

Open Science in EOSC and Horizon Europe

Open Science Strategy Working Group

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The Vision

Building the EOSC ecosystem collaboratively with all stakeholders through the EOSC Partnership



Where do we come from?

- The shared vision between the EC, MS&AC and a large community
- The decision of the governing bodies to institute a Co-programmed Partnership as the best instrument to collectively achieve this vision



EOSC Governance Model 2021-2027

The new governance model agreed with EU countries for the next EOSC implementation phase after 2020 will be tripartite including:

- The EU represented by the **Commission**
- The European research community represented by the **EOSC Association**
- EU countries and countries associated with Horizon Europe represented through a **Steering Board** to be set up in 2021 outside of the EOSC Association



Joining the EOSC Association
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Joining the EOSC Partnership!

EOSC Association

- Not-for-profit Legal entity that forms a partnership with EC to support these general objectives:
 - Ensure that Open Science practices and skills are rewarded and taught, becoming the 'new normal';
 - Enable the definition of standards, and the development of tools and services to allow researchers to find, access, reuse and combine results;
 - Establish a sustainable and federated infrastructure enabling open sharing of scientific results.
- Defines the Strategic Research and Innovation Agenda for EOSC
- CERN, EMBL, ESA, ESRF, EU-XFEL & ILL are members
 - CERN is the mandated organization for EIROforum



CERN in-kind contributions to EOSC

- **Data culture** - promote digital repository certification and data preservation across the research community
- **Thematic areas** - implement FAIR data principles in the particle physics domain
- **Research data repositories** - continue to support Zenodo as a trusted repository open to the world
- **Service deployment** - federate public e-infrastructures and commercial service providers to establish a hybrid cloud platform supporting open research
- **Governance model** - share the experience of more than a decade of operating a global data infrastructure

CERN announces new open data policy in support of open science

A new open data policy for scientific experiments at the Large Hadron Collider (LHC) will make scientific research more reproducible, accessible, and collaborative

11 DECEMBER, 2020

opendata
CERN



Science
Mesh

CloudBank

Managed Services to Simplify Cloud Access for
Computer Science Research and Education



Association

Task Force topics within Advisory Groups

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

Charters: <https://www.eosc.eu/news/draft-charters-eosc-association-task-forces-published>

Call for members: <https://www.eosc.eu/news/call-members-eosc-association-task-forces>

EOSC KPIs for open science

SO1 Increase the number of relevant research results that are made available as open as possible by researchers performing publicly funded research

SO3 Development and adoption of incentives for researchers to perform Open Science

SO4 Increasing amounts of research data produced by publicly funded research in Europe are FAIR by design

SO9 EOSC increasingly establishes ties with related initiatives from regions around the world and becomes a partner in global cooperation frameworks for Open Science

CERN participation in on-going EOSC related H2020 projects (2021)

ARCHIVER Archiving and Preservation for Research Environments, **coord. by CERN**

CS3MESH Interactive sharing mesh of storage, data and apps, **coord. by CERN**

EGI-ACE EGI Advanced Computing for EOSC

ESCAPE European Science Cluster of Astronomy & Particle physics ESFRI RIs

EOSC-Hub / EOSC Future Integrating and managing services for the EOSC

EOSCsecretariat.eu European Open Science Cloud secretariat

OCRE Open Cloud for Research Environments

OpenAIRE-Nexus Scholarly Communication Services for EOSC users

~9.7M CHF of EC funding allocated to CERN via these projects

Open Science in Horizon Europe

*“**Open science**” means **an approach** to the scientific process based on open cooperative work, tools and diffusing knowledge*

(Horizon Europe Regulation and Model Grant Agreement)

*The concepts of **Open Science**, Open Innovation, Open to the World should ensure **excellence and impact** of the Union’s investment in research and innovation, while safeguarding the Union’s interests*

(Recital 7 Horizon Europe Regulation)

*The work programme may provide for **additional incentives or obligations** for the purpose of adhering to **open science practices***

(Horizon Europe Regulation, article 39)

A change of policy in Europe?

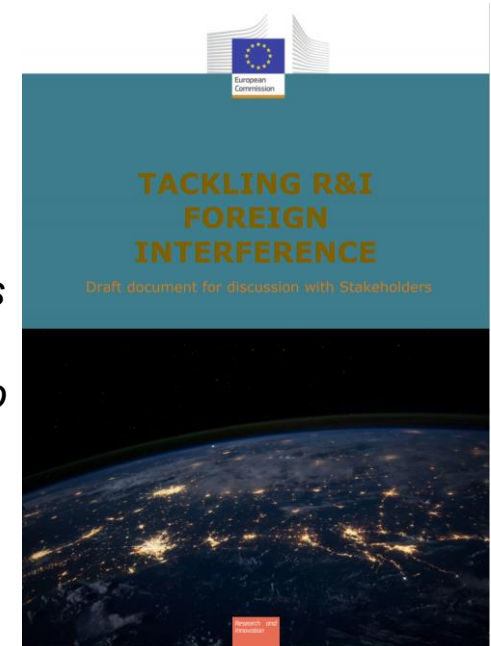
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EU rewrites rulebook on science and technology cooperation with the rest of the world

29 Jun 2021 | News

Officials set out terms of 'open strategic autonomy' to replace the 'open to the world' mantra

While the goal of Open Science is that ultimately all scientists around the world open up their research as much as possible, such an open approach may be disadvantageous to researchers, organisations, and countries when foreign actors are not reciprocating but instead exploiting openly available materials solely for their own advantage.



Recommendations

- CERN's open science policy should be consistent with that of EOSC and the EC's Horizon Europe programme to ensure continued eligibility for funding
- Highlight the importance to CERN of global cooperation on open science