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EGI-Engage Project

Abstract

Over the last decade, the European Grid Infrastructure (EGI) has built a distributed computing and data infrastructure to support multi-disciplinary science. This e-Infrastructure has since delivered unprecedented data analysis capability to over 21,000 researchers from many disciplines by federating more than 350 data and compute centres worldwide. EGI builds on the European and national investments and relies on the expertise of EGI.eu - a not-for-profit foundation that provides coordination to the EGI Community, including user groups, EGI.eu participants in the EGI Council, and the other collaborating partners.

The mission of EGI-Engage is to accelerate the implementation of the *Open Science Commons* vision, where researchers from all disciplines have easy and open access to the innovative digital services, data, knowledge and expertise they need for collaborative and excellent research. The Open Science Commons is grounded on three pillars: the e-Infrastructure Commons, an ecosystem of services that constitute the foundation layer of distributed infrastructures; the Open Data Commons, where observations, results and applications are increasingly available for scientific research and for anyone to use and reuse; and the Knowledge Commons, in which communities have shared ownership of knowledge, participate in the co-development of software and are technically supported to exploit state-of-the-art digital services.

EGI-Engage will expand the capabilities offered to scientists (e.g. improved cloud or data services) and the spectrum of its user base by engaging with large Research Infrastructures (RIs), the long-tail of science and industry/SMEs. The main engagement instrument will be a network of eight Competence Centres, where National Grid Initiatives (NGIs), user communities, technology and service providers will join forces to collect requirements, integrate community-specific applications into state-of-the-art services, foster interoperability across e-Infrastructures, and evolve services through a user-centric development model. The project will also coordinate the NGI efforts to support the long-tail of science by developing ad hoc access policies and by providing services and resources that will lower barriers and learning curves.

EGI-Engage will broaden the adoption of a federated identity management, will extend accounting to include new services and types of resources, and will provide tools for Service Level Agreements (SLA), service discovery and allocation in a federated environment. The EGI Federated Cloud and its operations will evolve to provide IaaS, PaaS and SaaS, and the HPC capacity and capabilities will be expanded by federating the access to distributed accelerated computing co-processors. Publication, use and reuse of open data will be facilitated.

EGI-Engage will evolve solutions and their related business models with approaches targeted at each user group for improved sustainability and integration with other infrastructures in Europe and worldwide. The project will develop business relationships with industry and SMEs and provide an innovation space where general purpose compute and data services can be offered to develop big data technologies, applications and foster reuse of research data. The technical input to standards, policy and procedure developments, software and service innovation, business model innovation and know-how produced by the project will be offered to user groups, Research Infrastructures, industry/SMEs, service providers, funding agencies and decision/policy makers.

EGI-Engage supports the Open Science Commons, an approach to sharing and governing advanced digital services, scientific instruments, data, knowledge and expertise that enables researchers to collaborate more easily and be more productive.

http://www.opensciencecommons.org/