

★ The EGI Design Study project, funded by the European Commission's FP7, was initiated in September 2007. According to plan, the future EGI Organisation will begin operations in 2010. EGI's EU Project Coordinator **Katja Rauhansalo** explains more about these developments

How EGI is at the heart of grid infrastructure

As research becomes more international, grid technology enables widely dispersed European computing and data resources to be utilised regardless of the geographical position of the user.

It increases the efficiency of scientific and industrial research and improves the level of other digital services. It is, therefore, of primary importance to make sure that the reliable and flexible grid infrastructure will be maintained continuously.

A high-quality research network is an essential part of the technology infrastructure in the international collaboration and development of science in various fields. Over recent years, Europe has made strong investments in the development of grid infrastructures.

It is important to guarantee that these investments bring the benefits they promise. The purpose of the European Grid Initiative, or EGI, is to guarantee this by creating a sustainable grid infrastructure in Europe.

"The current project-based funding is limiting the activities and development of the grid infrastructures," said the EGI Design Study Project Director Dieter Kranzlmüller.

"One of the main objectives of EGI is to guarantee sustainable funding independent of project schedules, so that continuation and cooperation in the field will be assured." Kranzlmüller is clearly excited when he describes the EGI Design Study, and for good reason, because this is the first step towards a uniform European grid infrastructure.

"Several countries have already



Katja Rauhansalo of the EGI

launched, or are about to launch their National Grid Initiatives (NGI)," he explains further. "The NGIs will be responsible for activities at the national level, mobilising resources and integrating the international norms into the national legislation of each country.

"The role of the EGI is to harmonise the national initiatives at the European level and to create a uniform grid infrastructure to support science and research."

The EGI Design Study defines the future operating model for the EGI. The project partners are nine leading European organisations. These partners will work together with the 38 NGIs that have already endorsed the project. Later on, the NGIs are planned to be the pillars of the EGI.

"In the future, it will be interesting to see how the responsibilities between the NGIs and the EGI are divided," continues Kranzlmüller, asking the question: "Which items should be combined to the

European level and which ones should be maintained at the national level?

International and industrial relations

The implementation of EGI will benefit all European grid projects, because through EGI they will be able either to be integrated into a permanent organisation or to have an effect on the general development and activities of the infrastructure in other ways. In connection with this, international networking is a key issue for science and research.

"EGI will start to coordinate and develop global collaboration. The idea is to link European infrastructures to other similar infrastructures in the world," says Kranzlmüller.

Aside from the current users, he also believes, grids have resources to offer for a much larger user group. Grid technology is already an important part of current research and scientists have started to look for practical applications.

Industry is one of the key target groups in the EGI Design Study. The project will conduct extensive surveys to map the needs and expectations by the different industrial fields, technology service suppliers, and grid users. It is hoped that the different fields will become aware of the comprehensive opportunities for collaboration offered by the grid infrastructure; the aim is extensive collaboration to support effective absorption of grid technology into European industry. At the moment, grid technology is being utilised, for example, in the pharmaceutical and chemical industries. ★