EOSC status and lessons learned

RDA's 17th Plenary co-located event

Priorities and international alignment for the European Open Science Cloud (EOSC)

RDA virtual plenary workshop, 23 April 2021

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EOSC policy ‘roots’

- **EOSC** is the **supply side** of a broader policy initiative to mainstream **open science** practices in Europe.
  - Helps **sharing research knowledge and tools** as early as possible in the research process, between borders, disciplines and society at large;
  - Develops a **Web of FAIR data and services for Science**;
  - Enables **federated access** to R&I infrastructures;
  - Empowers universities, other research performing organisations and surrounding ecosystems.
- **EOSC** supports the **Digital Agenda** of the EU
  - Basis for **a science, research and innovation ‘commons’** articulated with other data spaces in key sectors of the European economy;
  - Brings opportunities for aggregating R&I demand for thematic and eInfrastructure services (e.g. cloud to edge services and platforms).

European Research Area

EOSC is a pilot action of the renewed **European Research Area (ERA)**

EOSC is a data space of the **European Data Strategy**

EOSC is in the scope with the **Recovery and Resilience Facility**

What is EOSC?

EUROPEAN OPEN SCIENCE CLOUD

A process

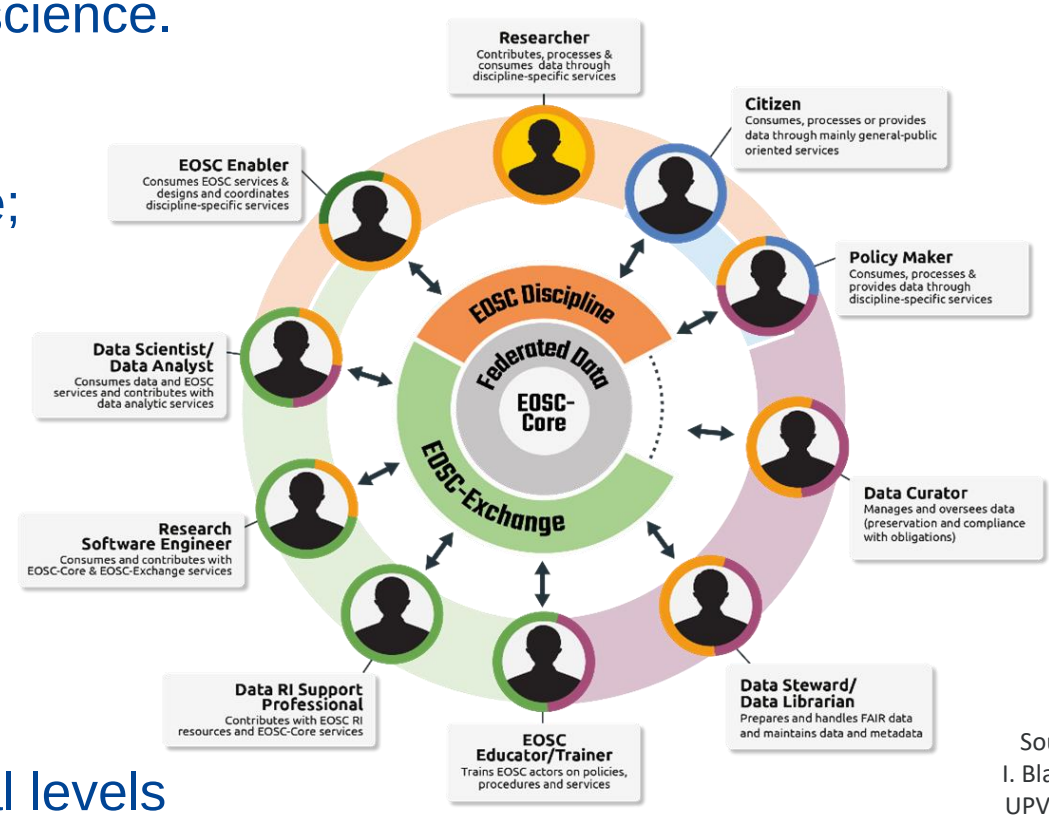
- To accelerate Open Science, FAIR data management and use of digital methods and services
- To stimulate co-operation in science and research, new insights and innovations, higher research productivity and improved reproducibility in science.

An open, trusted, federated infrastructure

- To access existing Research Infrastructures in Europe;
- To enable circa 2 million European researchers to store, share, process, analyse, and reuse research digital objects (e.g. data, publications and software)

An evolving ecosystem

- Bringing together the European Commission, the governments and the many R&I stakeholders involved in the European Research Area
- Co-created across European, national and institutional levels



Source:
I. Blanquer
UPV, 2020

EOSC implementation: a two-stage approach

EOSC phase 1: prototyping
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)

- **Launch event in Vienna**
- **EOSC Declaration**
  (AT Presidency of the EU)

New strategic orientations

EOSC phase 2: continued EOSC rollout
2021 - 2030

Partnership approach in Horizon Europe

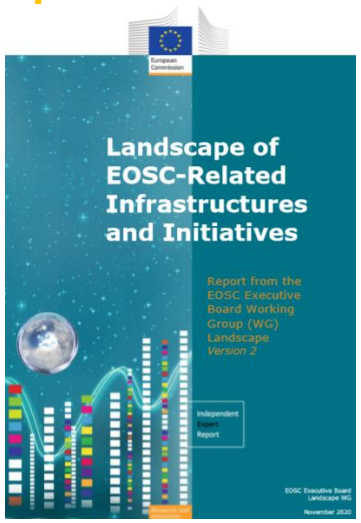
EOSC Strategic Research and Innovation Agenda (**EOSC SRIA**) 2021-2027 by the EOSC community

New EOSC Governance (tripartite)
(increasingly stakeholder-driven, high-level steering role maintained for the European Commission and the Member States)

- **Assessment of EOSC Phase 1**
- **EOSC Declaration**
  (DE Presidency of the EU)

European Commission

Strategic orientations for the decade
(EOSC Phase 2 in 2021-2030)



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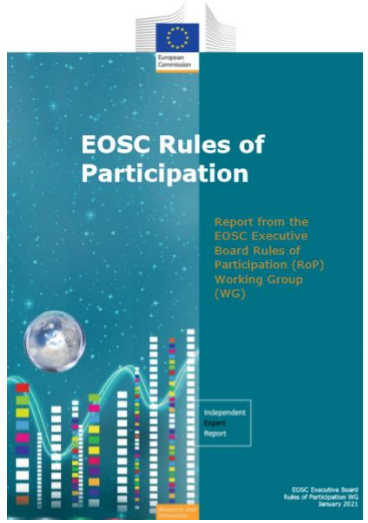

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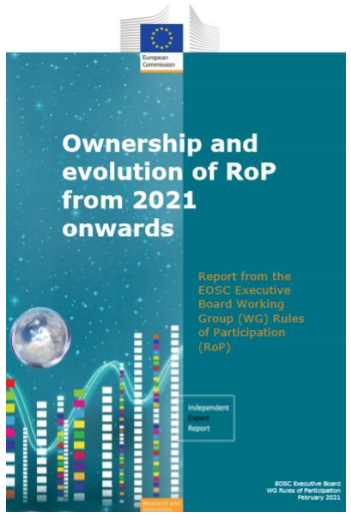

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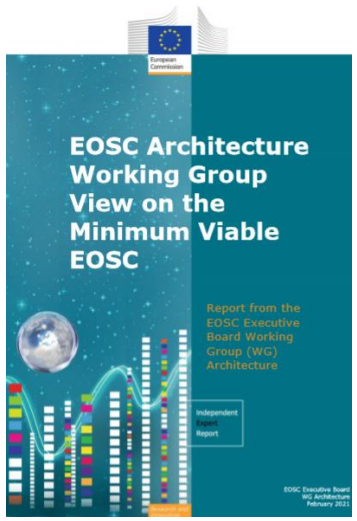

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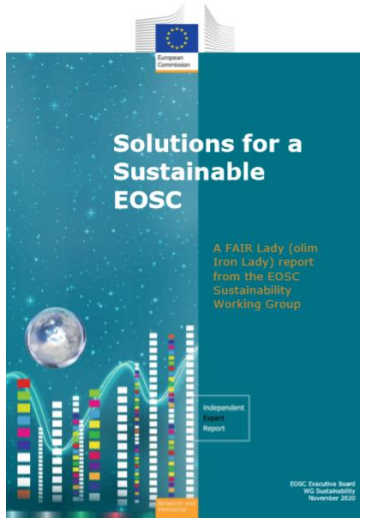

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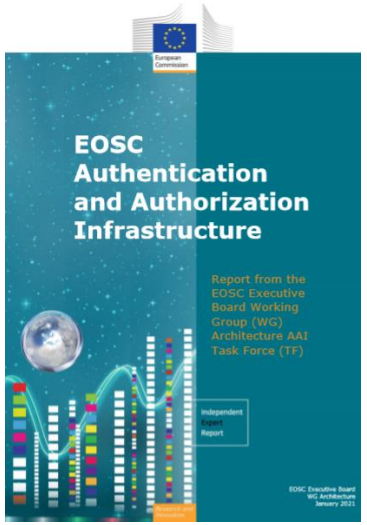

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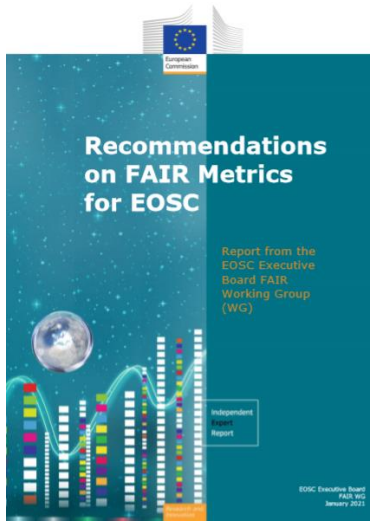

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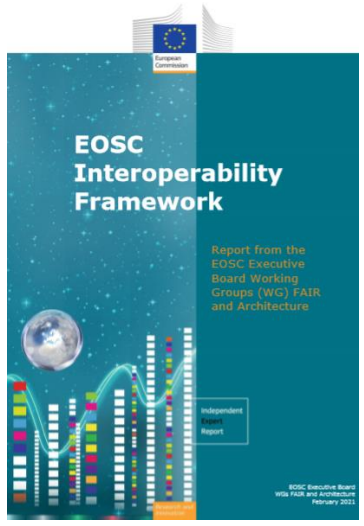

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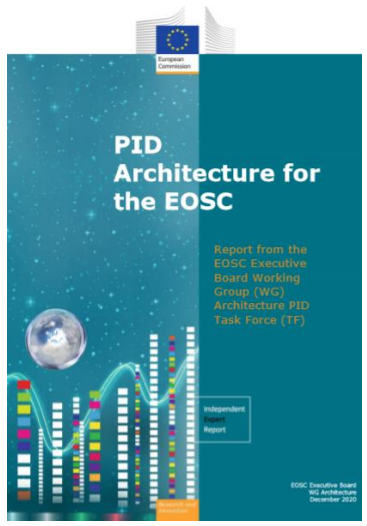

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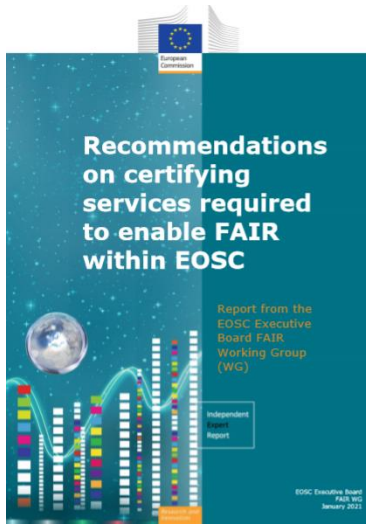

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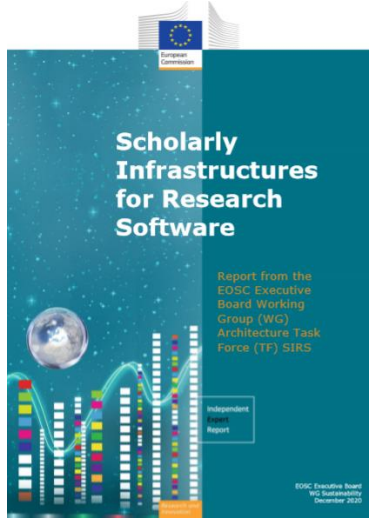

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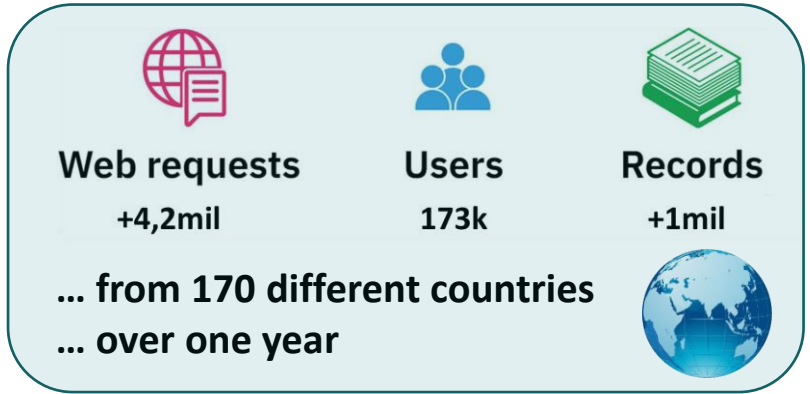
EOSC in practice: FAIR and data sharing against the Sars-CoV-2

The European COVID-19 data platform and its frontend: the COVID-19 Data Portal

- Urgent need to **speed up science discovery**, inform public health policy and respond to the crisis
- Practical **use case of FAIR and open data** in action and **pilot to realise the EOSC vision**
- Focus on viral data, clinical and epidemiological data, other human data
- Part of the **ERAvsCorona Action Plan** supported by the EU Ministers for research and innovation
- **Decentralised approach**:
  - Capitalises on strong **European foundations** (e.g. EMBL-EBI, ELIXIR, EOSC, ESFRI Research Infrastructures, H2020) and **European / global connectivity**
- **Coordinated approach** with the countries and the communities
  - National coordination teams via EOSC and ELIXIR
  - Common web toolkit to expose National COVID-19 data Portals



Press release: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_680
Video: https://audiovisual.ec.europa.eu/en/topnews/M-004711
European COVID-19 Research Data Platform: https://www.covid19dataportal.org/

Lessons learnt in the last three years
(EOSC Phase 1 (2018-2020)

EOSC phase 1 has:

- Driven a wide R&I agenda in Horizon 2020 since 2016
- Delivered many building blocks / baselines for an Open Science commons in Europe

EOSC phase 2 will:

- Exploit and streamline EOSC Phase 1 results
- Transition from a project-based to a more **stakeholder-driven approach**
  Provide - through the **European Partnership** approach - a wider framework for:
  - **Accelerating convergence**;
  - **Pooling** existing capacities at EU, national, community and institutional levels;
  - **Engaging** the research communities and developing a sense of ownership.
- Move from prototyping to **operational consolidation** of a minimum viable EOSC:
  - FAIR datasets
    Service layer of discovery and interoperability (**EOSC-Core**)
    Enriched services (**EOSC-Exchange**)
  - EOSC Service Platform through **procurement**
- Develop **sustainability models** in function of roll-out, uptake and evolution

EOSC in the international context of Open Science

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About open science:

- A ***change of culture*** *among researchers towards openness is a precondition for the successful implementation of the EOSC*."
- Need to act simultaneously on the supply side and the demand side, with research funders fostering **open access**, **data management** mandates and FAIR principles as well as **incentives and rewards**."

About the international context:

- EOSC is **global in scope** and European by focus
- EOSC can be seen as a **European contribution to a global open research commons**
- **RDA4EOSC**: Supporting the internationalisation and implementation of EOSC

Thank you

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