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Perspectives on EOSC

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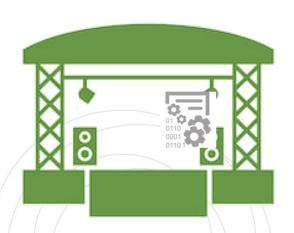
National Tripartite Event, Netherlands 11 April 2023





"A web of scientific insight"

- Web of FAIR Data and related Services
- Federation of relevant existing and future data sources
- Virtual space where science producers and consumers come together
- An open-ended range of content and services
- Based on the FAIR principles
- Meeting all European data requirements
- In interaction with other regions of the world



speose Model of the World Wide Web (Wikipedia)

early milestones	Key Layers of the Internet	milestones
email@-1971 Ray Tomlinson	CONTENT	1987-HyperCard Bill Atkinson
Archie-1990 Emtage & Deutsch	SEARCH ENGINE*	1998-Google Brin & Page
DOS Houdini-1986 Neil Larson	BROWSERS	1993-Mosaic Marc Andreessen
(Vannevar Bush, Ted Nelson, Douglas Engelbart)	WORLD WIDE WEB	1990-http:// Tim Berners-Lee
ARPANET-1969 J.C.R. Licklider	INTERNET	1975-TCP/IP Cerf & Kahn
SAGE-1956 George Valley	NETWORKS	1973-Ethernet Robert Metcalfe
Z3-1941 Konrad Zuse	COMPUTERS	1976-Apple Jobs & Wozniak

speose EOSC - additionality to the web of FAIR data

EUROPEAN OPEN SCIENCE CLOUD

WEB OF FAIR DATA

WORLD WIDE WEB

INTERNET

NETWORKS

COMPUTERS



Twinning the data- to the e-infrastructures

EOSC is a data-infrastructure and could be seen as a twin sister (or brother) of the European e-infrastructure organisations.

The last offering the store, compute and connect services used by EOSC to offer the servicing of data and creating interoperability. The combination forms the EOSC-ecosystem (yin / yang).





Position of EOSC according to the European Commission

Taken from EC slides



EOSC: a crosscutting data space for Research and Innovation

"**EOSC** is the basis for a science, research and innovation data space that will bring together data resulting from research and deployment programmes and will be connected and articulated with the sectoral data spaces"

(European Data Strategy, COM(2020) 66 final)

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Requirements for EOSC to deliver

- Relevant data
- Sufficiently rich metadata
- Search mechanism
- Software (often self made)
- Compute power (usually available)
- Storage (usually available)
- Access
- Automatic referencing



EOSC Strategy discussion – Status

What

EOSC is a web of FAIR data and related services for research

Research data that is easy to find, access, interoperate and reuse (FAIR)

Trusted and sustainable research outputs are available within and across scientific disciplines

Why

Unlock the full potential of research data to accelerate discoveries and innovation

Access and interoperability of research data and results

- Define ownership, authorship and responsibility of data and research outputs
- Ensure long-term preservation of data throughout its lifecycle
- Enable the creation of standards for all research domains
- Make data machine-actionable
- Enable new scientific discovery methods and science disciplines
- Train researchers on adopting FAIR principles as an integral part in their activity

A sustainable coordinated infrastructure

- Establish and maintain a coordinated federated reference architecture
- Implement an operational infrastructure framework that is long term sustainable
- Ensure high quality of data and services
- Ensure secure access to data and services
- Define clear standards for API and interoperability of data and services
- Apply user friendly practices
- Inspire EOSC ambassadors to assist in on-boarding of researchers

Inspired people and robust governance

- Communicate an inspiring EOSC vision and strategy
- Implement an unambiguous and clearly mandated governance structure
- Establish a framework to engage human capital in institutions, countries and scientific communities
- Enable disciplinary and crossdisciplinary transnational research to find new insights from existing and new research data and outputs

How

speose What do we concretely aim for?

- Researchers performing publicly funded research make relevant results available, as openly as possible;
- Professional data stewards are available in research-performing organisations in Europe to support RDM for Open Science;
- Research data produced by publicly funded research in Europe is FAIR (by design);
- The EOSC Interoperability Framework supports a wide range of FAIR digital objects including data, software and other research artefacts;
- EOSC Federation is populated with a valuable corpus of interoperable data;
- EOSC (version x) is operational and provides a stable infrastructure, supporting the research process and helping to address societal challenges;
- The scope of EOSC is widened to serve the public and private sectors;
- EOSC is a valuable and valued resource to a wide range of users from the research and education, public and private sectors (including for-profit).

speose Where do we stand?

- After an initial period of many projects without much convergence (2015-2020) we have to see that we get our aims sufficiently developed in the present period of convergence (2021-2026).
- For this it is essential that we get a Minimal Viable EOSC (MVE / EOSC-EU-node) operational asap and as good as possible aligned with work done by all the relevant communities (European, National and Institutional).

specific representation of the future of the

SRIA 1.2 SRIA 2.0 New Commission

1/2 2023 2/2 2023 1/2 2024 2/2 2024 1/2 2025

Analysis of governance and funding models

Selection of preferred model(s)

Consulting the chosen model within EC and with MS/AC Conclusion on governance and funding models

Start drafting FP10 including securing commitments of MS



Driven by EC, input EOSC-A, EOSC-SB



Lead with EC and MS/AC



EOSC-A to advocate centrally and nationally

Tri-partite collaboration on EOSC and its future

Driven by EC and MS champions



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THANKS

