

The CNRS logo is a white circle containing the lowercase letters 'cnrs' in a dark blue, sans-serif font. The background of the slide features a yellow-to-blue gradient with a halftone dot pattern on the right side.

cnrs

EOSC

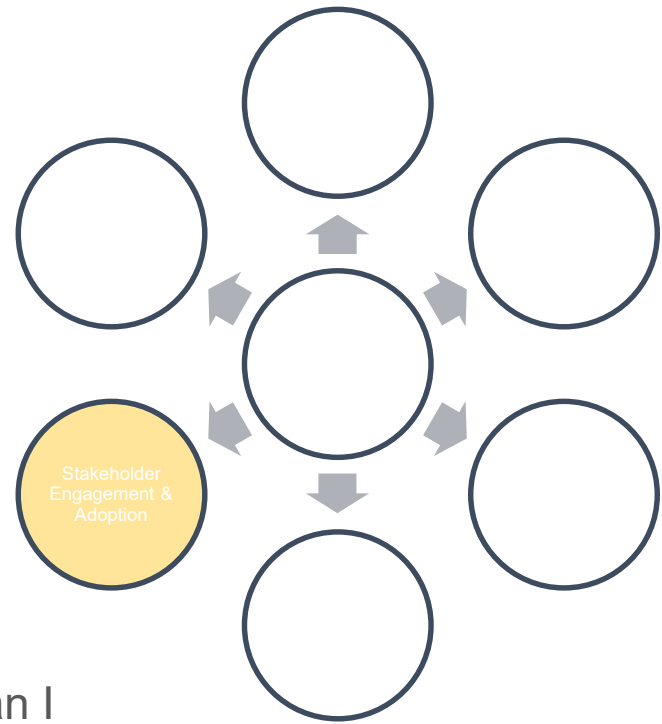
Etat des lieux

Suzanne Dumouchel – CNRS DDOR

→ Journée EOSC au CNRS – Mardi 6 février 2024

Stakeholder engagement & adoption

What EOSC brings to different stakeholders? Can I find EOSC in my country? What are the strategic initiatives for EOSC?



Why do we need EOSC?

Five reasons to support EOSC

1. EOSC will **facilitate collaboration and support cultural change in the entire research ecosystem** , reducing the disparities in the Open Science readiness in different countries
2. EOSC will provide a secure, safe and transparently trusted virtual environment where scientific outputs can be deposited and found according to the FAIR principles, **improving quality and productivity of science**
3. EOSC will facilitate integration not only within scientific domains but also across domains **supporting the cross -disciplinary research needed to address societal and global challenges**
4. EOSC will provide researchers with the means to access complete datasets and analysis platforms and provide services that **support reproducibility** , as well as ensuring long-term preservation and long-term availability of these research data and tools
5. The EOSC Web of FAIR Data and Services will provide the **ideal ground for building a wide range of new innovative and added value services thus stimulating innovation in Europe and keeping Europe competitive in the global market**



Multiple stakeholders, multiple roles

There is no “one-size-fits-all” formula for engagement in EOSC. It depends on your starting point (e.g. your type of work, your type of organisation, your mission and priorities, your level of maturity in terms of FAIR and OS implementation) and on what you want to achieve. Several options are possible

	User	Intermediary to engage the users	Co-developer	Data / Service Provider	Federation enabler	Policy maker	Funder	Supporter*
Researchers	x		x	x				x
RPOs (e.g. Universities, Research Institutes, HEIs, Libraries)	x	x	x	x	x			x
National, Regional, EU RFOs (e.g. EC, Ministries for Research, etc)	x	x	x	x		x	x	x
National, Regional, EU Research Infrastructures	x	x	x	x	x			x
National, Regional, EU e-Infrastructures	x	x	x	x	x			x
National, Regional, EU Data Infrastructures	x	x	x	x	x			x
Commercial entities	x		x	x	x			x
H2020 / HE projects	x		x	x	x			x
....								

* Trainers, Experts, Research Support Staff, Dissemination and Outreach managers, etc.

eosc Different reasons to be engaged

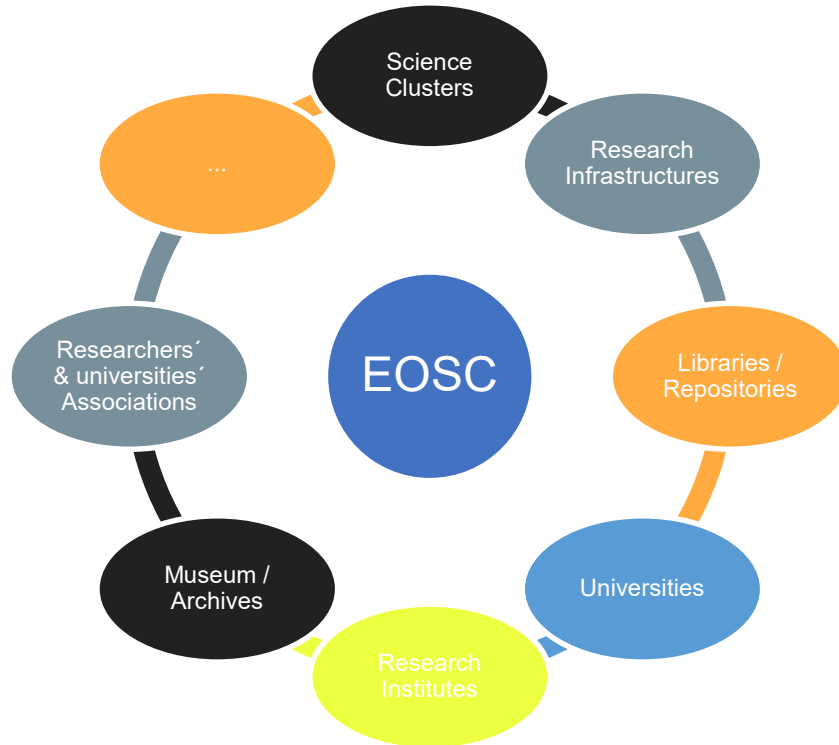
Depending on what is your main interest (EOSC development, operation, governance) the reasons and the way to be engaged in EOSC can change significantly

- Some concrete examples of why to engage in EOSC

EOSC development	EOSC operation	EOSC governance
<p>Researcher perspective: Test the MVE; provide feedback and requirements; co-develop solutions that will enrich EOSC in the future; influence the direction of some developments;</p>	<p>Researcher perspective: Access the resources made available via the EOSC federation</p>	<p>Researcher perspective: Ensure that the user perspective is taken into account</p>
<p>Provider perspective: Test the MVE; provide feedback and requirements; contribute to and test the federation; expose data/services; influence the direction of some developments; co-develop solutions that will enrich EOSC in the future</p>	<p>Provider perspective: Provide services / resources; Operate an EOSC node; Increase the offering for the customers; promote services in EOSC</p>	<p>Provider perspective: Ensure the provider perspective is taken into account</p>

Intermediaries as channels towards the users

Research intermediaries will be essential for the success of EOSC

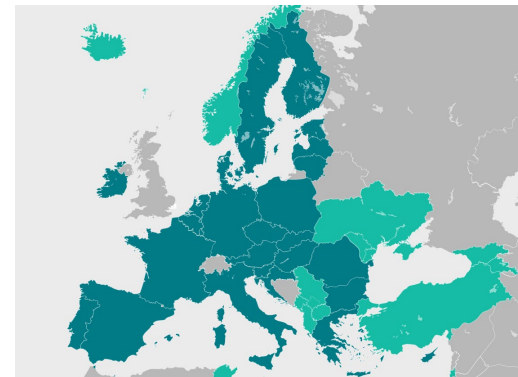


- Intermediaries will be fundamental to:
 - reach out to researchers
 - drive the cultural change stimulated by EOSC
 - promote the adoption of the Web of FAIR data and related services
 - educate and support researchers in the transition to EOSC
 - communicate about the EOSC benefits

eosc EOSC in the countries

Different EOSC engagement channels are present in many of the European countries

- EOSC Steering Board members, the expert group of the EC composed by representatives of the EU Member States and Associated Countries ([Full list here](#));
- EOSC Mandated Organisations, the organisations appointed by the governments to represent the country in the EOSC Association ([Full list here](#))
- Other members and observers of the EOSC Association ([Full list here](#))
- Beneficiaries from H2020 and HE projects
- Data, RIs, infrastructure nodes active in EOSC



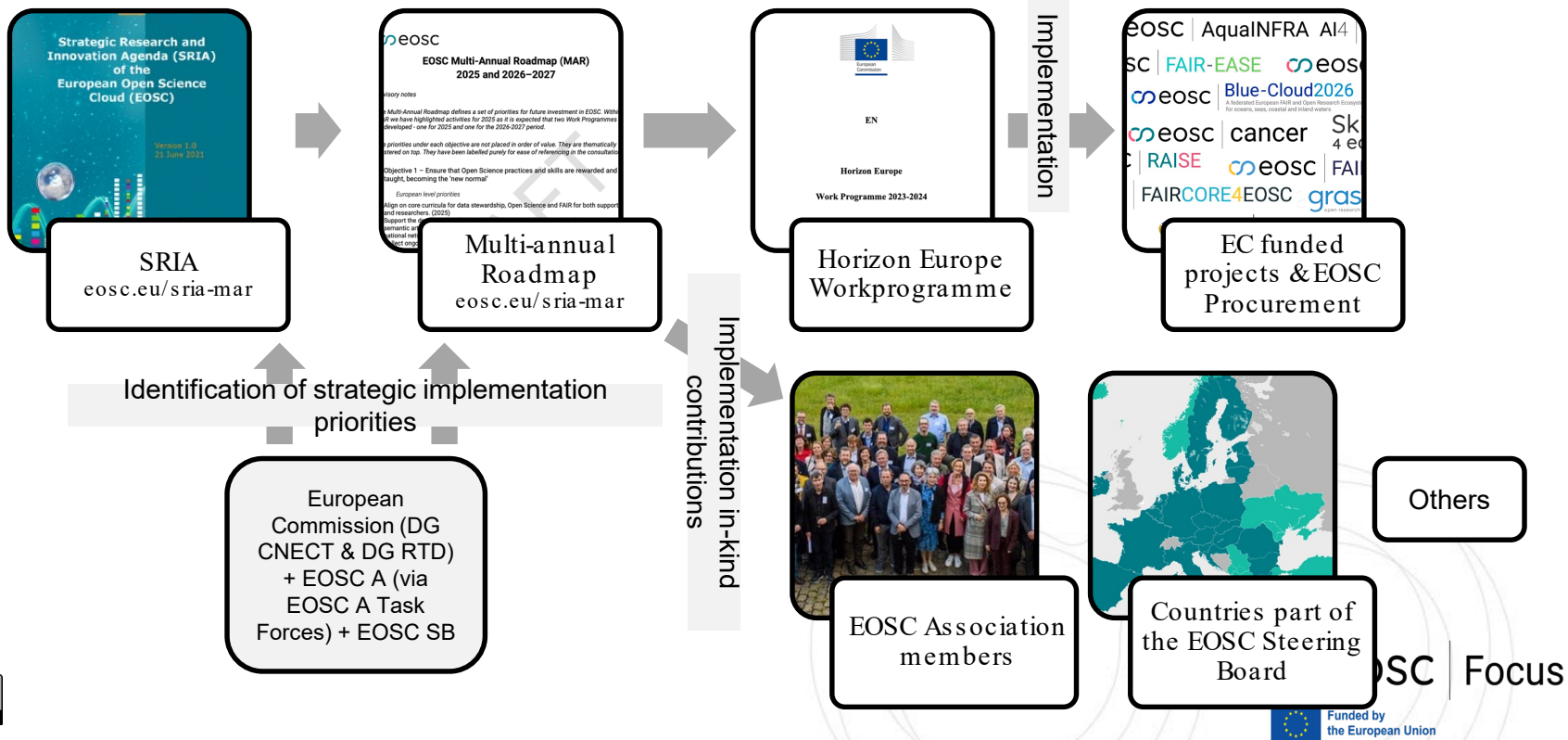
Consult the country pages at
eosc.eu/tripartite-collaboration

If you don't know how to connect to EOSC in your country you can contact the EOSC Association at info@eosc.eu



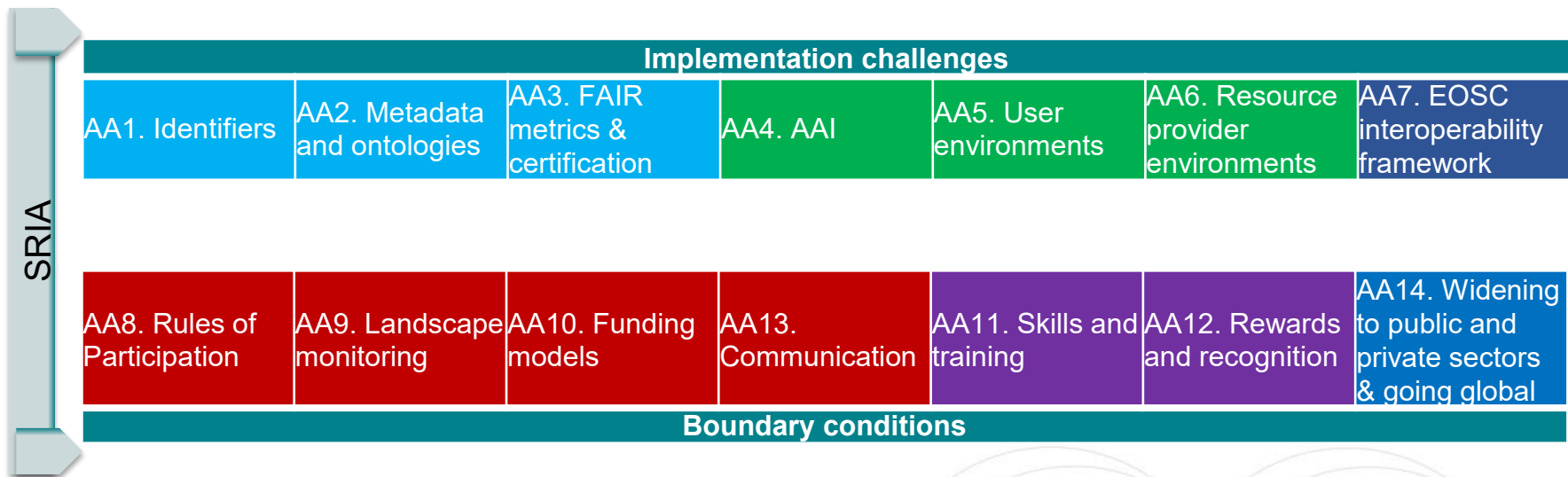
How EOSC is implemented

At least until 2028, the EOSC implementation will happen via EC funded projects, the EOSC procurements and in-kind contributions (from the members of the EOSC Association, the countries part of the EOSC Steering Board and others)



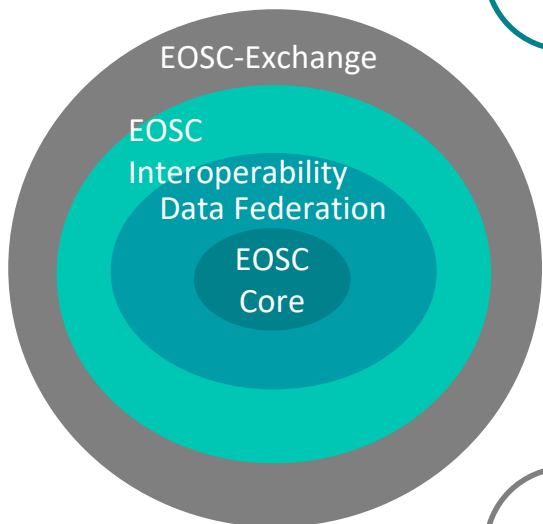
eosc Main implementation areas

The SRIA identifies 14 action areas considered key to deploy the EOSC ecosystem



The results coming from the different implementation areas contribute to the establishment of the Minimum Viable EOSC (MVE)

The MVE shall deliver on the core SRIA objectives and provide functional support for Open Science in Europe. The MVE is composed by four components:



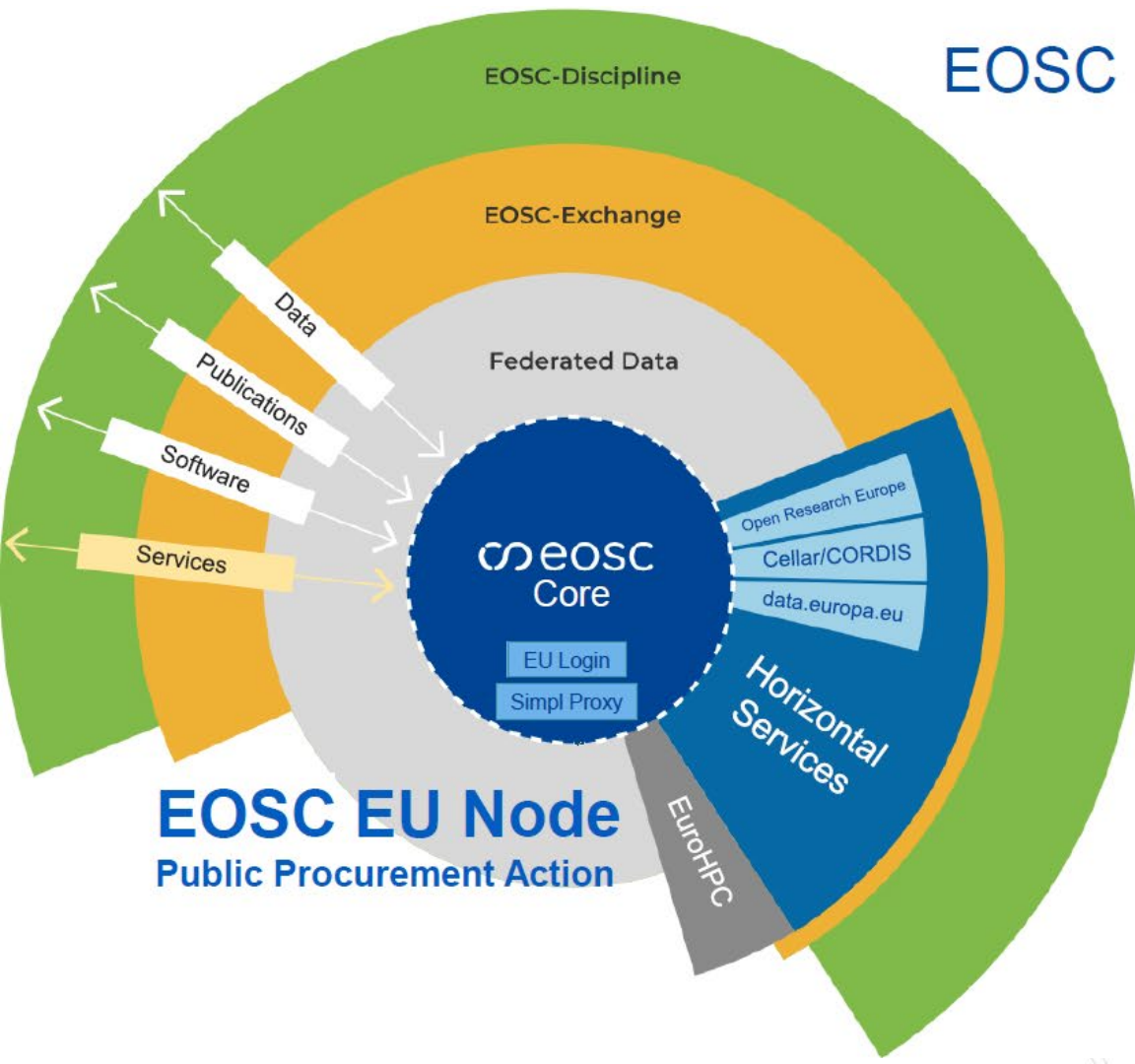
- EOSGCore**
The prerequisite **service component enabling** the large-scale brokering of research data and services between the participants in the **EOSC Federation**
- Data Federation**
FAIR Data need to be federated in such a way that **metadata on research outputs is harvested into a cross -search to enable** greater **discovery and reuse** of data residing in multiple institutional, domain-specific and national repositories across Europe
- EOSC Interoperability Framework**
Set of standards and guidelines to support interoperability and composability of resources across borders and disciplines while respecting privacy and security
- EOSGExchange**
The Exchange is the **pan-European marketplace for the EOSC federated resources**. It enables the **brokering of community services between federation participants and gives access to procurement contracts.**

The building elements of the MVE are progressively delivered through the EC funded projects. From September 2023, the MVE prototyping phase will be moved to operation via the “Managed Services for the EOSC Platform” Procurement

The EOSC EU node is the federating element of the MVE

- L'appel d'offres "Services gérés pour la plateforme EOSC" fait référence à un "nœud européen de l'EOSC"
- Le "nœud européen de EOSC" peut être considéré comme l'instance européenne du MVE financée de manière centralisée.
- Le nœud européen de l'EOSC permettra de fédérer les nœuds existants de données, de recherche et d'infrastructures électroniques fonctionnant au niveau institutionnel, national, régional, paneuropéen et thématique.
- Le nœud EOSC EU sera opérationnel d'ici la fin de 2023 et comprendra l'ensemble minimum de composants MVE nécessaires pour permettre la fédération de l'EOSC.
- À l'avenir, des projets de R&D seront menés pour développer et prototyper de nouveaux éléments soutenant l'évolution des outils permettant la fédération.

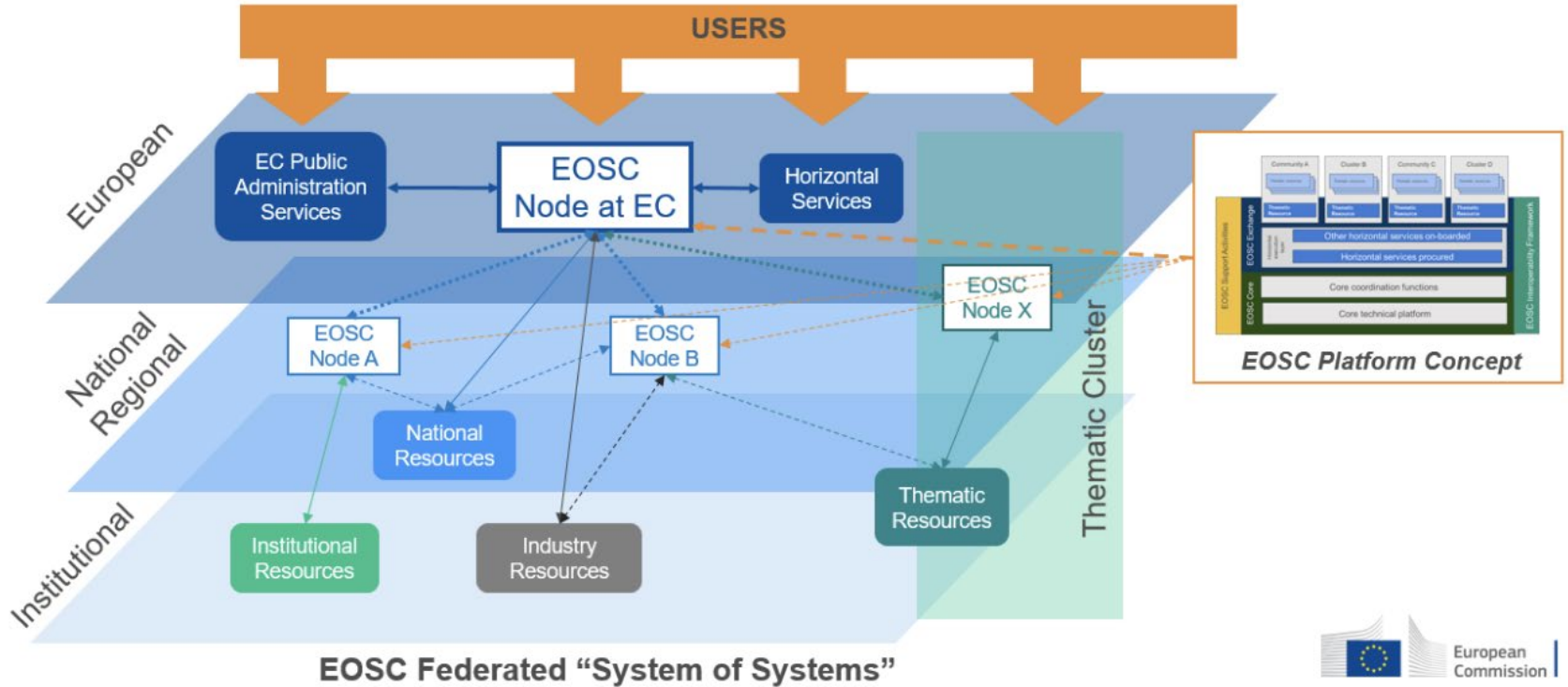
EOSC EU Node Value Proposition



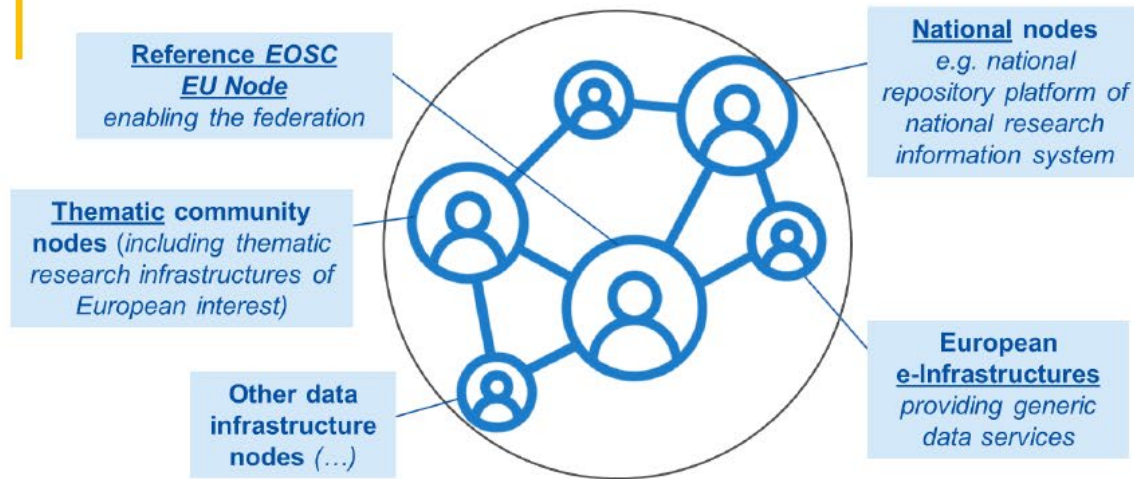
- **Facilitate** the creation of the “*Web of FAIR data and interoperable services*” (aka. EOSC Federation) under the Open Science Policy
- **Put** a “*seed in the ground*” by operationalizing the first recognised EOSC Node at the European level for the initial 3 years
- **Offer** “*core services*” for scientific research infrastructures to federate (single-sign-on, catalogues, knowledge graph, application workflow, monitoring, accounting, helpdesk) and common “*horizontal services*” for end-users to benefit from (compute, containers, data transfer, notebooks, file sharing, open research data)
- **Define** the *pathway and blueprint* (EOSC Interoperability Framework) for other potential EOSC Node operators to join the federation

The EOSC platform and nodes

Extract from the EOSC EC procurement document



About the EOSC Federation and EOSC Nodes



EOSC policies and standards:**

A baseline should be defined to ensure that each node can have a minimum working set of features and supports a minimum set of policies. It is important to mandate compliance with protocols and standards, but to give freedom to each node on how to support them.

EOSC Federation*: Open and trusted federation of collaborative, autonomous infrastructures applying agreed, consensus-based EOSC policies and rules of participation, combined into a system of systems to enable European researchers to store, share, process, analyse, and reuse research digital objects (e.g. data, publications and software)

EOSC Node*: Data infrastructure system of variable nature (national, regional, institutional or thematic) with consensus-based policies, transparent ownership and clear responsibility, connected to the EOSC Federation to share information and resources within the EOSC community and to leverage common services

* Source: "EOSC operations and evolution post-2027" supporting document by the EOSC-SB Policy subgroup (November 2023)

** Source: GEANT and NREN's position on EOSC Nodes (October 2023)

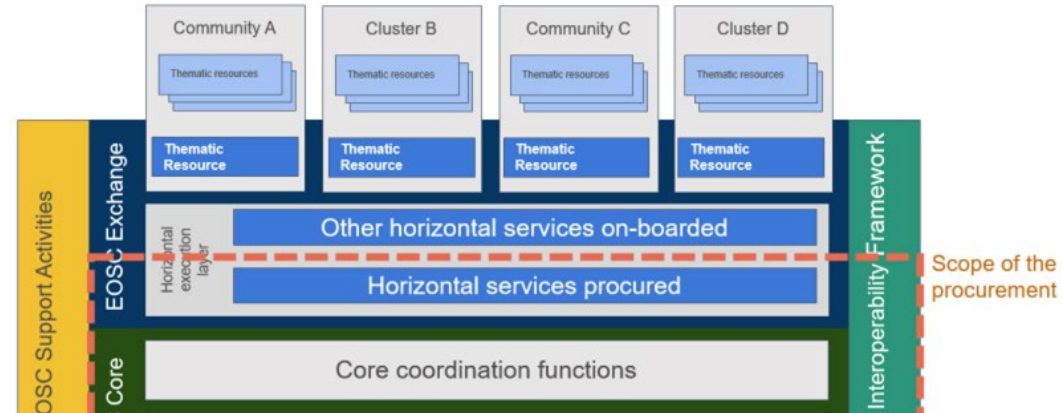
eosc The EOSC EC procurement

On-going procurement by DG CNECT to procure the EOSC EC-node (35M€)

- Lot 1: Managed EOSC core services
- Lot 2: Managed Container Platform and Virtual machine Service for EOSC Exchange
- Lot 3: Managed Collaborative data Platform, Interactive Data Analytics Platform and Virtualization Services for EOSC Exchange

3 years of operation starting by Q1 2024

Public Procurement Action 2022



The EOSC Node is a particular implementation of the EOSC Platform concept. The EOSC procurement action is to build and deploy a fully operational EOSC Node at the European level.

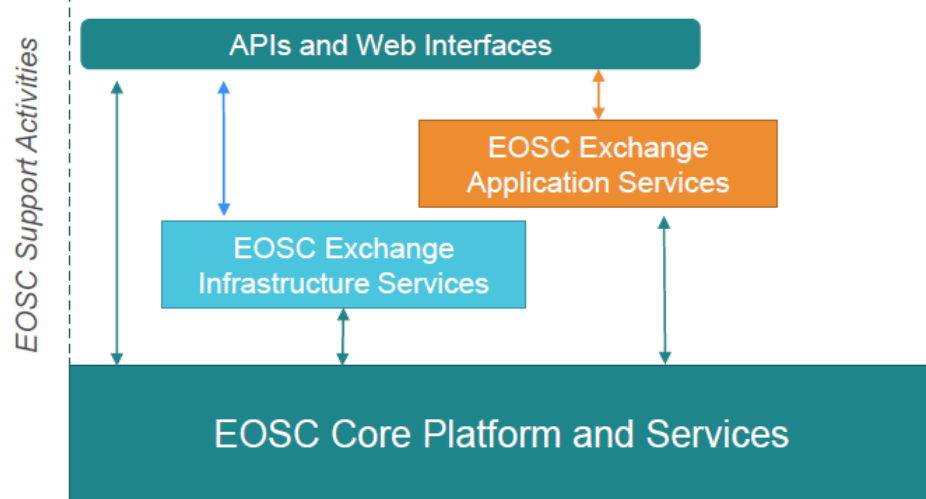
This EOSC Node may act as the master node for the federation and may serve as a deployment blueprint and operations guideline for future, national, regional and/or institutional (even thematic) implementations of the EOSC nodes, not covered in this procurement

High level EOSC EU Node architecture

EOSC Exchange Thematic/Regional Services



EOSC Exchange Horizontal Services



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



Des questions?