



EOSC and the EC's Open Science Strategy



Czech National EOSC

Tripartite Event

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Embracing open science as the *modus operandi* of research

Improving *the practice*

- **Providing full and immediate open access** to scientific publications, research data, models, algorithms, software, protocols, notebooks, workflows, and all other research outputs
- **Research output management** - publications, data, and other outputs - **in line with FAIR principles**
- **Early and open sharing** of research, e.g.
 - Pre-registration, registered reports, data deposition in shared repositories, pre-prints
 - Ensuring verifiability and reproducibility of research outputs
 - Open collaboration within science and with other knowledge producers/users, incl. citizens, civil society and end users

Developing *the enablers*

- **Incentives and rewards** to adopt open science practices, e.g. initiative for **Reforming Research Assessment**
- **Legislative and regulatory framework** for practicing open science
 - An EU data, copyright and digital legislative framework fit for research
 - Horizon Europe provisions on Open Access and Open Science practices
- **Open research infrastructures and skills** e.g.
 - **European Open Science Cloud (EOSC)** virtual research environment
 - Open Research Europe (ORE) open access publishing service
 - Support for skills and education for practicing open science & data-intensive research

EOSC support by the European Commission

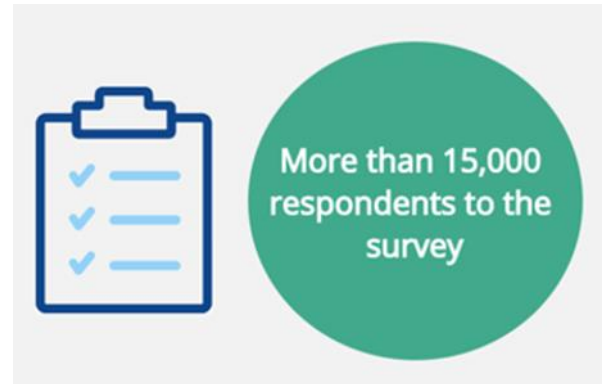
- Keeping the **policy momentum**
 - ‘Open Science including EOSC’ fully embedded in the ***ERA Policy Agenda***
 - EOSC as a sectoral data space of the ***European Strategy for Data***
- Support through the **Horizon Europe programme**
 - Implementation of ***Research Infrastructure Calls***: direct EU investment in EOSC developments of up to €490 million
 - Including also ***procurement of EOSC managed services*** by the EC
 - ***Studies*** commissioned by the EC, e.g. the European Research Data Landscape study
- Continued support to:
 - ***EOSC governance***: EOSC Steering Board, EOSC Partnership Board
 - EOSC engagement and *coordination with ESFRI and eIRG*: ***New EOSC-ESFRI Taskforce***
 - ***EOSC thematic demonstrators***, e.g. the European Covid-19 Data Platform, the Blue Cloud, the ‘science clusters’
 - ***Monitoring*** of the uptake of Open Science and ‘EOSC readiness’

European Research Data Landscape

EC-funded study 'European Research Data Landscape'

Undertaken from June 2021 to July 2022

- Research data depositing
 - **40% of researchers occasionally store data in research data repositories;** 22% respondents did that during the current/latest research activity
 - Researchers usually (60%) store data in personal physical data storage or institutional local data storage
- FAIR aligned practices
 - >2/3s develop DMPs but other **FAIR-aligned practices are less common**
 - Allocating PIDs to data is the least common practice
- Barriers to sharing research data
 - **Time, effort & financial costs** required for RDM and data sharing
 - **Data protection and legal restrictions**
 - **Lack of recognition**



- Geographical coverage: EU Member States, Horizon 2020 Associated Countries, and the UK
- All fields of science

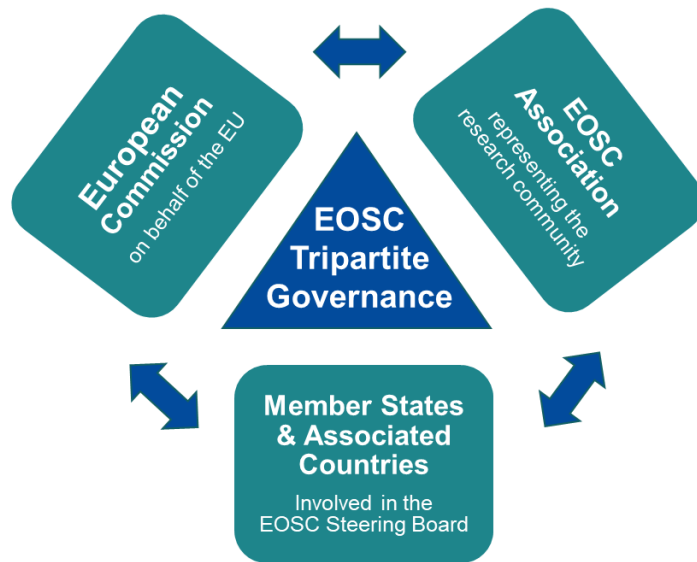
Implementing EOSC

- **EOSC is part of the European Research Area Policy Agenda:**
It contributes to ERA Action 1 to enable sharing of research knowledge, data and tools across the ERA
 - Deploy Open Science principles and identify Open Science best practices
 - Deploy the core components and services of EOSC
 - Federate existing data infrastructures in Europe
 - Improve findability, accessibility, interoperability and reusability of research outputs
 - Establish monitoring mechanism to collect data and benchmark investments, policies, digital research outputs, OS skills and infrastructure capacities related to EOSC
- **EOSC is an element of the European strategy for data:**
It represents the European data space for science, research and innovation
- **EOSC is as part of the global push for open science:**
It is Europe's contribution towards a “global open science commons”
 - EOSC interoperability options inspired from community practices or validated with the international research community including through the Research Data Alliance
 - Synergies to open science initiatives in the UN, CODATA-WDS and G7 contexts



Implementing EOSC

- **A community-driven process** (commitments by EU Member States, Associated Countries, research stakeholders)
- **Gradual implementation** based on **mutual alignment** and pooling of resources at European, national and institutional levels->Move **from prototyping to operations**



With direct support by:



- **EOSC European Co-programmed Partnership** to pool commitments and resources along priorities set in the EOSC Strategic Research and Innovation Agenda
- **EOSC tripartite governance** to ensure dialogue and strategic coordination between EC, EU Member States and Associated Countries, and EOSC Association



Examples of ongoing EU-funded EOSC projects

- **FAIRCORE4EOSC**
 - Developing EOSC-Core components to enable a FAIR EOSC ecosystem
- **FAIR-IMPACT**
 - Realise an EOSC of FAIR data and services
- **SKILLS4EOSC**
 - Creating a Training Ecosystem for Open and FAIR Science
- **AI4EOSC**
 - Artificial Intelligence, Machine Learning and Deep Learning models and applications in EOSC
- **EOSC4Cancer**
 - A European-wide foundation to accelerate data-driven Cancer Research

Agreement on Research Assessment



Our **vision** is that the assessment of research, researchers and research organisations recognises the **diverse outputs, practices and activities** that **maximise the quality and impact** of research.

This requires basing assessment primarily on **qualitative judgement**, for which peer review is central, supported by **responsible use of quantitative indicators**.

Contextual considerations

- Favourable **framework conditions** and **sustainable funding** are needed to achieve reform
- Assessment practices should **vary depending on the type and purpose** of assessment concerned
- Reform processes should enable the reinforcement of the **autonomy, profile and strategic goals** of research organisations and allow for **differences in implementation**

Open for signature to organisations from across the world: <https://coara.eu/>

Over 500 signatories!

Organising and operating a coalition



- Offering a space for **mutual learning and collaboration** that supports and facilitates the implementation of the Commitments by the members, while respecting their autonomy
- For this purpose, **working groups** will be established on specific topics as '**Communities of practice**' - proposed at the initiative of members and other members' participation is voluntary, e.g. "Interest communities", "Discipline communities", "Institution communities", "National communities"
- Other means, such as **workshops or webinars**, may also be used to support mutual learning and collaboration
- Mechanisms for periodic interactions with, and **involvement of, national and regional authorities** will ensure national/regional policies and frameworks are conducive to the Coalition's work

Further EC support



- The EC has **signed the Agreement** (and endorsed DORA)
- The Commission remains committed to **support the CoARA** by:
 - ✓ Being an active **member of the Coalition**, mainly in its quality as a research funder, and participating in relevant working groups and activities
 - ✓ Providing **operational support** to the CoARA Secretariat, ad interim
 - ✓ Providing **financial support to the CoARA activities** through Horizon Europe
 - ✓ Providing policy **support in liaising the Coalition with Member States and Associated Countries** in the framework of the ERA Forum; this will facilitate the setting up of national/regional framework conditions conducive to reforms
 - ✓ **Fostering global alignment and cooperation** with other regions worldwide & **synergies with other European initiatives**

Thank you



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