



Changing gears to accelerate EOSC

Update from the European Commission

Michael Arentoft
Open Science and Research Infrastructures
European Commission

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EOSC, for the digital transformation of research

- An effective **policy process** to mobilise, align and scale resources and engagement across Europe towards accelerating open science, higher quality, productivity and reproducibility in research.
- An **open and trusted federation of collaborative, autonomous infrastructures** applying agreed, consensus-based policies and rules of participation, combined into a system of systems to enable researchers in Europe to store, share, process, analyse, and reuse research digital objects (e.g. data, publications and software).

EOSC, an EU policy priority

- **European Research Area (ERA) Policy Agenda** - Priority Action 1:
Enable the open sharing of knowledge and the re-use of research outputs, including through the development of the European Open Science Cloud (EOSC).
- **EU Strategy for Data:** EOSC is the basis for a science, research and innovation data space that will be connected and fully articulated with the sectoral data spaces

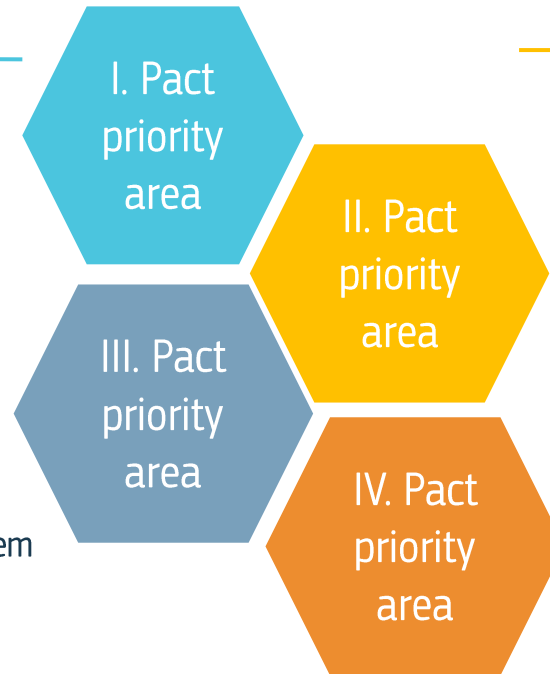
Next ERA Policy Agenda: current proposals

Deepening an internal market for knowledge

- **Enabling Open Science**
- Equity in Open and Responsible Research
- **Research Infrastructures**
- Inclusive and intersectional gender equality
- Research Careers
- **Research Assessment**
- Knowledge Valorisation
- Freedom of Scientific Research
- Fundamental research and scientific leadership
- Establishment of a European Science for Policy ecosystem
- **AI in science and research in the EU**
- Global Approach to R&I
- Knowledge Security

Research and innovation excellence

- Improve EU-wide access to excellence
- An new ERA for Research Management



Green and digital transition

- Revamping the SET Plan (merger with Renewable Energy Valleys, tbc)
- Greening Research: first steps towards sustainable research practices
- Non-animal approaches in biomedical research and testing pharmaceuticals
- A harmonised framework to support integrity and ethics in R&I
- Unleashing the full R&I potential of Europe's universities
- Industrial transformation for Europe's competitive sustainability and strategic autonomy
- Citizen Engagement, including trust in science for a stronger and more democratic European society

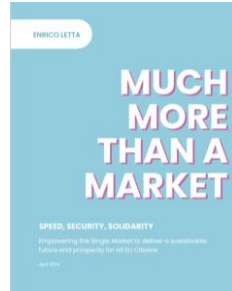
Investments and reforms

- An R&I foresight community of practice

Keeping the policy momentum

Letta

Much more than a Market



*“A central pillar of this strategy is the **creation of a European Knowledge Commons** – a centralised, digital platform providing access to publicly funded research, data sets, and educational resources. ...”*

Draghi

The future of European competitiveness



*“An important factor that would enhance R&I capacity is the availability of **world-leading research and technological infrastructure, capable of serving the whole European ecosystem**”*

Heitor et al

*Align, Act, Accelerate.
Research, technology
and innovation to
boost European
competitiveness*



*“The EU’s efforts to hone its competitive edge need to be guided by European values, [...] such as academic freedom and independence, research integrity and ethics, transparency, diversity, inclusion, gender equality, **open science and open access to scientific publications and research data.**”*

*“The European Open Science Cloud (EOSC) is a **key enabler of the digitalisation of research infrastructures** while delivering the European Data Space for research data. **It has potential to become the most generally used infrastructure in Europe**”.*

The EOSC EU Node

- The **first node of the EOSC Federation** provisioned from the European Commission
 - **European level multi-disciplinary and multi-national scientific** data/service portfolio for all research users and citizen scientists
 - **Serves as a blueprint for other EOSC Nodes**; architecture and open-source software
 - **Provides federating capabilities** (e.g. AAI) and SaaS (e.g., Helpdesk) offerings to other Nodes (optional; lower the entry barrier/costs)
- **Discovery and sharing of research outputs** (publications, data, software, services) and **tools** via the EOSC EU Node Metadata Knowledge Graph
- Provision of **guaranteed and high-quality integrated compute and storage services** to support researchers (Notebooks, Virtual Machines, data/file transfer etc.) via quota/time-based access

Build-up phase of the EOSC Federation

- **Goal:** to achieve a first realisation of an operational EOSC Federation, with several nodes, including the EU node, interconnected and enabling the sharing of resources, i.e. data and services, and the demonstration of EOSC added value in practice
 - Testing and building interconnections of the essential federating capabilities offered by the EOSC EU Node
 - Exploring the organizational arrangements needed, and the implementation of shared policies across the Federation
 - Defining and testing demonstratable and actionable multi-node end-to-end use cases and scientific workflows
 - Estimating the costs, effort and time required to enrol a node and onboard a resource to the EOSC Federation
 - Involving the 'end-user' at the various stages of development
- **A staged approach:**
 - First wave of candidate nodes to start early 2025
 - Successive, time-sequenced waves for interested organizations to join set up later on
 - Continuous engagement, keeping the EOSC community in the loop of developments

EOSC Tripartite collaboration

- **EOSC pre-2027:** Launching of the “Tripartite Group” in April 2024 to prepare commonly agreed positions, to support the decision making and strategic guidance of the Tripartite governance on issues related to the EOSC Federation
 - [“Building the EOSC Federation: requirements for EOSC Nodes”](#)
 - [EOSC Federation Handbook](#)
 - [Questionnaire for parties interested in contributing to the build-up phase of the EOSC Federation](#)
 - [Setting-up the build-up phase of the EOSC Federation](#)
- **EOSC post-2027:** Discussion on future governance, finance and operations of EOSC
 - [Further development and deployment of the Federation](#)
 - [Providing input to the next EU Framework Programme](#)

Horizon Europe support to EOSC

Horizon Europe (2021-2027) support to EOSC ~ EUR 490 million	2025-27: INFRAEOSC destination fully embedded in the Strategic Orientations for 2025-27 Research Infrastructures Work Programme. <ul style="list-style-type: none">• WP25: adoption expected for April 2025• WP26-27: adoption expected for December 2025
2021-23 <ul style="list-style-type: none">• 27 funded projects, 587 participations• 1 procurement action for EOSC EU node	<u>Key Inputs for WP25:</u> <ul style="list-style-type: none">• EOSC Partnership and the EOSC Strategic Research & Innovation Agenda• EOSC Steering Board opinion papers• ESFRI-EOSC Task Force recommendations• Stakeholder consultations
2024 <ul style="list-style-type: none">• 9 new projects selected for funding	

Fostering coordination and synergies:

- **EOSC-ESFRI Task Force:** reinforced links with **research infrastructures**
- 3rd edition of **EC coordination meeting of EOSC projects**, June 2024
- Enhanced **feedback to policy** instruments



Showing benefits of the joining the EOSC federation ...

- Enriching **virtual research environments**, broadening outreach and connectivity, and expanding communities
- Profiting from **economies of scales** (pooling resources, collecting and linking research objects etc.)
- Offering a wide range of **applications and infrastructure services**, high-quality **FAIR data and interoperable services**, in a **trustworthy** and **secure** environment
- Seamlessly **complying-by-design** to the EU's research and digital policies that are enshrined in the rules and policies of the EOSC federation

Thank you



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