Towards a sustainable European Open Science Cloud - The role of e-Infrastructures

EOSC focuses on the data layer and related services, and has not dealt at a great extent with the underlying e-Infrastructures (e.g. computing, networking) that provide essential services to EOSC. The full EOSC service delivery model, besides the EU level, includes also the national and institutional levels. Thus, a close collaboration between EOSC and the underlying e-Infrastructures is required for the sustainability analysis of EOSC. The EOSC sustainability analysis should assess the “data market” and estimate the costs of both the data infrastructure/services and the underlying storage and computing infrastructure costs. This includes both capital and operational costs and the very important component of the growing energy costs along with the projection for the infrastructure growth.

This session is jointly organised between the EOSC Steering Board and e-IRG, following a first meeting between representatives of the two bodies, who reflected on these topics. e-IRG has links to all the e-Infrastructure layers (networking, computing, data) and can contribute to the EOSC sustainability and the required analysis, which includes all the involved levels, i.e. institutional, national, (regional) and European ones. Given the EOSC shift towards an operationalised and procurement-based environment, understanding the data market and underlying costs is essential. The goal of this session is to raise awareness on the required sustainability analysis in the e-Infrastructure community and make the first steps in this area, shedding some light on the above elements, with the aspiration that e-IRG recommendations on policies coming out of such an analysis and work, can be brought to the EOSC SB for implementation.

Questions for the four breakout groups (each group will address the same questions):

1. Do you see important gaps in the European policy landscape for e-infrastructures apart from the policy issues under discussion (skills and competences, EOSC and the private sector, data sovereignty) at the EOSC Steering Board?
2. Which are the most crucial elements to consider when preparing policies on these topics?
3. What's the most appropriate way to influence the national and European policy landscape?
4. How can good practices or failures on developing and implementing policies at national level help progress implementation by other MSs and ACs? And how a European-wide implementation benefits all users?

The twin “green and digital” transition in e-Infrastructures

The Green Deal is one of key EU priorities in this decade aiming at reaching the climate goals by 2030. On the other hand, the digital transition is a key requirement for Europe’s competitiveness in the global race. Thus, the combination of the green and digital transition, the so-called “twin transition” is a key requirement for the EU. This session will deal with the corresponding urgency of twin transition for EU, national and institutional e-infrastructures. It will raise awareness on key e-Infrastructures initiatives in the area along with thematic paradigms.

Cross-e-Infrastructure collaboration and coordination (network, computing, data)
Research infrastructures require strong underlying e-Infrastructures, which are well-coordinated. Such coordination encompasses the 3 main pillars of the EC European Cloud Infrastructure (ECI), namely the European Open Science Cloud (EOSC), the European Data Infrastructure (EDI) with networking, supercomputing/HPC and Cloud infrastructures, and the expansion towards the public sector and industry. This session is closely linked with the next iteration of the e-IRG White Paper that will be produced in 2022, and the inputs and feedback collected during the workshop will feed the e-IRG White Paper 2022. This topic is also linked with the heterogeneous funding programmes and initiatives for e-Infrastructures, ranging from EuroHPC, EOSC, the Digital Europe Programme, Connecting Europe Facility 2, and the entire Horizon Europe, along with national routed funding programs, and then also initiatives from the private sector and industry.

The aim of this session is to address the topic of the effective collaboration and coordination of all the e-Infrastructure components, i.e. networking, computing (both HTC and HPC) and data infrastructures, and reflect on some possible approaches, paradigms and impacts. The ultimate goal of bridging the gaps across e-Infrastructures is to provide integrated user-friendly services towards researchers, easing their work and deliver to them added value, so that they can focus on the disciplinary or cross-disciplinary research, and not on the infrastructures and tools.