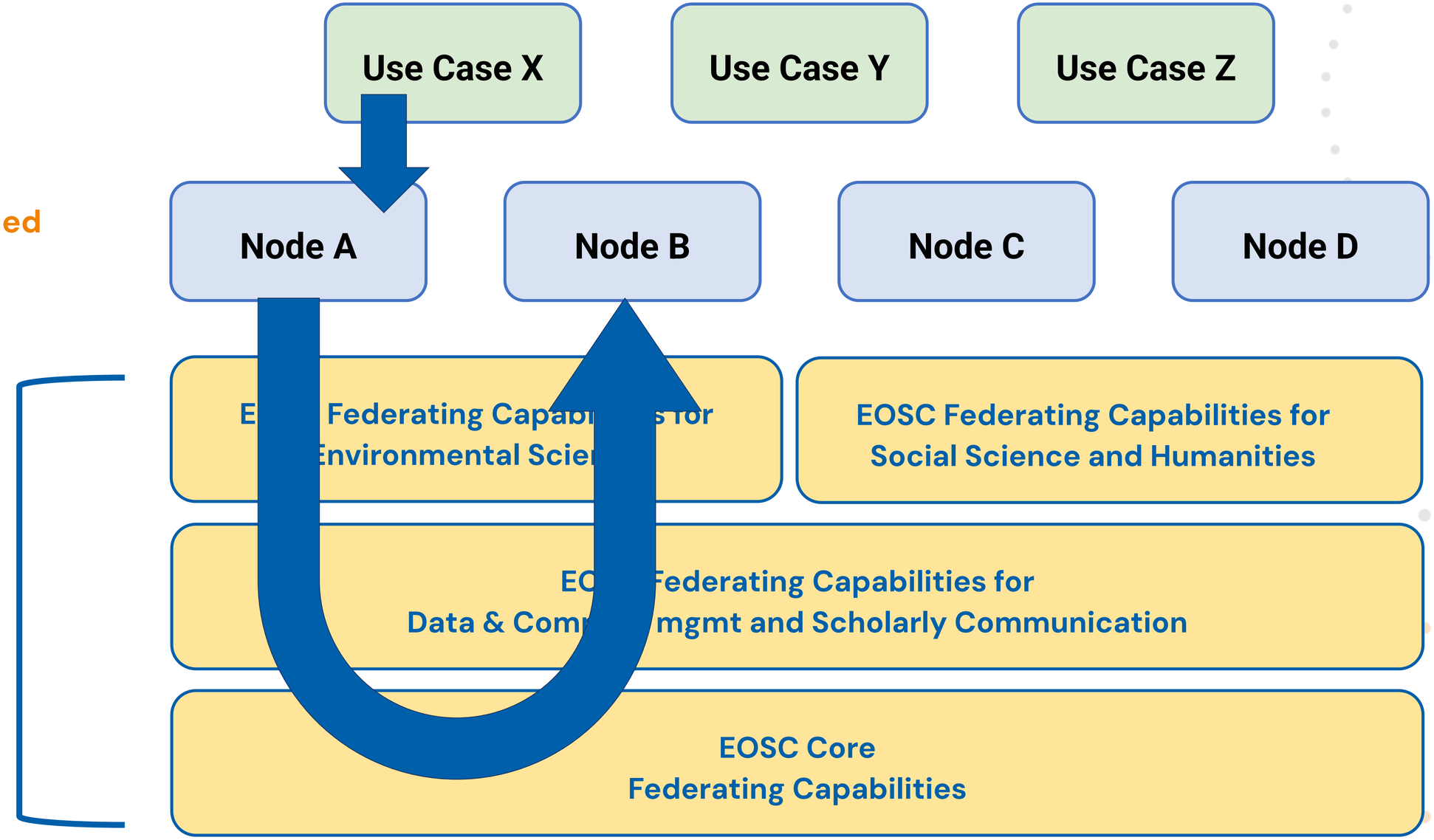
- EOSC Federating Capabilities for Environmental Science
- EOSC Federating Capabilities for Social Science and Humanities
- EOSC Federating Capabilities for Data & Compute mgmt and Scholarly Communication
- EOSC Core Federating Capabilities

EOSC Mesh – High level functional view

TRL 7/8

Multi Node use cases

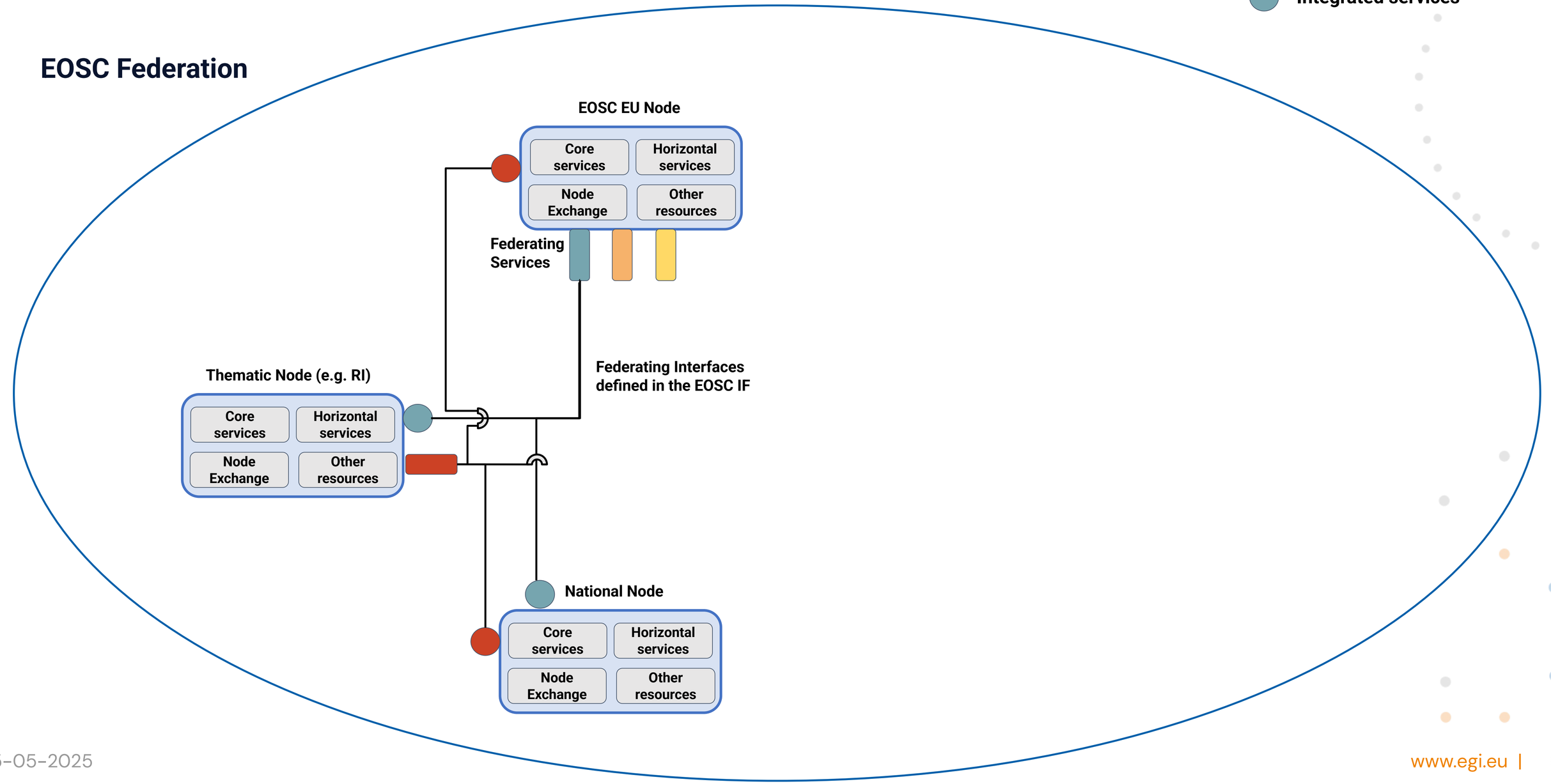
EOSC Nodes established by the project



Enabling the EOSC MESH

EOSC Federation Architecture

From the Federation Handbook and EOSC Beyond



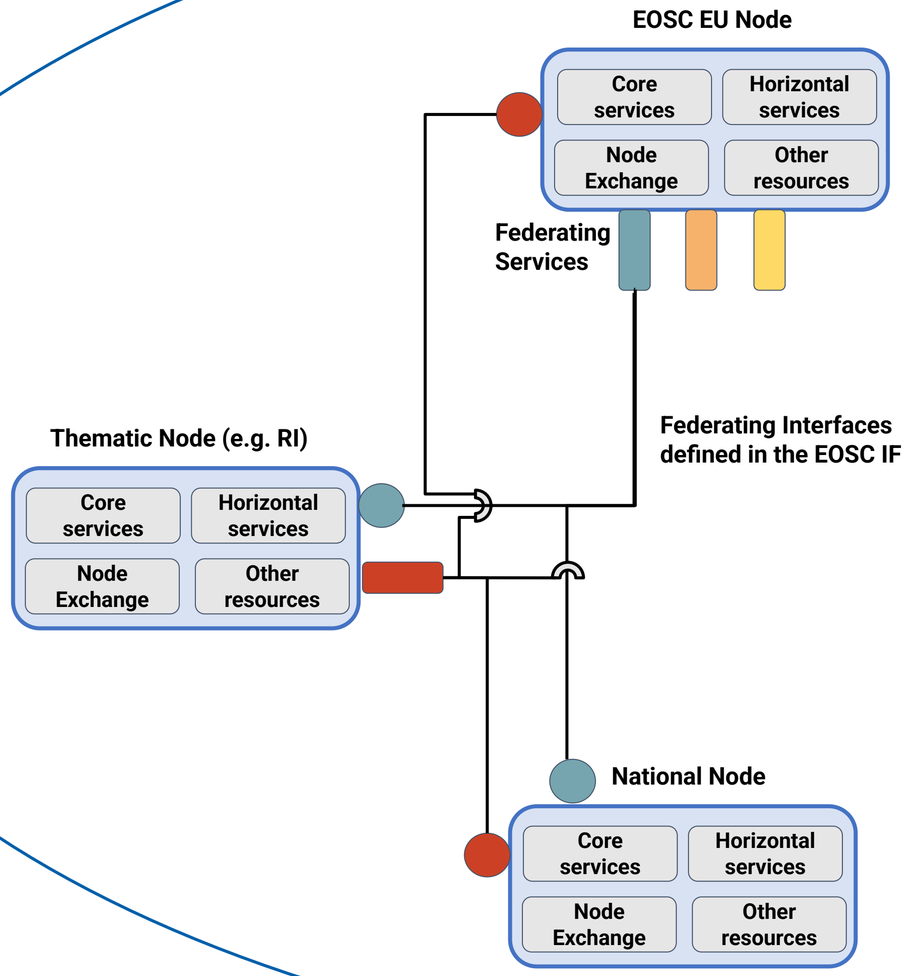
EOSC Federation Architecture

From the Federation Handbook and EOSC Beyond

Federating Capabilities

Integrated services

EOSC Federation

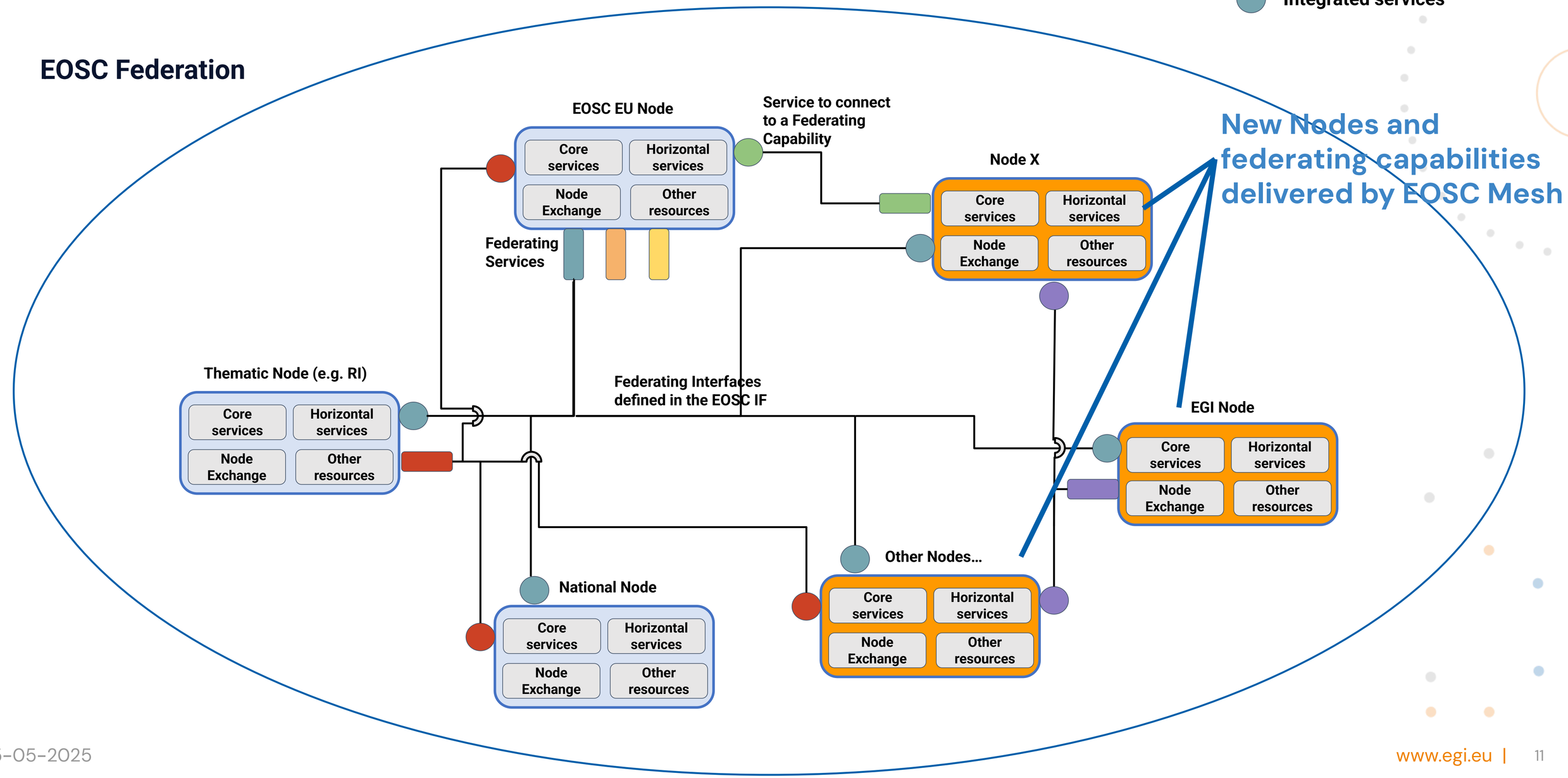


EOSC Mesh will integrate more Nodes in the EOSC Federation and create a portfolio of federating capabilities enabling the ***Mesh***

New EOSC federating capabilities will be piloted with **compelling scientific use cases**

EOSC Federation Architecture + EOSC Mesh

From the Federation Handbook and EOSC Beyond



Initial project structure & budget

WP1	***Project management***	Project Office		**800**
		Technical Management and community coordination +		
		Management of open calls (B2B and B2C)		
WP2	***Communication, Dissemination and Innovation Management***	Communication, Dissemination, Outreach to EOSC node operators and researchers		**450**
		Innovation Management		
WP3	***Establishment of EOSC Federating Nodes for data usage and exploitation***	Definition and setup of the portfolios of Federating Capabilities		**600**
		Definition and setup of node service management systems		
		Definition and setup of federating nodes' Legal Framework, Governance and Policies		
		EOSC Business models & sustainability and resource management analysis and design study		
		Contribution to and alignment with EOSC Federation Model including Interoperability framework for technical interoperability, federation specifications, best practices and guidelines, EOSC strategy		

Initial project structure & budget

WP4	***Data Mesh Delivery and Access - Federating Capability for environmental science***		Daily Operations and service management, Technical development for integraiton and evolutionary maintenance, technical support to federated service providers and users with development of training resources	**1000**
		..		
		..		
		..		
		..		
WP5	***Data Mesh Delivery and Access - Federating Capability for social sciences and humanties***		Daily Operations and service management, Technical development for integraiton and evolutionary maintenance, technical support to federated service providers and users with development of training resources	**700**
		..		
		..		
		..		

Initial project structure & budget

WP6	***Data Mesh Delivery and Access - Horizontal Federating Capabilities***		Daily Operations and service management, Technical development for integraiton and evolutionary maintenance, technical support to federated service providers and users with development of training resources	**2000**
		Federating services for data access & management		
		Federated services for compute and storage management		
		Federated workflow management services		
		Federating services for scholarly communication		
WP7	***Data Mesh Delivery and Access - Core Federating Capabilities***		Daily Operations and service management, Technical development for integraiton and evolutionary maintenance, technical support to federated service providers and users with development of training resources	**800**
		Helpdesk		
		Accounting and monitoring		
		AAI		
		Federation of Research catalogues and knowledge graphs		
		Application Workflow Management		
		Resource Management system		
		Frontend + Security		

Initial project structure & budget

WP8	***EOSC Node enrollment and Service Onboarding (B2B use cases) & Technical support to researchers (B2C use cases)***			**1650**
		B2B		
		Support to node enrollment in EOSC Federation and training of EOSC Node operators		
		Onboarding & Enrollment use case 1: Node ...		
		Onboarding & Enrollment use case 2: Node ...		
		Onboarding & Enrollment use case 3: Node ...		
		B2C		
		Technical support coordination and training of researchers		
		B2C Use case 1 integration		
		B2C Use case 2 integration		
		B2C Use case 3 integration		
			Total Budget (KEuro)	**8000**

MoU & NDA

- Partners joining the EOSC Mesh consortium are invited to sign a Memorandum of Understanding and Non Disclosure Agreement
- A template will be provided by email in the coming days
- The MoU and NDA allows to join other consortia answering to the EOSC-01 call under certain conditions:
  - *1.2. The Parties agree that each Party can prepare or submit an additional proposal under the same call identified in clause 1.1. of this Memorandum of Understanding and Non-Disclosure Agreement (hereinafter referred to as "MoU & NDA") only if the roles are complementary and do not result in a conflict of interest or compromise the integrity, competitiveness, or uniqueness of this consortium's proposal. The Coordinator reserves the right to assess the compatibility of such involvement;*

Let’s organise our work…

- Deadline for proposal submission: Sept 18
  - Considering the upcoming holiday period we aim to develop the proposal from now to July
  - August- September: only for refinements and improvements
- Mailing list: proposal-2025-HORIZON-INFRA-2025-01-EOSC-01@egi.eu
  - All people invited to this meeting will be subscribed
  - Please let us know if we need to add more people
- Bi-weekly consortium meeting
  - A doodle will be circulated
- EGI is available for 1-to-1 meeting @ EGI 2025 in Santander

Contact us

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Let's talk. Or
meet in person

Get in touch with us

www.egi.eu

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