

An EGI Research Commons?

Wednesday, 2 October 2024 11:00 (15 minutes)

This presentation explores how the data, storage and compute Solutions and Services provided by EGI might be transformed into an EGI Research Commons.

The publication by the RDA Global Open Research Commons Working Group in October, 2023 of the Global Open Research Commons International Model (GORC Model) made available a well researched and fully featured template for a Research Commons. To borrow the definition by Scott Yockel, University Research Computing Officer at Harvard, a research commons “brings together data with cloud computing infrastructure and commonly used software, services and applications for managing, analyzing and sharing data to create an interoperable resource for a research community”.

Since the publication of the GORC model, national organizations in Sweden, The Netherlands, Germany, and elsewhere, and ELIXIR, are using the GORC Model to explore establishing Research Commons.

A fully featured proposal to create a Research Commons for Norway (REASON) based on the GORC Model, was submitted to the Norwegian Infrastructure Fund in November, 2023. REASON is being used as a reference by many groups exploring the establishment of a Research Commons.

As Research Commons are coming into prominence, parallel initiatives, called Research Clouds, are also emerging. Examples include the ARDC Nectar Cloud in Australia, the Alliance Cloud in Canada, and the New England Research Cloud in the northeast US. ‘Bringing Data to Compute’ is a central objective of Research Clouds that is overlooked in most Research Commons. The New England Research Cloud (NERC) is arguably the most interesting Research Cloud, because it also incorporates as a foundational feature an important element of Research Commons, namely deployment of a series of researcher-facing research data management tools that interoperate through the research data lifecycle, and are deployed in conjunction with storage and compute resources.

Three key features of both Research Commons and Research Clouds are: first, they offer researchers access to an integrated series of complementary services that are accessible from a single platform; second the researcher-facing data management services are integrated with the cloud and compute layer; the researcher-facing data management services facilitate passage of data and metadata between tools throughout the research lifecycle.

EGI provides most of the storage, cloud and compute services identified in the GORC model, but these do not present as an integrated platform, and it provides only a few, unconnected researcher facing data management services. How might EGI add these elements to present as a Research Cloud/Commons?

The presentation is divided into the following sections:

1. Introduction to the GORC Model
2. Overview of REASON and lessons learned in putting it together
3. REASON’s applicability as a reference for other Research Commons
4. Introduction to the NERC with a particular focus on the integration of storage/compute with a series of interoperable researcher- facing tools
5. Comparison of the NERC with the Compute and Data services offered by EGI
6. Exploration of an ‘EGI Research Commons’ with reference to the NERC, and consideration of issues that would need to be addressed in its design and implementation

Topic

Needs and solutions in scientific computing: Platforms and gateway

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Session Classification: Global perspectives on advancing Open Science with computational infrastructures