

# Today's Status of Data Management in Earth Science

Thursday 10 May 2007 15:20 (20 minutes)

**Describe the scientific/technical community and the scientific/technical activity using (planning to use) the EGEE infrastructure. A high-level description is needed (neither a detailed specialist report nor a list of references).**

Earth Science Applications in various domains like Remote sensing in Earth Observation, Ocean and Atmosphere Environments, Geology, Seismology highly depend on Data. Data flow, access and provisioning is not consistent. Only a few applications are deployed in the last years to grid environments and this was mainly done on the EGEE infrastructure. There is an ongoing process of deploying complex scenarios on Grid infrastructure resulting in an extensive list of requirements to the middleware deve

**Report on the experience (or the proposed activity). It would be very important to mention key services which are essential for the success of your activity on the EGEE infrastructure.**

Metadata management and access to databases are evaluated and in production via AMGA and OGSA DAI since the beginning of EGEE-II. The result of these implementations have shown that these abstraction layers are either too slow or not based on any standard.

**With a forward look to future evolution, discuss the issues you have encountered (or that you expect) in using the EGEE infrastructure. Wherever possible, point out the experience limitations (both in terms of existing services or missing functionality)**

By the Use Cases of the System Support Action DEGREE, we will show what ES needs as Abstraction Layer for data management

**Describe the added value of the Grid for the scientific/technical activity you (plan to) do on the Grid. This should include the scale of the activity and of the potential user community and the relevance for other scientific or business applications**

The Requirements of Earth Science addresses different developers. Important for the data management are middleware and database developers, but also developers of Ontologies and Metadata definitions. These and the implementation of ES scenarios (Use Cases) on the Infrastructure is interesting for other groups particular for business applications –not only from ES.

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