

# EOSC and its embedding in EU policies – An evolving European ecosystem for data-driven research

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DG Research and Innovation, European Commission

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EOSC Cyprus National Tripartite event

University of Cyprus Library in Nicosia



# Introduction



# European Open Science Cloud (EOSC)

## An open, trusted, federation of infrastructures (**EOSC Federation**)

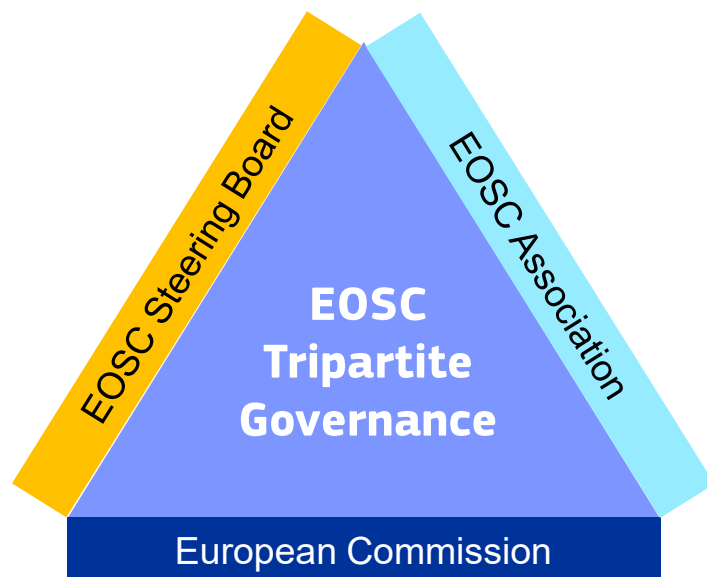
- A pan-European system interconnecting **FAIR research data** and **digital/scientific services and tools** across scientific disciplines and countries
- Enabling European researchers to **store, share, process, analyse, and reuse** research digital objects (e.g. data, publications and software)

## An evolving ecosystem

- **Accelerate open science**, FAIR data management, and use of digital methods and services
- Stimulate **collaboration** in science and research, new **insights** and **innovations**, higher research **productivity** and improved **reproducibility** in science
- Bringing together the **EC, Member States, Associated Countries** and the many **R&I stakeholders** involved in the European Research Area - co-created across European, national, and institutional levels



# A joint initiative at EU, national & community levels



- ✓ Resource mobilisation & HE funding security **EC** EOOSC A
- ✓ Strategic R&I Agenda **EC** EOOSC A
- ✓ Community input for EOOSC in Horizon Europe EOOSC A
- ✓ Advice; national coordination **Steering Board**
- ✓ Position on EOOSC in the future FP **Steering Board**
- ✓ Policy opinions **Steering Board**
- ✓ Financial estimates for EOOSC post-27 **EC** **Steering Board**
- ✓ EOOSC Open Science Observatory **EC** **Steering Board**
- ✓ Strategic Steer to Federation build-up **EC** **Steering Board** EOOSC A
- ✓ EOOSC Federation Handbook **EC** **Steering Board** EOOSC A
- ✓ EOOSC post-27 **EC** **Steering Board** EOOSC A
- ✓ ...



# EOSC and its embedding in EU policies



# EOSC as enabler of the EU Open Science Policy

Objective to make **open science** the **norm** since it **facilitates sharing** and **collaboration**, to make research more efficient and productive, transparent and robust as well as responsive to policy and society needs and expectations.

## Improving the **practice**

- **Early and open sharing of research**, ensuring verifiability and reproducibility
- **Providing immediate and unrestricted open access** to research outputs
- **Research output management** - publications, data, and other outputs - in line with FAIR principles
- **Public engagement in R&I**, e.g. citizen science

## Developing the **enablers**

- **Incentives and rewards** to adopt open science practices, e.g. initiative for Reforming Research Assessment
- **Legislative and regulatory** environment for practicing open science
- Open research **infrastructures** and skills e.g. Open Research Europe (ORE), [European Open Science Cloud \(EOSC\)](#)



# EOSC in the ERA Policy Agenda 2025-2027

## 11 Structural Policies

longer-term activities  
embedded in policy & R&I systems  
require efforts beyond Agenda's 3y cycle  
include 3y work plan

1. **Open science, data sharing & EOSC**
2. **Research Infrastructures**
3. Gender equality
4. Research careers
5. **Reforming research assessment**
6. Knowledge valorisation
7. Global approach to R&I
8. Strategic energy technology
9. R&I and higher education
10. **Trust in science**
11. Access to excellence



## 8 Actions

concrete, policy-driven & goal-oriented  
completed within Agenda's 3y cycle

1. **Equity in open science**
2. Science for policy
3. Responsible use of AI in science
4. **Research security**
5. R&I for industrial transformation
6. New Approach Methodologies for biomedical research
7. **Integrity and ethics in R&I**
8. Research management



# EOSC in the ERA Policy Agenda 2025-2027

## European Research Area Policy Agenda 2025-2027

Structural policy #1 on ‘enabling open science via sharing and re-use of data, including through the **European Open Science Cloud**’

Expected outcomes:

- *develop a high-value **EOSC Federation** and increase its uptake*
- *increase the amount and productivity of **FAIR** research data in Europe*
- *identify areas for measures and initiatives to enable an **EU copyright and data** framework fit for research*
- *assess the **impact of open science** policies and practices based on an open science policy intelligence platform*



# EOSC in recent EU strategies

**Keeping the policy momentum** of Enrico Letta (Much more than a market), Mario Draghi (The future of European competitiveness) and Manuel Heitor (Align, Act, Accelerate):

## **European Strategy on Research & Technology Infrastructures – September 2025**

### Actions:

9. Sustain and enhance **the EOSC Federation** as Europe's research and innovation data space, enabling sharing and reuse of high-quality, FAIR research data, scientific results and digital services.
10. Support **compliance with FAIR principles**, increasing FAIR data productivity, and connections to EOSC and other relevant data spaces.
11. Support the **pooling and development of AI-ready research data** as well as **tools and services that enable the development of scientific AI models**, and their technological applications, accelerating the use of AI in science and, through it, contributing to the pilot phase of **RAISE**.

## **AI Continent Action Plan – April 2025**

### **AI in Science Strategy – October 2025**

RAISE (the Resource for AI Science in Europe) will work closely with EOSC, as well as the other Data Spaces, to make high-quality AI-ready data available for AI science.

Action: The Commission will support the design of Data Labs and their linking with Common European Data Spaces, in particular EOSC, to ensure their suitability for scientific research.

## **Data Union Strategy – November 2025**



# EOSC Federation and EOSC EU Node



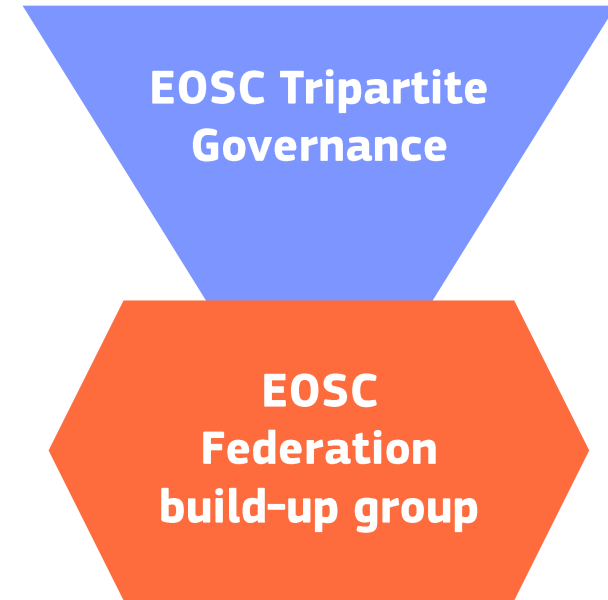
# EOSC Federation

The **EOSC Federation** is established a network (**web of distributed Nodes**) of data repositories and services of research infrastructures and other scientific service providers - to develop a trusted federation of (FAIR) research data and services.

The seed in the ground for the build-up of the EOSC Federation was the **EOSC EU Node** operational since October 2024, to which in 2025 **13 Nodes of national, thematic and e-infrastructure type** joined in a first wave.

Tomorrow in Cyprus, the EOSC Tripartite Governance will discuss the inclusion of further Nodes, which applied in a second wave.

Moving to production is one of the objectives for 2026.



EOSC Symposium 2025 in Brussels, Photo: EOSC Association




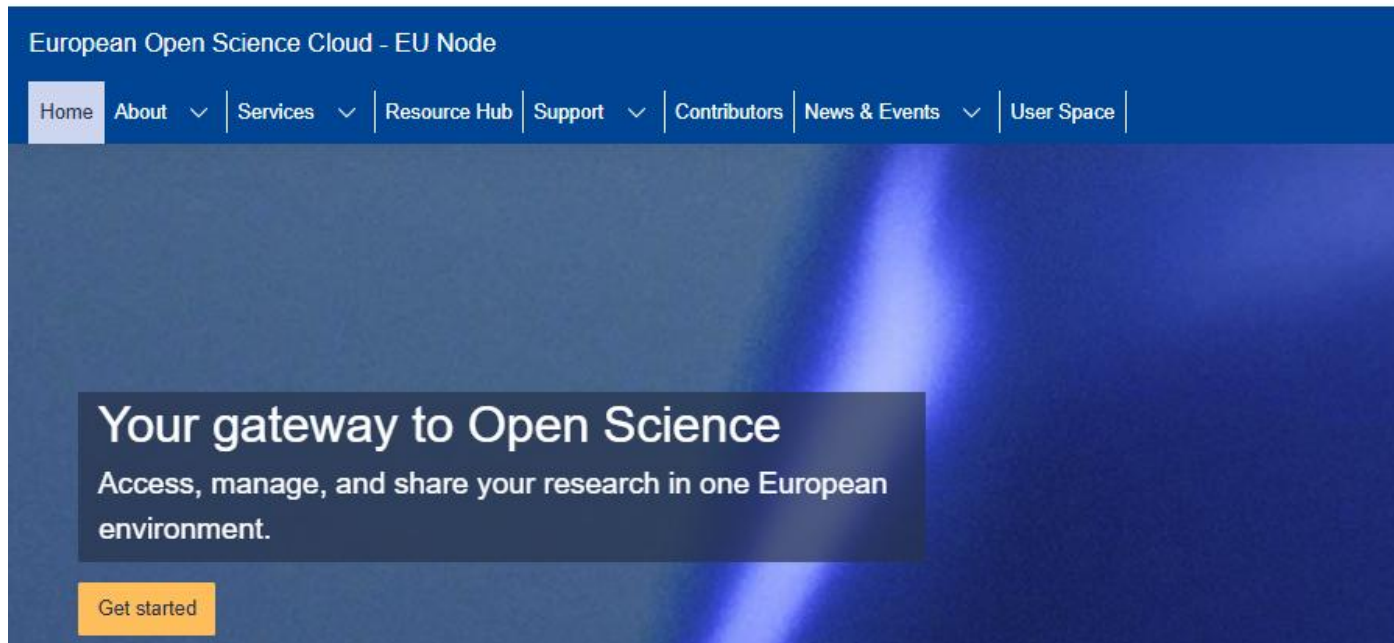
Organisations behind the 13 first-wave Nodes:



# EOSC EU Node



 My account

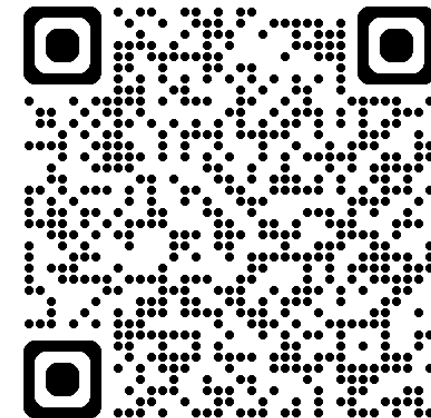


## Services to researchers

- Manage research workflows
- Collaborate with Peers
- Discover research products

## Provision of **federating and core capabilities**

- Authentication & Authorisation
- Catalogues, registry services
- Monitoring, accounting ('credits')
- Helpdesk
- ...



+5500 users

How can I use it? Go to:

<https://open-science-cloud.ec.europa.eu/>



# EOSC EU Node

European Open Science Cloud - EU Node

Home | About | **Services** | Resource Hub | **Support** | Contributors | News & Events | **User Space**

Home > Resource hub

Helpdesk

Advanced Search

sushi mssm | Search

All resources | Publications | Data | Software | Other Products | Services | Tools | Training | Data Sources | Interoperability Guidelines

Access right: Document type: Literature

Scientific domain: Showing 1 to 20 of 754 resources | Relevance

Document type: Literature (754)

PUBLICATION | ARTICLE | PREPRINT | OPEN ACCESS

Year: 2012 | Views: 0 | Downloads: 0 | Citations: 312

**SusHi: A program for the calculation of Higgs production in gluon fusion and bottom-quark annihilation in the Standard Model and the MSSM**

This article describes the code **SusHi** (for "Supersymmetric Higgs") which calculates the cross sections  $\sigma(p\bar{p} \rightarrow \gamma^* \rightarrow X)$  in gluon fusion and bottom-quark annihilation in the SM and the **MSSM**, where  $X$  is any of the neutral Higgs bosons within these models. Apart from inclusive cross sections up to  $\sqrt{s} = 13$  TeV, we also provide the cross sections for the production of Higgs bosons in association with a top quark pair.

**Authors** Robert V. Harlander | Stefan Liebler | Hendrik Mantler

**Publisher** Computer Physics Communications | arXiv.org e-Print Archive | zbMATH Open | DBLP

**Identifier** 10.1016/j.cpc.2013.02.006 (DOI) | 10.48550/arxiv.1212.3249 (DOI) | 1212.3249 (ARXIV)

**Keywords** higher order • FOS: Physical sciences • High Energy Physics - Phenomenology • distributions • hadron collider • Simulation and numerical modelling (quantum field theory) • Higgs production • MSSM • Unified quantum theories • Higgs boson

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## European Open Science Cloud EU Node

Access your account and take advantage of the free resources, perform research and collaborate.

### Log in via MyAccessID

MyAccessID Privacy Notice

Chosen authentication provider

- University of Cyprus  
ucy.ac.cy
- EU Login  
myaccessid.org

+ Add another institution | Edit

## Our Services

Explore key services offered by the European Commission to support and advance your data-driven research, all within a collaborative environment built on FAIR principles.

- File Sync and Share**  
Your personal cloud storage for collaborative research.
- Interactive Notebooks**  
A shared space for coding and analysis.
- Large File Transfer**  
Fast and secure file transfers.
- Virtual Machines**  
Scalable cloud computing for reliable and reproducible results.
- Cloud Container Platform**  
Simplified Kubernetes for scalable research.
- Bulk Data Transfer**  
Smooth high-volume data transfers.



# Hello Stefan LIEBLER

This is the overview of your EOSC EU Node account.

# EOSC EU Node

**File Sync and Share** Active

- Running: 1 (Small)

You have access to this service

[View Service >](#)

**Interactive Notebooks**

- Available: 1 (Small), 1 (Medium), 1 (Large)

You have access to this service

[View Service >](#)

**Large File Transfer**

- Available: 1 (Standard)

You have access to this service

[View Service >](#)

**Virtual Machines**

- Available: 1 (Small), 1 (Medium), 1 (Large)

You have access to this service

[View Service >](#)

**Cloud Container Platform**

- Available: 1 (Small), 1 (Medium), 1 (Large)

You have access to this service

[View Service >](#)

**Bulk Data Transfer**

You do not have access to this service. Please read our [User Access Policy](#) for more information

[View Service >](#)

European Commission | EOSC EU Node | File Sync & Share Platform

Enter search term All files

Personal

[Personal](#) [New](#) [Upload](#)

Name	Status	Size
notebooks_service		198.9 MB

1 item with 198.9 MB in total (0 files, 1 folder)



# EOSC in Horizon Europe (FP9 / FP10)



# FP9 (Horizon Europe) support to EOSC

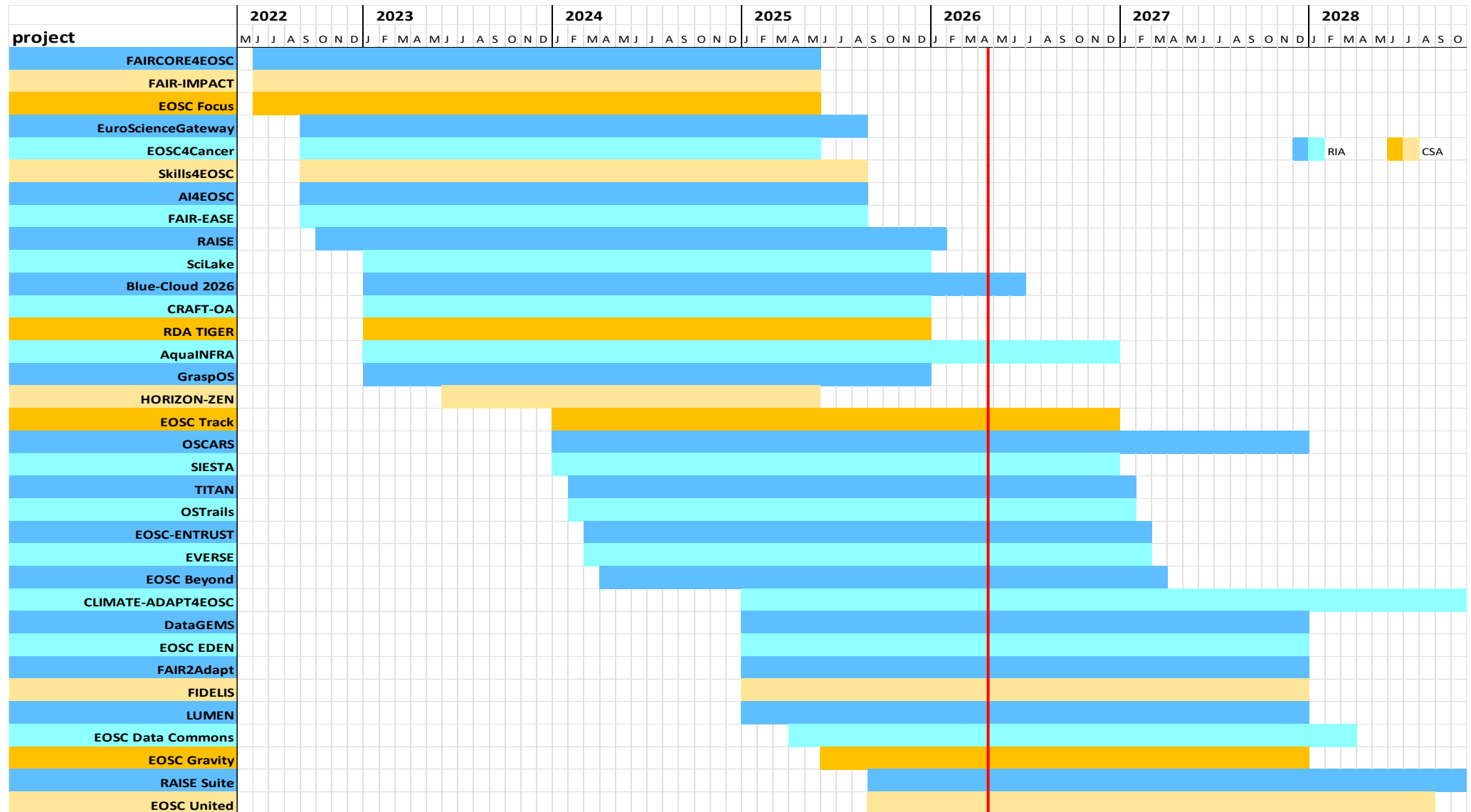
Around **€500 million** under EOSC co-programmed partnership

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- 2021 - 2024** • 34 grants // 711 participants // 370 unique participants
  - 1 procurement (EU Node)
- 2025** • 5 topics // projects in grant preparation phase
  - EOSC Nodes with federating capabilities for the EOSC Federation
  - FAIR Integration for Enhanced Research Data in the EOSC ecosystem and beyond
  - Advancing AI-readiness and Machine-Actionability in the EOSC Ecosystem
  - Data stewards, skills and training for Open Science and FAIR practices
  - Using Generative AI (GenAI4EU) for Scientific Research via EOSC
- 2026 - 2027** • 4 topics // calls open (until 16<sup>th</sup> of June) // calls upcoming
  - Uptake of FAIR data management practices and of EOSC by research communities and research infrastructures
  - Trusted frameworks for secure and efficient data sharing in EOSC
  - Expanding and deepening the EOSC Federation
  - Strengthening the potential of the EOSC for knowledge valorisation and industry academia collaboration
- 1 procurement (EU Node)



# EOSC projects in FP9 (Horizon Europe)



# The structure of FP10 – the new Horizon Europe



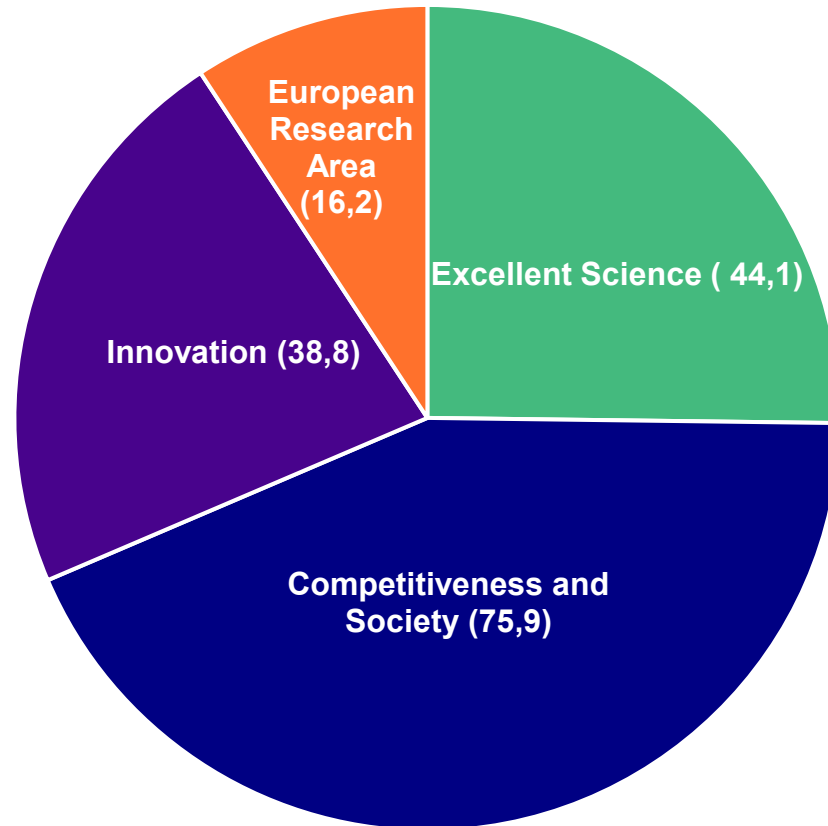
<sup>1</sup> Consistent with activities under the European Competitiveness Fund

EC proposal from July 2025 – Currently discussed in the Council and the Parliament.



# The budget of FP10

Horizon Europe total budget EUR 175 billion (current prices)  
Figures all in EUR billion



■ Excellent Science ( 44,1)   ■ Competitiveness and Society (75,9)   ■ Innovation (38,8)   ■ European Research Area (16,2)



# Pillar IV - European Research Area (ERA)

Pillar IV aims to support the development of a unified ERA with a focus on promoting excellence, inclusiveness and impact. It also supports the development and operation of research and technology infrastructures.

Indicative budget: **EUR 16.2 billion**, of which EUR 5.4 billion for 'Widening Participation and Spreading Excellence'.



# Novelties in FP10

**Further  
Simplification**

**Partnerships  
Landscape**

**EIC**

**Research and  
Technology  
Infrastructures**

**Widening**

**Dual-use  
research**



# Future directions for EOSC

## Sustaining and enhancing the **EOSC Federation**

- Building Europe's high-value, FAIR research data space

## Contributing to the **web of FAIR data and the uptake of AI**

- AI for FAIR & FAIR for AI

## Ensuring research **security** and **sovereignty**

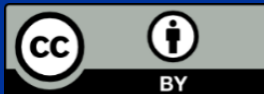
- Secure and trusted research environments, sovereignty

## Linking with **other Common European Data Spaces and beyond**

- FAIR-inspired data quality principles outside academia (public sector, industry)



# Thank you



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