

FAIRCORE4EOSC

Developing EOSC-Core components to
enable a FAIR EOSC ecosystem

14 | 10 | 2022 by Tommi Suominen, CSC – IT Center for Science



**Funded by
the European Union**

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Implementing EOSC

- **A community-driven process**
- Gradual implementation based on **mutual alignment at European, national and institutional levels**
- **EOSC Tripartite governance:** Current implementation phase (2021-2030) steered by the EC, the Member States and Associated Countries and the EOSC Association representing the voice of the community
- **EOSC European Partnership to pool resources:** Horizon Europe grants & procurement plus in-kind additional activities by the members of the EOSC Association
- Emerging issues: **operational consolidation** of the EOSC federation and **sustainability models**



Courtesy of the EOSC Association.

EOSC implementation: a two-stage approach

EOSC phase 1: preparatory

2018 - 2020

H2020 calls/grants approach

EOSC roadmap 2018-2020
by the European Commission

Initial EOSC Governance

(Member States and the Commission to steer and oversee initial EOSC development)

EOSC phase 2: continuous EOSC roll-out

2021 - 2030

Partnership approach in Horizon Europe

EOSC Strategic Research and Innovation Agenda (EOSC SRIA)
2021-2027 by the EOSC community

New EOSC Governance

(Increasingly stakeholder-driven, high-level steering role maintained for the European Commission and the Member States)

The **partnership** formed by **the EC and the EOSC Association** envisages 1 billion euro to roll-out EOSC during phase 2

FAIRCORE4EOSC in a nutshell

Developing EOSC-Core components to enable a FAIR EOSC ecosystem

Horizon Europe - Research and Innovation Action

Budget: 10 million EUR

Duration: June 2022 – May 2025 (3 years)

Consortium: 22 partners

Coordinator (Organisation): CSC – IT Center for Science

Coordinator (person): Tommi Suominen (CSC)

Technical Coordinator: Mark van de Sanden (SURF, EUDAT)

Project manager: Anu Märkälä (CSC)

Website: faircore4eosc.eu



Challenges addressed

Developing the EOSC-Core

The EOSC-Core development has been initiated in the Horizon 2020 calls. Further development is carried out in FAIRCORE4EOSC to address these challenges:

- **Identifiers:** Introducing new resource types; machine-actionable persistent identifiers (PIDs); establishing a PID meta-resolver; standardising PID graphs; PID compliance framework to ensure compliance to the EOSC PID policy and to ensure quality of service for PIDs;
- **Metadata and Ontologies:** Provide or embrace/stimulate existing registries of metadata schemas, ontologies and crosswalks, develop services that build on metadata registries and can facilitate the creation and sharing of crosswalks;
- **Interoperability:** Enable discovery of data sources available in different formats, making search tools available; Provide tools for quality validation of metadata records and of digital objects; Implement EOSC PID Policy;
- **Research Software:** metadata description standards for research software, automated deposit of new releases into a scholarly repository and Software Heritage.



Key results: In response to the gaps identified in the SRIA, the project will develop nine new EOSC-Core components aimed to improve the discoverability and interoperability of an increased amount of research outputs.



EOSC Research Discovery Graph (RDGraph) to deliver advanced discovery tools across EOSC resources and communities.



EOSC PID Graph (PIDGraph) to improve the way of interlinking research entities across domains and data sources on the basis of PIDs.



EOSC Metadata Schema and Crosswalk Registry (MSCR) to support publishing, discovery and access of metadata schemas and provide functions to operationalise metadata conversions by combining crosswalks.



EOSC Data Type Registry (DTR) to provide user friendly APIs for metadata imports and access to different data types and metadata mappings.



EOSC PID Meta Resolver (PIDMR) to offer users a single PID resolving API in which any kind of PID can be resolved through a single, scalable PID resolving infrastructure.



EOSC Compliance Assessment Toolkit (CAT) to support the EOSC PID policy compliance and implementation.



EOSC Research Activity Identifier Service (RAiD) to mint PIDs for research projects, allowing to manage and track project related activities.



EOSC Research Software APIs and Connectors (RSAC) to ensure the long-term preservation of research software in different disciplines.



EOSC Software Heritage Mirror (SWHM) to equip EOSC with a mirror of the Software Heritage universal source code archive.

Co-operation mechanisms a plenty

Regular inter-project coordination meetings foreseen

Project Acronym

Skills4EOSC

EOSC Focus

FAIRCORE4EOSC

FAIR-EASE

EuroScienceGateway

RAISE

AI4EOSC

FAIR-IMPACT

EOSC4Cancer

BYCOVID

E-IRGSP7

WorldFAIR

Coordination meeting for EOSC-related Horizon Europe projects

04 October 2022



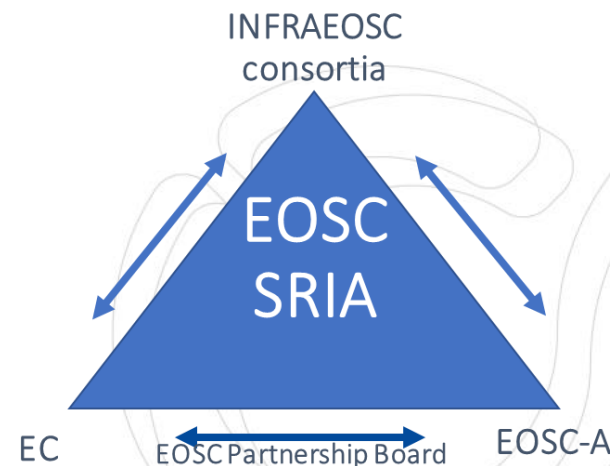
On Friday, 30 September, the European Commission's DG RTD hosted the "Horizon Europe projects coordination meeting in the context of the EOSC European Partnership" in Brussels.

Representatives from 12 EOSC-related Horizon Europe (HE) projects, the European Commission's Directorate-General for Research & Innovation (DG RTD), and the Commission's European Research Executive Agency (REA), as well as the EOSC Association, all met for a lively and interactive discussion on how to efficiently and effectively organise this broad cooperation to the best advantage of the EOSC Partnership's objectives.



Explore information flows and other means to improve:

- The **collaboration between consortia** of HE funded projects contributing directly to the objectives of the EOSC European Partnership
- The collaboration between each of these **consortia** and the **European Commission** and the **EOSC Association** who have jointly set up the EOSC European Partnership



Cooperation mechanisms a plenty

We especially engage with these EOSC task forces:

- [PID policy and implementation](#) (represented)
- [Semantic interoperability](#) (represented)
- [Infrastructures for quality research software](#) (represented)
- [Technical interoperability of data and services](#) (represented)

Additionally we cooperate though:

Bi-weekly FAIRIMPACT-FAIRCORE4EOSC PC & PM meetings

Technical Bridging Team - Aligning developments with the EOSC ecosystem

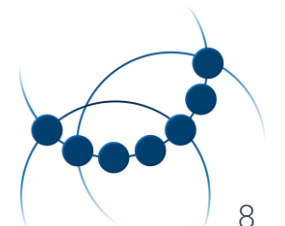
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Software Heritage
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