

# Open Science and the European Open Science Cloud

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# The context – a short summary/1

The main reference document is the EC Declaration about the European Open Science Cloud (EOSC)<sup>1</sup> on October 26, 2017, signed by about 60 relevant European Organizations<sup>2</sup>, including EIROs and ESFRIs; it sets the ground for the implementation of the EOSC and is related to:

- Data Culture, Standards and FAIR (Findable, Accessible, Interoperable and Re-usable) principles
- Open Access
- Research Data Services and Architecture
- Governance and Funding

<sup>1</sup> [http://ec.europa.eu/research/openscience/pdf/eosc\\_declaration.pdf#view=fit&pagemode=none](http://ec.europa.eu/research/openscience/pdf/eosc_declaration.pdf#view=fit&pagemode=none)

<sup>2</sup> [http://ec.europa.eu/research/openscience/pdf/list\\_of\\_institutions\\_endorsing\\_the\\_eosc\\_declaration.pdf#view=fit&pagemode=none](http://ec.europa.eu/research/openscience/pdf/list_of_institutions_endorsing_the_eosc_declaration.pdf#view=fit&pagemode=none)

# The context – a short summary/2

EOSC is the result of various initiatives of the European Commission, started in 2015 with the adoption of the Digital Single Markets strategy<sup>1</sup> which launched the **idea of a cloud for research data** aiming to create a trusted environment for hosting and processing research data to support EU science in its global leading role.

It was intended as a starting point → the EOSC implementation is supposed to continuously evolve

<sup>1</sup> [http://ec.europa.eu/priorities/digital-single-market\\_en](http://ec.europa.eu/priorities/digital-single-market_en)

# The context – a short summary/3

All these activities have been carried out with the support of two High Level Experts Group (HLEG) on the EOSC:

- HLEG 1 (2015-2017):
  - chaired by prof. Barend Mons
  - goal: provide strategic advice to the Commission on the **strategy** for the European Open Science Cloud initiative as part of the Digital Single Market
  - delivered high-level recommendations in the report 'Realising the European Open Science Cloud'<sup>1</sup>, published in October 2016.
- HLEG 2 (2017-2018):
  - chaired by Silvana Muscella
  - goal: advise the Commission on the measures needed to **implement** the European Open Science Cloud
  - Run open consultations on EOSC Rules of Participation and FAIR Data Action plan
  - Interim Report 'Prompting an EOSC in Practice'<sup>2</sup> available, final version due by December 2018

<sup>1</sup> [https://ec.europa.eu/research/openscience/pdf/realising\\_the\\_european\\_open\\_science\\_cloud\\_2016.pdf](https://ec.europa.eu/research/openscience/pdf/realising_the_european_open_science_cloud_2016.pdf)

<sup>2</sup> [https://eoscpilot.eu/sites/default/files/prompting\\_an\\_eosc\\_in\\_practice\\_eosc\\_hleg\\_interim\\_report.pdf](https://eoscpilot.eu/sites/default/files/prompting_an_eosc_in_practice_eosc_hleg_interim_report.pdf)

# EOSC implementation – the first steps/1

The two main EOSC-related projects, funded by the H2020 programme, are:

- EOSCPilot
- EOSC-hub

## **EOSCPilot:**

- Call: INFRADEV-04-2016 - European Open Science Cloud for Research
- Main goals:
  - Define a model for the **governance** of the future EOSC
  - Develop a number of **demonstrators** as high profile pilots that integrate services and infrastructures to show interoperability and its benefits in a number of scientific domains
- Budget: about 10 M€
- Duration: 1.1.2017 – 31.12.2018

# EOSC implementation – the first steps/2

## EOSC-hub:

- Call: EINFRA-12-2017 - Data and Distributed Computing e-infrastructures for Open Science
- Main goals:
  - **Deliver the first implementation of the European Open Science Cloud** by leveraging and integrating the outcomes of the two main existing e-infrastructures (EGI and EUDAT) and the main technology provider (INDIGO-DataCloud) funded by previous EC projects
  - Create **the “HUB”, the contact point for researchers and innovators** to discover, access, use and reuse a broad spectrum of resources for advanced data-driven research
  - Implement and maintain a **catalogue of resources (including data) and services**
  - Provide a corpus of **policies, processes and federation services** to support the inclusion of community-defined services
- Budget: 30 M€
- Duration: 1.1.2018 – 31.12.2020

# EOSC-hub & Open Data

- The final goal of the project is to **enable Open Science by connecting Open Data**, compliant to the FAIR principles, **and a number of different services** (including computing and storage) **through the Hub**.
- A set of Rules of Engagement and **Quality Assurance procedures** are being defined to validate the services (including openness of data) to be included in the EOSC-hub service catalogue
- Within the project, some activities (Thematic Services) are driven by relevant user communities: some of them are related to the **provisioning of (linked) open data** and related services by some reference data providers (e.g. Lifewatch, CLARIN, etc.)
- A collaboration agreement has been established with two EC-funded projects relevant for Open Science/Open Data :
  - eInfracentral<sup>1</sup> - main output: a single entry point to browse the existing services
  - OpenAireAdvance<sup>2</sup> - main goal: promote open scholarship and substantially improve the discoverability and reusability of research publications and data
- **A portal for the EOSC services and data is being developed within EOSC-hub** and will be presented at the EOSC Governance Launch Event in November 2018 (University of Vienna)

<sup>1</sup> [www.einfracentral.eu](http://www.einfracentral.eu)

<sup>2</sup> <https://www.openaire.eu/advance>

# EOSC activities and OECD-GSF

- Open Science, and Open Data which is one of its main pillars, is paramount for the European Commission, as we can see from the many different levels, initiatives, groups and projects related to EOSC
- Additional funds for EOSC-related projects in the upcoming H2020 calls (and also in the Horizon Europe programme) will be available → this will for sure enrich the landscape 😊
- Although the European projects have an European focus, many user communities are international, i.e. span all over the world → this allows a wider scope and relevance for the considered services, policies and procedures
- In my opinion the **practical and concrete implementation of abstract principles** (whatever they are) in production is very important to assess to what extent they fit with real use cases

For these reasons, I think that the experience done within the EOSC-related projects, especially in EOSC-hub which is going to provide the first implementation of the EOSC, can be a valuable contribution to the OECD-GSF activities.