

## EOSC Latest Developments



## EDS FUTURE

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## EOSC initiative to support Open Science

## Open Science

Widest possible access to and reuse of scientific outputs

Scientific productivity growth

Dissemination of knowledge

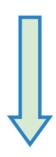




## Open Science strategy

## Open Science strategy





Key to ensure EOSC sustainability

- Open Science policies and governance
- Services and infrastructures
- Skills and training
- Incentives and recognition
- Alignment with global projects and initiatives
- Etc.





### EOSC Strategic Research Implementation Agenda



### **European Open Science Cloud Objectives Tree**

Problems	Public & private sectors do not exploit Open Science for improving quality and productivity of research	Researchers do not combine and build upon ever-growing available scientific results	National, European and Global infrastructures do not share Open Science standards and practices
	PEOPLE	DATA	INFRASTRUCTURES
Barriers	Absence of incentives, rewards and skills for open sharing stifles the uptake of Open Science	Scientific results are unfindable, inaccessible, not interoperable, and often used only once	Scientific landscape consists of national and disciplinary research silos and infrastructures
	OPEN	FAIR	FEDERATION
Objectives	Open Science practices and skills are rewarded and taught, becoming the "new normal"	Standards, Tools and Services allow researchers to find, access and reuse results	Sustainable and federated infrastructures enable open sharing of scientific results
	SCIENCE	INDUSTRY	SOCIETY
enefits	Improved trust, quality and	Development of innovative services	Improved impact of research in addressing societal challenges

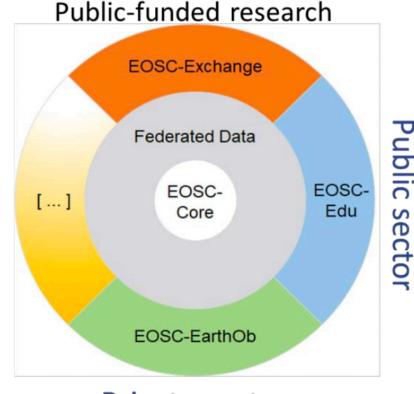


## What is the European Open Science Cloud -



EOSC? - https://www.eosc.eu/about-eosc

- Vision: "Web of FAIR Data and Services" for science in Europe
- Multi-disciplinary environment where researchers can
  - publish,
  - find and
  - re-use
- data, tools and services
- Builds on existing infrastructure and services
  - federated 'system of systems'



Private sector





## EOSC provides researchers with

Seamless access to content and services via common AAI

Access to FAIR and ideally open data from various sources

Access to <u>services</u> for storage, computation, analysis, preservation and more

Adoption of <u>standards</u> so data and services can be combined

Helpdesk, training and support to improve use of EOSC





## **EOSC** Association

## Focal point of the EOSC Partnership with the European Commission

- Established in July 2020 as a not-for-profit international association
- Aims to serve the EOSC community, promote EOSC, and enable Open Science in Europe

#### The EOSC Partnership aims to:

- Create a growing ecosystem, bringing together relevant European initiatives around the FAIR data economy
- Foster collaboration among those initiatives towards the objective of open research
- Attract small and medium-sized enterprises (SMEs) and start-ups to use and benefit from the federated services and data sources
- Raise awareness in society about the benefits of FAIR-data-driven innovation



## What are the EOSC Advisory Groups / Task Forces



- Task Forces are groups within the AGs who undertake activities to implement certain aspects of EOSC according to their topic
- A structure to help steer the implementation of EOSC
- Groups should liaise with EOSC projects and offer feedback and advice
- Identify strategic gaps and areas for investment to input to SRIA



## Task Forces Topics



#### Implementation of EOSC

- Rules of Participation compliance monitoring
- PID policy and implementation
- Researcher engagement and adoption

#### **Technical challenges on EOSC**

- Technical interoperability of data and services
- Infrastructure for quality research software
- AAI Architecture

#### Metadata and data quality

- Semantic interoperability
- FAIR metrics and data quality

#### Research careers and curricula

- Data stewardship curricula and career paths
- Research careers, recognition and credit
- Upskilling countries to engage in EOSC

#### **Sustaining EOSC**

- Defining funding models for EOSC
- Long-term data preservation





## The role of science clusters in EOSC

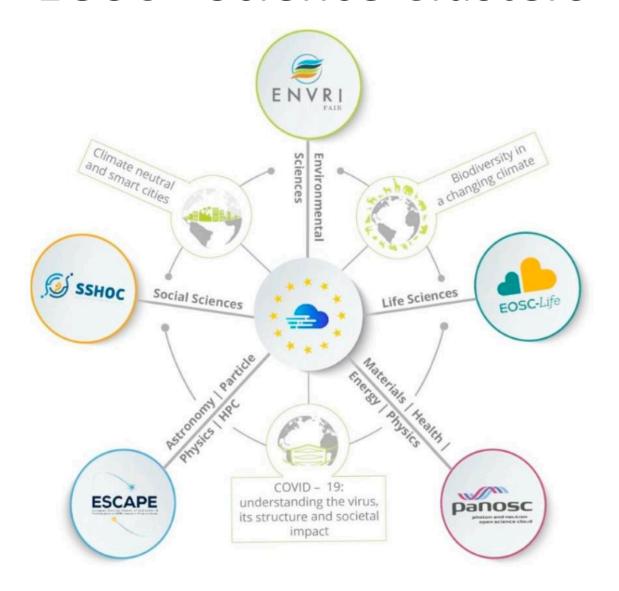
- The science clusters (ENVRI-FAIR, EOSC-Life, ESCAPE, PaNOSC, SSHOC) are making major contributions to the EOSC as the key means of engaging research Infrastructures and their user communities
- The EOSC roadmap foresees contributions from the science clusters that stretch beyond the lifetime of the science cluster projects





### EOSC - Science Clusters





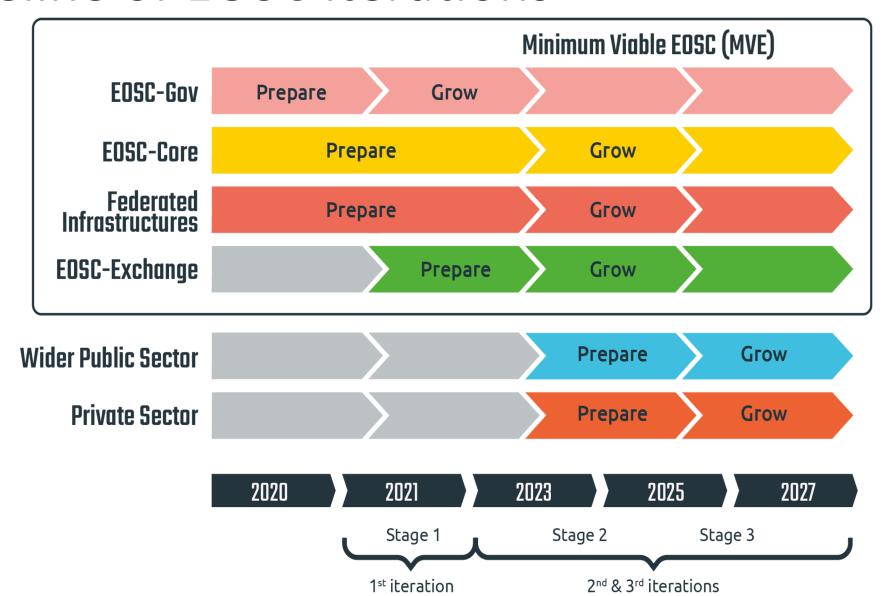
#### **ESFRI Science Clusters**

- ENVRI-FAIR –
   environmental sciences
- **EOSC-Life** life sciences
- ESCAPE astronomy and particle physics
- PaNOSC photon and neutron sciences
- SSHOC social sciences and humanities





## Timeline of EOSC iterations











**Delivering and operating the EOSC-Core** 

**Expanding EOSC-Exchange** 

Scaling up capabilities to deliver an EOSC Execution Framework

**Increasing European scientific impact** 

Promote the participation of the commercial sector

Support and train users and providers

**Engage with the EOSC communities and end users** 





## EOSC Portal <a href="https://eosc-portal.eu/services-resources">https://eosc-portal.eu/services-resources</a>





#### Welcome to the EOSC Portal Catalogue and Marketplace!

The current catalogue is the result of collaboration and merge of eInfraCentral Service Catalogue and EOSC-Hub Marketplace.

This part of EOSC Portal serves as a universal entry point to the EOSC services, offering distributed and cloud computing resources enabling researchers and other users to process and analyse data in a distributed computing environment, access and order public and commercial e-infrastructure services supplied at national, regional and institutional levels.

It helps to develop synergies and complementarity in data handling between research infrastructures, optimise technological implementation thus contributing to the development of a consistent European research infrastructures ecosystem and ensure integration and interoperability of data and tools within the EOSC.

From the supplier side, it offers local, national and international providers the opportunity to advertise their own services and resources, which is compliant with the needs of European research community.

Visit the Catalogue & Marketplace or choose from the categories below.

- ✓ Browse catalogue offering data and services
- ✓ Search by resource type to find relevant tools
- ✓ Filter by scientific domains
- ✓ Virtual Tour

  <a href="https://marketplace.eosc-portal.eu/?tour=overview">https://marketplace.eosc-portal.eu/?tour=overview</a>





## EOSC in numbers – April 2022



217 Worldwide

80 EU-wide

232 providers

318 onboarded resources

137 virtual

81 remote

TRL-7, -8, -9

#### access options:

- free
- free (conditionally)
- paid
- peer reviewed
- other

219 – production

38 – operation

26 - beta







# How to participate in building EOSC?













- ✓ A team of "EOSC champions" from different scientific disciplines across the EU to help test and refine services and products.
- ✓ The User Group will rely on surveys, focus groups, or testbed sessions to validate project outputs.
- √ 300 applications from different science areas and broad coverage.



## **EOSC Future Grants** – Research Data Alliance



- RDA is running a series of calls, in the context of the EOSC Future project, to further enable integration and take up of EOSC services.
- The purpose of these RDA Open Calls is to engage the community from a bottom-up approach to contribute their know-how to EOSC.
  - to enable communities outside of EOSC to leverage EOSC services
- Specifically targets small projects to show implementation and take up with the aims to
  - support and encourage examples of adoption of existing RDA recommendations and outputs which can benefit the community around EOSC
  - promote examples and lessons learnt.



## RDA Open Calls



#### **Open Calls**





#### RDA Open Call for RDA cross-disciplinary adoption in support of EOSC

This call specifically targets smaller community projects to show cross-disciplinary implementation and take up of RDA Recommendation and Outputs within the EOSC context.

Opening date: 11 Apr 22 - 12:00pm CET am CET

Closing date: 11 Jul 22 - 05:00pm CET

€50.000

per approved application

**Apply** 

Read more >















## EOSC is here to stay!

 EOSC aims at creating a virtual research environment to access and interoperate research data and other research outputs in Europe across the different disciplines.









- Useful links:
  - <a href="https://www.eosc-portal.eu/">https://www.eosc-portal.eu/</a>
  - <a href="https://marketplace.eosc-portal.eu/">https://marketplace.eosc-portal.eu/</a>
  - https://eosc.eu/
- Get in touch with EOSC:
  - https://www.eosc.eu
  - <a href="https://eosc-portal.eu/contact-us">https://eosc-portal.eu/contact-us</a>
- EOSC Future
  - https://eoscfuture.eu/







## **THANK YOU**

# EDS FUTURE

**Any Questions?** 



