

e-IRGSP7 recommendations on the future of EOSC

Authors: Fotis Karayannis, Jan Wiebelitz, Michael Maragakis, Bernd Saurugger, [e-IRGSP7 project](#)

DOI: 10.5281/zenodo.10996436

See also the presentation from Fotis Karayannis at the [EOSC Lustrum](#), ([video starting at 4:20:00](#)).

1. A user-friendly personalised dashboard for EOSC end users

With its [e-IRG Roadmap 2012](#), e-IRG came up with the definition of the [e-Infrastructure Commons](#) which contributed to the EOSC concept, enhanced with elements of Open Science not covered by e-IRG. The e-IRG support programme took one step further the e-Infrastructure Commons and made concrete recommendations for the creation of an EOSC portal/marketplace with the document: [Towards the e-Infrastructure Commons 2020: A marketplace for e-Infrastructure services - A concrete step towards e-Infrastructure services integration | Zenodo](#). This was sent to the EC and later it was confirmed that it was the basis for the Commons part of EOSC.

One can consider that EOSC has two main parts: Open Science and the EOSC Commons (portal/marketplace). Open Science/FAIRification is slow (as it needs a change of culture). For EOSC to quickly show added value to users, there is a need to make progress with the EOSC Commons (marketplace/portals). But again, the current federation approach is slow, RIs and clusters believe that keeping their own portals and Virtual Research Environments (VREs) -in essence silos- is the best approach, but we need something to cut across all the different portals and VREs. Otherwise, there will be no added value and EOSC risks to fail! So, what can we do in this fragmented environment which we want to federate:

Recommendation 1:

Develop a **customisable, user friendly, personalised dashboard** for each end user/researcher bringing all the digital artefacts s/he is interested in, cutting across EU, thematic, regional, national, institutional portals/repositories/nodes, namely:

- i) Services, Datasets, Publications, Software, Workflows, Other...
- ii) Follow the industrial good practices on Artificial Intelligence/Machine Learning on personalised recommendations.
 - a. E.g. that your colleague (or someone you follow) downloaded this paper, or this software, or this dataset which may be relevant to your work. Do you want to check it out? Or there is a new version of the thematic service that you are using, do you want to beta test it, etc.
- iii) Have multiple desktops, ratings for services, "follow" users or organisations, local language support, and the features of the initial e-IRG support programme 2015 marketplace paper!

→ *This would give added-value to EOSC and its end users, and will also have a "face" for policy makers/politicians to see what EOSC may look like, instead of the vague federation concept.*

2. A clear definition of EOSC and the added value for its target audiences

*Still, after many years, and despite some definitions of EOSC, the EOSC concept remains vague and may mean different things for the different end users. Everybody, and especially the user communities, need to have a clear understanding of **what is EOSC, who is it for** (user, providers, or both), **what is the vision for the future, what is the sustainability plan** (in order for them to be able to invest their time in it) **and what added value should the users and providers expect.***

Recommendation 2

The EOSC Tripartite governance should develop a clear definition of EOSC, including the above elements, namely, **who is it for** (it should be both for providers and users, including the personalised dashboard), **what is the vision for the future** (especially for the end users), **what is the added value** for both the end user and providers, and **what is the sustainability plan**. This should resemble the RDA effort on “The Value of RDA for” appearing in the [RDA home page](#), e.g. [for individuals](#), [for infrastructure providers](#), etc.

3. Understanding EOSC (nodes) costs

Following the EC tender on “Managed Services for the European Open Science Cloud Platform (EOSC)” (i.e. EOSC EU node), and the appointment of corresponding consortia for the 3 lots for EOSC Core and EOSC Exchange, EOSC is moving to an operational phase. It is of vital importance to understand the actual costs for running the EOSC EU node services. A cost study should be procured to record the costs of the EOSC EU node having a proper methodology and cost models certified by professional accountants (possibly based on the Total Cost of Ownership for a period of at least 3 years). An example for this is the eFISCAL project: [Methodology | e-FISCAL project \(efiscal.eu\)](#). The efforts done in the first EOSC phase regarding costs were very basic and without a proper methodology. The study should also expand to a sample of national nodes, having different models (as no one size fits all in this case), as well as to a set of thematic nodes, such as the ESFRI Research Infrastructures, with different models (e.g. single or multi-sited, distributed, with or without virtual access, etc.)

Recommendation 3

As EOSC is moving towards its operational phase, the costs of the different EOSC nodes (EU, national, thematic) need to be understood and recorded. The EC should consider procuring a study or prepare a call to query, analyse and document the EOSC costs.

4. Coordination of EOSC EU projects - from ad-hoc to a harmonised/funded approach

Besides the integrated projects that have contributed to the core services of EOSC (such as EOSC Hub, EOSC Future and now the EOSC EU node), there are several other EOSC EU projects that contribute several elements of EOSC, both operational but also innovative ones. The coordination effort by DG RTD and the EOSC-A brought together the different projects, identifying common ground, creating synergies and avoiding duplication of effort. Still, the mega projects such as EOSC-Future were not officially part of the collaboration. The EOSC Winter School enabled technical discussions and at the end it is expected that added value for EOSC and its users will be created. However, **the coordination effort is ad-hoc and unfunded**. For big projects working on coordination may not be an issue, but for smaller projects with limited resources this is definitely an

issue. Furthermore, for all projects, independent of size, having dedicated funding on the coordination will be able to streamline and make the coordination more effective and efficient.

Recommendation 4

There is a need to move away from the current ad-hoc EOSC projects' coordination towards a funded effort with dedicated funding for each of the projects, having all the essential elements (personnel, travel, other) to make the activities more effective and efficient, and maximise the coordination effect.

5. Supporting the e-Infrastructure Assembly and recognising the role of e-Infrastructures in EOSC

Following the creation of the e-Infrastructure Assembly in June 2023, and in line with the corresponding e-IRG recommendation in the e-IRG White Paper 2022, appropriate (financial) support for the e-Infrastructure Assembly is needed. Furthermore, in future EU calls, incentives for cross-platform innovations and cross-fertilisations among e-Infrastructures but also with thematic infrastructures should be introduced. Finally, the role of e-Infrastructures in EOSC and the new nodes ecosystem should be highlighted.

Recommendation 5

Similar to the EOSC project coordination efforts, appropriate financial support should be considered for the e-Infrastructure Assembly (for personnel and travel), while incentives for cross-platform innovations and cross-fertilisations among e-Infrastructures but also with thematic infrastructures should be introduced. The role of e-Infrastructures in EOSC and the new nodes-based ecosystem should be highlighted and recognised. A representation of the thematic communities in the e-Infrastructure Assembly (such as from OSCARS, ESFRI Forum, ERIC Forum) can further increase the "cooperation of Research Infrastructure, e-Infrastructures and stakeholders, including through EOCS", in line with the ERA Policy Agenda Action 8.

The e-IRG Support Programme e-IRGSP7 has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No 101057802