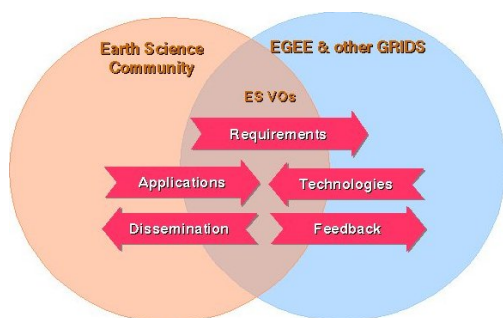




What is DEGREE?

DEGREE is a **Specific Support Action (SSA)** project which aims to promote Grid throughout a large and diverse Earth Science (ES) community, in order to increase the awareness and uptake of Grid technology and infrastructure by EU Earth Science Industry and Research communities. It aims to do this by developing and driving home convincing arguments on the considerable benefits of using Grid technology and infrastructures for large scale ES processing, e-collaboration and research.

A major challenge for DEGREE is to build a bridge linking the ES and Grid communities throughout Europe, and focusing in particular on the **EGEE-II** Project. In order to ensure that ES requirements are taken into account in the next Grid generation, DEGREE will initiate different collaborations; at short, medium and long term via EU horizontal collaborations, specific collaboration with Grid projects and participation to the e-Infrastructure Reflection Group (**e-IRG**).



Objectives

- Disseminate, promote uptake of Grid in wider ES community.
- Reduce the gap between ES users and Grid Technology.
- Explain and convince ES users of Grid benefits and capability to tackle new and complex problems.



<http://www.eu-degree.eu>

Project start date: June, 1st 2006

Project duration: 24 months

Partners

Ustav informatiky, Slovenska akademia vied	SK
Centre National de la Recherche Scientifique	FR
Koninklijk Nederlands Meteorologisch Instituut	NL
Université de Neuchâtel	CH
Centro di Ricerca, Sviluppo e Studi Superiori in Sardegna Societa' a responsabilita limitata	IT
European Space Agency	INT
Compagnie Générale de Géophysique	FR
Dutch Space BV	NL
Fraunhofer Institute for Algorithms and Scientific Computing SCAI	DE
Geophysical Center, Russian Academy of Sciences	RU

Coordinator: Dr Ladislav Hluchy
Institute of Informatics SAS
Dubravská cesta 9
84507 Bratislava, Slovakia
hluchy.ui@savba.sk

Deputy: Dr Monique Petitdidier
monique.petitdidier@cetp.ipsl.fr

News

Deliverable D1.1: Report on ES family of applications and their requirements.

Meetings with presentation of DEGREE

American Association of Advanced Science (AAA), San Francisco (USA), 15–19 Feb. 2007

European Geoinformatics Workshop Edinburgh (UK), 7–9 March 2007

European Geosciences Union (EGU) Vienna (AT), 15–20 April 2007

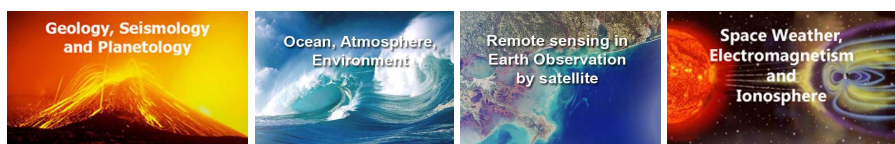
Envisat Symposium Montreux (CH), 23–27 April 2007

EGEE-User Forum Manchester (UK), 9–11 May 2007

International Symposium on Grid Computing (ISGC 2007), Taipei (TW), 26–29 March 2007

News of the project

Earth science (also known as geosciences), is an all embracing term for the sciences related to the planet Earth and its different components.



WP1: Applications and requirements

A panel of 20 applications has been gathered and analyzed in terms of key ES requirements for porting and deploying the applications on Grid middleware. They are classified into three families according to their complexity: simple applications, complex applications and complex workflow applications. The first family needs basic Grid functionality like job submission, file staging and security, The second family regroups the applications which have special needs (expressed through various requirements), making them more complex and adding difficulty to port them to a Grid. The complex orchestration of different parts for a given application (also known as workflow) is the specificity of the third family. All applications and requirements defined in previous Grid related projects were laid down in the **D1.1 deliverable** Report on ES family of applications and their requirements, which was delivered to the EU in January and is available on the DEGREE website.

The document will be used by WP2, WP3 and WP4 as input for their task of acting as a bridge between ES and Grid communities by analyzing the requirements of ES applications on specific topics, investigating the Grid tools, and providing feedback to both communities.

WP2: Data management

A common feature in all ES applications is the data management. It includes the various data aspects: access, policy, security, organization, volume... ES scenarios were gathered through the means of a questionnaire and then analyzed. In parallel, an analyze of the available Grid tools is conducted.

WP3: Job management

The important areas and features of job management in ES are identified. The requirements of applications in ES are being analyzed. The survey of existing Grid middlewares and tools is in preparation.

WP4: Portal

From a very large number of existing ES Portals, the survey done aims to focus on, analyze and document those of particular interest and relevance. The focus is on ES Portals which are employing, to a greater or lesser extent, some combination of the following relevant technologies and methodologies: Grid, e-Collaboration, Service Oriented Architecture and Semantic Web and Ontology.



- ☛ **If your ES application is already ported to a Grid infrastructure and is not yet included in DEGREE website**, please **send us** informations such as: short description, Grid requirements, Grid infrastructure used and a picture illustrating the results. We will gladly include it.
- ☛ **If you are interested in running your ES application in a Grid environment**, please fill the **questionnaire** established by WP1 and **contact us**, we can help you getting in touch with the right persons to do that.
- ☛ **If you are a Grid developer and you are interested in the ES needs**, please do **contact us**, we already have assembled a lot of the requirements from the ES community.

DEGREE meetings

Bratislava (SK) on Grid Job Management and Control in Earth Science (1–2 March 2007)

in Earth Science about job management and control (Job submission and monitoring, Near-real-time job execution, Fault-tolerance mechanism, Workflow management and Ontology). On one hand the ES requirements will be presented and on the other hand Grid solutions developed by different projects will be presented.

Contact: [Dr Ladislav Hluchy](mailto:Dr.Ladislav.Hluchy)

DEGREE Mailing list Subscription:

degree-news.ui-request@sav.sk (subject: subscribe) or <http://sav.sk/mailman/listinfo/degree-news.ui>